

**NATIONAL INSTITUTE ON DRUG ABUSE**  
**COMMUNITY EPIDEMIOLOGY WORK GROUP**



COMMUNITY EPIDEMIOLOGY WORK GROUP

**EPIDEMIOLOGIC TRENDS  
IN DRUG ABUSE**

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This publication, Epidemiologic Trends in Drug Abuse, Volume II, contains the papers presented and data reported at the June 2002 CEWG meeting by CEWG representatives from 21 areas, and researchers from Canada, Mexico, and South Africa. Volume II also contains abstracts and full edited text of special reports from researchers in the United States.

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## Foreword

The Community Epidemiology Work Group (CEWG) is a drug abuse surveillance network established in 1976 by the National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH). It is composed of researchers from 21 sentinel areas of the United States who meet semiannually to present and discuss quantitative and qualitative data related to drug abuse. Through this program, the CEWG provides current descriptive and analytical information regarding the nature and patterns of drug abuse, emerging trends, characteristics of vulnerable populations, and social and health consequences to government officials and policymakers, community organizations, researchers and scientists, and the general public.

The 52nd meeting of the CEWG was held in Philadelphia, Pennsylvania, on June 11–14, 2002, and provided a forum for presentation and discussion of drug abuse data in the United States and other countries and regions of the world, including Canada, Mexico, and Africa. CEWG members presented information on recent drug abuse patterns and trends in their areas. In addition, the meeting afforded the opportunity for a number of special presentations: Drug Enforcement Administration (DEA) officials described heroin identification programs—the Domestic Monitor Program and the Heroin Signature Program—which were established by DEA's Int-

elligence Division; researchers from the Philadelphia area presented findings from local studies on patterns of substance abuse among the homeless and among criminal justice clients, on hepatitis C among injection drug users, on the human immunodeficiency virus (HIV) in eight local neighborhoods, and on creating a comprehensive HIV service system in a managed care environment; and a distinguished panel of researchers presented findings and discussed the effects of the September 11, 2001, terrorist attacks on drug abuse in New York City, Philadelphia, and Washington, DC.

The meeting also served to inform us, once again, of both the unique perspective and the contribution that the CEWG and other community-based epidemiology networks are able to offer. They provide the opportunity for timely assessments of current patterns and trends of drug abuse and identification of emerging problems, as well as the opportunity for presentations on the complex relationship of drug abuse to other health and social issues at their meetings. In so doing, they provide the opportunity for public health action in the form of policy development and preventive intervention based on the findings presented. These findings also provide the opportunity for research action by suggesting potential issues for inquiry to advance the base of scientific knowledge.

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## Introduction

*At the 52nd meeting of the Community Epidemiology Work Group (CEWG), held in Philadelphia, Pennsylvania on June 11–14, 2002, representatives from 21 CEWG areas presented data on drug abuse patterns and trends in the United States. Their papers are presented in this report. Also presented are international reports from Canada, Mexico, and South Africa, and special reports from New York, Philadelphia, and Washington, DC. Several special reports focus on the impact of the September 11, 2001, terrorist attacks on drug abusers and the drug treatment system.*

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### CEWG DATA SOURCES

To assess drug abuse patterns and trends, the 21 CEWG members access and analyze data from various sources. As will be apparent in the CEWG papers, members derive drug indicator data from many local and State sources including public health agencies, medical facilities, substance abuse treatment programs, criminal justice and correctional offices, law enforcement agencies, surveys, and qualitative studies (e.g., focus groups, key informant surveys, ethnographic studies). In addition, national datasets that have information specific to CEWG sites are accessed and analyzed. The widely used national data sets are described below.

#### **Drug Abuse Warning Network (DAWN) Emergency Department Data**

This voluntary national data collection system, managed by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), provides semiannual and annual estimates on substance use manifested in visits to hospital emergency departments (EDs) in 21 metropolitan areas, including 20 CEWG areas.

The data are gathered from a national probability sample of hospitals in the 21 areas in 48 States and the District of Columbia. Alaska and Hawaii are not included in the sample. With few exceptions, the geographic area boundaries correspond to the 1983 Office of Management and Budget definitions of Metropolitan Statistical Area and Primary Metropolitan Statistical Area. Periodic minor modifications are made to the ED sample to keep it current. Analyses show that such modifications have little impact on trends across time. Various statistical procedures are used to enhance precision in the sampling frame.

ED data are reported for each “episode” (case or admission) that meets the criteria for “drug abuser,” that is, taking one or more substances without proper medical supervision or for psychic effect, dependence, or suicide attempt or gesture. Each drug reported by a patient may be counted as a “mention.” Up to four drugs for each episode may be recorded. Some drugs are classified in a combined category, such as “cocaine/crack,” “marijuana/hashish,” and “PCP/PCP combinations.”

ED mention data are converted to rates per 100,000 population when sample sizes permit. A probability value of less than .05 is used to determine statistical significance.

Because an individual may be counted in more than one episode in a reporting period, and may mention more than one drug, the DAWN ED data cannot be used to estimate prevalence.

DAWN ED data presented in the CEWG papers for the first half of 2001 are preliminary. Estimates for the full years 1994 through 2000 are revised and supercede previously published estimates for this time period.

#### **The Drug Abuse Warning Network Medical Examiner Data**

In 2000, 137 jurisdictions in 43 metropolitan areas submitted drug-related death data to DAWN, OAS, SAMHSA. The *DAWN Annual Medical Examiner Data, 2000*, marked a major change in the presentation of DAWN medical examiner data and replaced the previous *DAWN Annual Medical Examiner Data* reports with a new title and design. The title change reflects the expansion of data collection on drug-related deaths to a variety of jurisdictions, including medical examiners, coroners, and other death investigation systems. Changes in format and content provide more information about metropolitan statistical areas represented in DAWN and their component jurisdictions. The method by which drugs are coded was also changed to be consistent with DAWN ED terminology.

A “drug-related death” may involve more than one drug “mention.” Excluded from the count are deaths involving circumstances unrelated to the death, accidental ingestion, adverse reactions to prescribed drugs, and consumption to conceal substances from law enforcement. Some deaths are caused by a drug

overdose; in other cases, a drug may be considered a contributory but not major cause of death.

Jurisdictions do not represent a statistical sample. Counts of drug-related deaths do not represent the entire Nation, nor do they represent any metropolitan area in which there is less than full participation in this DAWN system.

### **The Arrestee Drug Abuse Monitoring (ADAM) Program**

Managed by the National Institute of Justice (NIJ), the ADAM program is designed to gather drug use data quarterly from arrestees in 35 sites in the United States; 19 of these sites provide data relevant to the CEWG. Data are reported annually by NIJ.

Beginning in 2000, the ADAM instrument for adult arrestees was revised and the adult male sample was based on probability sampling procedures. For these reasons, the 2000 (and beyond) data are not comparable to data collected prior to 2000. In the 2000 analyses, data on adult males, collected in all sites, were typically weighted. Adult female data, collected in most sites, were unweighted and based on different data collection methods. Data on juvenile arrestees, collected at selected sites, continued to be based on the Drug Use Forecasting (DUF) model.

Analyses and reporting of ADAM data focus on urinalysis results. Urinalysis confirms use of 10 drugs within a 2–3 day period prior to arrest by using the Enzyme Multiplied Immunoassay Technology® (EMIT). The urinalysis tests for use of cocaine, opiates (e.g., heroin), marijuana, phencyclidine, methadone, methaqualone (Quaalude), propoxyphene (Darvon), barbiturates (e.g., Seconal, Tuinal), benzodiazepines (e.g., Valium, Ativan), and amphetamines.

Gas chromatography mass spectrometry (GC/MS) confirms use of illicit methamphetamine and amphetamines and distinguishes them from over-the-counter compounds.

Self-report data on drug use are collected for particular drugs and time periods (past 30 days and past 12 months). Self-report data also cover demographic characteristics and information related to need for substance abuse treatment.

As in other arrestee data sets, the rate and type of drug arrest may reflect changing law enforcement practices (e.g., “crack-downs” on specific population groups at a specific point in time) rather than prevalence of drug use among the sampled arrestees.

### **The Domestic Monitor Program (DMP)**

Under the jurisdiction of the Drug Enforcement Administration (DEA), the DMP reports on the sources, types, cost, and purity of retail-level heroin. The information is based on actual undercover heroin purchases made by the DEA on streets in several cities, including 20 in CEWG areas.

The heroin buys provide information on type of heroin (Asian, Mexican, Columbian, undetermined) and what diluents and adulterants are present in the drug. DMP reports indicate where a buy was made, the brand name (if any), purity level, and price per milligram pure.

By comparing DMP data over time, it is possible to assess changes in price per milligram pure and the sources of heroin purchased in an area. Price and purity for particular drugs can vary across years if there are only small numbers of buys made in a particular area.

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Epidemiology of Drug Abuse:

Area Papers

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# Metropolitan Atlanta Drug Use Trends

Tara McDonald,<sup>1</sup> Katherine P. Theall, and Claire E. Sterk<sup>2</sup>

## ABSTRACT

*The metropolitan Atlanta area drug landscape continues to be dominated by marijuana and cocaine. ED data suggest that while cocaine rates may have declined recently, they may again be on the rise. While those same indicators demonstrate a general decline for marijuana use, ethnographic reports show that the drug remains ubiquitous across age, race, and social groups. Cocaine use has long eclipsed use of most other drugs in Atlanta, with smoking of crack cocaine being the dominant route of administration. However, ethnographic data and emergency department (ED) rates suggest greater use of powder cocaine. It is unclear whether that is attributable to a greater availability of powder cocaine or if users are actively seeking it out as an alternative to crack cocaine. The majority of users continue to smoke or inhale rather than inject powder and crack cocaine. Heroin and methamphetamine use remain relatively low in the area, although ED rates for both rose from 1999 to 2000. Samples of heroin tested by the DEA in the first half of 2001 indicate that local purity rose while prices dropped (from \$1.15 per milligram pure at the end of 2000 to \$1.10 in early 2001). Ethnographic reports support the notion of more potent heroin in the region and indicate that more people are using the drug intranasally because of its increased purity. Among other opiates, hydrocodone continues to have the highest rates of ED mentions, although ethnographic data show hydromorphone (Dilaudid) is the most commonly mentioned opiate among users. The use of MDMA (ecstasy) is widely reported, and the demographics of users are expanding to include more African-Americans and older individuals. Still, epidemiologic indicators for MDMA, while showing a minor increase, remain low. Reported AIDS cases in Georgia and Atlanta overall have been decreasing over the past few years, but the proportion directly related to injection drug use (approximately 18 percent both statewide and locally) has remained consistent. The same is true for cases among men who have sex with men and inject drugs, which account for an additional 6*

*percent. Injection drug use again accounts for a greater percentage of female than male cases both statewide and in the metropolitan Atlanta area: 27 versus 22 percent and 32 versus 22 percent, respectively.*

## INTRODUCTION

### Area Description

The city of Atlanta constitutes a very small area within the larger Atlanta metropolitan area. The city covers 131 square miles and has an estimated population of 416,474 (U.S. Bureau of the Census 2000). The Atlanta metropolitan area includes 2,584 square miles and has an estimated population of 4,112,198.

The 20 counties that constitute the metropolitan area vary in geographic size, population size and growth, ethnic composition, and socioeconomic status. Fulton and DeKalb Counties, which include the city of Atlanta, have the largest total and minority populations. The total population in Fulton County was 816,006 in 2000, of which 45.2 percent were African-American, 49.1 percent were White, 5.9 percent were Hispanic, and 3.5 percent were Asian. DeKalb County had a total population of 665,865; 55.3 percent were African-American, 37.0 percent were White, 7.9 percent were Hispanic, and 4.6 percent were Asian. In Clayton County, located just south of Atlanta, the total population was 236,517, including 52.7 percent African-Americans, 39.2 percent Whites, 7.5 percent Hispanics, and 5.2 percent Asians. The Hispanic population more than doubled in these three counties from 1990 to 2000. The African-American population increased by 180.9 percent in Clayton County, 56.7 percent in DeKalb County, and 12.2 percent in Fulton County between 1990 and 2000. Gwinnett County, which has the fourth largest population in the metropolitan area (588,448), is located northeast of the city. The population in this county is 74.3 percent White, 13.9 percent African-American, 10.9 percent Hispanic, and 7.9 percent Asian. The Asian population has

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increased dramatically from 1990 to 2000 in Gwinnett (318.5 percent), Fulton (201.3 percent), Clayton (114.4 percent), and Cobb (139.3 percent) Counties. The majority of residents in the city of Atlanta are African-American (61.4 percent); 32.6 are White, 4.5 percent are Hispanic, and 1.9 percent are Asian.

### Data Sources

Principal data sources for this report include the following:

- **Drug abuse treatment data** were provided by the Georgia Department of Human Resources and included the primary drugs of abuse among the approximately 4,415 clients admitted to Atlanta's public drug treatment programs between January 1 and June 30, 2001. Data for nonmetropolitan Atlanta counties in Georgia were also reported ( $n=9,161$ ).
- **Emergency department (ED) drug mentions data** are derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for January 1994 to December 2000. Estimates for Atlanta could not be produced for January through June 2001 because insufficient data were submitted by participating facilities for this period.
- **Arrestee drug testing data** are from the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice (NIJ). The ADAM program estimates drug use among recent arrestees in the local Atlanta pretrial detention center as well as local prisons and jails. Data were available for all quarters of 2000, and the total sample size included 1,115 men and 379 women. The findings for men are weighted and represent probability-based sampling; findings for women are not weighted. No data were available for 2001.
- **Drug-related mortality data** were derived from the DAWN mortality system for 2000. The DAWN system covered 30 percent of the MSA jurisdictions and 70 percent of the MSA population in 2000.
- **Heroin price and purity data** are derived from the Domestic Monitor Program (DMP) of the Drug Enforcement Administration (DEA) for 1996 through the first half of 2001.

- **Drug price, purity, and trafficking data** for the metropolitan area were derived from the Atlanta High Intensity Drug Trafficking Area (HIDTA) Task Force, a coordination unit for drug-related Federal, State, and local law enforcement agencies, and represents information from the 2002 Drug Threat Assessment.
- **Ethnographic information** collected from local drug use researchers is used for several purposes: (1) to corroborate the epidemiologic drug indicators, (2) to signal potential drug trends, and (3) to place the epidemiologic data in a social context. In addition, qualitative interviews were conducted with local treatment staff and clients, law enforcement officials, outreach workers, community health experts, and out-of-treatment users.
- **Data on acquired immunodeficiency syndrome (AIDS)** cases in Georgia and an eight-county Atlanta metropolitan area were provided for January 1981 through March 30, 2002, by the Georgia Department of Human Resources.

### DRUG ABUSE PATTERNS AND TRENDS

#### Cocaine and Crack

From 1994 through 2000, the estimated rate per 100,000 population of ED cocaine mentions for Atlanta fluctuated (exhibit 1), and the change between 1999 (179 mentions) and 2000 (221) represented a 19-percent increase. Still, cocaine has remained by far at the top of the list of drugs mentioned, matched only at times by alcohol-in-combination. Over time, mentions have remained higher among men than women in Atlanta, with an average male-to-female ratio of 2:1. The rate of mentions in 2000 was highest among 26–34-year-olds at 345, followed by those 35 and older at 269 mentions, a pattern consistent with previous years (exhibit 2). In 2000, approximately 70 percent of the cocaine/crack ED mentions in Atlanta were African-American (exhibit 3). Atlanta has long been known as having substantially more ED mentions for cocaine (more specifically, for crack) than for other drugs, and more than other DAWN cities, remaining at nearly three times the national average (exhibit 4). It is interesting to note that as DAWN has been further cataloging major drugs by category, powder cocaine mentions have outnumbered those for crack cocaine since 1997 (exhibit 5).

While the percentage of cocaine treatment admissions decreased from the second half of 2000 to

the first half of 2001 (from 61 to 57 percent), cocaine continued to account for the majority of total treatment admissions in metropolitan Atlanta (exhibit 6). The number of primary cocaine admissions in the first half of 2001 was highest among African-Americans at 78 percent, up from 74 percent at the end of 2000, while admissions among Whites fell from just under 27 percent to 21 percent (exhibit 7). The male-to-female ratio among primary cocaine admissions rose somewhat, from 1.2:1 to 1.5:1 between 2000 and the first half of 2001. Individuals 35 and older accounted for the majority of cocaine admissions (82 percent), which is consistent with the previous reporting period, followed by 26–34-year-olds (6 percent).

In the first half of 2001, smoking remained the most common route of administration among cocaine admissions (78.4 percent), followed by the intranasal route (12.0 percent). For those reporting cocaine as their primary drug of choice, alcohol was the most common secondary drug (24.3 percent), followed by marijuana (8.6 percent).

The characteristics of clients admitted to public drug treatment programs with cocaine as the primary drug of choice in nonmetropolitan Atlanta (i.e., other counties in the State of Georgia) were similar to those reported among clients in Atlanta, with one exception—a smaller gap between the number of African-American (56 percent) and White (41 percent) users.

With cocaine in all forms remaining the significant leader among drug ED mentions and treatment admissions in Atlanta, it is not surprising that it is also a commonly seized drug. The idea that much of the cocaine in Atlanta comes through Mexico is evidenced by a recent large seizure that followed a routine truck stop in Texas during which the drugs were detected. The truck was then tracked to Conyers, a suburb 20 miles east of Atlanta. After the truck arrived in Conyers, it was in the process of being unloaded into a storage facility when officials seized 53 pounds of cocaine and 7,500 pounds of marijuana, along with \$1.3 million in cash in a nearby home alleged to be the delivery point for a major Mexican drug cartel.

According to ethnographic street reports, crack cocaine persists as the dominant form of cocaine. These reports suggest that many polydrug users of varying races and ages count crack as a drug that is used at least occasionally. In addition, many users who report that crack or powder cocaine is their drug of choice are experimenting with ecstasy. Among users in the outlying metropolitan counties, crack

appears to be steadily on the rise, seemingly as powder cocaine and methamphetamine users shift to crack.

## Heroin

The estimated rate of ED heroin mentions per 100,000 population in Atlanta remains comparatively low compared with cocaine mentions although there was a nearly 17-percent rate increase between 1999 and 2000 from 15 to 18 per 100,000 population (exhibit 1). The number of mentions in 2000 was greatest among African-Americans (55 percent), followed by Whites (34 percent) and Hispanics (1 percent) (exhibit 3); this is comparable to previous years. In terms of route of administration, the majority of heroin ED mentions involved injection (83 percent). The rate of mentions was higher among men than women (approximately 3:1). While Atlanta heroin ED mentions have been fairly consistent over the years, with an average rate of 16 per year from 1994 through 2000, they have stayed well below the average national rate of 32 per year during the same time period. Also during this time period, the number of heroin ED mentions in Atlanta has increased nearly 200 percent among 18–25-year-olds, while mentions in other age groups have remained somewhat stable.

The population of all individuals admitted to public drug treatment in metropolitan Atlanta from January to June 2001 for primary heroin abuse remained low but steady at just under 7 percent (exhibit 6). The gap between male and female heroin admissions grew, with males accounting for 69 percent (up from 62 percent at the end of 2000) and females accounting for 31 percent (down from 38 percent). One-half of the heroin admissions were African-American, and 46 percent were White (exhibit 7). Among primary heroin admissions in the first half of 2001, there was a continued decrease in the percentage of those age 35 and older (from 81 to 76 percent) and a continued increase among those age 26–34 (from 8 to 11 percent).

Injection remained the most common route of administration among heroin admissions (approximately 57 percent), down from nearly 68 percent in 2000. The proportion reporting intranasal use as the primary route of administration totaled 28 percent in 1999, 18 percent in 2000, and 25 percent in the first half of 2001. Smoking accounted for just over 5 percent of the heroin admissions in the first half of 2001, consistent with reports from 2000.

The characteristics of primary heroin admissions in public drug treatment programs in nonmetropolitan

Atlanta in the first half of 2001 were similar to those reported among clients in Atlanta, with the exception of more White clients (80 percent) than those of other racial/ethnic groups. The proportion in nonmetropolitan Atlanta who reported heroin as a primary drug was also somewhat lower than that in Atlanta (1 vs. 7 percent), consistent with reports from the second half of 2000.

While the most recent numbers are still preliminary, it appears that in the first half of 2001 the price of heroin per milligram pure sampled by the DEA dropped slightly to \$1.10, from \$1.15 in 2000 (exhibit 8), which is only a little higher than the overall average for the United States. Along with the price shift came a rise in the average purity per sample to approximately 55.7 percent (from 47.6 percent in 2000). This is well above the overall average of 35.0 percent, although ethnographic data suggest that the heroin in Atlanta is generally closer to 10 percent above that average. South America appears to remain the dominant source for heroin in the Atlanta area.

While heroin use remains infrequent compared with cocaine use, its use has been clearly on the rise. Ethnographers are finding that heroin has been added to the selection of drugs among polydrug users. As heroin purity increases, the need to inject it to obtain a high becomes less necessary. Thus, users of other drugs can snort heroin as a complement to their drug of choice or to moderate the effects of other substances, as they do with a “speedball.”

### Other Opiates/Narcotics

Indicator data on other opiates/narcotics such as hydrocodone, oxycodone, and fentanyl are limited, but evidence suggests that use of these drugs persists in the metropolitan Atlanta area. These drugs account for a relatively small amount of the total ED drug mentions, and the rates have fluctuated dramatically. Oxycodone/combinations steadily rose from 11 mentions in 1997 to 15 in 1998 and 20 in 1999, and more than doubled in 2000 to 43 (exhibit 9). Hydrocodone/combinations ED mentions remained high compared with other narcotic analgesics but have also tended to vary, totaling a high of 59 in 1995, 14 in 1996, 45 in 1997, 58 in 1998, 38 in 1999, and 40 in 2000. Among DAWN drug mentions for 2000, both oxycodone and hydrocodone managed to be in the top 10, with 13 and 12 mentions, respectively.

Ethnographic information supports the idea that people continue to seek out opiates, particularly those who can afford the average of \$1 per milligram for pills. The most commonly mentioned opiate among

users appears to be hydromorphone (Dilaudid), although it is unclear whether this is a matter of preference or is related to the ease of obtaining it as opposed to other pills. ED data on hydromorphone are inconsistent.

### Marijuana

After a marked rise in the rate of ED marijuana mentions per 100,000 population from 58 in 1997 to 96 in 1998, there was a steady decrease in 1999 (91 mentions) and 2000 (86), although none of these changes were statistically significant (exhibit 1). With the increase in 1998, there was a concurrent rise in the number of mentions among all age groups. This was followed by a general decline, except among those age 35 and older, for whom mentions continued to rise slightly (exhibit 10). The number of mentions for men was more than double that for women (121 vs. 52). The proportion of marijuana ED mentions in 2000 was highest among African-Americans, followed by Whites (exhibit 3). Mentions among Hispanics have nearly doubled since 1998.

After a decline between 1999 and 2000, from 21 to 15 percent, the proportion of treatment clients reporting marijuana as their primary drug rose only slightly to just over 16 percent in the first half of 2001 (exhibit 6). From the second half of 2000 through the first half of 2001, there were some noteworthy changes by race/ethnicity. While Whites had consistently accounted for the majority of marijuana admissions, African-Americans led in the beginning of 2001 at 54 percent (up from 45 percent), followed by Whites at 43 percent (down from 52 percent) and Hispanics at just under 2 percent (exhibit 7).

The gender gap among marijuana admissions continued to narrow as the ratio of male-to-female admissions declined from 2:1 to 1.8:1. Those age 35 and older accounted for the highest proportion of clients (80 percent), followed by those age 18–25 (just under 7 percent).

Among publicly funded treatment admissions in the nonmetropolitan counties of Georgia, 26 percent of clients reported marijuana as their primary drug of choice. Characteristics of clients in the nonmetropolitan counties were similar to those reported for metropolitan Atlanta, with the exception of a larger proportion of White clients (65 percent) than clients of other racial/ethnic backgrounds.

Ethnographic data suggests that, regardless of what other indicators may say about marijuana or other drugs, marijuana is ubiquitous in Atlanta. Its use is



reported by almost all users of other drugs and noticeably spans across racial, age, gender, geographic, and class groups. This is a decidedly different pattern than most other drugs that tend to be found more in certain segments of the population.

### Stimulants

According to ED data, the rate of methamphetamine mentions per 100,000 population increased significantly from 1999 to 2000 (from 3 to 4) after declining significantly between 1998 and 2000. The rate in 2000 was the same as the rate in 1994 (exhibit 11). Over the past few years, the mentions among 26–34-year-olds have begun to surpass those among 18–25-year-olds. While methamphetamine mentions were consistently higher among men than women prior to 1999, when they were even, the gap widened again in 2000 to 2.5:1. The rates of methamphetamine ED mentions in the metropolitan Atlanta area have in many ways mirrored the national DAWN rates, at the least in following the same ebb and flow patterns. Whites regularly accounted for the majority of methamphetamine ED mentions but, as the total number of mentions dropped, the gap between Whites and African-Americans narrowed, and the rates among Hispanics began to climb (from 4 in 1999 to 8 in 2000).

The proportion of clients in metropolitan Atlanta public treatment reporting stimulants as their primary drug has remained relatively stable, declining from 1.7 percent in 1999 to 1.5 percent in 2000, and rising to 1.6 percent in the first half of 2001 (exhibit 6). In the first half of 2001, most stimulant admissions were White (96 percent), down from 99 percent in 2000. The proportion of African-Americans rose to 3 from 1 percent (exhibit 7). Seventy-five percent of stimulant admissions were individuals age 35 and older, followed by those age 18–25 (almost 10 percent).

The most common primary route of administration among stimulant admissions was intranasal use (31 percent), followed closely by the oral route (30 percent). Smoking and injection each accounted for 17 percent. The biggest changes regarding route of administration concerned injection, which fell from 27 percent, and smoking, which rose from 8 percent at the end of 2000.

The proportion of persons who entered public drug treatment for stimulant use during the first half of 2001 in nonmetropolitan counties of Georgia also remained low (4.5 percent) but the proportion was higher than that reported for Atlanta (1.6 percent). The characteristics of the treatment admissions in

nonmetropolitan counties were somewhat similar to those among Atlanta counties, although a greater percentage reported injection as their main route of stimulant administration than in metropolitan Atlanta (28 vs. 17 percent). Outside Atlanta, the stimulant admissions remained almost exclusively White (99.5 percent).

The DEA continues to link the vast majority of methamphetamine in the Atlanta area to Mexican organizations, although there is evidence that minor labs are located in Georgia, especially in the northwest corner of the State. According to the May 10, 2002, edition of the Atlanta Journal-Constitution, in early May, police in Cherokee County—part of the metropolitan Atlanta area—stopped an SUV for a routine traffic violation and discovered a functioning methamphetamine lab in the vehicle. Ethnographic data suggest that smaller labs like these are also found in homes and motel rooms and are beginning to account for more of the methamphetamine bought in the area. Still, most methamphetamine is said to be outside of the immediate metropolitan Atlanta area. Various sources suggest that while powder has been the dominant form of methamphetamine found in the area, both “ice” (crystal) and shards represent rapidly emerging trends.

### Depressants

The use of prescription drugs diazepam (Valium) and alprazolam (Xanax) remains common, as indicated by both ethnographic reports and ED data. Valium and Xanax, along with clonazepam (Klonopin)—which ethnographic reports indicate may be on the rise—represented the three top benzodiazepines mentioned in DAWN ED data. The rate of mentions per 100,000 population of Valium dropped 40 percent between 1999 and 2000 (from 5 to 3), while Klonopin mentions remained steady at 4. Xanax mentions have been the highest, but have fluctuated over the years: 10 in 1997, 14 in 1998, 12 in 1999, and down to 9 in 2000.

The rate of gamma hydroxybutyrate (GHB) ED mentions per 100,000 population was 5 in 2000, with no change from 1999, but a significant change from 1994 when the rate was zero. The majority of GHB mentions were among men; this is consistent with the ethnographic data that suggest a sizable number of reported users are gay men.

### Hallucinogens

The rate of lysergic acid diethylamide (LSD) mentions per 100,000 population continued to decline significantly, from 4 in 1998 to 3.1 in 1999 to 2.5 in

2000 (exhibit 11), with most mentions occurring among 18–25-year-olds. Ethnographic reports show that LSD is still used among particular populations, especially those associated with methamphetamine and ecstasy use. There are no findings, however, that suggest rampant use among even those groups.

### Club Drugs

Just as an overall increase in methylenedioxymethamphetamine (MDMA or ecstasy) use has been observed in many places, the DAWN ED rate in Atlanta has increased, although it remains low compared with other drug mentions, at 2.4 per 100,000 population (exhibit 11), a 106-percent increase from 1998 when the rate was 1 per 100,000 population. Rates of ketamine ED mentions have remained negligible.

Ethnographic reports from an array of sources revealed a broad rise in the use of ecstasy in Atlanta and a change in the demographics of users, citing that it is no longer just a “White drug.” More African-Americans appear to be dealing, as well as buying, ecstasy. There are also reports that ecstasy use is no longer exclusive to younger age groups; a wider range of users has emerged. Reports also suggest that it is becoming easier to purchase ecstasy on the street and in smaller house parties rather than solely at clubs, as in the past. As its use spreads from the club scene into the general drug landscape, more kinds of people are reporting at least some ecstasy use, although a strong connection between ecstasy and methamphetamine use remains.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Based on reported cases of AIDS through June 2001, Georgia remains ninth among States in the cumulative number of cases. From 1981 through the end of March 2002, the Georgia Department of Human Resources reported 24,764 cumulative adult and pediatric cases. A continuing trends shows that

roughly 23 percent of all adult and adolescent AIDS cases in Georgia are linked to injection drug use: 17.7 percent among injection drug users (IDUs) and 5.5 percent among men who have sex with men (MSM) and are also IDUs. Once more, statewide cases related to injection drug use account for a higher percentage among women than men (26.7 vs. 22.4 percent), even when factoring in cases of MSM/IDUs. The number of diagnosed AIDS cases in Georgia has shown a general decline since 1996 (exhibit 12).

Atlanta continues to rank 10th among selected metropolitan areas in the cumulative number of AIDS cases. With an eight-county metropolitan Atlanta area accounting for 67 percent (16,676) of the total cumulative cases in Georgia, it follows that many of the trends seen statewide are mirrored in this region. Injection drug use is associated with 23.2 percent of all cumulative, adult and adolescent cases (17.8 percent IDUs and 5.7 percent MSM/IDUs) reported through the first quarter of 2002. In the Atlanta area, for cases related to injection drug use, the gap between men and women is even larger than statewide: 32.1 versus 22.1 percent. Since 1999, there has been a drop in the percentage of new cases attributed to injection drug use, from 20.3 percent in 1999 to 14.3 percent in 2000 to 11.7 percent in 2001, but through those years there has also been a large increase in the exposure category “Risk not reported/Other,” which may point to some discrepancy in reporting rather than the actual number of associated cases.

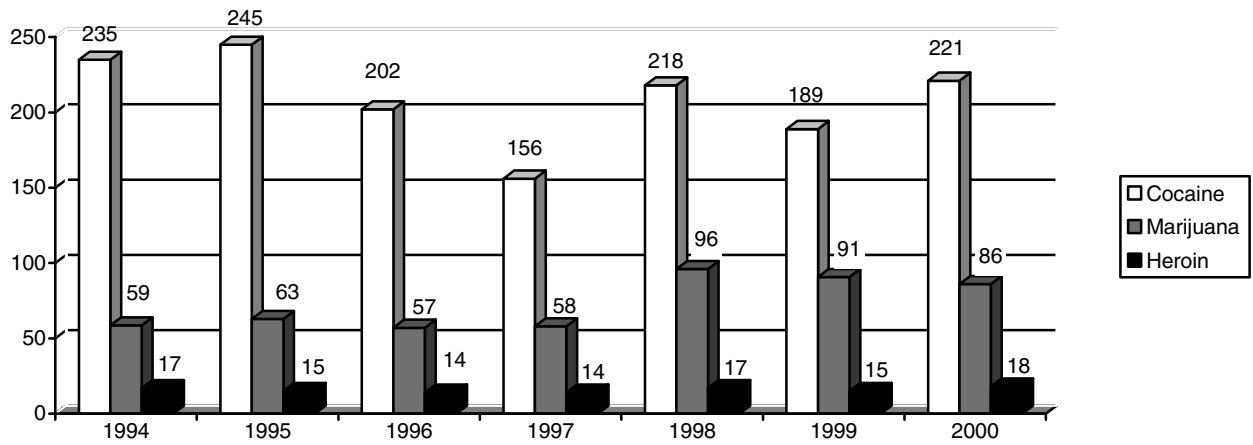
### REFERENCES

Centers for Disease Control and Prevention. *Basic Statistics—Ten States/Territories and Cities Reporting Highest Number of AIDS Cases*. Data from the semiannual *HIV/AIDS Surveillance Report*. Atlanta, GA, CDC, 2002. Retrieved May 17, 2002, from the World Wide Web: <<http://www.cdc.gov/hiv/stats/topten.htm>>.

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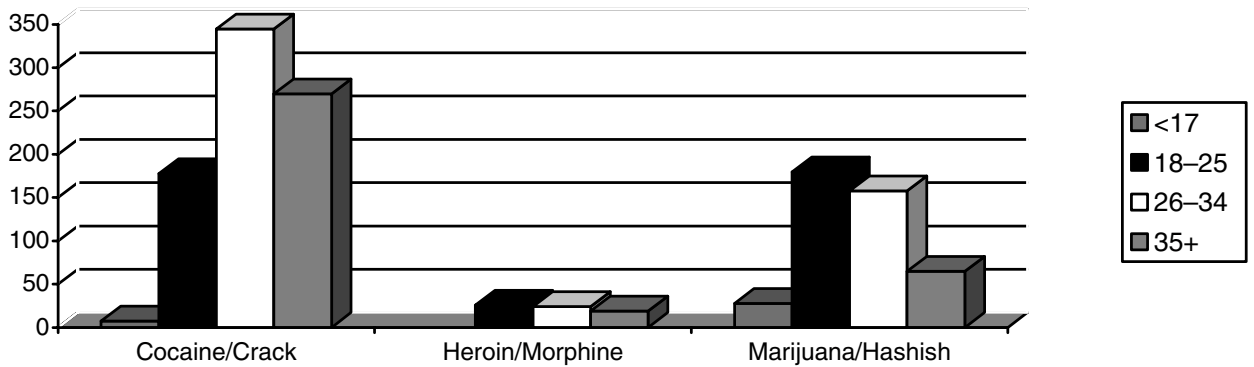
*For inquiries concerning this report, please contact Katherine P. Theall, M.A., Emory University, Rollins School of Public Health, Emory West Campus, 1256 Briarcliff Road, N.E., Room 104, Atlanta, Georgia 30306, Phone: 404-727-3863, Fax: 404-727-1369, E-mail: <[ktheall@sph.emory.edu](mailto:ktheall@sph.emory.edu)>.*

**Exhibit 1. Estimated Rate of ED Mentions for Cocaine, Marijuana, and Heroin Per 100,000 Population in Atlanta by Drug and Year: 1994–2000**



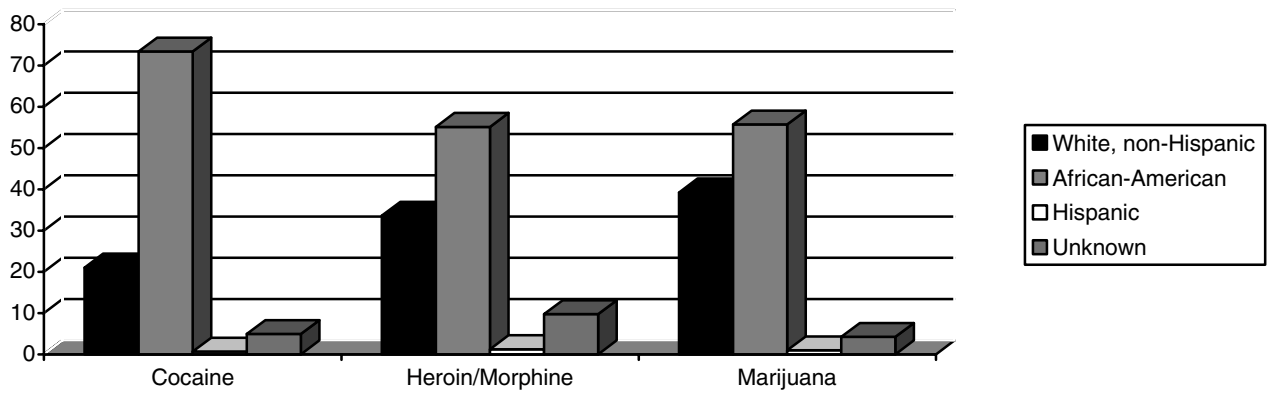
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Estimated Rate of ED Mentions for Selected Drugs Per 100,000 Population by Age: 2000**



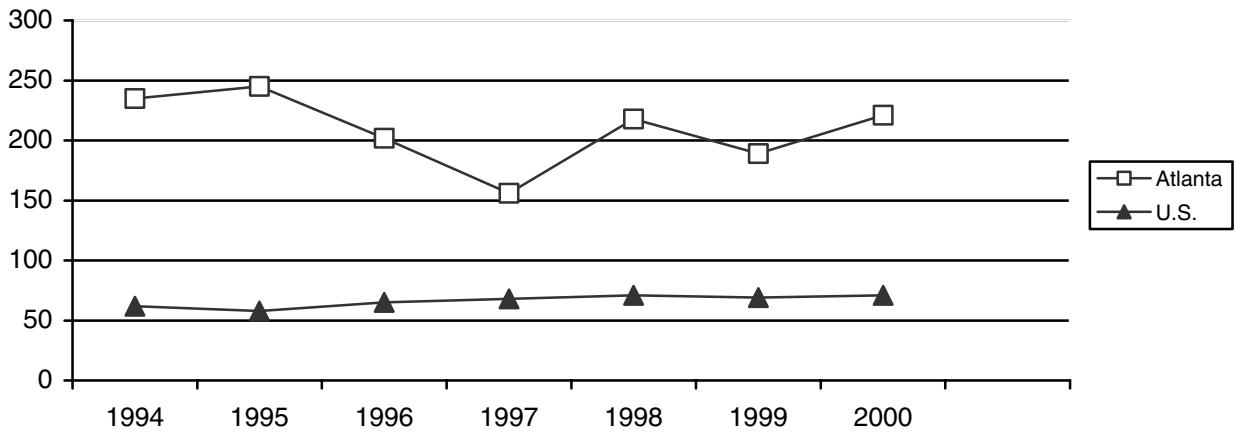
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Percentages of ED Mentions for Selected Drugs by Race/Ethnicity: 2000**



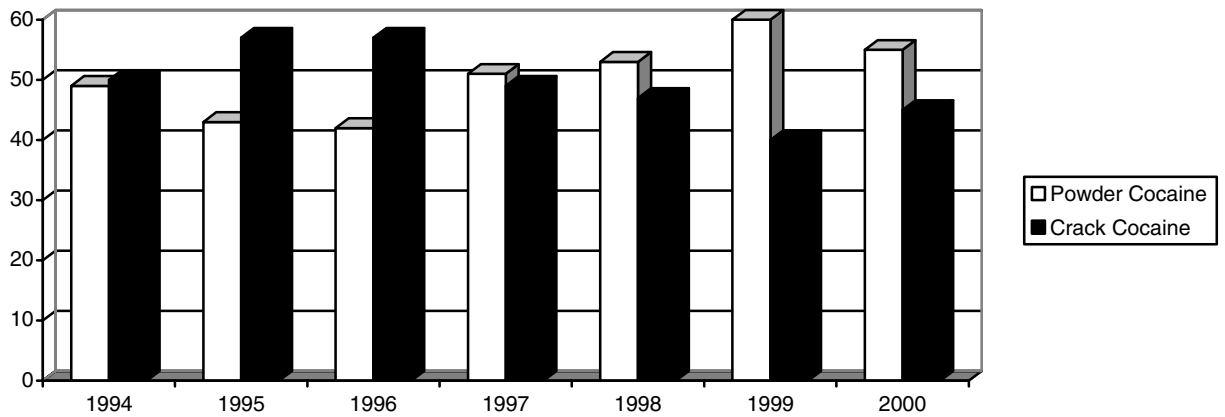
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 4. Rate of ED Cocaine Mentions Per 100,000 Population in the United States and Atlanta: 1994–2000**



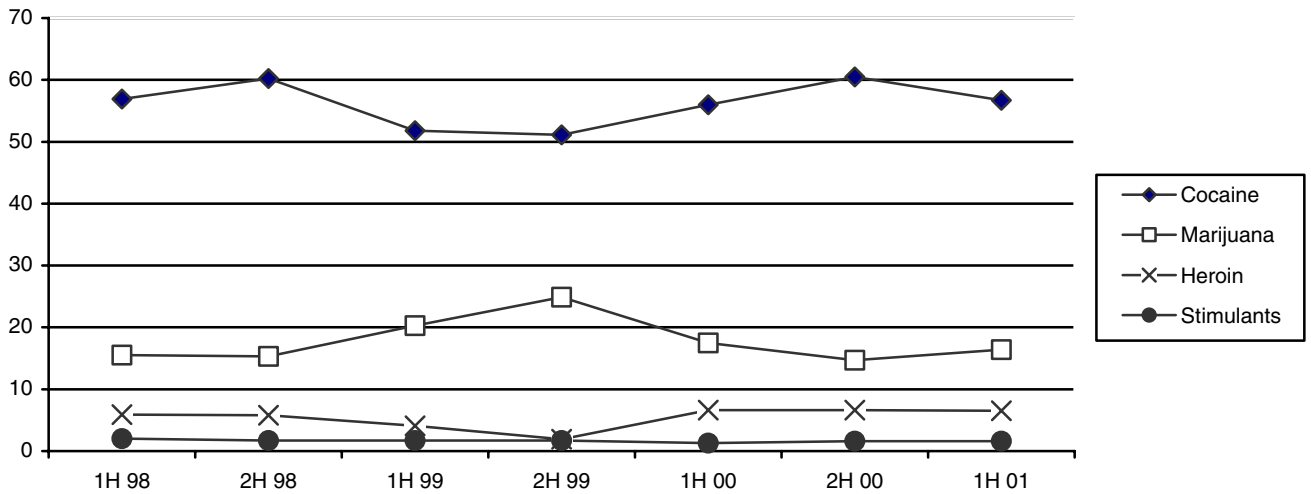
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 5. Percentages of Powder Versus Crack Cocaine ED Mentions by Year: 1994–2000**



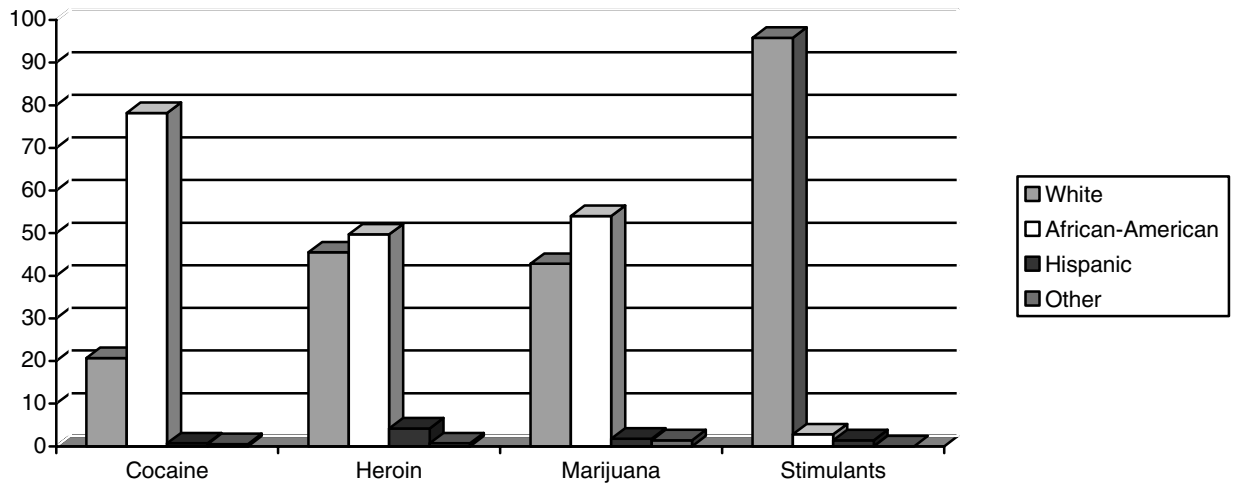
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 6. Percentages of Primary Admissions for Selected Drugs Among Public Drug Treatment Facilities: January 1998–June 2001**



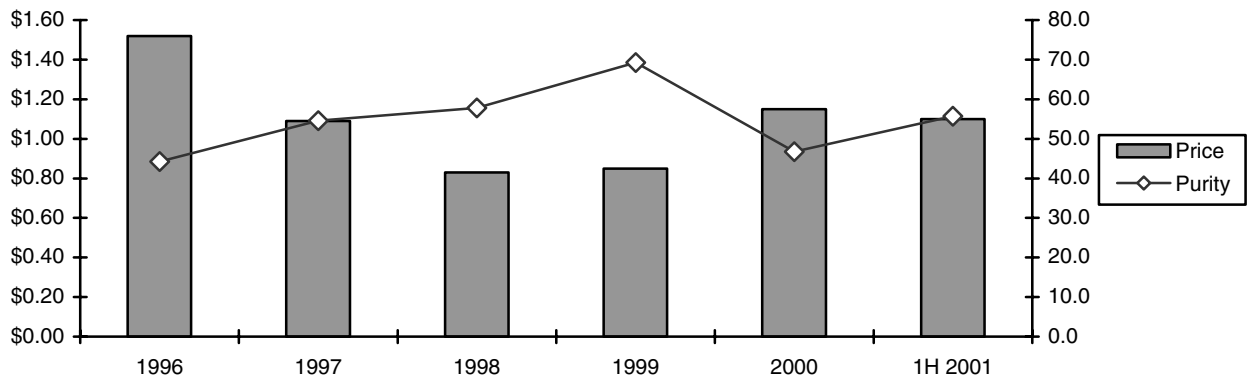
SOURCE: Georgia Department of Human Resources

**Exhibit 7. Race/Ethnicity of Treatment Admissions for Selected Drugs by Percent: January–June 2001**



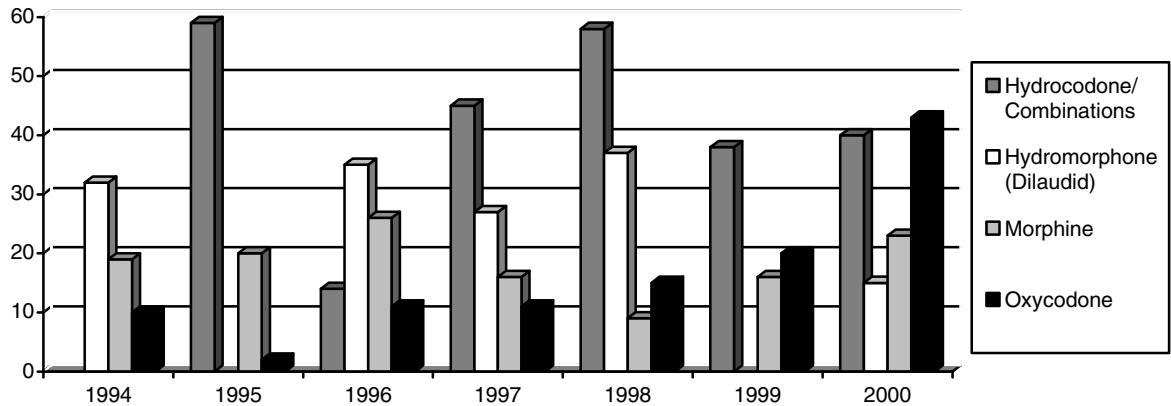
SOURCE: Georgia Department of Human Resources

**Exhibit 8. Heroin Price and Purity in Atlanta: 1996–June 2001**



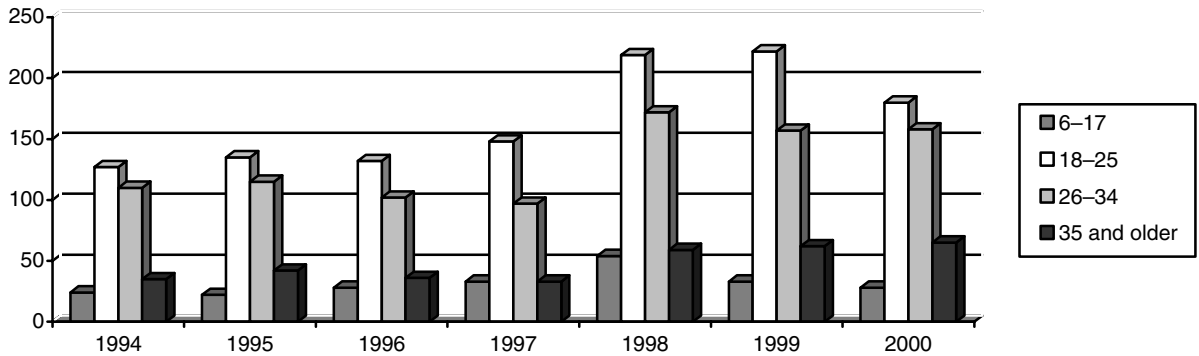
SOURCE: DMP, DEA

**Exhibit 9. Number of DAWN ED Mentions for Narcotic Analgesics: 1994–2000**



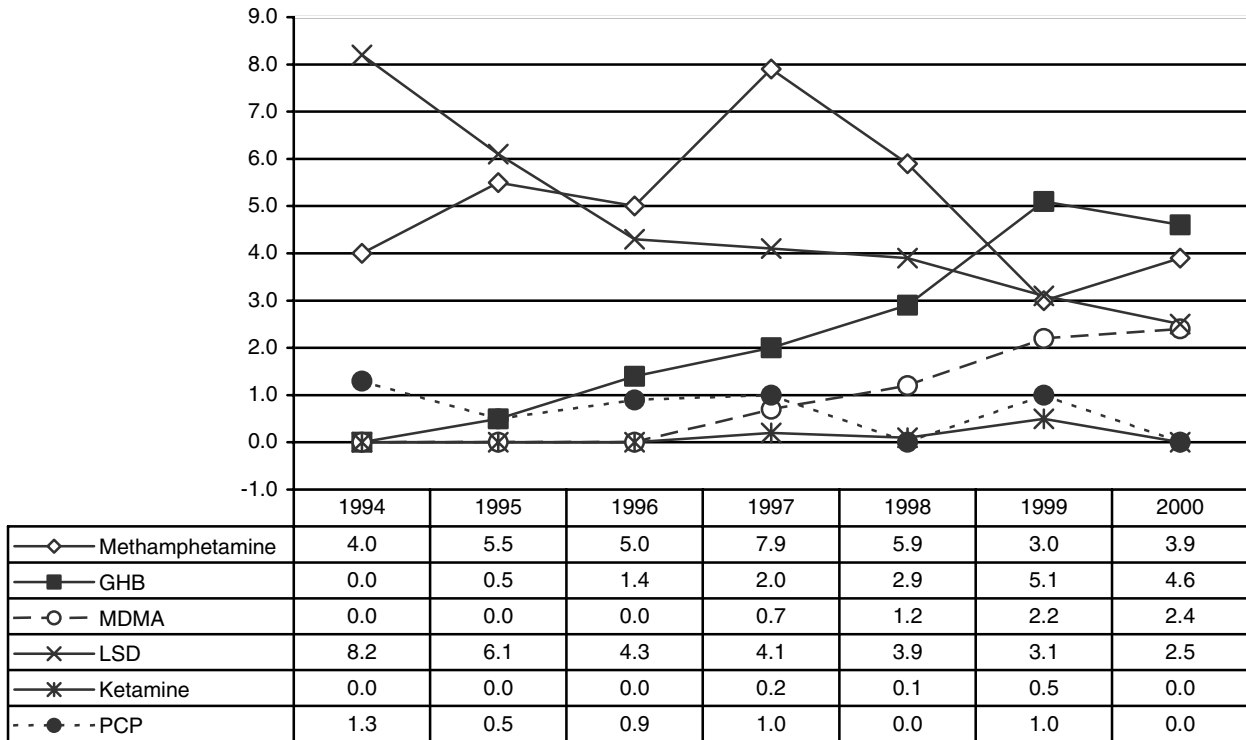
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 10. Number of Marijuana ED Mentions by Age Group: 1994–2000**



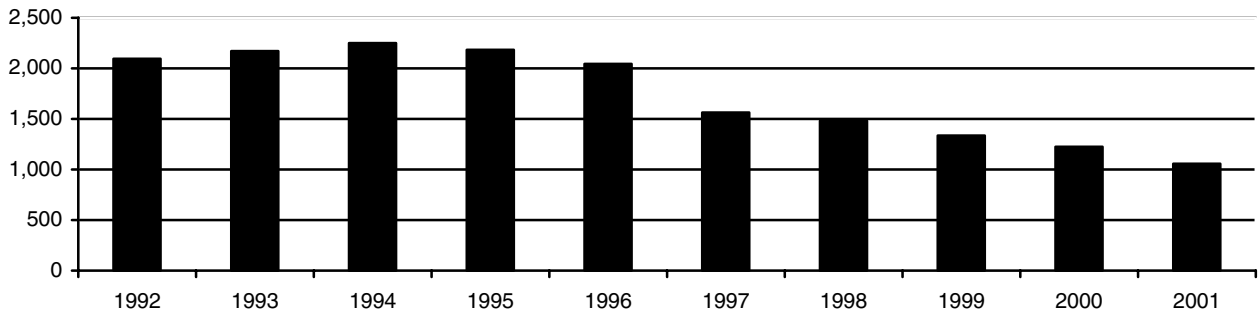
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 11. Estimated Rate Per 100,000 Population of DAWN ED Mentions for Methamphetamine and Selected Depressants, Hallucinogens, and Other (Club) Drugs: 1994–2000**



SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 12. Georgia Statewide Reported AIDS Cases by Date of Diagnosis: 1992–2001**



SOURCE: Georgia Department of Human Resources



# Drug Use in the Baltimore Metropolitan Area: Epidemiology and Trends: 1997–2001 (First Half)

Leigh A. Henderson, Ph.D.<sup>1</sup>

## ABSTRACT

*Heroin indicators (treatment admission rates and rates of emergency department [ED] mentions) declined for the Baltimore metropolitan area as a whole. Heroin treatment admission rates for both intranasal and injection use fell in the city, but rates for both routes increased in the suburban counties. In Baltimore City, the admission rate for intranasal heroin use was 42 percent higher than for injection. In the suburban counties, the rate for heroin injection was 29 percent higher than for inhalation. Admissions for intranasal heroin use were composed predominantly of an aging African-American population. Admissions for heroin injection reflected two distinct populations: aging African-Americans and new White users. Cocaine treatment admission rates fell, while ED mentions were stable. The population in treatment for smoked cocaine (crack) continued to age: in the first half of 2001, 65 percent were older than 35, compared with 44 percent in 1997. Marijuana treatment admission rates were stable, while ED mentions of marijuana increased significantly among persons 25 and younger. One-half of marijuana treatment admissions were younger than 18, and 62 percent entered treatment as the result of a judicial process. ED mentions for amphetamines increased significantly from 1994 to 2000 and between the first and last halves of 2000 and 2001, while the small number of methamphetamine ED mentions declined significantly in the most recent test period.*

## INTRODUCTION

### Area Description

The Baltimore primary metropolitan statistical area (PMSA) was home to some 2.6 million persons in 2001. 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. According to the 2001 census, however, the population rose to 635,000 in

2000. The population of the surrounding counties has grown steadily, from approximately 1.7 million in 1990 to 1.9 million in 2001.

The city and the suburban counties represent distinctly different socioeconomic groups. In 1997, the median household income in the city was \$28,000, and 24 percent of the population lived in poverty. In the suburban counties, however, the median household income ranged from \$45,000 to \$68,000, and the poverty rate ranged from 4 to 8 percent. In 2000, the population composition of the city differed markedly from that of the surrounding counties: 32 percent White and 64 percent African-American versus 80 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** estimates for 2001, as well as model-based income and poverty estimates for 1997 for Maryland counties, were derived from U.S. Bureau of the Census data (electronic access: <<http://factfinder.census.gov>> and <<http://quickfacts.census.gov>>).
- **Emergency department (ED) drug mentions data** were provided by the Drug Abuse Warning

<sup>1</sup> The author is affiliated with Synectics for Management Decisions, Inc., Baltimore, Maryland.

Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for the Baltimore PMSA for 1994 through June 30, 2001. Data for the first half of 2001 are preliminary.

- **Treatment admissions data** were provided by the Maryland Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, for 1994 to June 30, 2001. 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.
- **Survey data** on drug use prevalence among 12th grade students are from the Maryland State Department of Education's 2001 Maryland Adolescent Survey. The survey can be accessed electronically at <<http://www.msde.state.md.us>>.
- **Drug-Related Mortality data** were provided by DAWN, OAS, SAMHSA, for the Baltimore PMSA for 2000. The DAWN system covered 100 percent of the metropolitan statistical area (MSA) jurisdictions and 100 percent of the MSA population in 2000.
- **Heroin price and purity data**, preliminary for 2001, were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP).
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Maryland Department of Health and Mental Hygiene, AIDS Administration, "The Maryland 2000 HIV/AIDS Annual Report" (1998 demographic and risk category information for Baltimore); <<http://www.dhmh.state.md.us/AIDS/epictr.htm>> (2001 data for Maryland and Baltimore).

#### DRUG ABUSE PATTERNS AND TRENDS

In general, polydrug use appears to be the norm in the Baltimore PMSA. Three-quarters of drug-related treatment admissions in the first half of 2001 reported problems with at least one substance other than the primary drug. An average of 1.8 drugs was mentioned per ED visit in the first half of 2001. In 2000, multiple drugs were found in 91 percent of the

532 drug-involved deaths; the average number of drugs found was 3.

In the second half of the 1990s, abuse of both heroin and cocaine emerged as the dominant pattern of drug abuse in the Baltimore PMSA. Heroin and cocaine ED rates have been parallel and at similar levels since 1995. More than one-half of all drug-related treatment admissions during the first half of 2001 were for heroin, but 60 percent of heroin injectors admitted to treatment during that time period also used cocaine. Cocaine was reported as the primary substance of abuse by 12 percent of drug-related treatment admissions, and it was reported as a secondary substance by an additional 35 percent during the first half of 2001. Cocaine was cited as a secondary substance by a majority of heroin treatment admissions.

Heroin abuse indicators declined for the Baltimore PMSA as a whole in the first half of 2001. However, heroin abuse in Baltimore is complex and dynamic. There appear to be different groups of heroin users (urban versus suburban, intranasal users versus injectors), and indicators for some groups increased in the first half of 2001. Heroin treatment admission rates for both intranasal and injection use fell in the city, but rates for both routes increased in the suburban counties. In Baltimore City, the admission rate for intranasal heroin use was 42 percent higher than for injection. In the suburban counties, the rate for heroin injection was 29 percent higher than for inhalation. Admissions for intranasal heroin use were composed predominantly of an aging African-American population.

Women and men were represented almost equally among heroin and cocaine treatment admissions under age 30. Among treatment admissions in the first half of 2001, 54 percent of those younger than 30 who were admitted for heroin inhalation were female, compared with 47 percent of admissions age 30 and older. Similarly, 46 percent of admissions younger than 30 who were admitted for heroin injection were female, compared with 38 percent of admissions 30 and older. Among cocaine treatment admissions younger than 30, 48 percent were female, compared with 43 percent of those 30 and older.

#### Cocaine and Crack

The cocaine/crack epidemic continued to wane. Cocaine treatment admission rates in the Baltimore PMSA fell in the first half of 2001, while rates of ED mentions were stable (exhibit 1). The cocaine and heroin ED rates and patterns have been similar since

1995, probably because of the concurrent use of the two drugs. Some data suggest that use of cocaine may be increasing among young White users, but these are inconclusive.

The rate of cocaine-related ED mentions per 100,000 population in the first half of 2001 (105) was not significantly different from the rate reported in the first half of 2000 (100) (exhibit 2). Eighty-four percent of cocaine-related ED episodes involved another drug as well as cocaine.

Cocaine remained highly prevalent among treatment admissions, although the treatment admission rate for cocaine continued to decline (exhibit 3). The admission rate for primary cocaine use remained well below that for heroin abuse. However, while cocaine was reported as a primary substance by 12 percent of treatment admissions in the first half of 2001, it was reported as a secondary substance by an additional 35 percent. Crack cocaine accounted for about 75 percent of the admissions for primary cocaine abuse.

The population in treatment for cocaine smoking in the PMSA has aged; nearly 65 percent in the total PMSA were 35 or older in the first half of 2001 (exhibit 4). Smokers of crack cocaine included a substantial proportion of women (47 percent). Sixty-five percent of the crack admissions in the total PMSA were African-American, and the average age at admission to treatment was 37 years. Fewer than one-half (41 percent) of the crack smokers were entering treatment for the first time, and 63 percent were likely to be referred through sources outside the criminal justice system. Daily crack use was reported by nearly 36 percent, and use of other drugs by more than two-thirds (68 percent). Alcohol was the most common secondary drug (used by 47 percent), followed by marijuana (27 percent) and heroin used intranasally (13 percent). Only 3 percent of crack smokers reported heroin injection.

## Heroin

Heroin indicators (treatment admission rates and rates of ED mentions) declined for the Baltimore metropolitan area as a whole in the first half of 2001. Baltimore appears to have different groups of heroin users (urban vs. suburban, intranasal users vs. injectors), and indicators for some of these groups increased in the first half of 2001. Exhibit 5 compares the number of treatment admissions in 2000 by age and race for heroin injection and heroin inhalation. Baltimore has a core of older African-American heroin injectors, but it also has a substantial number of slightly younger African-American heroin

inhalers. White users entering treatment for heroin were younger and were predominantly injectors.

Heroin treatment admission rates for both intranasal and injection use fell in the city in the first half of 2001 (exhibit 3), but rates for both routes increased in the suburban counties. In Baltimore City, the admission rate for intranasal heroin use was 42 percent higher than for injection. In the suburban counties, however, the rate for heroin injection was 29 percent higher than for inhalation.

The rate of heroin ED mentions (105 per 100,000 population in the first half of 2001) represented an insignificant decline from 122 in the first half of 2000 (exhibit 2). However, Baltimore had the highest rate of heroin ED mentions per 100,000 population among all DAWN cities in the first half of 2001. Fifty-eight percent of heroin-related ED episodes involved other drugs as well as heroin.

Heroin remained the leading primary illicit drug responsible for treatment admissions through June 2001, at an annualized rate of 608 admissions per 100,000 population age 12 and older in the total PMSA (exhibit 3). The admission rate was four times higher in Baltimore City than in the suburban counties. Primary heroin users constituted 51 percent of all drug-related treatment admissions in the total PMSA.

In the total PMSA, the proportion of White heroin injectors entering treatment increased dramatically, from 42 percent in 1997 to 51 percent in the first half of 2001 (exhibit 6). The proportion of injection heroin admissions younger than 25 also increased, from 15 percent in 1997 to 22 percent in the first half of 2001. In the suburban counties, the proportion of admissions younger than 25 increased from 27 percent in 1997 to 33 percent in the first half of 2001. For the total PMSA, the average age at admission for heroin injectors was 35, and women accounted for 41 percent of admissions. Most of these admissions reported daily use (76 percent), and relatively few had been referred through the criminal justice system (23 percent). The proportion receiving treatment for the first time declined slightly, from 39 percent in 1997 to 30 percent in the first half of 2001. Use of other drugs was reported by 75 percent of heroin injectors entering treatment: 50 percent used cocaine by routes other than smoking, 10 percent smoked cocaine, 25 percent had an alcohol problem, and 14 percent used marijuana.

Among heroin intranasal users in the total PMSA, most admissions were African-American (81 percent), and age 26 and older (90 percent); on

average, they first used heroin 11 years prior to admission (exhibit 7). Nearly one-half of total PMSA admissions for heroin intranasal use (49 percent) occurred among women. The proportion of intranasal users younger than 25 decreased from 21 percent in 1997 to 10 percent in the first half of 2001. The average age at admission was 35. Nearly three-quarters (72 percent) reported daily heroin use. Intranasal users were more likely than injectors to be referred through the criminal justice system (29 percent) and to be receiving treatment for the first time (36 percent). Heroin intranasal users were less likely than injectors to report use of other drugs (66 percent), and the drugs used were different. Cocaine smoking was much more common among heroin intranasal users (32 percent), and 16 percent reported using cocaine by other routes. Alcohol use, at 27 percent, was similar in the two groups, but marijuana use was somewhat higher among intranasal users (16 percent).

Heroin purity remained low in the first half of 2001, at 25 percent, below the national metropolitan average of 35 percent. Price also remained low, at \$0.39 per milligram pure, compared with \$1.05 per milligram pure as the national metropolitan average. Ethnographic research suggests that two grades of heroin are sold in Baltimore. “Raw dope,” said to be of higher purity and preferred by inhalers, is sold in west Baltimore City. “Scramble” (heroin of lower purity, containing a higher proportion of adulterants and diluents) is preferred by injectors and is sold in east Baltimore City.

### **Other Opiates/Narcotics**

Narcotic analgesics/combinations have been mentioned with increasing frequency in drug-related ED episodes in the Baltimore PMSA. In the first half of 2001, they were mentioned in 18 percent of these episodes, compared with 9 percent of the episodes in 1997.

### **Marijuana**

Indicators of marijuana use were mixed (exhibit 1). Between the first halves of 2000 and 2001, the rate of marijuana ED mentions per 100,000 population increased significantly from 33 to 40. The rate increased significantly among all major age groups, and was highest among those age 18–25 (exhibit 2). Sixty-one percent of marijuana-related ED episodes involved other drugs as well.

Primary marijuana use represented 17 percent of treatment admissions in the total PMSA in the first half of 2001; marijuana was reported as a secondary

substance by an additional 23 percent of all admissions (exhibit 3). The annual marijuana admission rate per 100,000 population remained stable, at 198. The proportion of marijuana treatment admissions was higher in the suburban counties than in Baltimore City, but the admission rate per 100,000 population was higher in the city.

Persons entering treatment for marijuana use were young: 50 percent in the PMSA were younger than 18, and the average age at admission to treatment was 21 years (exhibit 8). Marijuana admissions were primarily male (83 percent). The racial breakdown of marijuana admissions approached that of the underlying population more closely than for other illicit drugs (50 percent White and 47 percent African-American). Admissions were likely to be experiencing their first treatment episode (73 percent), and more than one-third (36 percent) reported daily marijuana use. About two-thirds (69 percent) of marijuana admissions reported using additional substances: 59 percent reported alcohol use, 9 percent cocaine use, and 7 percent use of heroin or other opiates. Some 11 percent of admissions used other secondary substances, primarily hallucinogens and inhalants.

A large proportion of marijuana treatment admissions (62 percent) represented referrals through the criminal justice system. Admission rates for criminal justice referrals were 66 percent higher than those for other referrals in the first half of 2001.

Marijuana use in the past year was reported by 40 to 49 percent of 12th grade students in five of the six suburban counties, according to the 2001 Maryland Adolescent Survey. The proportion reporting use in Baltimore City, however, was 26 percent.

### **Stimulants**

Stimulants were rarely mentioned as the primary substance of abuse by treatment admissions (exhibit 3).

While amphetamines do not account for a large proportion of the ED mentions in Baltimore, the number of mentions increased significantly from the first half of 2000 (80 mentions) to the first half of 2001 (135). Annual amphetamine ED rates also increased significantly, from 2 per 100,000 population in 1994 to 7 in 2000. Methamphetamine was reported in only four ED episodes in the first half of 2001.

Amphetamine use in the past year was reported by 10 to 15 percent of 12th grade students in the suburban counties, according to the 2001 Maryland Adolescent

Survey. However, use in the past year in Baltimore City was only 5 percent.

### **Depressants**

Benzodiazepines were mentioned in 10 percent of drug-related ED episodes in the first half of 2001, a proportion that has been stable since 1997, when they accounted for 9 percent of episodes.

### **Hallucinogens**

Lysergic acid diethylamide (LSD) use in the past year was reported by between 9 and 15 percent of 12th grade students in the suburban counties, but by only 1 percent of students in Baltimore City, according to the 2001 Maryland Adolescent Survey.

LSD mentions in drug-related ED episodes decreased significantly between 1994 and 2000, but since 1997 have been stable, in the range of 40 to 50 per year. Phencyclidine (PCP) mentions also decreased significantly between 1994 and 2000, but increased significantly between 1998 and 2000, and 1999 and 2000. In 2000 and in the first half of 2001, PCP mentions exceeded those for LSD.

### **Club Drugs**

The 2001 Maryland Adolescent Survey reported that “designer drugs” (including methylenedioxymethamphetamine “ecstasy”) had been used in the past year by between 12 and 18 percent of 12th grade students in the suburban counties. Past-year use in Baltimore City, however, was only 4 percent.

Drug-related ED mentions involving ecstasy increased significantly from 35 in 1999 to 64 in 2000, and totaled 44 in the first half of 2001. The increase between the first halves of 2000 and 2001 was significant, and represented nearly a 132-percent increase. ED mentions of gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol), and ketamine remained low, at three, zero, and five, respectively, in the first half of 2001.

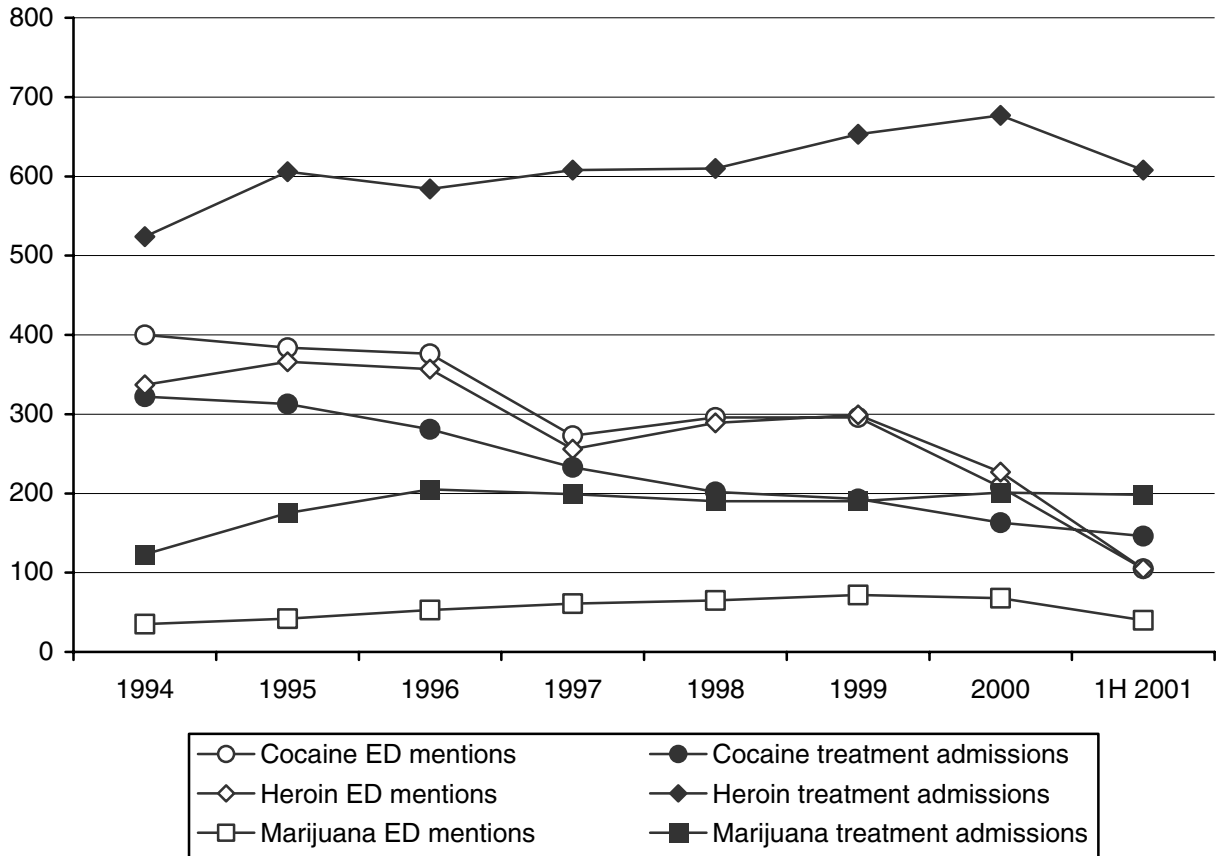
### **INFECTIOUS DISEASES RELATED TO DRUG ABUSE**

The Baltimore metropolitan area had an AIDS incidence rate of 43.5 per 100,000 population for the year ending June 30, 2001. Improvements in reporting, beginning in November 2000, led to an increase in the reported number of AIDS cases in Baltimore and Maryland, changing Baltimore’s AIDS incidence rank among major metropolitan areas from eighth to fifth. In the year ending December 31, 2000, the Baltimore metropolitan area accounted for 64 percent of Maryland’s incident human immunodeficiency virus (HIV) infections, 61 percent of its incident AIDS cases, and 63 percent of the 23,229 persons in Maryland living with HIV or AIDS. In 1998 (the latest year for which data by geographic region are available), Baltimore’s prevalent AIDS cases were about 70 percent male and 83 percent African-American. Sixty percent of the cases were among injection drug users (IDUs), 21 percent were among non-IDU men who had sex with men, and 16 percent involved heterosexual transmission.

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**Exhibit 1. Number of Drug-Related Treatment Admissions and ED Mentions<sup>1</sup> per 100,000 Population Age 12 and Older in the Baltimore PMSA: 1994–1H 2001**



<sup>1</sup> DAWN data for the first half of 2001 are preliminary.

SOURCES: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene; adapted from DAWN, Office of Applied Studies, SAMHSA.

**Exhibit 2. Rates and Percentage Distributions of Cocaine, Heroin, and Marijuana ED Mentions in the Baltimore PMSA by Demographic Characteristics: 1997–1H 2001**

Characteristic	Cocaine			Heroin			Marijuana		
	1997	1998	2000	1997	1998	2000	1997	1998	2000
(Number of Mentions)	(6,253)	(6,871)	(4,943)	(5,863)	(6,711)	(5,405)	(1,402)	(1,495)	(1,620)
Percent of All Episodes	49.0	50.0	43.0	46.0	48.9	47.0	11.0	10.9	14.1
Percent of All Mentions	28.4	29.2	24.9	26.6	28.5	27.2	6.4	6.4	8.2
<b>Rate of Mentions Per 100,000 Population<sup>2</sup></b>									
Total	273	296	208	256	289	227	61	65	72
12–17	22	41	20	25	42	24	164	146	159
18–25	261	300	216	302	378	330	149	174	206
26–34	627	667	442	527	579	469	97	107	115
35 and older	255	278	206	245	274	210	28	29	32
<b>Percentage Distributions</b>									
<b>Multiple-Drug Episode</b>	77.4	79.9	81.3	62.7	57.8	53.1	66.8	67.6	63.3
<b>Sex</b>									
Male	63.7	63.0	61.6	61.8	61.9	62.1	68.4	65.8	64.2
Female	36.3	37.0	38.4	38.2	38.1	37.9	31.6	34.2	35.8
<b>Race/Ethnicity</b>									
White	24.1	26.1	32.3	22.5	26.4	37.0	53.2	50.1	52.2
African-American	72.9	70.7	64.2	73.9	70.9	61.0	43.9	42.9	38.5
Hispanic	0.4	0.4	0.3	0.4	0.4	0.3	0.8	0.3	0.5
Other/unknown	2.6	2.8	3.2	3.3	2.3	1.6	2.1	6.7	8.8
<b>Age at Admission</b>									
12–17	0.7	1.2	0.8	0.8	1.2	0.9	22.6	19.1	18.7
18–25	10.6	11.2	11.7	13.1	14.5	16.3	26.9	29.8	31.9
26–34	36.7	34.8	31.1	32.8	31.0	30.1	25.3	25.6	24.1
35 and older	52.1	52.8	56.4	53.3	53.3	52.6	25.2	25.5	25.3
<b>Reason for Use</b>									
Psychic effects	5.7	6.9	10.0	5.2	6.0	5.4	24.8	33.6	28.3
Dependence	59.0	59.3	73.5	65.6	64.8	83.4	36.7	35.2	42.8
Suicide	13.7	8.1	5.7	9.8	5.9	3.3	9.3	11.2	9.6
Other	0.3	0.4	0.2	0.2	0.4	0.1	0.8	0.5	0.3
Unknown	21.3	25.3	17.4	19.2	22.9	7.8	28.4	19.6	19.0
<b>Reason for ED Visit</b>									
Unexpected reaction	6.8	10.9	8.1	4.2	7.4	4.8	14.8	18.7	19.0
Overdose	8.1	9.9	11.2	9.5	11.7	14.0	7.6	11.4	11.0
Chronic effects	30.5	30.6	27.6	34.2	34.4	27.7	12.1	12.6	10.1
Withdrawal	12.3	5.8	4.4	18.6	13.2	14.1	4.6	2.2	1.6
Seeking detox	7.9	11.2	13.6	7.1	9.4	9.8	8.3	11.6	14.5
Accident/injury	3.1	3.3	2.8	3.3	4.6	2.6	3.9	7.6	7.4
Other	11.8	11.9	24.0	8.9	7.4	24.9	14.4	19.9	30.2
Unknown	19.5	16.3	6.2	14.2	11.8	2.1	34.3	16.0	6.3

<sup>1</sup> Data for the first half of 2001 are preliminary; data for heroin exclude morphine, which is included in other years.

<sup>2</sup> A small number of unknowns are excluded from percentage calculations for sex and age.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Characteristics of All Drug-Related Treatment Admissions in Baltimore: 1997–1H 2001**

Characteristic	Total PMSA				Baltimore City				PMSA Excluding Baltimore City						
	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>
(Number of Admissions)	(27,288)	(26,291)	(26,863)	(27,104)	(12,701)	(13,285)	(12,589)	(13,317)	(13,520)	(5,675)	(14,003)	(13,702)	(13,546)	(13,584)	(7,026)
<b>Primary Substance (%)</b>															
Alcohol with secondary drug	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
Cocaine	20.0	20.3	19.2	17.9	18.2	10.7	10.7	10.0	8.8	8.7	28.8	29.3	28.2	26.9	25.9
Smoked	17.5	15.9	14.9	12.7	12.3	18.5	15.6	14.8	12.8	13.1	16.6	16.1	15.0	12.7	11.7
Injected	12.7	11.7	10.8	9.5	9.3	13.3	11.4	10.8	9.8	10.4	12.0	11.9	10.9	9.2	8.4
Other	1.7	1.4	1.3	1.0	0.9	2.2	1.8	1.7	1.2	1.0	1.3	1.0	1.0	0.8	0.9
Marijuana/hashish	3.1	2.8	2.8	2.2	2.1	3.0	2.5	2.3	1.8	1.7	3.2	3.2	3.2	2.7	2.5
Heroin/other opiates	15.0	14.9	14.7	15.6	16.7	10.8	11.2	10.3	11.5	13.4	18.9	18.4	19.0	19.7	19.3
Injected	45.8	47.8	50.3	52.8	51.2	59.1	62.0	64.5	66.5	64.3	33.1	34.8	36.4	39.2	40.6
Inhaled	22.8	22.7	23.6	23.9	22.1	28.8	27.4	28.4	27.9	25.0	17.0	18.4	18.9	19.8	19.8
Other	20.3	20.8	21.7	24.7	24.3	27.9	30.1	30.5	34.9	35.3	13.0	12.3	13.1	14.6	15.3
Stimulants	2.8	4.2	5.0	4.2	4.8	2.4	4.5	5.6	3.7	4.0	3.1	4.0	4.4	4.8	5.5
All other	0.3	0.0	0.0	0.0	0.0	0.2	0.0	<sup>3</sup> —	0.0	0.0	0.3	0.1	0.0	0.0	<sup>3</sup> —
All other	1.5	1.0	0.9	0.9	1.6	0.6	0.5	0.5	0.4	0.5	2.4	1.5	1.4	1.4	2.4
<b>Primary Substance (Annual Admissions per 100,000 Population Age 12+)</b>															
Alcohol with secondary drug	265	260	249	229	217	263	253	256	229	189	266	262	246	229	225
Cocaine	233	202	193	163	146	455	370	378	332	284	153	144	131	108	102
Smoked	168	149	140	122	111	328	270	275	256	227	111	107	95	79	73
Injected	23	18	17	12	11	54	42	42	30	21	12	9	9	7	7
Other	41	36	36	28	25	73	58	60	46	37	30	28	28	23	22
Marijuana/hashish	199	190	190	201	198	266	265	264	299	291	175	165	166	168	168
Heroin/other opiates	608	610	653	677	608	1,453	1,469	1,650	1,726	1,396	306	311	318	335	353
Injected	302	290	306	306	262	707	650	727	725	542	158	165	165	169	172
Inhaled	269	266	282	317	288	686	713	780	906	767	120	110	114	125	133
Other	37	54	65	54	57	60	107	143	95	87	28	36	39	41	48
Stimulants	4	1	0	0	0	6	0	<sup>3</sup> —	0	0	3	1	0	0	<sup>3</sup> —
All other	20	13	12	12	18	14	13	12	11	11	22	13	12	12	21
<b>Secondary Substance (%)<sup>2</sup></b>															
None	25.5	23.9	23.8	25.6	24.9	27.8	25.4	25.4	28.7	28.6	23.5	22.5	22.2	22.5	22.0
Alcohol	27.0	27.9	28.1	28.7	29.8	26.2	27.5	27.4	28.2	31.2	27.8	28.2	28.8	29.3	28.7
Cocaine	36.4	37.7	37.9	36.1	35.1	43.2	45.3	45.5	42.9	41.5	29.9	30.8	30.4	29.3	29.9
Marijuana/hashish	25.2	25.2	23.7	23.2	22.8	17.4	17.0	15.9	15.0	15.3	32.6	32.7	31.5	31.4	28.7
Heroin/other opiates	9.2	8.7	8.9	8.4	8.1	9.8	8.9	9.1	8.4	7.2	8.6	8.6	8.7	8.4	8.8
All other	6.6	5.2	5.3	5.6	8.2	3.4	2.7	2.9	2.3	2.9	9.5	7.6	7.6	8.9	12.5

<sup>1</sup> Preliminary data for first half 2001; annual 2001 rate based on first-half data.

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

<sup>3</sup> Quantity is zero.

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



**Exhibit 4. Characteristics of Primary Crack Cocaine Treatment Admissions in Baltimore: 1997–1H 2001**

Characteristic	Total PMSA			Baltimore City			PMSA Excluding Baltimore City			
	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>
(Number of Admissions)	(3,460)	(3,063)	(2,905)	(2,585)	(1,182)	(1,773)	(1,433)	(1,432)	(1,330)	(593)
<b>Primary Use of Substance (%)</b>										
<b>Sex (%)</b>										
Male	12.7	11.7	10.8	9.5	9.3	13.3	11.4	10.8	9.8	10.4
Female	55.2	56.6	55.4	55.4	53.2	51.0	49.5	45.5	46.4	43.7
<b>Face/Ethnicity (%)</b>										
White	44.8	43.4	44.6	44.6	46.8	49.0	50.5	54.5	53.6	56.3
African-American	35.8	39.2	37.0	31.6	34.1	17.2	18.6	16.1	13.2	14.3
Hispanic	62.9	59.2	61.5	67.0	64.7	82.0	80.3	82.8	85.9	84.7
Other	0.8	0.8	0.8	0.7	0.4	0.6	0.3	0.4	0.4	0.2
<b>Age at Admission (%)</b>										
17 and younger	0.5	0.8	0.7	0.7	0.8	0.2	0.8	0.7	0.5	0.8
18–25	1.3	1.6	0.6	0.5	0.8	0.5	1.2	0.4	0.3	1.0
26–34	9.5	8.7	8.3	6.6	7.6	6.7	6.0	4.7	4.4	4.4
35 and older	45.0	40.8	36.8	33.9	27.0	45.2	38.1	34.8	31.5	22.8
<b>Avg. Age at Admission</b>	44.2	48.9	54.4	59.0	64.5	47.6	54.7	60.1	63.8	71.7
<b>Daily Use (%)</b>	34 yrs	34 yrs	35 yrs	36 yrs	37 yrs	35 yrs	36 yrs	36 yrs	37 yrs	38 yrs
<b>First Treatment Episode (%)</b>	37.5	35.9	35.4	35.1	35.5	40.3	41.7	43.2	44.1	40.6
<b>Avg. Duration of Use<sup>2</sup></b>	48.7	41.9	42.9	42.4	41.2	48.4	43.1	43.0	38.8	38.4
<b>Criminal Justice Referral (%)</b>	9 yrs	9 yrs	10 yrs	11 yrs	11 yrs	9 yrs	10 yrs	10 yrs	11 yrs	11 yrs
<b>Secondary Substance (%)<sup>3</sup></b>	32.2	36.0	37.3	40.5	37.2	28.7	33.1	30.9	32.7	28.8
None	34.9	32.9	30.0	31.1	32.1	39.5	36.7	32.5	35.0	35.2
Alcohol	46.6	48.3	47.8	47.8	47.1	39.9	43.5	42.7	41.4	42.7
Cocaine	0.2	0.2	0.1	0.1	4	0.2	0.1	0.1	0.1	4
Smoked cocaine (crack)	4	4	4	4	4	4	4	4	4	4
Other cocaine	0.2	0.2	0.1	0.1	4	0.2	0.1	0.1	0.1	4
Marijuana/hashish/THC	28.2	29.6	29.7	28.5	26.7	23.6	25.0	24.7	23.3	20.9
Heroin/other opiates	13.9	15.5	18.5	18.5	19.0	17.3	21.0	24.2	23.8	24.1
Injected	2.1	2.3	2.5	2.0	2.8	1.8	2.7	2.8	2.1	2.2
Inhaled	10.1	11.1	13.3	13.2	13.3	13.3	16.2	18.9	19.2	19.7
All other	3.7	2.2	2.4	2.9	3.7	2.1	0.9	1.3	1.1	1.0

<sup>1</sup> Preliminary data for first half 2001.

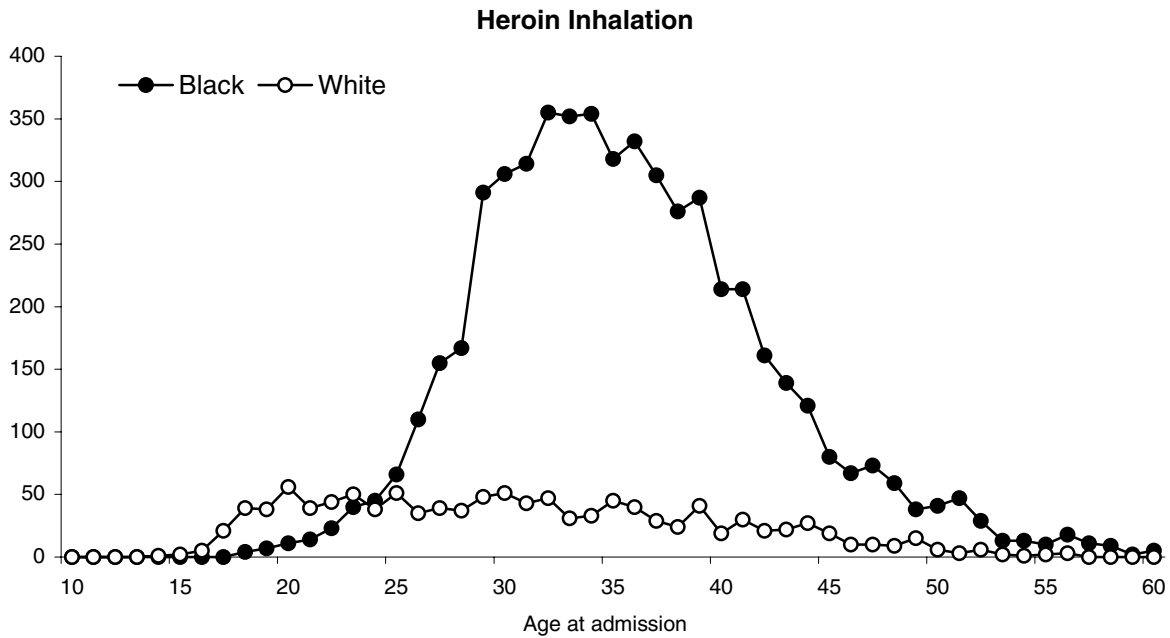
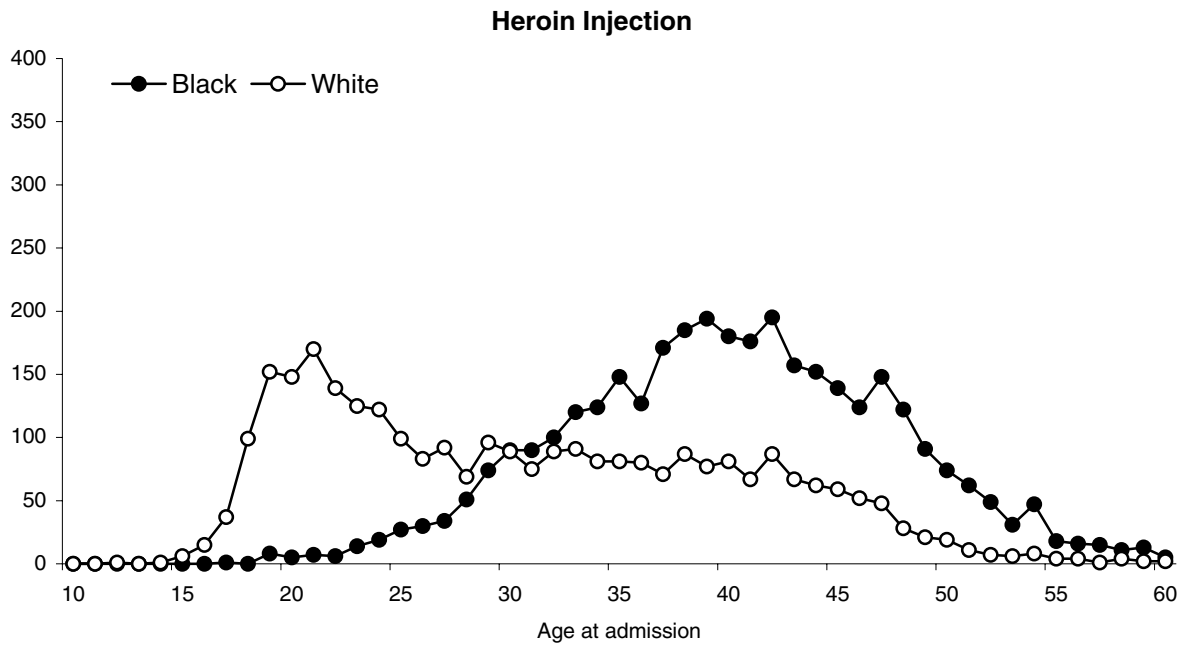
<sup>2</sup> For first-time treatment admissions.

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

<sup>4</sup> Quantity is zero.

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

**Exhibit 5. Number of Treatment Admissions in the Baltimore PMSA for Primary Heroin by Selected Route of Administration, Age, and Race: 2000**



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

**Exhibit 6. Characteristics of Primary Injection Heroin Treatment Admissions in Baltimore: 1997–1H 2001**

Characteristic	Total PMSA			Baltimore City			PMSA Excluding Baltimore City			
	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>
(Number of admissions)	(6,209)	(5,977)	(6,344)	(6,466)	(2,807)	(3,823)	(3,453)	(3,783)	(3,771)	(1,416)
<b>Primary Use of Substance (%)</b>										
<b>Sex (%)</b>										
Male	58.5	58.6	59.6	58.0	59.2	56.0	56.2	56.8	54.3	57.0
Female	41.5	41.4	40.4	42.0	40.8	44.0	43.8	43.2	45.7	43.0
<b>Face/Ethnicity (%)</b>										
White	42.0	45.8	44.7	45.0	50.8	23.8	24.4	24.6	25.2	29.5
African-American	56.5	52.9	53.4	53.6	47.1	75.2	74.6	74.3	73.9	69.3
Hispanic	0.7	0.7	1.1	0.8	0.9	0.4	0.5	0.3	0.5	0.4
Other	0.7	0.7	0.8	0.7	1.2	0.6	0.5	0.7	0.5	0.8
<b>Age at Admission (%)</b>										
17 and younger	1.4	2.0	1.4	1.0	1.4	0.5	1.0	0.6	0.5	0.6
18–25	13.2	17.1	17.2	17.9	21.0	6.8	9.6	8.2	8.7	11.2
26–34	26.9	24.5	22.7	23.3	23.0	27.3	23.9	22.3	22.1	21.8
35 and older	58.5	56.5	58.7	57.9	54.6	65.3	65.5	68.8	68.7	66.5
<b>Avg. Age at Admission</b>	36 yrs	35 yrs	36 yrs	36 yrs	35 yrs	37 yrs	37 yrs	38 yrs	38 yrs	38 yrs
<b>Daily Use (%)</b>	73.4	74.9	72.6	74.8	75.7	73.0	77.6	75.7	79.7	78.2
<b>First Treatment Episode (%)</b>	39.1	34.1	37.1	32.7	30.1	38.5	32.0	34.5	30.9	28.7
<b>Avg. Duration of Use<sup>2</sup></b>	13 yrs	13 yrs	13 yrs	14 yrs	13 yrs	16 yrs	15 yrs	16 yrs	16 yrs	16 yrs
<b>Criminal Justice Referral (%)</b>	22.0	24.3	22.9	24.1	22.9	23.7	25.6	23.2	22.4	24.4
<b>Secondary Substance (%)<sup>3</sup></b>										
None	26.1	23.5	27.2	28.2	24.7	20.8	17.8	23.4	25.9	23.1
Alcohol	23.5	23.1	22.8	23.0	25.5	25.2	23.1	23.6	24.2	28.1
Cocaine	62.1	64.2	61.0	58.5	60.2	71.0	74.1	68.6	64.7	66.5
Smoked cocaine (crack)	7.2	8.5	8.6	8.9	9.8	7.0	7.8	8.6	9.1	9.7
Other cocaine	54.9	55.9	52.3	49.6	50.4	64.1	66.2	60.0	55.5	56.7
Marijuana/hashish/THC	11.6	12.5	11.5	12.2	13.8	8.4	8.3	7.3	7.9	9.3
Heroin/other opiates	3.7	3.1	2.8	3.3	3.5	2.5	1.6	1.7	1.6	1.4
Injected	0.8	0.5	0.4	0.4	0.5	0.5	0.1	0.2	0.1	0.1
Inhaled	0.1	0.2	0.0	0.2	0.1	0.1	4-	0.0	0.0	0.1
All other	4.9	4.1	4.0	4.0	4.7	3.8	2.7	2.9	2.4	3.5

<sup>1</sup> Preliminary data for first half 2001.

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

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

<sup>4</sup> Quantity is zero.

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



**Exhibit 8. Characteristics of Primary Marijuana Treatment Admissions in Baltimore: 1997–1H 2001**

Characteristic	Total PMSA				Baltimore City				PMSA Excluding Baltimore City						
	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>	1997	1998	1999	2000	2001 <sup>1</sup>
(Number of Admissions)	(4,084)	(3,923)	(3,940)	(4,240)	(2,117)	(1,441)	(1,405)	(1,373)	(1,558)	(760)	(2,643)	(2,518)	(2,567)	(2,682)	(1,357)
<b>Primary Use of Substance (%)</b>															
<b>Sex (%)</b>															
Male	83.1	83.9	82.9	81.9	82.9	86.5	84.2	80.6	79.0	81.1	81.2	83.8	84.1	83.6	83.9
Female	16.9	16.1	17.1	18.1	17.1	13.5	15.8	19.4	21.0	18.9	18.8	16.2	15.9	16.4	16.1
<b>Race/Ethnicity (%)</b>															
White	53.0	53.8	52.0	50.6	49.9	23.5	25.8	32.5	29.4	24.5	69.1	69.3	62.5	62.8	64.1
African-American	44.2	43.1	44.8	46.2	47.0	74.7	71.4	65.9	68.6	73.8	27.5	27.3	33.5	33.2	32.1
Hispanic	1.7	2.0	1.8	1.6	1.6	1.0	1.7	0.9	1.0	0.9	2.0	2.1	2.2	1.9	1.9
Other	1.2	1.1	1.4	1.7	1.5	0.7	1.1	0.7	1.0	0.8	1.4	1.2	1.9	2.1	1.9
<b>Age at Admission (%)</b>															
17 and younger	48.3	49.3	47.4	47.9	49.6	45.6	51.8	54.6	56.6	61.5	49.8	47.9	43.6	42.9	43.0
18–25	30.1	32.2	32.2	30.9	32.2	29.2	29.1	26.7	23.3	23.2	30.6	33.9	35.2	35.3	37.2
26–34	13.3	10.5	11.9	11.6	9.4	15.9	11.1	10.9	10.9	7.0	11.9	10.2	12.4	12.0	10.7
35 and older	8.3	8.0	8.5	9.6	8.8	9.3	8.0	7.9	9.2	8.3	7.8	8.1	8.9	9.8	9.1
<b>Avg. Age at Admission</b>	21 yrs	21 yrs	21 yrs	21 yrs	21 yrs	22 yrs	21 yrs	21 yrs	21 yrs	20 yrs	21 yrs	21 yrs	21 yrs	22 yrs	21 yrs
<b>Daily Use (%)</b>	30.8	26.7	23.4	29.3	36.2	33.0	31.4	25.0	44.1	51.6	29.6	24.0	22.5	20.6	27.6
<b>First Treatment Episode (%)</b>	71.5	71.5	68.4	71.0	72.6	77.7	75.4	70.8	72.8	75.0	68.1	69.2	67.1	70.0	71.2
<b>Avg. Duration of Use<sup>2</sup></b>	6 yrs	5 yrs	6 yrs	6 yrs	6 yrs	6 yrs	5 yrs	5 yrs	6 yrs	5 yrs	6 yrs	6 yrs	6 yrs	7 yrs	7 yrs
<b>Criminal Justice Referral (%)</b>	56.7	59.6	63.0	64.9	62.4	68.4	67.0	64.4	62.9	59.1	50.4	55.6	62.3	66.1	64.3
<b>Secondary Substance (%)<sup>3</sup></b>															
None	34.1	32.7	28.8	28.8	31.3	36.2	33.5	29.0	29.2	30.3	32.9	32.3	28.7	28.6	31.9
Alcohol	53.8	57.5	60.4	62.4	58.7	49.1	56.1	55.6	59.8	59.1	56.3	58.2	63.0	63.8	58.5
Cocaine	12.7	11.6	11.0	11.0	9.1	13.0	10.9	11.5	12.6	10.1	12.5	12.0	10.8	10.1	8.5
Smoked cocaine (crack)	6.1	5.6	5.5	4.8	3.8	6.0	4.7	5.1	5.7	4.3	6.2	6.1	5.6	4.3	3.5
Other cocaine	6.6	6.1	5.6	6.2	5.3	7.0	6.2	6.4	6.9	5.8	6.3	6.0	5.2	5.8	5.0
Marijuana/hashish/THC	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_	4_
Heroin/other opiates	7.7	6.5	5.8	6.4	6.8	9.2	7.8	7.3	9.0	8.0	6.9	5.7	5.1	5.0	6.0
Injected	1.9	1.1	0.9	1.2	1.2	1.9	1.2	1.0	1.7	1.2	1.9	1.1	0.9	0.9	1.3
Inhaled	4.5	3.8	3.5	3.3	3.0	6.2	5.4	4.7	4.9	3.9	3.6	2.9	2.8	2.3	2.4
All other	11.9	8.0	9.6	8.0	10.8	6.6	5.1	9.1	4.7	6.2	14.8	9.5	9.8	9.8	13.4

<sup>1</sup> Preliminary data for first half 2001.  
<sup>2</sup> For first-time treatment admissions.  
<sup>3</sup> "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.  
<sup>4</sup> Quantity is zero.

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

# Drug Use Trends in Greater Boston and Massachusetts

Thomas W. Clark<sup>1</sup> and Daniel P. Dooley<sup>2</sup>

## ABSTRACT

*Cocaine, heroin, and marijuana remain the major street drugs in Boston. The long-term trend of rising heroin indicators and declining cocaine indicators may be ending. Arrest and drug lab data, as well as reports from key informants, suggest that Boston has experienced a recent increase in cocaine availability and use, although heroin remains the most common primary illicit drug for those entering treatment. OxyContin thefts from pharmacies appear to be slowing, but the drug is still widely available via diverted prescriptions. Adolescents in focus groups, as well as State Police reports of declining seizures of MDMA, suggest that ecstasy use may have peaked among youth, while marijuana use remains widespread and is considered virtually normal by teens. Methamphetamine remains rare in a drug market dominated by heroin and cocaine. Through November 1, 2001, a cumulative total of 16,629 adult/adolescent AIDS/HIV cases were reported in Massachusetts. Of these, injection drug use accounted for 35 percent, while male-to-male sex accounted for 38 percent.*

## INTRODUCTION

### Area Description

According to the 2000 U.S. census, Massachusetts ranks 13th among States in population (6,349,097 people). Boston residents ( $n=746,914$ ) represent 12 percent of the total Massachusetts population. In Boston, 54 percent of residents are White, 20 percent are Black, 14 percent are Hispanic, and 12 percent are of other or multiple racial/ethnic backgrounds.

Several factors influence drug trends in Boston and throughout Massachusetts:

- Five neighboring States linked by a network of State and interstate highways

- Proximity to Interstate 95, which connects Boston to all major cities on the east coast, particularly New York
- A well-developed public transportation system that provides easy access to communities in eastern Massachusetts
- A large population of college students in both the Greater Boston area and western Massachusetts
- Several seaport cities with major fishing industries (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, sharply declining State revenues, and major social service cutbacks
- A record number of homeless individuals seeking shelter

### Data Sources

Data sources for this report are shown below.

- **Drug-related hospital emergency department (ED) drug mentions data** were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). The data included drug mentions in admissions to participating emergency departments in the Boston metropolitan statistical area (MSA) from July 1996 through June 2001. Data for the first half of 2001 are preliminary.
- **Drug-related mortality data** were provided by DAWN. The data covered mentions in drug abuse-related deaths from participating medical examiners (MEs) from 1996 through 2000. The DAWN system covered 71 percent of the MSA

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jurisdictions and 76 percent of the MSA population in 2000.

- **Drug Treatment data** were provided by the Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services. These data represent State-funded substance abuse treatment admissions for fiscal year (FY) 1994 (beginning July 1, 1993) through FY 2001 (ending June 30, 2001).
- **Analyses of drug samples** were obtained from the Massachusetts DPH Drug Analysis Laboratory for 1993–2001.
- **Data on drug mentions during helpline calls** were provided by the Massachusetts Substance Abuse Information and Education Helpline for October 2001–March, 2002.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the DPH, AIDS Surveillance Program by year for 1993–2000, and cumulative were provided through November 1, 2001.
- **Data on drug arrests, availability, price, purity, and distribution patterns** were provided by the Boston Police Department’s Drug Control Unit and Office of Research and Evaluation; the Massachusetts State Police; and the Drug Enforcement Administration (DEA), October 2001–March 2002.
- **Other drug-related information** was obtained from focus groups with adolescents in youth and treatment programs and through structured interviews with needle exchange personnel, treatment providers, and law enforcement officials.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

Cocaine indicators are mixed after an overall decline that first became apparent in 1995. Anecdotal reports, as well as arrest and drug lab data, suggest a recent rise in availability and use. Although cocaine ranks highest in Boston drug arrests and illicit drug ED mentions, just 9 percent of the 25,269 admissions to publicly funded treatment in FY 2001 reported crack or cocaine as their drug of choice, compared with 27 percent in FY 1994.

Cocaine ED mentions have fluctuated at about 30 percent of all episodes since 1996, reaching 36 percent in the last half of 1998 and falling to 28 percent in the first half of 2001 (exhibit 1). The

proportion of Greater Boston area treatment admissions reporting past-month cocaine use dropped from 40 percent in FY 1995 to 25 percent in FY 2001 (exhibit 2). Data on drug samples analyzed by the Massachusetts DPH Drug Analysis Laboratory show that cocaine and crack submissions for Greater Boston accounted for 51 percent of all drugs analyzed in 1993; that proportion declined to 26 percent in 2000 and then rose to 33 percent in 2001. Lab submissions of powder cocaine climbed to 22 percent in 2001, the highest proportion (and highest absolute number) ever recorded for these data, while crack submissions increased slightly, from 8 percent to 10 percent.

Arrests by Boston Police for Class B substances (cocaine and derivatives) dropped from 45 percent of all drug-related arrests in 1999 to 41 percent in 2000; Class B arrests rose slightly to 42 percent in 2001 (exhibit 3). This is still well below the all-time high of 66 percent in 1992. Crack remains the predominant form of cocaine in the inner city, although some key informants indicate that powder cocaine has become more available.

From October 2001 through March 2002, cocaine or crack was mentioned in 15 percent of calls made from Boston to the Massachusetts Substance Abuse Information and Education Helpline in which drugs were specified, which was consistent with earlier periods. By contrast, alcohol was mentioned in 37 percent and heroin was mentioned in 26 percent of the calls.

In 2000, cocaine was mentioned in 34 percent of drug-related deaths reported by DAWN MEs in the Boston MSA, down from 52 percent in 1996.

Females and Blacks continue to be disproportionately represented among Greater Boston cocaine treatment clients when compared to the treatment population as a whole or to admissions for other primary drugs (exhibits 4, 5A, and 5B). In FY 2001, 38 percent of all admissions who reported cocaine or crack as their primary drug were female. Of the cocaine/crack admissions, Blacks constituted 60 percent, while White admissions accounted for 26 percent. Cocaine admissions continue to age: the proportion of those 30 or older increased from 65 percent in FY 1996 to 85 percent in FY 2001, compared with 70 percent for heroin admissions in FY 2001. A higher proportion of the FY 2001 cocaine admissions had some involvement with the criminal justice system (35 percent), compared with admissions in FY 1996 (25 percent). More reported a mental health problem (32 percent) in FY 2001 than in FY 1996 (24 percent).

The DEA reported steady and wide availability of powder cocaine and crack cocaine. During October 2001–March 2002, the DEA reported powder cocaine prices of \$50–\$100 per gram (13–85 percent pure), \$700–\$1,800 per ounce (13–85 percent pure), and \$22,000–\$35,000 per kilogram (30–95 percent pure), with prices and purity somewhat more variable than in earlier periods. Crack, most of which is converted locally, is being sold at \$10–\$100 per rock and \$10–\$50 per vial, with purity ranging from 30 to 90 percent. The preferred variety of crack, described as hard, white, and pure, is called “Mighty White.” Crack injection is still reported both in Boston and in western Massachusetts. State Police reported that cocaine samples have been adulterated with caffeine, procaine, lidocaine, benzocaine, and creatine, and cut primarily with inositol. The primary source for cocaine continues to be Colombia, with trafficking via the Dominican Republic, Puerto Rico, Florida, Texas, California, New Jersey, and New York. Several key informants from law enforcement, shelters, and treatment programs reported a recent increase in availability and use for powder cocaine and crack.

### Heroin

Heroin indicators are mixed after a long period of overall increases. Widely available, low cost, and very pure heroin is still reported by key informants as the main factors for heroin abuse. Although the proportions of heroin arrests and ED mentions among all arrests and ED mentions are down slightly, primary heroin admissions constitute by far the largest percentage of illicit drug admissions in Greater Boston’s publicly funded treatment programs (42 percent). Heroin accounted for 74.5 percent of illicit drug admissions (excluding primary alcohol admissions).

The proportion of heroin mentions in Boston ED drug-related episodes rose from 20 percent in 1998 to 27 percent in the second half of 2000 and dropped to 25 percent in the first half of 2001 (exhibit 1). The proportion of State-funded treatment admissions in Greater Boston who reported using heroin in the month before entering treatment increased steadily from 23 percent in FY 1994 to 39 percent in FY 2001 (exhibit 2). The proportion of admissions reporting heroin as their primary drug rose from 29 percent in FY 1996 to 42 percent in FY 2001. In 2001, heroin arrests accounted for 26 percent of all drug arrests in Boston, down slightly from 27 percent in 2000 (exhibit 3) but well above the 13 percent recorded in 1992. Heroin was mentioned in 53 percent of all drug-related deaths reported in the Boston MSA by DAWN MEs, compared with 49 percent in 1999.

Data from the DPH Drug Analysis Laboratory show that heroin submissions rose slightly from 17 percent of all submissions in 2000 to 19 percent in 2001. In the last quarter of 2001 and first quarter of 2002, heroin was mentioned in 26 percent of the Massachusetts Substance Abuse Information and Education Helpline calls that identified particular substances, similar to earlier periods.

Among primary heroin/opiate users admitted to State-funded treatment programs in the Greater Boston area during 2001, the majority were male (76 percent), with Whites constituting the largest racial/ethnic group at 50 percent (exhibit 5A). The average age was 35; 73 percent had an annual income of less than \$1,000, and 29 percent were homeless. Compared with other admissions, primary heroin/opiate admissions had the smallest proportion of Blacks (21 percent) and the lowest percentage of clients involved with the criminal justice system (22 percent) or with mental health problems (18 percent). Injection remained the preferred route of administration for most of these admissions (65 percent), while intranasal use was reported by 29 percent, a decrease from 33 percent in FY 1999.

Police contacts and the DEA continue to report wide availability, low prices, and high purity for heroin. Prices reported by the New England DEA for October 2001–March 2002 were \$3,100–\$5,000 per ounce and \$120,000 per kilogram, both comparable to earlier periods. Purities ranged from 50 to 90 percent, with maximum purity reaching 95 percent. Bag prices ranged from \$4 to \$20. State Police report that heroin is cut primarily with manitol and is and commonly adulterated with procaine and caffeine. More heroin samples with multiple adulterants have been analyzed recently.

According to the DEA, most heroin is transported from New York to be distributed in Providence, Rhode Island, and major Massachusetts cities, including Boston, Springfield, Lawrence, Lowell, Lynn, Brockton, Worcester, Fall River, and Holyoke. The main heroin source for New England remains Colombia, and trafficking is dominated by Dominican nationals. Boston contacts reported that heroin (“diesel”) now often comes in brown granular chunks of compressed powder, is purchased by the gram, and then is resold in dose amounts in small, folded glassine bags.

### Other Opiates/Narcotics

There has been a significant rise in narcotic analgesic combinations in Boston ED data. Mentions of hydrocodone-acetaminophen (Vicodin) rose from 94



in 1999 to 196 in 2000, while mentions of oxycodone (OxyContin) and oxycodone-acetaminophen (Percocet) rose from 290 in 1999 to 590 in 2000. The DPH Drug Analysis Laboratory reported 138 confirmed oxycodone samples for Greater Boston in 2001, down slightly from 145 in 2000. Synthetic opiates were mentioned in 8 percent of calls to the Helpline between October 2001 and March 2002. Boston police, treatment providers, and outreach workers continued to report OxyContin as a major street drug of abuse, especially among young White residents. Users often crush and snort the drug. The street price is about \$1 per milligram. Users who develop an OxyContin habit reportedly shift to heroin as a much cheaper, more widely available alternative. State Police reported that the number and size of OxyContin seizures has dropped, and pharmacy thefts targeting OxyContin have declined slightly over the first 5 months of 2002, perhaps because of the success in apprehending criminal gangs that specialized in trafficking this drug. The DEA reported that OxyContin is being diverted from legitimate distributors in Mexico, Canada, and Europe.

Teenage focus groups reported that opium was occasionally available, and opium was mentioned in a small number of calls to the Massachusetts Substance Abuse Information and Education Helpline. Treatment providers in western Massachusetts reported that opium is being smoked by local college students. However, State Police have not confirmed any analyses of true opium in their submissions.

## Marijuana

Marijuana remains widely available in the Boston MSA and throughout Massachusetts, with indicators stable or up slightly. Use is considered to be virtually normal among youth, according to focus groups.

DAWN mentions of marijuana rose slightly from 20 percent of all episodes in 2000 to 21 percent in the first half of 2001 (exhibit 1). The proportion of State-funded Greater Boston treatment admissions reporting past-month marijuana use has been steady over the past 3 years at 13–14 percent (exhibit 2). The proportion of Boston police arrests for marijuana rose slightly from 28 percent of all drug-related arrests in 1999 to 29 percent in 2000 and remained at 29 percent in 2001, which is the highest level for marijuana arrests yet recorded in these data (exhibit 3). According to police contacts, most arrests are for small quantities and involve juveniles and young adults.

As in prior years, primary marijuana admissions constituted only a small proportion (4.3 percent) of those in treatment in 2001. Compared with primary cocaine and heroin admissions, they were more likely

to be young (average age 24), male (78 percent), and have criminal justice system involvement (55 percent) (exhibit 5B). The percentage of Whites among marijuana clients declined and leveled off, from 35 percent in FY 1996 to 28 percent in FY 1999 through FY 2001. The proportion of Hispanic clients rose from 18 to 23 percent between FY 1996 and FY 1999 and totaled 22 percent in FY 2001. Primary marijuana admissions were most likely to use alcohol as a secondary drug.

Police department marijuana submissions to the DPH Drug Analysis Laboratory for 2001 declined slightly to 34 percent of all drug samples analyzed, still the highest for any drug. From October 2001 to March 2002, marijuana was mentioned in 5 percent of all Massachusetts Substance Abuse Information and Education Helpline calls that specified particular drugs, which is similar to prior periods.

According to the DEA, marijuana continues to be readily available. Between October 2001 and March 2002, an ounce of commercial-grade marijuana reportedly cost \$200–\$250 and a pound cost \$800–\$1,500; sinsemilla cost \$100–\$600 per ounce and \$1,000–\$6,000 per pound. Some local grows continue, but most marijuana appears to be shipped overland or via delivery services from Mexico and the Southwest United States, as well as from Jamaica and Colombia. Good profit margins and relatively weak penalties are incentives to traffic in marijuana, according to police contacts.

According to focus groups with teens, blunts remain the most popular means of smoking cannabis, followed by bong, pipes, and hand-rolled joints. However, one contact reported that tobacco control efforts in Boston are reducing the availability of cigars for making blunts, prompting more use of cigarette rolling papers. Teens in focus groups reported that their peers regard marijuana use as uncontroversial and less risky than using other substances, including tobacco.

## Stimulants

Stimulant indicators remain very low in the Boston area, but reports continue to suggest that amphetamine and methamphetamine are available, if not widely used. Fewer than 15 methamphetamine ED mentions have been reported each year in Boston between 1996 and 2000 (exhibit 1). Less than 1 percent of all Greater Boston area treatment admissions in FY 2001 reported past-month amphetamine use. Similarly, amphetamine submissions to the DPH Drug Analysis Laboratory remain infrequent, and Boston police contacts reported few if

any cases involving amphetamine or methamphetamine. However, ED mentions for amphetamine have risen from less than 10 in 1997 to 369 in 2000, suggesting that availability of amphetamine has increased on the street. Boston police reported that khat, an unscheduled North African stimulant, is sometimes encountered among immigrant Somali and Ethiopian populations.

State Police indicated that methamphetamine seizures remain infrequent in Massachusetts, and that most shipments originate in California. Users are generally students and young adults, especially those who frequent raves or have recently arrived from the West Coast, where crystal methamphetamine (“ice”) is common. Biker gangs also remain among the traditional methamphetamine users. Given the popularity and availability of cocaine and heroin, it seems unlikely that methamphetamine will become a street drug of choice in Boston, as it has in some West Coast cities. According to the DEA, methamphetamine prices held steady at \$8,000–\$24,000 per pound, \$800–\$1,900 per ounce, and \$70–\$200 per gram during the October 2001–March 2002 time period. The DEA reports that most methamphetamine in New England is found in Maine and New Hampshire.

### Depressants

Boston ED data show that benzodiazepines were mentioned in 20 percent of drug-related episodes in 2000, down from 23 percent in 1999. Among clients entering treatment in Greater Boston in FY 2001, 7 percent reported using tranquilizers in the past month. Class E substances (prescription drugs) accounted for less than 1 percent of all drug arrests in Boston for 2000 (exhibit 3). Prescription drugs such as clonazepam (Klonopin), diazepam (Valium), alprazolam (Xanax), and lorazepam (Ativan) were mentioned in 3 percent of all calls to the Massachusetts Substance Abuse Information and Education Helpline that specified particular drugs, with clonazepam the most frequently mentioned. Treatment contacts continued to report that abuse of benzodiazepines is common among illicit drug users, while State Police reported a recent increase in Class E submissions to their lab.

### Hallucinogens

Phencyclidine (PCP) and lysergic acid diethylamide (LSD) ED mentions remained quite low through the first half of 2001 (exhibit 1). Less than 1 percent of Greater Boston admissions to State-funded treatment programs during FY 2001 reported past-month use of hallucinogens. Since 1993, hallucinogens have

accounted for less than 1 percent of the drug samples analyzed statewide by the DPH Drug Analysis Laboratory. The DEA reported that PCP was rare in most of New England, except for metropolitan areas in Connecticut.

Despite low treatment and ED indicators for hallucinogens, use of LSD, psilocybin mushrooms (“shrooms”), and mescaline among adolescents and young adults is not uncommon, as indicated by focus group participants and treatment providers. State Police reported that seizures of these drugs are highly variable and typically increase around the time of large outdoor rock concerts in the spring and summer. LSD prices reported by the DEA were steady at \$5 per street dosage unit and \$300 per 100-dosage units in the October 2001–March 2002 reporting period. So-called “candy-flipping”—combining methylenedioxyamphetamine (MDMA) with LSD—was reported as popular by some teen focus group participants.

### Club Drugs

State Police report that seizures of MDMA, known popularly as ecstasy or “E,” have declined markedly. Some suspected MDMA cases have turned out to be dextromethorphan (DXM) or so-called “herbal” ecstasy containing the legal stimulant ephedra (ma huang). However, the DEA still reports many seizures and widespread availability of MDMA. Ecstasy has not appeared in treatment indicators, and only a few Massachusetts Substance Abuse Information and Education Helpline calls involved this drug. Adolescent focus group participants in Massachusetts indicated that the novelty of MDMA may have subsided, and teens in these groups spoke of negative effects that they and their peers have experienced with excessive ecstasy use. These data suggest that MDMA, although still widely used among youth and young adults, may have passed its peak in popularity. MDMA use was characterized by most contacts as still primarily a White, middle-class phenomenon, partially because of its relatively high cost. However, two sources in Boston reported that use and distribution of MDMA were increasing among non-White city youth. Teens in focus groups reported that some users become psychologically dependent on MDMA and “chase” the first ecstatic experience by taking more and more of the drug. Depression was reported as a consequence of frequent MDMA use. The DEA reported an MDMA retail price of \$15–\$30 per tablet. MDMA purity reported by the State Police lab remained high, with caffeine the most common adulterant.

Compared to ecstasy, other club drugs such as gamma hydroxybutyrate (GHB), ketamine (“Special

K”), and flunitrazepam (Rohypnol or “roofies”) were mentioned much less frequently by key informants and treatment providers. The State Police lab reported only occasional submissions of ketamine and gamma butyrolactone (GBL), a GHB precursor. Flunitrazepam use remains rare, according to most sources. The DEA reported ketamine to be widely available in Rhode Island but less so in Massachusetts, with sources including local veterinarian clinics and Mexico.

### **Other Drugs**

Needle exchange personnel in Boston and in western Massachusetts have reported occasional visits by steroid-injecting clients, who request extra-large needles for intramuscular injection. These clients tend to be young, heterosexual, male bodybuilders seeking a quick increase in muscle mass reputedly made possible by steroids, which are widely available via the Internet and through connections at gyms. The needle exchanges also reported injection of illicitly purchased hormones by transgendered youth. The

State Police lab continued to report steroid submissions, some originating from Russia and Eastern Europe.

The recreational, nonprescription use of sildenafil citrate (Viagra), especially in combination with MDMA, continued to be reported by police contacts.

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

Through November 1, 2001, a cumulative total of 16,629 adult/adolescent AIDS cases had been reported in Massachusetts (exhibit 6). Of these, injection drug use accounted for 35 percent, while male-to-male sex accounted for 38 percent. During 2000, 639 new adult/adolescent AIDS cases were reported in the State, down from 877 cases in 1999. Preliminary data show that injection drug users accounted for 32 percent of these cases, down from 38 percent in 1999. Injection drug use has been the greatest single factor in AIDS incidence in Massachusetts since 1993.

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**Exhibit 1. Estimated ED Mentions in Boston for Selected Drugs as a Percentage of Total Drug Episodes<sup>1</sup>: July 1996–June 2001<sup>2</sup>**

Drug	1996		1997		1998		1999		2000		2001 <sup>3</sup>											
	Jul-Dec		Jan-Jun		Jul-Dec		Jan-Jun		Jul-Dec		Jan-Jun											
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)										
Alcohol-in-Combination	2,559	(40)	2,575	(41)	2,315	(39)	2,545	(38)	2,585	(37)	2,545	(38)	2,229	(38)	2,211	(38)	2,361	(33)	2,615	(34)	2,633	(33)
Cocaine	1,941	(30)	1,660	(26)	1,672	(28)	2,051	(30)	2,475	(36)	2,051	(30)	1,722	(30)	1,838	(31)	1,883	(26)	2,217	(29)	2,207	(28)
Heroin/Morphine	1,402	(22)	1,271	(20)	1,229	(21)	1,358	(20)	1,380	(20)	1,360	(24)	1,360	(24)	1,500	(26)	1,820	(25)	2,048	(27)	1,961	(25)
PCP	...	...	11	(<1)	12	(<1)	10	(<1)	11	(<1)	5	(<1)	5	(<1)	2	(<1)	4	(<1)	7	(<1)	5	(<1)
LSD	22	(<1)	27	(<1)	10	(<1)	18	(<1)	35	(<1)	25	(<1)	25	(<1)	19	(<1)	11	(<1)	31	(<1)	18	(<1)
Amphetamine	45	(1)	...	...	...	...	85	(1)	95	(1)	115	(2)	100	(2)	196	(2)	196	(3)	173	(2)	185	(2)
Methamphetamine	...	...	4	(<1)	9	(<1)	3	(<1)	3	(<1)	8	(<1)	...	...	...	...	7	(<1)	...	...	4	(<1)
Marijuana/Hashish	1,036	(16)	921	(14)	847	(14)	1,484	(22)	1,423	(21)	967	(17)	993	(17)	1,425	(20)	1,425	(20)	1,520	(20)	1,643	(21)
<b>Total Drug Episodes</b>	<b>6,427</b>		<b>6,357</b>		<b>5,868</b>		<b>6,739</b>		<b>6,917</b>		<b>5,784</b>		<b>5,885</b>		<b>7,230</b>		<b>7,672</b>		<b>13,352</b>		<b>7,946</b>	
<b>Total Drug Mentions</b>	<b>11,775</b>		<b>11,738</b>		<b>10,654</b>		<b>12,236</b>		<b>12,640</b>		<b>10,504</b>		<b>10,715</b>		<b>12,511</b>		<b>13,352</b>		<b>13,813</b>			

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

<sup>2</sup> Estimate does not meet standard of precision or is less than 10.

<sup>3</sup> Preliminary data.

SOURCE: DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Percentage of Admissions to State-Funded Substance Abuse Treatment Programs by Drugs Used in the Past Month in Greater Boston and the Remainder of Massachusetts<sup>1</sup>; FY 1994–FY 2001<sup>2</sup>**

Drug Used in Past Month by Area	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Greater Boston								
Alcohol	62	59	58	60	58	59	58	56
Heroin/Other Opiates	23	28	29	28	32	34	35	39
Cocaine/Crack	39	40	37	34	29	30	28	25
Marijuana	16	16	16	16	14	14	13	13
Other <sup>3</sup>	7	7	8	8	9	9	10	10
<b>Total (N)</b>	<b>(20,968)</b>	<b>(23,282)</b>	<b>(24,363)</b>	<b>(25,470)</b>	<b>(26,505)</b>	<b>(24,653)</b>	<b>(24,478)</b>	<b>(25,269)</b>
Remainder of Massachusetts								
Alcohol	62	60	60	59	57	56	54	51
Heroin/Other Opiates	21	23	25	25	29	31	33	34
Cocaine/Crack	25	26	25	22	20	21	20	19
Marijuana	16	16	18	17	18	18	17	16
Other <sup>3</sup>	8	10	10	10	10	10	11	11
<b>Total (N)</b>	<b>(72,846)</b>	<b>(76,414)</b>	<b>(73,801)</b>	<b>(77,673)</b>	<b>(86,297)</b>	<b>(87,848)</b>	<b>(90,919)</b>	<b>(91,852)</b>

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

<sup>2</sup> Fiscal years begin on July 1 and end on June 30.

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

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

**Exhibit 3. Boston Police Department Arrests by Class of Substance<sup>1</sup>: January 1996–December 2001**

Class	1996		1997		1998		1999		2000		2001	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
A—Heroin and other opiates	1,148	(22)	1,508	(23)	1,061	(23)	984	(24)	1,022	(27)	905	(26)
B—Cocaine and derivatives	2,791	(53)	3,122	(47)	2,225	(48)	1,847	(45)	1,532	(41)	1,428	(42)
C—Hashish	37	(1)	61	(1)	81	(2)	57	(1)	50	(1)	N/A	
D—Marijuana	1,127	(21)	1,745	(26)	1,211	(26)	1,133	(28)	1,093	(29)	982	(29)
E—Prescription drugs	34	(1)	50	(1)	38	(1)	26	(1)	20	(<1)	N/A	
All others <sup>2</sup>	147	(3)	122	(2)	48	(1)	50	(1)	53	(1)	111 <sup>3</sup>	(3)
<b>Total</b>	<b>5,284</b>		<b>6,608</b>		<b>4,664</b>		<b>4,097</b>		<b>3,770</b>		<b>3,426</b>	

<sup>1</sup> Includes all arrests made by the Boston Police Department (i.e., arrests for possession, distribution, manufacturing, and trafficking).

<sup>2</sup> Includes possession of hypodermic needles, conspiracy to violate false substance acts, and forging of prescriptions.

<sup>3</sup> All others for 2001 includes Class C and Class E drugs.

SOURCE: Boston Police Department, Office of Planning and Research

**Exhibit 4. Characteristics of Admissions to Greater Boston State-Funded Substance Abuse Treatment Programs<sup>1</sup> by Percent: FY 1995–FY 2001<sup>2</sup>**

Characteristic	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Gender							
Male	73	72	72	75	74	76	77
Female	27	28	28	25	26	24	23
Race							
White	44	45	47	47	48	48	48
Black	39	38	35	33	32	32	30
Hispanic	13	14	14	15	16	16	18
Other	4	4	3	4	4	4	4
Age at Admission (Average age)	(34.2)	(34.6)	(35.1)	(35.5)	(36.5)	(36.7)	(36.5)
<19	2	2	3	3	2	2	2
19–29	31	29	25	24	22	21	22
30–39	42	42	43	42	41	40	38
40–49	19	20	22	23	27	29	29
50+	6	6	7	8	9	9	9
Marital Status							
Married	12	11	10	10	10	10	10
Separated/divorced	22	22	22	22	21	19	18
Never married	66	68	68	68	69	71	72
Annual Income							
<\$1,000	55	56	59	58	58	62	64
\$1,000–\$9,999	28	29	26	26	26	21	19
\$10,000–\$19,999	10	9	9	9	8	9	8
\$20,000+	7	7	7	7	8	8	9
Homeless	20	24	32	31	31	30	34
Criminal Justice System Involvement	25	27	26	26	28	27	26
Mental Health							
No prior treatment	78	77	79	77	76	78	78
No treatment but has problem	6	5	3	3	3	3	2
Prior treatment (counseling or hospitalization)	16	18	18	21	21	20	19
Needle Use in Past Year	21	21	22	25	26	26	27
<b>Total (N)</b>	<b>(23,282)</b>	<b>(24,363)</b>	<b>(25,470)</b>	<b>(26,505)</b>	<b>(24,653)</b>	<b>(24,478)</b>	<b>(25,269)</b>

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

<sup>2</sup> Fiscal years begin on July 1 and end on June 30.

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

**Exhibit 5A. Characteristics of Primary Cocaine and Heroin Admissions in Greater Boston State-Funded Treatment Programs by Drug of Choice<sup>1</sup> and Percent: FY 1996–FY 2001<sup>2</sup>**

Characteristic	Cocaine/Crack					Heroin/Opiates						
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Gender												
Male	59	60	60	59	59	62	70	69	72	72	75	76
Female	41	40	40	41	41	38	30	31	28	28	25	24
Race/Ethnicity												
White	25	24	23	22	23	26	50	49	47	49	51	50
Black	64	63	64	63	65	60	25	25	24	24	22	21
Hispanic	9	10	10	11	10	12	21	21	23	22	23	25
Other	3	2	3	3	3	3	4	4	6	5	5	5
Age at Admission (Average age)												
<19	(32.6)	(32.8)	(33.7)	(35.2)	(35.5)	(36.0)	(34.0)	(34.5)	(34.6)	(35.2)	(35.3)	(35.1)
19–29	1	1	1	1	<1	1	1	1	1	1	<1	1
30–39	35	31	28	19	18	15	30	28	29	27	27	29
40–49	50	53	53	56	55	55	45	45	42	42	40	39
50+	13	13	16	21	23	26	21	24	24	25	27	25
Marital Status												
Married	10	9	10	11	10	11	12	11	10	10	11	10
Separated/divorced	17	16	19	18	16	17	22	22	21	20	19	17
Never married	73	75	71	71	74	72	66	68	69	70	70	73
Annual Income												
<\$1,000	59	59	56	56	59	58	61	67	67	67	72	73
\$1,000–\$9,999	29	28	28	28	24	22	29	23	23	23	16	15
\$10,000–\$19,999	7	8	11	10	10	11	7	6	6	6	7	6
\$20,000+	5	5	5	6	7	9	4	4	4	4	5	6
Homeless	24	28	27	23	21	24	19	28	26	26	22	29
Criminal Justice Involvement	25	25	29	34	34	35	23	20	19	22	22	22
Mental Health Problem	24	23	26	29	30	32	24	19	20	21	18	18
Needle Use in Past Year	6	5	5	6	5	7	61	64	63	63	63	58
<b>Total (N)</b>	<b>(5,526)</b>	<b>(4,920)</b>	<b>(3,869)</b>	<b>(3,165)</b>	<b>(2,837)</b>	<b>(2,283)</b>	<b>(7,079)</b>	<b>(7,359)</b>	<b>(9,240)</b>	<b>(8,915)</b>	<b>(9,137)</b>	<b>(10,553)</b>

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

<sup>2</sup> Fiscal years begin on July 1 and end on June 30.

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



**Exhibit 5B. Characteristics of Primary Marijuana and Alcohol Admissions in Greater Boston State-Funded Treatment Programs by Drug of Choice<sup>1</sup> and Percent: FY 1996–FY 2001<sup>2</sup>**

Characteristic	Marijuana					Alcohol						
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Gender												
Male	82	76	79	76	73	78	79	80	81	81	82	82
Female	18	24	21	24	27	22	21	20	19	19	18	18
Race/Ethnicity												
White	35	37	30	28	28	28	52	55	56	55	55	51
Black	43	39	45	44	47	46	33	30	30	30	31	32
Hispanic	18	20	22	23	21	22	12	12	11	12	12	14
Other	3	4	4	4	4	3	4	3	3	3	3	3
Age at Admission (Average age)												
<19	(24.3)	(24.0)	(23.8)	(25.1)	(25.4)	(24.2)	(36.9)	(37.5)	(38.1)	(39.1)	(39.4)	(39.2)
19–29	26	33	34	24	19	27	2	2	2	1	1	1
30–39	53	43	44	50	56	51	22	19	17	15	14	14
40–49	16	18	17	17	18	16	40	40	41	39	38	36
50+	4	5	5	6	5	6	24	26	27	32	34	35
	1	1	1	2	2	1	12	13	13	14	14	14
Marital Status												
Married	6	6	6	4	5	5	11	10	10	10	10	10
Separated/divorced	6	5	5	6	7	6	25	25	26	24	22	21
Never married	88	89	89	90	88	89	64	65	64	66	68	69
Annual Income												
<\$1,000	60	58	55	59	55	57	51	54	53	51	55	57
\$1,000–\$9,999	26	28	28	26	27	22	29	27	27	28	24	22
\$10,000–\$19,999	9	10	11	10	12	13	11	10	10	10	10	9
\$20,000+	5	5	6	4	6	8	10	9	10	11	11	12
Homeless	9	8	7	9	10	11	30	38	40	40	41	43
Criminal Justice System Involvement	55	47	55	62	57	55	29	27	28	28	26	25
Mental Health Problem	31	41	32	28	31	29	21	20	23	24	23	22
Needle Use in Past Year	2	1	2	2	2	2	4	4	4	4	5	4
<b>Total (N)</b>	<b>(995)</b>	<b>(1,119)</b>	<b>(1,143)</b>	<b>(1,125)</b>	<b>(1,109)</b>	<b>(1,098)</b>	<b>(10,490)</b>	<b>(11,833)</b>	<b>(11,980)</b>	<b>(11,154)</b>	<b>(11,099)</b>	<b>(11,025)</b>

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

<sup>2</sup> Fiscal years begin on July 1 and end on June 30.

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

**Exhibit 6. Incidence of Massachusetts Adult/Adolescent AIDS Cases by Exposure Category by Percent: January 1993 to December 2000, and Cumulative Through November 1, 2001**

Mode(s) of Exposure	1993	1994	1995	1996	1997	1998	1999	2000	Cumulative as of 11/1/01
Men/Sex/Men (MSM)	36	32	31	30	27	26	23	22	38
Injection Drug User (IDU)	40	39	42	39	40	34	38	32	35
MSM/IDU	4	4	4	3	3	2	2	1	4
Transfusion/Blood Components	2	1	2	2	1	1	<1	1	2
Heterosexual <sup>1</sup>	10	13	12	15	13	13	12	15	10
Undetermined/Other	8	10	9	11	16	23	24	28	11
<b>Total Adult/Adolescent Cases</b>	<b>1,733</b>	<b>1,459</b>	<b>1,365</b>	<b>1,126</b>	<b>883</b>	<b>906</b>	<b>877</b>	<b>639</b>	<b>16,629</b>

<sup>1</sup> Includes persons who have had heterosexual contact with high-risk individuals (e.g., IDUs); as of 4/1/96, heterosexual cases formerly based on Pattern II criteria are classified as undetermined.

SOURCE: Massachusetts Department of Public Health, AIDS Surveillance Program

# Patterns and Trends of Drug Abuse in Chicago

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## ABSTRACT

*Emergency department (ED) mentions that stabilized at high levels and increased treatment admissions indicate continued high levels of heroin use in Chicago during 2001. Between the first halves of 2000 and 2001, heroin ED mentions did not change significantly, following the national trend. However, the rate of heroin ED mentions per 100,000 population in Chicago increased 163 percent from 1994 to 2000 and 29 percent between 1999 and 2000. Indicators of cocaine use have leveled off from previous increases, and some are beginning to show a slight decline. Many cocaine indicators, however, remain the highest for all substances except alcohol. Cocaine purity increased in 2001 following declines from 1998 levels. Marijuana use, alone and in combination with other drugs, appears to be increasing throughout the Chicago metropolitan area. Most indicators of ecstasy continue to increase and remain highest among White youth. Methamphetamine indicators suggest continuing low levels of use in Chicago. The proportion of new AIDS cases attributed to drug injection continues to increase, especially among women.*

## 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 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 65 or older.

### Data Sources

Most of this analysis highlights developments over the past few years; however, 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.

- **Emergency department (ED) drug mentions data** were provided by the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for 1994 through the first half of 2001; 2000–2001 ED data were unavailable for methamphetamine. Data for the first half of 2001 are preliminary.
- **Drug Treatment data** were provided by the Illinois Office of Alcoholism and Substance Abuse (OASA) and include admissions data in the State of Illinois for fiscal years (FYs) 1999–2001 (July 1–June 30).
- **Drug-related mortality data** were derived from the DAWN mortality system for 1998–2000. 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 Health (IDPH) Adverse Pregnancy Outcome Reporting System (APORS) reports through 1999. Data on deaths related to accidental drug poisonings, based on the International Classification of Diseases, Ninth Revision (ICD-9) codes on death certificates of Chicago residents for 1980–98 were also provided by IDPH and the Chicago Department of Public Health (CDPH); the report on deaths related to accidental drug poisonings has not been updated since the Chicago CEWG June 2000 report.
- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ) for

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1991 through 2001. Male and female arrestee urine toxicology results were from Treatment Alternatives for Special Clients (TASC); the 2000 data are based only on the first through third quarters and 2001 data are based only on the fourth quarter.

- **Heroin price and purity data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), for 1991 through the first half of 2001; the data are preliminary and subject to updating. Price and purity data on drug samples analyzed from August 1989 to February 2002 were provided by the Illinois State Police (ISP), Division of Forensic Science. Data on drug availability, demand, production, cultivation, and distribution for the State of Illinois were available from the Illinois Drug Threat Assessment, National Drug Intelligence Center, U.S. Department of Justice, in a report published in January 2001 (2001-SO382IL-001). Ethnographic data on drug availability, price, and purity are from observations and interviews conducted by the Community Outreach Intervention Projects (COIP), School of Public Health, University of Illinois at Chicago (UIC).
- **Survey data on student and household populations** were derived from several sources. OASA provided data from a statewide household survey to determine need for alcohol and other drug treatment services, funded by the Center for Substance Abuse (CSAT), as well as data from Illinois Youth Surveys among junior and senior high school students (1990, 1993, 1995, 1997, 1998, and 2000). (The 2000 survey does not include figures for heroin or methamphetamine use.) Data on student drug use were also derived from 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), and from the Chicago Youth Risk Behavior Survey (YRBS), as part of the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Surveillance System (1993–99). YRBS gathers data from a representative sample of Chicago public school students in grades 9–12 and is conducted every other year to monitor changes in the prevalence of behaviors that contribute to the leading causes of death, disease, and injury among the Nation’s youth.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV)**

**data** were derived from both agency sources and UIC studies. IDPH and CDPH surveys provided statistics on AIDS and HIV through November 2001. CDC’s “HIV/AIDS Surveillance Report,” June 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 1994–96 study of 794 IDUs, age 18–50, in Chicago (Ouellet et al. 2000) and a 1997–99 study of 700 IDUs, age 18–30, in Chicago and its suburbs (Thorpe et al. 2000; Bailey et al. 2001).

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 22 percent of all reported ED drug mentions in Chicago between January and June 2001 were alcohol-in-combination mentions, similar to proportions in nationwide reports.

In terms of public health impact, drug abuse causes significant morbidity and mortality. A trend analysis of death certificates suggests that absolute drug-related mortality in Chicago increased more than 30 percent over the 10-year period from 1989 to 1998. The total annual number of deaths from accidental drug poisonings rose from 256 in 1989 to a peak of 352 in 1993. In 1998, 344 deaths were listed as overdoses on death certificates.

According to DAWN medical examiner (ME) data, drug-related mortality for Chicago’s greater six-county region remained relatively stable from 1999 to 2000. The total number of drug abuse-related deaths

reported to DAWN ME sites in 2000 was 869, compared with 878 in 1999.

While DAWN ME cases and CDPH death certificates differ in the information they provide, both indicators suggest that total drug-related deaths have increased slightly over the last few years. Evidence of an increase is uniform across indicators. Drug-specific analyses later in this report provide more insight into factors that have shaped this overall drug mortality trend.

### Cocaine and Crack

In this reporting period, the majority of quantitative cocaine indicators were mixed, but they suggest that use has declined slightly or remained stable from peak use in the mid-1990s. While cocaine is still very prevalent in all indicator data sources, slight declines in reported use were noted in 2000 and 2001 indicators, after use appeared to stabilize at peak levels in 1997.

While not significant, cocaine ED mentions began to decline in the first half of 1998, only to rebound in 1999. The number of ED mentions decreased from 6,883 in the first half of 1998 to 6,150 in the first half of 1999, but increased to 7,287 in the first half of 2000 and to 8,063 in the first half of 2001. In terms of rates per 100,000 population, mentions decreased between the first halves of 1998 and 1999, from 117 to 104, and increased to 125 in the first half of 2001 (exhibit 1). Chicago had the most cocaine ED mentions among DAWN sites in 2000, with a rate of 246 per 100,000 population.

Cocaine ED mentions increased slightly across nearly every demographic group. Between the last half of 2000 and first half of 2001, cocaine ED mentions increased significantly (21 percent) among Whites. Slight but nonsignificant increases were reported for African-Americans and Hispanics. African-Americans continued to have the highest number of cocaine ED mentions (4,867), followed by Whites and Hispanics; however, race/ethnicity was unknown for 1,125 of the 8,063 cocaine ED mentions in the first half of 2001. In the first half of 2001, mentions increased for all age categories except the 20–25 group, with the 18–19 group experiencing a significant increase (41 percent). Males continued to account for more cocaine ED mentions than females, with slight increases for both genders.

According to DAWN ME data, deaths associated with cocaine increased 9 percent, from 468 in 1998 to 511 in 1999, but decreased 9 percent to 464 in 2000.

Of the 869 total drug abuse deaths in 2000, 464 (53 percent) had a mention of cocaine.

State-supported drug treatment programs report that cocaine abuse is still the most frequent reason for entering treatment (excluding primary alcohol-only abuse) (exhibit 2). A total of 31,321 cocaine-related admissions to treatment were reported in Illinois in FY 2001. This figure was virtually unchanged from the 31,468 admissions reported in FY 2000. Between 2000 and 2001, the proportion of cocaine-related admissions changed little among African-Americans, decreased 5 percent among Whites, and increased 9 percent among Hispanics. Cocaine-related admissions increased 5 percent for males, from 17,282 in 2000 to 18,066 in 2001; among females, cocaine-related admissions decreased 7 percent, from 14,186 in 2000 to 13,255 in 2001. Since 1995, the number of cocaine treatment admissions has remained relatively stable.

According to the 2001 fourth quarter ADAM report, the weighted data for adult male arrestees show that 45 percent tested cocaine-positive (exhibit 3a). Of the unweighted adult female arrestee sample, 67 percent tested positive for cocaine (exhibit 3b).

Based on analyses of drug seizures, the ISP crime labs indicate that cocaine purity remained relatively stable over the past decade until 2001. Across the State, the average purity of samples weighing 2–25 grams was 60–70 percent during 1991–99. As of December 2001, the average purity of 2–25-gram samples increased to 82 percent among Chicago seizures.

Cocaine prices and availability have historically been subject to wide variability. Ounce prices for powder cocaine were reported between \$400 and \$800, depending on the drug's quality and the buyer's relationship to the seller. Gram prices for cocaine during this reporting period ranged from \$80 to \$150, and in some areas one-eighth of an ounce (an "eightball") was said to sell for \$125–\$150. Ounces of crack cocaine ("rock") sell for about the same price as ounces of powdered cocaine. Bags of crack cocaine—the typical unit for street-level transactions—usually sell for \$5, \$10, or \$20. Grams and fractions of ounces are available—usually in off-street sales—and the typical buyers are said to be crack smokers who support their drug use through small-scale selling. Only one report was obtained for kilogram prices for powder cocaine: \$17,500. In comparison, the Illinois Drug Threat Assessment, using DEA data, estimated kilogram prices in 2000 as ranging from \$18,000 to \$25,000. Compared with

reports 5 and 10 years ago, current ounce prices are somewhat lower, gram prices are about the same or slightly higher, and bag prices are unchanged (unadjusted for inflation).

The Illinois Youth Survey indicates that between 1990 and 1993, the proportion of lifetime cocaine use among Chicago-area high school students decreased from 5 to 4 percent in the year prior to the survey. Results from the 1995 and 1997 surveys showed a slight rebound to 4 and 5 percent prevalence, respectively. In 2000, cocaine use prevalence remained at 5 percent. According to the MTF Study, cocaine and crack use decreased for all age groups (8th, 10th, and 12th graders) in 2001.

The 1999 Chicago YRBS of public school students in grades 8–12 showed similar levels of cocaine use among students in Chicago and nationwide. This finding parallels the downward trend reported among young people in the 2000 National Household Survey on Drug Abuse. Findings from the 1998 Illinois YRBS were discussed in the Chicago CEWG June 2000 report.

## Heroin

The rate of heroin/morphine ED mentions in Chicago increased significantly from 84 per 100,000 population in 1994 to 206 in 2000, an increase of nearly 163 percent. While there was no significant change between the first halves of 2000 and 2001, the rates of heroin ED mentions remained high (exhibit 1) and Chicago continued to rank third in heroin ED rates in the contiguous United States. The number of heroin ED mentions increased from 4,640 in the first half of 1999 to 6,109 in the first half of 2000 and remained stable in the first half of 2001 (6,011).

Within Chicago, heroin ED mentions were highest among African-Americans, followed by Whites and Hispanics. Recent increases, while not significant, have been greatest among Hispanics. Compared with the first half of 1999, heroin ED mentions in the first half of 2000 increased 14 percent among Whites, 27 percent among African-Americans, and 37 percent among Hispanics. However, in the first half of 2001, heroin ED mentions declined slightly across major demographic groups. In the first half of 2001, rates of ED mentions for heroin were higher among males than among females (109 vs. 77 per 100,000 population), but the rate declined significantly for women (9 percent) from the last half of 2000.

In 2000, 499 heroin deaths were reported by sentinel DAWN ME sites in the six-county Chicago area. This represents a 9-percent increase from the

previous year, when 456 heroin deaths were recorded. Heroin-related deaths have increased more than twofold from the late 1980s, when less than 200 per year were reported. Of the 869 total drug abuse deaths in 2000, 499 (57 percent) had a mention of heroin.

Health department death certificates also revealed a heroin mortality peak for the city of Chicago in 1993, with 143 certificates containing heroin-related ICD-9 codes. While death certificate mentions of heroin declined to 92 in 1996, this number still exceeds annual heroin-related deaths noted during the 1980s. Heroin-associated death certificates increased to 128 in 1997 and 130 in 1998, suggesting a relative rise in heroin-related overdose deaths in the past few years.

The number of heroin admissions in State-supported treatment programs in FY 2001 was 24,463, an increase of 23 percent from FY 2000 (exhibit 2). The proportion of heroin admissions who reported intranasal “snorting” as their primary route of administration remained high but declined slightly, from 72 to 68 percent between FYs 2000 and 2001.

Between 2000 and 2001, heroin-related admissions increased 21 percent among African-Americans, 30 percent among Whites, and 50 percent among Hispanics. Heroin-related admissions increased 23 percent for males, from 11,041 in 2000 to 13,615 in 2001; among females, heroin-related admissions also increased 23 percent, from 8,813 in 2000 to 10,848 in 2001.

According to 2001 fourth quarter ADAM data, 24 percent of adult male arrestees in Chicago tested positive for opiates. Figures were not available for female arrestees.

The DEA’s DMP makes street-level purchases of heroin in Chicago and analyzes them for content and purity. During the 1980s, Chicago’s heroin purity was among the lowest of any major metropolitan area (averaging 1–2 percent). Since then, the quality of street-level heroin has steadily increased, from an average purity of approximately 10 percent in 1991 to 31 percent in 1997; however, it declined to 25 percent in 1998 and 24 percent in 1999 (exhibit 4). In the first half of 2001, heroin purity in DMP samples averaged 24 percent. The price per pure milligram of heroin reached a low for the decade of \$0.58 in 1998, but increased to \$0.67 in 1999. In 2000, the price per pure milligram decreased to \$0.54, but it increased to \$0.66 in the first half of 2001.

DEA laboratory analyses confirmed that recent heroin exhibits in Chicago came predominantly from

South America and Southwest Asia, but Southeast Asian and Mexican varieties were also available. Southwest Asian heroin, which became more available in recent years, tends to have the highest purity levels on average. It seems likely, therefore, that there may be an increase in purity during 2002. The DEA estimated that in the first half of 2001, 50 percent of the heroin in Chicago was from South America.

On the street, heroin commonly is sold in \$10 and \$20 units (bags), though \$5 bags were also available. Prices for larger quantities vary greatly, depending on the type and quality of heroin, the buyer, and the area of the city where the heroin is sold. At outdoor drug markets, purchases of multibag quantities—versus grams and fractions of ounces—are the most common means of buying larger amounts of heroin. For example, buyers on the West Side can obtain 12 \$10 bags for \$100 (sometimes called a “jab”). Sunday sales of two bags for the price of one were also reported. In sales conducted off the street, gram prices for white and brown heroin generally were \$125–\$200, with some prices reported as low as \$50 (characterized as a “sale to drum up business”) and as high as \$300. There were reports of one-eighth of an ounce selling for \$175–\$200 and one-quarter of an ounce selling for about \$400. Differences in the cost of less than 1 ounce of white and brown heroin were small during the current CEWG reporting period, unlike during much of the 1990s.

According to the Illinois Drug Threat Assessment, this apparent merging of prices may be related in part to increases in the purity of Mexican brown heroin, so the product will remain competitive to heroin users who make less of a distinction between white and brown heroin. White heroin ranges in color from white to tan, and some users consider the latter to be brown heroin. Several reports suggested that when high-quality brown heroin is available, sellers of white heroin sometimes cook the milk sugar (“cut”) to make it brown before mixing it with heroin. This process results in heroin with a brownish color and is said to make the product more desirable. Black tar heroin also remains available, though mostly in Mexican neighborhoods, and is sold in \$10 and \$20 bags. Prices for grams and fractions of ounces were reportedly slightly higher than for white and brown heroin.

Between 1991 and 1996, nationwide there was a large proportional increase nationwide in heroin use among students in grades 8, 10, and 12, as reported in the MTF Study (Johnston et al. 2001). Heroin use in the MTF study peaked in 1996 among 8th graders, in 1998 among 10th graders, and in 2000 among 12th

graders. Student usage rates declined for all three groups in 2001.

Among Illinois high school students, however, 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. Results from surveys conducted every 2 years between 1990 and 1997 found that 1.3–1.5 percent of high school students reported past-year use. The youth subgroup reporting the highest level of use in 1990 was Hispanic males (3.1 percent), followed by African-American males (2.7 percent) and White males (2.4 percent). By 1995, the youth subgroup reporting the highest prevalence of past-year heroin use had changed to White males (2.6 percent), followed by African-American males (1.8 percent) and Hispanic males (1.5 percent).

APORS data indicate that opioid toxicity remained stable between 1995 and 1998 among infants who were tested for controlled substances. In 1995, 8 percent tested positive for opiates, including heroin, averaging 44 infants per quarter-year. In 1998, 9 percent of infants tested positive for opioids. Data from 1999 show a slight decline, with 7.1 percent testing positive.

### Other Opiates/Narcotics

Hydromorphone (Dilaudid), the pharmaceutical opiate once preferred by many Chicago IDUs, is available, though in limited quantities (typical sources are said to be cancer patients). It sells for approximately \$25 per tablet. Street sales of methadone are more common, with the drug typically costing \$1 per milligram.

Abuse of codeine, in both pill (Tylenol 3s and 4s) and syrup form, has been declining over the past decade. Codeine ED mentions totaled 61 in 1999, a slight increase from the 56 mentions in 1994, and increased to 83 in 2000. The increases were not significant. In 2000, 88 codeine-related deaths were reported from sentinel DAWN ME sites in the 6-county Chicago area, a 15-percent decrease from the previous year. On the street, codeine pills are available for \$1–\$4, and some dealers on the South Side specialize in their sale. These pills are used primarily by heroin users to moderate withdrawal symptoms or to help kick a drug habit.

Acetaminophen-codeine mentions increased significantly from 61 in 1999 to 100 in 2000, a 63.9-percent increase. While not a significant change, there were 281 hydrocodone/combination ED mentions in Chicago (the fourth highest among CEWG

cities). Methadone mentions increased significantly between 1994 ( $n=103$ ) and 2000 ( $n=307$ ).

Between 1999 and 2000, treatment admissions related to other opiate use increased 638 percent among African-Americans, 36 percent among Whites, and 240 percent among Hispanics. In 2001, treatment admissions decreased 6 percent for African-Americans and increased 35 percent for Hispanics and 39 percent for Whites. After increasing 159 percent for males, from 313 in 1999 to 810 in 2000, admissions increased only 7 percent to 870 in 2001. Among females, after increasing 98 percent, from 446 in 1999 to 883 in 2000, admissions increased 30 percent to 1,149 in 2001.

### Marijuana

In the 1990s, marijuana indicators increased, closely corresponding with the rise in popularity of blunt smoking, especially common among African-American youth in the 14–24 age group. Blunt smokers cut cigars open with a razor, remove the tobacco, and replace it with marijuana. Cigars without tobacco are reportedly for sale at certain stores. Some blunt smokers add crack or phencyclidine (PCP) to the blunt before smoking it.

The number of marijuana ED mentions remained relatively stable between the first halves of 2000 and 2001 and did not change significantly from 1994 to 2000, although numbers have increased. Marijuana ED mentions totaled 8,063 in the first half of 2001. Marijuana ED mentions in Chicago have been higher among African-Americans and Whites than among Hispanics since 1996. Although changes in the racial/ethnic composition have not been significant, a comparison between the first halves of 1999 and 2000 shows increases among Hispanics (43 percent) and African-Americans (4 percent), and a decrease of 8 percent for Whites. During the first half of 2001, marijuana ED mentions increased slightly for Whites (2 percent) and African-Americans (3 percent), but decreased for Hispanics (17 percent) when compared with the first half of 2000.

Compared with the first half of 2000, marijuana ED mentions in the first half of 2001 increased significantly for 18–25-year-olds (19.4 percent) and 20–25-year-olds (21.2 percent). Males continued to have more than twice as many mentions as females.

In FY 2001, marijuana users represented 17 percent of all treatment admissions in Illinois and 26 percent of admissions when those for primary alcohol abuse are excluded; these proportions are virtually unchanged from FY 2000 (16 percent and 26 percent,

respectively). However, total marijuana admissions increased from 18,842 in FY 1999 to 20,773 in FY 2000, and to 25,626 in FY 2001 (exhibit 2).

Between 2000 and 2001, marijuana-related treatment admissions increased 23 percent among African-Americans, 24 percent among Whites, and 28 percent among Hispanics. Marijuana-related admissions increased 23 percent for males, from 16,053 in 2000 to 19,825 in 2001; among females, marijuana-related admissions also increased 23 percent, from 4,720 in 2000 to 5,801 in 2001.

According to 2001 ADAM data, 52 percent of adult male and 33 percent of adult female arrestees tested positive for marijuana (exhibits 3a and 3b).

APORS data also show increases in marijuana use. Among the 2,304 Illinois infants who tested positive for controlled substances in 1995, 103 (4.5 percent) tested positive for marijuana. Positive tests increased to 6.0 percent in 1996, 7.5 percent in 1997, and 8.0 percent in 1998, evidencing a slow, continued upward trend. Data from 1999 show that 8.6 percent of all infants tested cannabis-positive.

The 1995 Illinois Youth Survey reflected a dramatic increase in marijuana use among youth. In 1990, 17 percent of students in the Chicago area reported marijuana use in the previous year, and use remained at approximately the same level in 1993. However, student reports of past-year marijuana use increased sharply to 28 percent in 1995 and to more than 30 percent in 1997. This trend of increasing use continued with a 38-percent prevalence in 2000. According to the MTF Study, student usage remained stable in 2001.

The 1995 Chicago YRBS showed that the proportion of high school respondents who reported ever using marijuana increased from 27 to 34 percent between 1993 and 1995. Similarly, the proportion who reported current marijuana use increased between those 2 years—from 14 to 19 percent. One in 12 respondents reported current use on school property. Compared with the Chicago-area sample polled in the Illinois Youth Survey, the Chicago YRBS revealed higher concentrations of marijuana users within Chicago's neighborhoods.

In general, currently available marijuana is of high quality. The abundance and popularity of marijuana across the city has led to an increased array of varieties and prices. The price for a pound of marijuana is reported to range from \$900 to \$4,000, depending on the type and quality. Ounces typically sell for about \$80–\$200. On the street, marijuana is



most often sold in \$5 and \$10 bags or as \$10 blunts; there were fewer reports of \$20 bags this period.

### Stimulants

Methamphetamine (“speed”) use in Chicago remains low, but it is more prevalent in many downstate counties. According to 2000 ADAM data, no male arrestees and only 0.3 percent of female arrestees in Chicago tested positive for methamphetamine. However, the most recent data from the ISP indicate that in December 2001, more methamphetamine was seized than cocaine or heroin in nearly 50 percent of Illinois counties. Even within Chicago, a low but stable prevalence of methamphetamine use has been reported in some areas of the city in the past 2 years, especially on the North Side, where young gay men, homeless youth, and “ravers” 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 to sites where methamphetamine is available.

Until 1999, ED figures for methamphetamine had been slowly increasing during the 1990s in Chicago. In 1999, ED mentions numbered 22, down from a high of 31 in 1998. However, it is too soon to determine whether the change in 1999 marks the beginning of a downward trend.

Methylphenidate (Ritalin) remains easily available in some South Side neighborhoods, where it is 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 \$3.00 each, depending on the quantity being purchased.

Amphetamine ED mentions have been increasing since 1994. Between the first halves of 2000 and 2001, mentions increased 55 percent, from 143 to 222.

Stimulants accounted for 4 percent of all State treatment admissions (excluding primary abuse of alcohol only) in FY 2001, up from 2 percent in FY 2000. Total stimulant admissions increased from 684 in FY 1999 to 1,270 in FY 2000; they nearly tripled to 3,771 in FY 2001 (exhibit 2). Between 2000 and 2001, stimulant/methamphetamine-related treatment admissions increased 487 percent among African-Americans, 141 percent among Whites, and 233 percent among Hispanics. Admissions increased 65 percent for males, from 1,270 in 2000 to 2,092 in 2001; among females, stimulant-related admissions increased 218 percent, from 528 in 2000 to 1,679 in 2001.

Based on the 2000 National Household Survey on Drug Abuse, annual prevalence of overall stimulant use in the U.S. population during the previous year was estimated at 0.3 percent. The 1997 Illinois Youth Survey shows that 6 percent of all Chicago-area students reported using stimulants in the previous year.

Methamphetamine prices have not changed significantly, with bags selling for \$20; however, many drug users still report that the drug is difficult to obtain.

### 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 increased 49 percent between the first halves of 2000 and 2001 (from 156 to 232 mentions).

ED mentions of benzodiazepines increased significantly between 1998 and 2000 (35 percent) and from 1999 (1,911 mentions) to 2000 (2,564), a 34-percent increase. In 2000, alprazolam (Xanax) was mentioned most often (146), followed by lorazepam (Ativan) (115), clonazepam (Klonopin) (113), and diazepam (Valium) (70). Consistent with ED mentions, alprazolam appears to be the benzodiazepine that is most readily available on the street, closely followed by lorazepam and clonazepam, with variations in different areas of the city.

Treatment admissions data confirm that depressants are not the primary drugs of choice for most users. From FY 1985 to FY 1996, primary depressant admissions represented less than 3 percent of all

those seeking drug treatment. Even though treatment admissions increased 19 percent from 1,693 in FY 2000 to 2,019 in FY 2001, primary depressant users still represented only about 2 percent of all treatment admissions.

According to APORS, the proportion of infants testing positive for depressants was less than 2 percent ( $n=22$ ) in 1998 and about 1.3 percent in 1999.

On the street alprazolam typically sells for \$2–\$3 for 0.5-milligram tablets and \$5–\$10 for 1-milligram tablets.

### Hallucinogens

Following a nonsignificant decrease in lysergic acid diethylamide (LSD) ED mentions from the first half of 1999 to the first half of 2000, an increase occurred between the first halves of 2000 and 2001, from 42 to 58. This increase was not significant and it is too soon to interpret the change as indicating an increase in LSD use.

According to some accounts by White youth, hallucinogenic mushrooms were available. Reported prices ranged from \$5 for individual doses to \$60 for one-quarter ounce.

Recent ED mentions for PCP and its combinations increased from 429 in the first half of 2000 to 504 in the first half of 2001. While this increase in PCP-related ED mentions was not significant, it comes after a short-lived decline between 1996 and 1998, suggesting that current trends in PCP use are unstable.

Another hallucinogen mentioned in ethnographic reports is nitrous oxide, which is usually inhaled from balloons. The effects of the drug are immediate and generally include auditory hallucinations. Nitrous oxide is typically used in combination with other drugs.

Recent trends in hallucinogen treatment admissions have been uneven, but overall admissions have been relatively high compared with trends earlier in the decade. Admissions increased steadily from 85 in FY 1992 to 550 in FY 1996. In FY 1997, treatment admissions dropped to 131, but rebounded to 455 in FY 1998 and to 401 in FY 1999 (exhibit 2). For FY 2000, treatment admissions were up again, to 517; they increased another 5 percent to 544 in FY 2001.

According to the 2001 ADAM report, 2.3 percent of adult male arrestees and 17.0 percent of adult female arrestees tested positive for PCP.

In the 2001 Illinois Youth Survey, 6 percent of high school students reported “any hallucinogen” use in the past year. This category includes LSD and PCP.

Ethnographic reports suggest that PCP use in Chicago has remained constant and that the drug can be found in all areas of the city. Users are easily able to identify drug-dealing locales in the city where PCP is readily available. The demographic characteristics of users vary widely and include suburban youth. PCP is typically smoked and is sold in three forms: “mint leaf,” “sherm sticks,” and “happy sticks.” Mint leaf (also known as “love leaf”) is a moist, loose, tobacco-like substance sprayed with PCP and wrapped in tinfoil. Some say the substance is marijuana, others say it looks and tastes like cigarette tobacco, while still others say it is parsley and point to the availability and frequent sales of bags of this herb in local stores. Sherm sticks typically are cigarettes dipped in PCP, drained, and dried. The cigarettes—most often Mores—are sold for \$20 each and are mainly available on the far South Side. Liquid PCP (“water”) was said to sell in units of \$65–\$120, but the quantity of PCP in these units was not made known. On the West side, 2–3 “sticks” about the size of toothpicks can be purchased for as little as \$10.

LSD hits, which cost \$5–\$20, are most commonly sold for \$5. LSD is available in the city and suburbs.

### Club Drugs

In the Chicago area, methylenedioxymethamphetamine (MDMA or ecstasy) is the most prominently identified of the club drugs used. In May 2001, 118,000 MDMA tablets (54 pounds), valued at \$3.5 million, were seized at O’Hare International Airport.

After a 67-percent increase in ED mentions for MDMA in Chicago from the first half of 1999 to the first half of 2000, mentions increased 16 percent, from 75 in the first half of 2000 to 87 in the first half of 2001. ED mentions per 100,000 population remained stable at 1.0 between the first halves of 1999 and 2001. Of all the CEWG sites, Chicago had the most MDMA ED mentions in 2001 (215). The number of mentions increased 760 percent from 1998 (25 mentions) to 2000, and nearly 109 percent from 1999 (103 mentions) to 2000. Ecstasy, once limited to the rave scene, can be found 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

continues to be sold in pill or capsule form, and the price range remains unchanged: \$20–\$40 per pill. Individuals with connections to suppliers or producers report prices as low as \$12–\$15 per pill. Ecstasy is usually sold at dance clubs, rave parties, house parties, or through individual dealers; it is typically used in social settings. Along with other club drugs, it continues to be used predominantly by White youth. (For more information on ecstasy in Chicago, see the Chicago CEWG June 2000 report.)

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 42 percent, from 88 in the first half of 2000 to 51 in the first half of 2001. ED mentions per 100,000 population remained at 1.0 between the first halves of 1999 and 2001, although there was a 42-percent decline.

GHB is sold as a liquid, in amounts ranging from drops (from a dropper at raves or parties) to capfuls. Prices for a capful have been reported at \$5–\$10. 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, often referred to as “Special K.” Ketamine ED mentions in 2000 were virtually unchanged from 1997 (from 16 to 17), and were too few to estimate in the first half of 2001. ED mentions per 100,000 (0.3) population also remained unchanged since 1997. Street reports indicate that ketamine is usually sold in \$15–\$20 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, 80 percent of the cumulative AIDS cases reported to date originate in the Chicago metropolitan area.

The most recent report on AIDS cases in Chicago indicates that by September 2000, 17,169 AIDS cases were reported to the CDPH. While new drug therapies continue to reduce the incidence of AIDS cases by delaying the onset of AIDS, the decline

appears to be leveling off. The proportion of cases among women tripled, from 7 percent in 1988 to 22 percent in 1997, and remained stable through 1999. African-Americans accounted for 68 percent of new AIDS cases in 1999, although they constituted only 36 percent of the Chicago population. Of the remaining new cases, 19 percent were among Whites and 12 percent were among Hispanics.

Between 1988 and 1999, IDUs as a proportion of AIDS cases increased from 16 to 24 percent, while the proportion of cases among men who have sex with men (MSM) declined from 71 to 38 percent. In 1999, 4 percent of cases occurred among homosexual or bisexual IDUs.

AIDS mortality rates in Chicago declined 7 percent in 1999. Declines were smaller for women and people of color, and they were lowest for IDUs.

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’ AIDS intervention and CIDUS studies provide additional information on the extent of HIV infection among IDUs. It should be noted, however, that the studies are not directly comparable, because each had unique sampling and recruitment strategies.

In the AIDS intervention study, 25 percent of the 850 IDUs tested at baseline in 1998 were HIV-positive. The rate of new infections dropped (from about 9 to 2 percent per person-year observed) over a 4-year time period (Wiebel et al. 1996).

For the CIDUS I study, a cohort of 794 active injectors was recruited in 1994–96 from inner-city Chicago neighborhoods for a longitudinal study. Race/ethnicity and age stratification were incorporated into the sampling design. The HIV prevalence within this cohort was lower than expected—18 percent. While the study did not evaluate a specific intervention, participants were exposed to a variety of HIV prevention activities, and a community-based organization had begun a needle exchange program that expanded during the study. The rate of new HIV infections among study participants was 1 percent per person-year observed (Ouellet et al. 2000).

In an ongoing evaluation of needle exchange programs, 18 percent of the 683 needle exchange users who enrolled between 1996 and 1998 were HIV seropositive. Preliminary data indicate a rate of new HIV infections in this group of 1 percent per person-year observed.

While HIV seroprevalence was only 3 percent among the 700 young (age 18–30) IDUs studied between 1997 and 1999, the participants reported high levels of HIV risk practices (Thorpe et al. 2001). Of particular concern is the finding that young IDUs living in the suburbs reported the highest rates of needle sharing of any group observed during the 1990s. The prevalence and incidence of hepatitis C virus (HCV) among this sample was 27 percent (Thorpe et al. 2000) and 10 percent per person-year observed (Thorpe et al. 2002), respectively. In this study, the sharing of paraphernalia other than needles—particularly cookers—was associated with new HCV infections.

Together, these findings suggest that HIV prevalence and the rate of new HIV infections have declined among IDUs in Chicago since peaking in the late 1980s. High rates of mortality among those infected early in the epidemic and the many HIV prevention activities taking place in Chicago almost certainly account for at least some of the observed reductions in infections. The findings also suggest that young IDUs, especially those in the suburbs, are engaging in high levels of HIV risk behavior and have avoided HIV infection only because they have yet to become integrated into social networks of older IDUs where infection is more common. Though the prevalence and incidence of HCV infection was high among young IDUs, the findings from these studies indicate that the time between the initiation of drug injection and subsequent infection with HCV is long enough for the majority of young IDUs to benefit from HCV prevention interventions that target young, new injectors.

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**Exhibit 1. Estimated Rate of ED Mentions Per 100,000 Population in Chicago for Selected Drugs by Half Year: 1994–2001**

Year	Cocaine	Heroin/Morphine	Marijuana	Methamphetamine
1994				
1H	86	41	18	... <sup>2</sup>
2H	105	44	22	11
1995				
1H	106	40	27	28
2H	82	44	24	...
1996				
1H	100	46	29	0.0
2H	120	63	33	0.0
1997				
1H	122	68	35	0.0
2H	125	80	41	0.0
1998				
1H	117	77	44	0.0
2H	114	81	41	0.0
1999				
1H	104	78	38	0.0
2H	122	84	38	0.0
2000				
1H	122	102	42	...
2H	124	104	48	...
2001				
1H	125	93 <sup>1</sup>	41	...

<sup>1</sup> Heroin excludes a small, but unknown, number of morphine/combinations in the first half of 2001.

<sup>2</sup> Dots (...) indicate that an estimate with a relative standard of error greater than 50 percent has been suppressed.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Semiannual Illinois Treatment Admissions to Publicly Funded Programs by Primary Drug of Abuse: FY 1999–FY 2001**

Primary Drug	FY 1999			FY 2000			FY 2001		
	Dec. 1998	June 1999	Total	Dec. 1999	June 2000	Total	Dec. 2000	June 2001	Total
Cocaine	18,631	13,347	31,978	18,531	12,937	31,468	16,967	14,354	31,321
Heroin	10,047	7,764	17,811	11,733	8,121	19,854	13,745	10,718	24,463
Cannabinoids	11,235	7,607	18,842	12,484	8,289	20,773	14,253	11,373	25,626
Hallucinogens	260	141	401	290	227	517	323	221	544
Stimulants	348	336	684	577	693	1,270	1,969	1,802	3,771

SOURCE: Illinois Office of Alcoholism and Substance Abuse

**Exhibit 3a. Percentage of ADAM Adult Male Arrestees Testing Positive in Chicago for Selected Drugs by Year: 1991–2001**

Year	Marijuana	Cocaine	Opiates
1991	23	61	21
1992	26	56	19
1993	40	53	28
1994	38	57	27
1995	41	51	23
1996	45	51	19
1997	51	48	24
1998	42	45	18
1999	45	42	20
2000 <sup>1,2</sup>	45	37	27
2001 <sup>1,2</sup>	52	45	24

<sup>1</sup> Figures for 2000 and 2001 are based on a new method of data collection and cannot be compared with those from previous years; data are weighted.

<sup>2</sup> Data for 2000 are for the first through third quarters; data for 2001 are for the fourth quarter only.

SOURCE: ADAM, NIJ

**Exhibit 3b. Percentage of ADAM Adult Female Arrestees Testing Positive in Chicago for Selected Drugs by Year: 1998–2001**

Year	Marijuana	Cocaine	Opiates
1998	20	56	27
1999	27	64	32
2000 <sup>1,2</sup>	25	59	40
2001 <sup>1,2</sup>	33	67	—

<sup>1</sup> Figures for 2000 and 2001 are based on a new method of data collection and cannot be compared with those from previous years. Female findings are unweighted and not based on probability sampling.

<sup>2</sup> Data for 2000 are for the first through third quarters; data for 2001 are for the fourth quarter only.

SOURCE: ADAM, NIJ

**Exhibit 4. Domestic Monitor Program Trends for Chicago—Heroin Purity (Percent) and Price Per Milligram Pure: 1993–June 2001**

Trend	1993	1994	1995	1996	1997	1998	1999	2000	2001 <sup>1</sup>
Purity (%)	31.4	17.4	28.0	30.4	31.0	24.8	24.8	22.9	24.1
Price per milligram pure	\$0.70	\$1.90	\$1.12	\$0.84	\$0.68	\$0.58	\$0.67	\$0.54	\$0.66

<sup>1</sup> 2001 data are only for first half of the year.

SOURCE: DMP, DEA

# Patterns and Trends in Drug Abuse: Denver and Colorado

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## ABSTRACT

*Although current indicators are mixed, marijuana continues to be a major problem in Colorado. Across the State, clients whose primary drug was marijuana constituted the largest proportion of drug-related treatment admissions in 2001. However, in the Denver metropolitan area, marijuana emergency department (ED) mentions, which had increased by nearly 107 percent from 1994 to 2000, stabilized during the first half of 2001. Conversely, marijuana-related hospital discharges in the State climbed to their highest level in the 1995–2001 time period. Cocaine indicators are also mixed, with deaths showing increases, new users in treatment and ADAM data remaining stable, and ED mentions and treatment admissions declining. Cocaine inhalers have been entering treatment in greater numbers, while smokers have been declining. DEA reports greater cocaine powder availability at high purity, which may be driving some of these changes. A mixed pattern also applies to heroin indicators, with hospital discharges and deaths increasing, ADAM data stable, ED mentions relatively stable, and treatment admissions down slightly. Also, heroin treatment client demographic proportions have changed somewhat, with more White and younger users, but fewer Hispanics. Accompanying this treatment client pattern has been a continuing small upward trend in the proportion of heroin smokers and inhalers. A mixed indicator pattern is also the case for methamphetamine, with ED mentions down but treatment admissions up slightly. Finally, limited indicator data, a recent treatment study, and most anecdotal data point to an increasing club drug problem in Colorado, mostly among adolescents and young adults.*

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## INTRODUCTION

### Area Description

Denver, the capital of Colorado, is located somewhat northeast of the State's center. Covering only 111.32 square miles, Denver is bordered by several large suburban counties: Arapahoe on the southeast, Adams on the northeast, Jefferson on the west, and

Douglas on the south. These counties constitute the Denver primary metropolitan statistical area (PMSA). In recent years, Denver and the surrounding counties have experienced rapid population growth. According to the 1990 census, the Denver PMSA population was 1,622,980. By the 2000 census, this had grown by 30 percent to 2,109,282. In general, Colorado has been 1 of the 5 fastest growing States in the country, with the population increasing from 3,294,394 in 1990 to 4,324,920 in 2000, or by 31.3 percent. The Denver metropolitan area accounts for a large percentage of Colorado's total population.

Several considerations may influence drug use in Denver and Colorado:

- Two major interstate highways intersect in Denver.
- The area's major international airport is nearly at the midpoint of the continental United States.
- 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.
- Colorado and the Denver metropolitan area, though prospering economically, have seen small increases in unemployment rates. Colorado's unemployment rate for February 2002 was 5.8 percent, up from 3.6 in August 2001. Likewise, Denver's unadjusted unemployment rate for February 2002 was 5.9 percent, compared with 3.5 percent in August 2001.

### Data Sources

Data presented in this report were collected and analyzed in April and May 2002. Although these indicators reflect trends throughout Colorado, they

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

are dominated by the Denver metropolitan area. Data for this presentation were derived from the Federal, State, and local sources specified below.

- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA) for 1995 through the first half of 2001. Data for the first half of 2001 are preliminary.
- **Statewide hospital discharge data** for 1995–2001 were obtained from the Colorado Hospital Association through the Colorado Department of Public Health and Environment (CDPHE), Health Statistics Section. 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.
- **Death statistics and communicable disease data** were obtained from the CDPHE. Most data presented are for 1995–2001. Data on the acquired immunodeficiency syndrome (AIDS) are cumulative through March 31, 2002.
- **Drug/Alcohol Coordinated Data System (DACODS) reports** are completed on clients at admission and discharge from all Colorado alcohol and drug treatment agencies receiving public monies. Annual figures are given for 1995–2001. DACODS data are collected and analyzed by the Alcohol and Drug Abuse Division (ADAD), Colorado Department of Human Services.
- **Survey data** on use of club drugs among adolescents and young adults in selected treatment programs were collected by ADAD in 2001.
- **Rocky Mountain Poison and Drug Center (RMPDC) data** are presented for Colorado and represent the number of calls to the center regarding street drugs from 1994 through 2001.
- **Drug availability, price, and distribution data** are derived from the Drug Enforcement Administration’s (DEA’s) Domestic Monitor Program (DMP) and from local Drug DEA officials in their second quarter fiscal year (FY) 2002 report.
- **Arrestee drug testing data** were obtained from the Arrestee Drug Abuse Monitoring (ADAM)

program, National Institute of Justice (NIJ), for 2000 and the first two quarters of 2001.

- **Qualitative and ethnographic data** were available mainly from clinicians at treatment programs across the State, local researchers, and street outreach workers.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

While a few cocaine indicators increased, most remained stable or declined in 2001. Denver metropolitan ED mentions per 100,000 population, after declining from 75 to 53 from 1995 to 1996, increased steadily to 87 in 1999, although these changes were not significant. However, there were significant declines between the first half of 2001 and each half of 2000 (exhibit 1).

Statewide hospital discharge data showed that cocaine occurrences per 100,000 population increased from 55.3 in 1995 to 62.8 in 1998, but they remained relatively stable through 2001 (63.2 per 100,000) (exhibit 2).

In 1994, there were 71 calls to the RMPDC concerning cocaine. This figure dropped to 49 in 1995, and remained at about that level through 1999. In 2000, the calls increased to 59, and they more than doubled to 127 in 2001.

The proportion of cocaine treatment admissions in the State has declined considerably over the past 7 years (exhibit 3). In 1995, primary cocaine abuse accounted for 31.0 percent of all drug abuse treatment admissions, compared with only 20.7 percent in 2001.

Of the cocaine abusers entering treatment, the proportion of “new” cocaine users, defined as those admitted to treatment within 3 years of initial cocaine use, remained relatively level from 1995 (15.8 percent) to 2001 (15.6 percent) (exhibit 4).

Treatment admission data indicate that cocaine injection declined from 1995 (12.4 percent) through 1998 (10.6 percent), but it increased slightly to 12.7 percent through 2001. Smoking percentages have declined steadily, from 67.5 percent in 1995 to 57.9 percent in 2001. Conversely, inhalation steadily increased, from 17.7 percent in 1995 to 25.8 percent in 2001. This is probably related to the increased availability of powder cocaine.



Race/ethnicity proportions for total cocaine treatment admissions in the State have been changing. In 2001, Whites accounted for the largest percentage of cocaine admissions (47.3 percent), up moderately from 41.5 percent in 1995. In addition, Hispanic cocaine admissions have increased dramatically, from only 17.4 percent in 1995 to nearly 26.3 percent in 2001. Conversely, the proportion of African-American cocaine admissions has decreased by nearly one-half, dropping from 39 percent in 1995 to only 19.8 percent in 2001.

Likewise, there have been age category changes since 1995. In 1995, 63.2 percent of cocaine admissions were younger than 35; this figure decreased to 49.7 percent in 2001. Conversely, cocaine admissions 35 and older climbed steadily during the same time period, from 36.8 to 50.3 percent. Cocaine admissions remained predominantly male, with the proportion remaining relatively constant from 1995 (59.3 percent) through 2001 (60.4 percent). As mentioned above, the increased availability of powder cocaine accounts for the changes in the cocaine user groups, and thus, in the population entering treatment.

Cocaine deaths in the State climbed from 86 in 1995 (23 per million) to a peak of 146 in 1999 (36 per million). While they declined to 116 in 2000 (27 per million), they increased again to 134 in 2001 (30.4 per million), the second highest number of deaths in this 7-year time period.

In the calendar year (CY) 2000 ADAM sample of adult Denver arrestees, 35.4 percent of males and 46.5 percent of females had cocaine-positive urine samples. These numbers were stable in the first two quarters of CY 2001, with 35.1 percent of males and 46.5 percent of females testing positive.

The Denver Field Division of the DEA reports the substantial availability of powder cocaine across the State in ounce, pound, and kilogram quantities. Mexican polydrug trafficking groups control the majority of cocaine distribution in the Denver metropolitan area through Hispanic, White, and African-American distributors. The DEA also indicates that, despite declining use, crack cocaine supplies continue to come from street gangs in Los Angeles and Chicago. Upper-level crack organizations are primarily Mexican with gang affiliations and are intertwined with African-Americans who control street-level distribution.

The DEA reports current cocaine prices as follows: \$20,000 per kilogram and \$800–\$1,000 per ounce in the Denver metropolitan area with purity in the 30–

90 percent range; \$15,000–\$25,000 per kilogram, \$500–\$1,100 per ounce, and \$100–\$125 per gram (50 percent purity) in Colorado Springs (south of Denver on the Front Range); and \$21,000 per kilogram (65 percent purity) and \$750 per ounce (30 percent purity) in Grand Junction (Western Slope of Colorado). These prices show only small changes from the December 2001 reporting period. Crack prices remain relatively stable at \$950–\$1,200 per ounce and \$20–\$30 per rock in Denver.

## Heroin

For 2001, heroin indicators are mixed, with some increasing and some declining. DAWN data for Denver show that heroin ED mentions per 100,000 population increased 35 percent between 1998 (31) and 2000 (41 per 100,000). ED trends appear in exhibit 1. However, based on data from the first half of 2001, heroin ED mentions per 100,000 were not significantly different from the rate (20) in the first half of 2000.

Conversely, hospital discharge data indicate that opiate occurrences per 100,000 population, after dropping from 29.4 to 19.9 from 1995 to 1996, climbed steadily to 50.8 per 100,000 by 2001 (an overall increase of 73 percent) (exhibit 2).

Heroin-related calls to the RMPDC, which were steady from 1994 (21 calls) to 1998 (22 calls), increased to 36 in 1999, but declined to only 12 in 2000. In 2001, the heroin-related calls increased to the 1999 level of 36.

Among Colorado treatment admissions, the proportion and number of heroin admissions remained fairly stable from 1995 (15.4 percent) through 2000 (14.5 percent), with a slight decline to 13.9 percent in 2001 (exhibit 3). Likewise, the proportion and number of new heroin users entering treatment, after increasing from 14.8 percent in 1995 to 18.7 percent in 2000, declined to 16.5 percent in 2001 (exhibit 4).

Like those of cocaine, some demographics of heroin users entering treatment have changed. The proportion of female heroin admissions remained stable from 1995 (33.1 percent) through 2001 (32.0 percent). However, race/ethnicity proportions changed during this time period. Whites increased as a percentage of the total, from 56.1 percent in 1995 to 67.5 percent in 2001, while Hispanics decreased (29.8 to 20.7 percent). Also, the 25-and-younger age group increased as a percentage of heroin admissions, from only 10.6 percent in 1995 to 18.4 percent in 2001.

Accompanying the heroin client demographic realignments are small changes in route of administration, with heroin smoking and inhalation becoming more common. In 1995, only 4.5 percent of treatment admissions reportedly smoked or inhaled heroin, compared with 5.9 percent in 1996, 7.5 percent in 1997, 9.0 percent in 1998, 8.5 percent in 1999, 10.2 percent in 2000, and 9.5 percent in 2001.

From 1990 through 1996, opiate-related deaths averaged 85 per year. However, this average increased dramatically to 150 deaths per year from 1996 through 2001, an increase of 76 percent.

Interestingly, the 2000 ADAM data showed proportionately more females (5.8 percent) with a positive opiate urine screen than males (3.4 percent). However, in the first two quarters of 2001, the reverse was true, with 6.2 percent of males and only 1.0 percent of females testing positive for opiates.

The Denver DEA reports that heroin is widely available in the large metropolitan areas of the State. In the Denver metropolitan area, the majority of heroin sales take place in the lower downtown area. Marketing is controlled by Mexican nationals. They also control the street-level heroin market in the form of small autonomous distribution cells. Street-level heroin is usually sold in grams for \$100–\$150, with ounces going for \$2,000–\$3,000. DMP buys reveal that the purity of Mexican heroin ranges from 8 to 64 percent, with an average purity of about 19 percent. In addition, the DMP reports an average price of \$1.31 per milligram pure. In Colorado Springs, heroin sells for \$1,800–\$3,500 per ounce and \$75–\$300 per gram. The average purity is about 40 percent.

### **Other Opiates/Narcotics**

Denver metropolitan ED mentions per 100,000 population for narcotic analgesics remained relatively flat from 1994 (10) through 1998 (13), but increased nearly 154 percent between 1994 and 2000 (24). (Narcotic analgesics include hydrocodone, hydro-morphone, codeine, and oxycodone.) Also, as noted above, opiate-related hospital discharges increased 73 percent from 1995 to 2001.

Statewide treatment admissions for other opiates remained relatively stable from 1995 (2.5 percent) to 1999 (2.7 percent), but increased to 3.2 and 3.8 percent in 2000 and 2001, respectively.

The DEA reports that diversion of OxyContin continues to be a “major problem” in the Rocky Mountain West. DEA staff state that tablets were

stolen from numerous pharmacies throughout the Rocky Mountain area from October 2001 through March 2002.

### **Marijuana**

Marijuana indicators are mixed for 2001, with some increasing, some decreasing, and some stable.

Between 1994 and 2000, the rate of marijuana ED mentions per 100,000 population increased by nearly 107 percent, from 26 to 51 (exhibit 1). However, the rate declined 14 percent from the second half of 2000 to the first half of 2001. Marijuana hospital discharge occurrences per 100,000 have risen dramatically, from 45.6 in 1995 to 62.5 in 2001 (exhibit 4).

Marijuana-related 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.

State marijuana treatment admissions increased from 35.2 percent in 1995 to 43.7 percent in 1999 (exhibit 3). However, admissions declined slightly to 40.6 percent by 2001. In general, marijuana users have accounted for the largest proportion of all Colorado drug treatment clients since 1995. These increases may be partly related to user accounts of increased drug potency and a more casual attitude about marijuana use in society in general.

The proportion of new users entering treatment for marijuana use declined steadily from 1995 (36.6 percent) through 1999 (25.4 percent) (exhibit 4). In 2000, however, this proportion climbed slightly to 29.9 percent, and remained near that level (29.1 percent) during 2001.

Data indicate only slight changes in the demographics of marijuana treatment clients. Race proportions remained relatively stable from 1995 to 2001. Hispanics increased as a percentage of marijuana admissions, from 31.4 percent in 1995 to 36.3 percent in 1999, but the proportion declined to 29.0 percent in 2001. Likewise, the proportion of Whites declined from 57.1 percent to 52.4 percent of marijuana admissions during the 1995–99 time period, but increased to 55.6 percent in 2001. Male-to-female marijuana admission ratios remained at 3:1 during 1995–2001. Moreover, there were only small changes in the ages of marijuana admissions from 1995 to 2001. Those age 12–17 decreased slightly, from 42 percent in 1995 to 38 percent in 2001, but they remained the largest group in treatment for marijuana abuse.

The 2000 ADAM data indicated that 40.9 percent of the male arrestee sample and 38.5 percent of the female arrestee sample had positive marijuana urine screens. However, data from the first two quarters of 2001 show declines, with 37.3 percent of males and 31.3 percent of females testing positive for marijuana.

The Denver DEA states that the most “abundant supply of marijuana is Mexican grown and is trafficked into the area from the border areas of Texas, New Mexico, and Arizona by Mexican polydrug trafficking organizations. Vehicles with hidden compartments are used to transport shipments weighing from pound to multi-pound quantities.” Mexican marijuana sells at a price range of \$500–\$1,000 per pound. DEA also indicates that high tetrahydrocannabinol (THC), seedless marijuana from British Columbia, known as “BC Bud” or “triple A,” continues to be available in Colorado at prices of \$600 per ounce and \$3,000–\$5,000 per pound.

Further, according to the DEA, locally grown marijuana is almost always grown indoors by independent operators with grow equipment that varies from basic to elaborate operations with sophisticated lighting and irrigation systems. Domestically grown marijuana prices range from \$1,000 to \$3,000 per pound and from \$200 to \$300 per ounce.

### **Stimulants**

Indicator data show substantial fluctuations in methamphetamine and other stimulant use in Denver and across Colorado from 1995 to 2001.

Methamphetamine ED mentions per 100,000 population in Denver decreased insignificantly from 11 in 1995 to only 7 in 2000. The rate declined nearly 30 percent between the first half of 2000 and the first half of 2001 (exhibit 1). Conversely, amphetamine ED mentions per 100,000 increased 193 percent between 1998 (7 mentions) and 2000 (21 mentions), and 42 percent between 1999 and 2000. Amphetamine mentions decreased 14 percent from the last half of 2000 to the first half of 2001. Amphetamine-related hospital discharge occurrences per 100,000 population (exhibit 4) also showed a fluctuating pattern from 1995 to 2001 (exhibit 2). However, they increased overall during that time period, from 19.4 to 26.3 per 100,000.

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

rebounded sharply to 291, 269, and 581 in 1999, 2000, and 2001, respectively.

Methamphetamine treatment admissions in the State have shown a fluctuating pattern over the past 7 years (exhibit 3). In 2001, they constituted 15.6 percent of drug admissions, the highest proportion during the 1995 to 2001 time period. Amphetamine admissions are typically only a fraction of those for methamphetamine. From 1995 to 2000, they increased from 111 to 171, or from 0.9 percent to 1.3 percent of all drug treatment admissions, but declined slightly to 128 admissions (1 percent) during 2001.

In 1995, 29.6 percent of primary methamphetamine users entering treatment in the State were new users (exhibit 4). By 1997, new users accounted for 30.5 percent of primary methamphetamine treatment admissions. By 2001, however, the proportion of new users had declined to only 19.9 percent.

Injection had been the most common route of administration for methamphetamine. However, the proportion of injection drug users (IDUs) declined from 1995 (41 percent) to 2001 (32.3 percent), while smoking became increasingly common over the 7-year period. In 2001, about 43 percent of methamphetamine treatment admissions in the State smoked the drug, compared with only 16 percent in 1995.

Methamphetamine treatment admissions for 2001 remained predominately White (83.5 percent), although the proportion of Hispanics increased from 9.2 percent in 1995 to 11.1 percent in 2001. Females accounted for slightly fewer than one-half of methamphetamine admissions in 2000 and 2001 (46 percent). From 1995 to 2001, those age 25 and younger remained at about one-third of admissions, those 26–34 declined from 38.4 to 32.6 percent of admissions, and those older than 35 increased from about one-fourth to one-third of methamphetamine admissions.

Although deaths related to amphetamine in Colorado are far fewer than those related to opiates or cocaine, the number increased sharply, from only 15 between 1994 and 1997 to 34 between 1998 and 2001 (a 127-percent increase).

According to ADAM data, only a small percentage of positive methamphetamine urine screens were reported in 2000—2.6 percent of the male arrestees and 5.3 percent of their female counterparts. These figures changed only slightly in the first two quarters of 2001, with 3.2 percent of males and 5.1 percent of females testing positive for methamphetamine.

The DEA reports widespread methamphetamine availability, with most of the drug originating in Mexico or from large-scale laboratories in California. The DEA is making extensive lab seizures. During January through March 2002, 85 methamphetamine labs were seized in the Rocky Mountain West. These labs, generally capable of manufacturing an ounce or less per “cook,” varied from primitive to quite sophisticated. The average purity for methamphetamine is 10–20 percent. The DEA reports that Colorado methamphetamine street prices are stable at \$90–\$110 per gram and \$700–\$1,200 per ounce.

### Club Drugs

Club drugs, as considered here, are the 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 is limited. Treatment, hospital discharge, and ADAM data have not routinely collected separate data on these drugs. The only two sources of institutional indicator data over time have been DAWN and RMPDC.

In 2001, however, ADAD conducted a survey on club drug use among 782 young adults and adolescents admitted to selected treatment programs across the State. Selected results are presented here, together with DAWN and RMPDC data and anecdotal information provided from the DEA.

The handful of MDMA-related calls to the RMPDC ranged from only 3 to 11 during the 1994–99 time period. ED mentions, however, increased from 6 in 1998 to 15 in 1999 to 56 in 2000. In the first half of 2001, there were 25 MDMA ED mentions, about the same as in the first half of 2000 ( $n=24$ ).

In ADAD’s treatment survey, 267, or 34 percent of those surveyed, reported lifetime use of ecstasy, with 4.5 percent having used it in the past 30 days. The average age of the users was 17.3 years, and the average age of first use was 15.9 years.

The above information does not come close to conveying a complete view of MDMA prevalence in Colorado. According to the DEA, ecstasy has emerged as a popular drug in the Rocky Mountain region. It is readily obtainable by individuals at raves, nightclubs, strip clubs, or private parties. The traffickers are typically White and in their late teens or twenties; they get their MDMA from Las Vegas,

Nevada, and various cities in California and on the east coast, with source connections in Europe. One tablet or capsule costs \$10–\$20.

There is little data on GHB use in Colorado. During 1994–98, the RMPDC reported only 1–6 calls about GHB. In 1999, the number of GHB calls increased to 92. GHB ED mentions also increased, from 7 in 1997 to 13 in 1998 to 71 in 1999. However, such mentions dropped to 44 in 2000, with only 9 mentions reported in the first half of 2001.

In the ADAD treatment survey, 73 (10 percent) reported lifetime use of GHB, with 0.5 percent having used in the past 30 days. The average age of the users was 17.8 years, and the average age of first use was 16.1.

The DEA reports that GHB is increasingly popular in Colorado and is readily available at raves, nightclubs, strip clubs, and private parties. The price is \$5–\$10 per dosage unit (one bottle capful).

Use of flunitrazepam does not appear to be widespread in Colorado in either the general population or the rave scene. The number of calls received by RMPDC about flunitrazepam increased from 1 in 1994 and 1995 to 22 in 1998, but declined to only 7 in 1999. Also, only one ED mention was reported for the drug from 1994 through the first half of 2001.

In the ADAD treatment survey, only 14, or 2 percent, reported lifetime use of flunitrazepam, with 0.3 percent having used in the past 30 days. The average age of the users was 19 years, and the average age of first use was 16 years.

As with the other club drugs, use of ketamine does not appear to be widespread in Colorado. The RMPDC did not report any ketamine calls from 1994 to 2000. There were only three ketamine ED mentions from 1994 to 1999. However, there were 12 such mentions in 2000 and 9 in the first half of 2001.

In the ADAD treatment survey, 139, or 19 percent, reported lifetime use of ketamine, with 2.2 percent having used it in the past 30 days. The average age of the users was 17 years, while the average age of first use was 15.6 years.

Use of the opioid agent dextromethorphan (DXM) was reported in the ADAD treatment survey; 78, or 11 percent, reported lifetime use of DXM, and 2.2 percent reported using it in the past 30 days. The average age of the users was 16 years, while the average age of first use was only 14.9 years.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

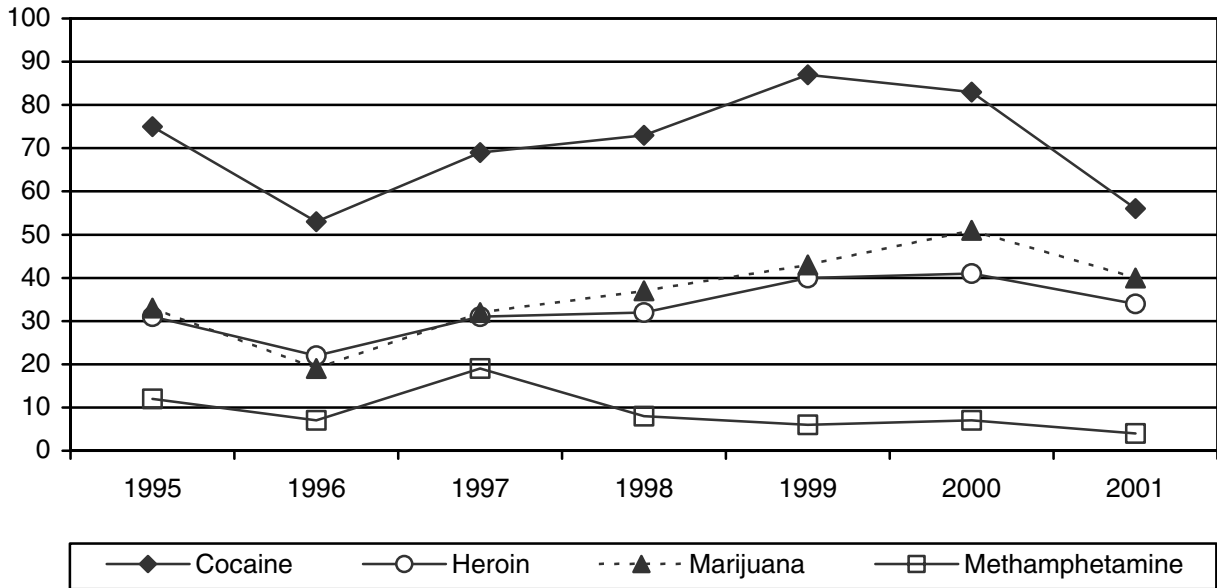
IDUs, and 11 percent were classified as homosexual or bisexual males and IDUs (exhibit 5).

Of the 7,380 AIDS cases reported in Colorado through March 31, 2002, 9 percent were classified as

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**Exhibit 1. Rates of DAWN Emergency Department Mentions Per 100,000 Population in the Denver Area for Selected Drugs: 1995–2001<sup>1</sup>**



<sup>1</sup> The 2001 figures assume the rate for the first half will double for the year.

SOURCE: DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Colorado Hospital Discharge Mentions and Rates<sup>1</sup> for Selected Drugs: 1995–2001**

Drug	1995	1996	1997	1998	1999	2000	2001
Cocaine							
(M)	(2,070)	(2,255)	(2,245)	(2,492)	(2,517)	(2,732)	(2,787)
Rate	55.3	59.0	57.7	62.8	62.3	63.2	63.2
Marijuana							
(M)	(1,708)	(1,740)	(2,118)	(2,227)	(2,204)	(2,455)	(2,755)
Rate	45.6	45.6	54.4	56.1	54.6	56.8	62.5
Amphetamine							
(M)	(728)	(532)	(959)	(815)	(682)	(942)	(1,161)
Rate	19.4	13.9	24.6	20.5	16.9	21.8	26.3
Narcotic Analgesics							
(M)	(1,103)	(760)	(1,458)	(1,566)	(1,639)	(2,053)	(2,237)
Rate	29.4	19.9	37.5	39.5	40.6	47.5	50.8
Population	3,746,585	3,819,789	3,892,996	3,966,198	4,039,402	4,324,920	4,407,305

<sup>1</sup> Per 100,000 population.

SOURCES: Colorado Hospital Association and the Colorado Department of Public Health and Environment, Health Statistics Section

**Exhibit 3. Treatment Admissions in Colorado by Primary Drug of Abuse and Percent: 1995–2001<sup>1</sup>**

Drug	1995	1996	1997	1998	1999	2000	2001
Total Admissions ( <i>N</i> )	(12,600)	(12,991)	(11,757)	(14,301)	(14,511)	(13,109)	(13,039)
Cocaine/crack	31.0	30.6	27.1	26.6	23.7	21.1	20.7
Heroin	15.4	15.1	13.7	13.2	14.4	14.5	13.9
Other opiates <sup>2</sup>	2.8	2.2	2.3	2.5	2.9	3.4	4.0
Marijuana	35.2	38.8	37.9	39.8	43.7	42.5	40.6
Methamphetamine	11.2	8.9	14.9	13.5	10.7	13.0	15.6
Other stimulants	1.1	0.7	0.9	0.7	1.1	1.5	1.2
Other drugs <sup>3</sup>	3.3	3.7	3.2	3.7	3.5	4.0	4.0

<sup>1</sup> Excludes alcohol-only and alcohol-in-combination admissions.

<sup>2</sup> Includes a small percentage of nonprescription methadone admissions (0.1–0.3 percent per year).

<sup>3</sup> Includes hallucinogens, PCP, barbiturates, sedatives, tranquilizers, inhalants, and other drugs (each accounting for very small percentages, usually less than 1 percent).

SOURCE: Drug/Alcohol Coordinated Data System

**Exhibit 4. Annual Number and Percentage of Cocaine, Heroin, Marijuana, and Methamphetamine Users Entering Treatment in Colorado Within 3 Years of Initial Use: 1995–2001**

Drug	1995	1996	1997	1998	1999	2000	2001
Cocaine							
( <i>N</i> )	(607)	(599)	(433)	(587)	(516)	(447)	(413)
Percent	15.8	15.3	14.0	15.8	15.5	16.5	15.6
Heroin							
( <i>N</i> )	(280)	(328)	(262)	(362)	(356)	(352)	(295)
Percent	14.8	17.0	16.6	19.6	17.6	18.7	16.5
Marijuana							
( <i>N</i> )	(1,601)	(1,783)	(1,430)	(1,669)	(1,547)	(1,644)	(1,516)
Percent	36.6	35.8	33.1	30.5	25.4	29.9	29.1
Methamphetamine							
( <i>N</i> )	(412)	(296)	(514)	(517)	(312)	(347)	(400)
Percent	29.6	25.8	30.5	27.3	20.5	20.5	19.9

SOURCE: Drug/Alcohol Coordinated Data System

**Exhibit 5. Colorado Cumulative AIDS Cases by Demographic Category: Through March 31, 2002**

<b>Category</b>	<b>Number of Confirmed Cases</b>	<b>Percent</b>
Total	7,380	100.0
Gender		
Male	6,838	92.7
Female	542	7.3
Race/Ethnicity		
White	5,385	73.0
African-American	817	11.1
Hispanic	1,101	14.9
Asian	30	0.4
Native American	47	0.6
Age at Diagnosis (Years)		
Younger than 13	30	0.4
13–19	29	0.4
20–29	1,227	16.6
30–39	3,596	48.7
40–49	1,824	24.7
50 and older	674	9.1
Exposure Category		
Men/sex/men	5,051	68.4
Injection drug user (IDU)	661	9.0
MSM and IDU	809	11.0
Heterosexual contact	415	5.6
Other	184	2.5
Risk not identified	260	3.5

SOURCE: Colorado Department of Public Health and Environment



# Drug Abuse Trends in Detroit/Wayne County and Michigan

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

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## ABSTRACT

*Cocaine indicators continue to stabilize, and preliminary data for the first 3–6 months of 2001 suggest that cocaine emergency department (ED) mentions and cocaine-related deaths may be declining in southeast Michigan. Except for increases in heroin ED mentions, heroin indicators appear to be stabilizing. Data on other opiates reflect increases in abuse, especially for hydrocodone. Marijuana continues to be the top illicit drug, but indicators remain stable. Indicators for stimulants, ecstasy, and abuse of Coricidin HBP all show increases. Thirty percent of the cumulative AIDS cases in Michigan are injection drug users.*

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## 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 tenth 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 277,688 flights in 2000; 10 other large airports that also have international flights, with more than 200,000 arrivals in 2000; and 235 public and private small airports.

- The State has an international border of 700 miles with Ontario, Canada; land crossings at Detroit, 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 940,000 registered boats. In 2001, two major bridge crossings from Canada (Windsor Tunnel and Ambassador Bridge) had 7.9 million cars, 1.7 million trucks, and 93,000 buses cross into Detroit. Southeast Michigan, the busiest port on the northern U.S. border, had about 21 million vehicle crossings with Canada in 2000.
- 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. In April 2002, statewide unemployment was stable at 6.0 percent.

### Data Sources

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

- **Hospital emergency department (ED) drug mentions data** through the first half of 2001 were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Data for the first half of 2001 are preliminary.
- **Treatment admissions data** were provided by the Division of Mental Health Performance, Michigan Department of Community Health

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<sup>1</sup> The author is affiliated with the Division of Quality Management and Planning, Michigan Department of Community Health, Lansing, Michigan.

(MDCH) for the State and Detroit/Wayne County, as reported by State and federally funded programs. Reporting practices, which changed on October 1, 1998, affect the capability to reliably track trends in client characteristics, drugs of abuse, and other data reported in admissions records. During fiscal year (FY) 2001, State reporting requirements were revised, which also challenged reporting continuity. The admissions volume reported has been declining over the past several years; it is difficult to identify whether changes in data reflect reporting practices or actual changes in the populations entering treatment. Some additional analysis of FY 2001 data will be included in this report. Software delays have affected FY 2002 data and resulted in large volumes of unresolved errors in data submissions. Consequently, FY 2002 data are unavailable for this report.

- **Drug-related mortality data** were provided by the Wayne County Office of the Medical Examiner (ME), the MDCH, and the Macomb County Health Department, Office of the Medical Examiner. The Wayne County ME provided data on deaths with positive drug toxicology from 1993 through March 2002. 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. The MDCH provided statewide data on amphetamines/stimulants.
- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ). The ADAM data are based on a sample of arrestees in Detroit/Wayne County, as collected by Michigan State University. Data for 2000 are for adult arrestees and are based on a weighted sample for males and an unweighted sample for females. Data for 2001 are for the third quarter only and are limited to male arrestees. The ADAM sampling plan was revised in 1999 and 2000, as directed by NIJ, in an effort to gain data that would be statistically representative of Wayne County arrestees. Earlier data were for city of Detroit arrestees only. Caution is suggested in making comparisons between 1999 and 2000 findings. Data on juvenile detention drug testing were provided by the Wayne County Department of Criminal Justice.
- **Drug price and purity data** were provided by the Drug Enforcement Administration (DEA). Prelim-

inary data on heroin purity in 2001 were from the DEA's Domestic Monitor Program (DMP).

- **Drug seizure data** were provided by the Michigan State Police and the U.S. Customs Service, as well as DEA and local police departments, for 2001 and 2002.
- **Cocaine distribution data**, from the High Intensity Drug Trafficking Area Investigative Support and Deconfliction Center of Southeast Michigan (HIDTA-SEM), were derived from FY 2002 Threat Assessment data.
- **Poison control case data** were provided by the Children's Hospital of Michigan Poison Control Center and represent contact data on cases of intentional abuse of substances through mid-May 2002. This center is one of two in Michigan; its catchment area is primarily eastern Michigan, although contacts can originate anywhere.
- **Drug-related infectious disease data** were provided by the MDCH on the acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) prevalence estimates as of January 1, 2002. Statewide data on hepatitis C trends were also provided by MDCH.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

Between 1994 and 1999, cocaine was the most frequent DAWN ED drug mention in Detroit metropolitan counties (exhibits 1 and 2). The Detroit area rate of cocaine ED mentions per 100,000 population was 178 in 1999 and 179 in 2000. During 2000, the 7,870 cocaine mentions represented a slight but nonsignificant increase from 1999. Preliminary data for the first half of 2001 suggest there could be a slight decrease for the year compared with 2000.

The typical cocaine ED case continued to be a male, age 35 or older, who came to the emergency department seeking help for chronic effects or unexpected reaction and was treated and released in a multidrug-involved episode.

Cocaine (including crack) has been the foremost primary illicit drug of abuse among admissions to State-funded treatment programs in Detroit/Wayne County and statewide since FY 1986. During FY 2001, cocaine/crack remained the top illicit drug among statewide admissions, accounting for 18 percent of total admissions. In Detroit/Wayne

County, cocaine represented 28 percent of total admissions and was exceeded only by heroin, which accounted for 34 percent of total admissions. As noted earlier, no treatment data were available for FY 2002 when this report was prepared.

Deaths with 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 3). 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 the first 3 months of 2002, 85 cocaine deaths were reported, which may signal a declining trend.

Prior to 2000, when ADAM began probability sampling of adult male arrestees, the proportion of males declined from a peak of 53 percent in 1987 to 27 percent in 1999. In 2000, 24 percent of male arrestees (weighted Wayne County sample) tested cocaine-positive, while 42 percent of female arrestees (unweighted Wayne County sample) tested cocaine-positive (exhibit 4). Unweighted results for male arrestees in the third quarter of 2001 showed 22 percent were cocaine-positive.

Wayne County drug testing data for juveniles in 2001 showed that 91 (just over 2 percent) of 4,274 youth tested were positive for cocaine.

Powder cocaine and crack availability, prices, and purity remain relatively stable. Ounce and kilogram prices have been stable for at least the past 7 years. The cost of crack rocks has now widened to \$50, with \$10 the most common unit price in Detroit neighborhoods; higher priced units are more typical outside Detroit. Small plastic bags or aluminum foil are now the most common packaging.

Numerous organizations distribute cocaine in the metropolitan area and statewide, according to the FY 2002 Threat Assessment by the HIDTA–SEM. The Detroit metropolitan area remains a source hub for other areas of the Midwest. Gangs control a number of distribution points and are major suppliers to many markets.

The U.S. Customs Service in Detroit reported seizing 161 kilograms of cocaine during the 6 months following September 2001, compared with 28 kilograms in the previous 6 months. Michigan State Police have made more large (multikilogram) seizures in the past several months in many urban areas outside Detroit, compared with prior time periods.

## Heroin

ED mentions for heroin have trended gradually upward since 1994 (exhibits 1 and 2). In 1999, the Detroit metropolitan area rate of heroin mentions was 61.5 per 100,000 population; in 2000, the rate was 75.8. The number of heroin ED mentions was 25 percent higher in 2000 than in 1999. Preliminary data for the first half of 2001 suggest there could be an increase in heroin mentions in 2001, compared with 2000.

The typical heroin ED case continues to be a male, age 45–54, who seeks help in an emergency department for chronic effects or unexpected reaction and is treated and released.

Heroin as the primary drug among treatment admissions in FY 2001 accounted for 34 percent of all admissions in Detroit/Wayne County and 14 percent of admissions statewide. The 4,461 heroin primary drug admissions in Detroit/Wayne County accounted for 57 percent of the statewide total of 7,857 heroin primary drug admissions.

Heroin deaths have been steadily increasing in Detroit/Wayne County since 1992. In 1996, there were 240 heroin-present deaths; by 2000, the annual number had nearly doubled (exhibit 3). The 383 deaths with heroin metabolites present in 1999 represented a 24-percent increase from 1998. During 2000, heroin cases increased again, by 23 percent over the 1999 total. During 2001, there were 465 heroin-present deaths, a slight decrease from the 473 deaths in 2000. During the first 3 months of 2002, 112 heroin-present deaths were reported, which may signal the beginning of a decline.

Since 1996, the Wayne County ME lab has tested decedents for 6-monoacetylmorphine (or 6-AM) to determine whether the presence of 6-AM 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. In late 2001 and the first 3 months of 2002, there were roughly four heroin (morphine) cases for every one case of 6-AM.

In neighboring Macomb County, drug-involved deaths declined slightly in 2001 after increasing since 1997; these deaths primarily involved heroin (exhibit 5A). Three cases in each of the years 1999, 2000, and 2001 were non-White. In 1999, 22 cases were female and 33 were male; in 2000, 19 cases were female and 55 were male; and in 2001, 12 cases were female and

54 were male. Most of the decedents were age 30–49, although this category declined in 2001 (exhibit 5B).

Findings of heroin metabolites among urinalyses of city of Detroit adult arrestees were relatively stable from 1995 to 1999, with 5–9 percent of adult males and 9–22 percent of adult females testing opiate-positive (exhibit 4). The female samples were relatively small, likely impacting year-to-year fluctuations. In 2000, 8 percent of a weighted sample of Wayne County male adult arrestees tested opiate-positive. Among adult females in 2000, 24 percent of the unweighted Wayne County sample tested opiate-positive. Unweighted results for male arrestees in the third quarter of 2001 were stable, at 8 percent opiate-positive.

Wayne County drug testing data for juvenile detainees in 2001 showed that 99 (2.3 percent) of 4,274 youths tested were opiate-positive.

Nearly all available heroin remains white in color. South America (Colombia) remains the dominant source, although in the past 2 years or so, heroin originating in both Southeast Asia and the Middle East has been identified. Heroin from these latter two sources was not very common between the mid-1990s and 2000. Heroin originating in Mexico is available in some parts of Michigan outside the Detroit metropolitan area.

Heroin street prices have 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. Bundles of 10 hits cost between \$75 and \$150. Packaging is often tinfoil; lottery papers; coin envelopes; or small, plastic zip-lock Baggies.

The most recent preliminary information from the DEA indicates the average price per pure milligram in the first half of 2001 was \$0.95. Heroin purity, which had increased from the early 1990s to a peak of nearly 50 percent in 1999, was about 43 percent in the first half of 2001, with a range of 37–72 percent per milligram pure.

Knowledgeable sources in Detroit suggest an average daily heroin habit would cost \$50. Some new heroin users initially choose injection rather than using the more typical route of using the drug intranasally. There have been some very recent hospital ED contacts involving heroin sprinkled into a marijuana cigarette (known as “A-bombs”).

### **Other Opiates/Narcotics**

In the Detroit area, indicators for opiates and narcotics other than heroin remain lower than those for cocaine and heroin, continuing a long-term trend since the early 1980s. Codeine and its prescription compounds (Schedule III and IV drugs) remain the most widely abused other opiates; codeine indicators are stable. However, there are further increases in certain drugs, including hydrocodone (typically Vicodin, Lortab, or Lorcet), carisoprodol (Soma), and oxycodone (OxyContin). These drugs are available in myriad combinations that involve other drugs in the formulation of the pill or capsule.

Other opiates, as primary drugs among treatment admissions in FY 2001, were reported for 131 cases in Detroit/Wayne County and 1,633 cases statewide.

Toxicology findings from the Wayne County ME lab show 225 cases of codeine positivity in the 12 months between April 2001 and April 2002, compared with 246 cases in the prior 12 months.

Hydrocodone and hydrocodone/combinations began to appear in southeast Michigan hospital ED drug mentions in 1994, with sharp increases in 1998 (175 mentions), 1999 (235), 2000 (369), and the first half of 2001 (200) (exhibit 1). This drug was identified by the Wayne County ME lab in 60 decedents in 2000 and 80 in 2001. Information from the Children’s Hospital of Michigan Poison Control Center on intentional hydrocodone abuse cases for 2001 shows about 40 cases were identified; about one-half were females. In the first 4½ months of 2002, 23 cases of intentional hydrocodone abuse were reported to the poison control center.

Carisoprodol was identified in 20 Wayne County decedents in 2000 and 30 in 2001. Nine cases of intentional carisoprodol abuse were reported to the poison control center over the first 4½ months of 2002. Data from other sources reflect a few cases related to this drug.

The most recent revised southeast Michigan ED drug mentions data from DAWN show 17 oxycodone/combinations mentions in 1996, 12 in 1997, and 7 in 1998; the estimate in 1999 was suppressed because it had a relative standard of error greater than 50 percent. In 2000, there were 45 mentions; preliminary data for the first half of 2001 reflect 13 oxycodone/combinations mentions. Since about 2000, oxycodone

done (OxyContin) has been increasingly reported by law enforcement agencies in arrests, primarily in the western and northern lower Michigan areas. It has been reported that persons in some emergency departments have asked specifically for this drug for various ailments. Pharmacy break-ins specifically related to this drug continue to be reported. Oxycodone was found in 10 decedents in Wayne County in 2000 and 13 in 2001. It was involved in five intentional abuse cases reported to Children's Hospital of Michigan Poison Control Center in the 3-month period between July 1 and October 1, 2001; four of these were female teens. Ten cases were reported to the poison control center in the first 4½ months of 2002. OxyContin pills sell for \$0.50–\$1.50 per milligram. In early May 2002, Michigan State Police seized a lab that was potentially attempting to manufacture oxycodone. More than 500 pills were seized by Michigan State Police in the first 3 months of 2002.

Methadone was found in 35 decedents in Wayne County between April and September 2001 and in 26 decedents between October 2001 and March 2002.

### **Marijuana**

Marijuana indicators are stable or increasing. Mexican marijuana continues to be the dominant form.

Detroit metropolitan area ED marijuana data show a steady increasing trend since 1994, with some fluctuations in a few years (exhibits 1 and 2). In 1999, the case rate for marijuana mentions per 100,000 population was 95; in 2000, the case rate was 99.

Treatment admissions during FY 2001 in Detroit/Wayne County for marijuana as primary drug totaled 985. For this same period statewide, there were 8,528 marijuana admissions as primary drug.

Marijuana-positive drug test findings among Detroit arrestees since 1995 have been relatively stable, with a slight increase (exhibit 4). Between 1995 and 1999, 42–48 percent of the adult males in Detroit were marijuana-positive, as were 16–28 percent of the adult females. In Wayne County in 2000, one-half of the weighted sample of male arrestees and 24 percent of the unweighted sample of female arrestees were marijuana-positive. Unweighted results for male arrestees in the third quarter of 2001 were stable, with 46 percent found marijuana-positive.

Wayne County drug testing data for juveniles in 2001 showed 1,929 (45 percent) of 4,274 youths tested were positive for marijuana.

The majority of marijuana seizures in Michigan originate in Mexico. The U.S. Customs Service seized about five times as much marijuana (1,782 kilograms) in the 6 months after September 2001 than in the previous 6 months (351 kilograms).

### **Stimulants**

Indicator data show increasing levels of methamphetamine abuse in the State, mostly in the southwestern corner of lower Michigan.

Southeast Michigan DAWN ED drug mentions for stimulants declined to near zero from 1996 to 2000 and remained at that level in the first half of 2001 (exhibit 1). Between 1992 and 1996, there were increases in amphetamine mentions, but they declined after 1996. The latest data show that the long-term trend of no DAWN ED methamphetamine mentions continues.

Methcathinone (“cat”), an easily manufactured stimulant, was identified in Michigan's Upper Peninsula around 1990; an epidemic ensued until about 1994, when no further labs were found. A trickle of reported admissions to treatment involving this drug continues; there were nine primary methcathinone admissions statewide in FY 2000 and four in FY 2001.

Among statewide treatment admissions in FY 2001, 277 primary stimulant admissions were reported (11 were in Detroit/Wayne County), compared with 189 in FY 2000. The 277 stimulant admissions in FY 2001 lived in 52 of the 83 counties in Michigan, mostly in rural areas, with more admissions in western and southern counties; 10 lived in Detroit/Wayne County. Upper Peninsula residents accounted for 49 of the 277 stimulant admissions in FY 2001. During FY 2000, stimulant admissions lived in only 36 counties.

Mortality data from the Wayne County ME lab show two methamphetamine-positive cases among decedents between April and September 2001 and one case between October 2001 and March 2002.

A special analysis of statewide death certificate data conducted by MDCH Vital Statistics found 35 deaths in which involvement of amphetamines or stimulants was mentioned in both 1999 and 2000, compared with 20 in 1998 and 17 in 1997.

No methamphetamine has been found in drug testing of Detroit or Wayne County arrestee samples since the testing effort began.

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. Intensified efforts by law enforcement after the September 11, 2001, terrorist attacks resulted in the indictment of numerous individuals and seizures of thousands of pseudoephedrine dosage units. The U.S. Customs Service in Detroit reported seizures of more than 10,000 kilograms of pseudoephedrine in the 6 months after September 2001, compared with 50 kilograms in the previous 6 months.

Michigan State Police reported seizing 40 methamphetamine labs in 2000 (all outside Detroit), compared with 14 labs in 1999. During 2001, 91 labs were seized by the Michigan State Police and 120 were seized by the State Police, DEA, and local departments combined. At least three labs have been found in the Upper Peninsula, where none were found in 2000. Environmental cleanups are an increasing problem. At least three labs exploded and burned in 2001, causing serious injuries. Southwestern lower Michigan (particularly Allegan, Van Buren, and Barry Counties) has had the most lab seizures. Through early June 2002, Michigan State Police had seized 105 labs; at this rate, the year-end total will be double that of 2001.

Michigan has a long history of high per capita distribution of methylphenidate (Ritalin). According to the DEA, Michigan ranks third per capita in distribution, with the amount of this drug increasing by 45 percent since 1998. Consequently, distribution is 60 percent higher in Michigan than the national average for all States. Indicators show little evidence of 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, continues to be seized in quantity at Michigan airports.

### **Depressants**

All indicators are relatively stable for depressants.

Depressant treatment admissions in FY 2001 remained low in relation to alcohol, cocaine, heroin, and marijuana. Admissions involving depressants typically involved benzodiazepines or sedatives/hypnotics. Barbiturates or tranquilizers were reported less often. Depressants remain more often involved as secondary or tertiary drugs among treatment admissions.

### **Hallucinogens**

Lysergic acid diethylamide (LSD) continues to be sporadically reported, and use remains relatively low. LSD is generally limited to high-school-age suburban and rural youth. Dose forms are primarily paper cutouts of various designs. Recently, however, there has been a report of a liquid form sold by weight (in grams), which could prove extremely difficult to parcel out into equivalent dosage units desired for an expected effect.

Hospital ED mentions for hallucinogens have been declining overall since about 1995 (exhibit 1).

During FY 2001, there were 77 hallucinogen treatment admissions as primary drug statewide, with 8 of these cases involving phencyclidine (PCP).

Law enforcement sources noted more LSD activity recently in northern lower Michigan.

### **Club Drugs**

This category of drugs includes ecstasy, GHB, flunitrazepam (Rohypnol), and ketamine. Indicators are increasing for ecstasy, stabilizing for ketamine, and declining for GHB. There is still no information from any source or indicator data to suggest that flunitrazepam is being used in Michigan.

The drug known as ecstasy is typically methylenedioxymethamphetamine (MDMA) or methylenedioxyamphetamine (MDA). Both drugs have been identified in 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 are typically college students or young professionals, often in dance settings. Many urban and suburban areas outside Detroit are noted as having significant ecstasy use.

Southeast Michigan ED drug mentions first began to reflect MDMA use in 1998, with six mentions reported (exhibit 1). MDMA mentions rose to 40 in 1999 and 60 in 2000. The change between 1998 and 2000 represented a 900-percent increase. Preliminary data for the first half of 2001 show 57 MDMA mentions, almost as many as those reported for the entire previous year.

The Children's Hospital of Michigan Poison Control Center received reports of 16 cases involving ecstasy in the 3-month period between July 1 and October 1, 2001; cases were equally divided among males and

females and ranged in age from 13 to 31. In the first 4½ months of 2002, there were 20 cases of intentional ecstasy abuse; one in three were younger than 20.

The Wayne County ME lab identified one MDMA/MDA death in 1998, two in 1999, and three in 2000. Two cases were found among decedents between April and September 2001; one was a homicide victim. One case was found in the first 3 months of 2002. Multiple drugs were found in all of these cases.

Ecstasy, sold in various colored and often stamped pill forms, has been seized throughout Michigan. Sources remain Western Europe or Canada (where it is rumored that labs are operating in Quebec or Ontario). Wholesale prices can be as low as \$10 per pill for quantities of 500 via Canada. Terms such as “jars” (30–100 pills) and “buckets” (up to 1,000 pills) continue to be used in the distribution chain. U.S. Customs Service seizures at the airports and the border were 14,145 pills in 1998, 42,000 in 1999, 131,000 in 2000, and almost 400,000 in 2001. Projections for 2002 are that the U.S. Customs Service in Detroit will seize 1.2 million ecstasy pills by year-end. Most recent samples of pills submitted as ecstasy have been found to contain various other drugs or no identifiable drugs. Recent samples have variously contained methamphetamine, ketamine, dextromethorphan, PCP, and ephedrine.

Since 1998, there have been several indicators of increasing ketamine use. Break-ins to veterinary clinics have continued in efforts to obtain this drug. The Children’s Hospital of Michigan Poison Control Center was consulted on three cases of hospitalization involving ketamine during the first 6 months of 2001. Two cases of intentional ketamine abuse were reported to the poison control center over the first 4½ months of 2002.

Michigan State Police arrested 15 individuals for ketamine during the first 9 months of 2001 and seized more than 1,000 grams in powder form. In July 2001, the DEA arrested three individuals on their way to suburban Detroit from California with 21,600 vials of ketamine in liquid form, which weighed more than 2,100 pounds. This was the largest seizure of ketamine to date by the DEA.

GHB and GBL abuse began to be reported in about 1997, with the number of ED mentions and poison control case reports peaking in about 1999. Use has been primarily at nightclubs and private parties. ED mentions of GHB totaled 45 in 1999 and 12 in 2000 (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 the first 4½ months of 2002, Children’s Hospital of Michigan Poison Control Center was notified of three cases of intentional GHB abuse.

### Other Drugs

Nitrous oxide reportedly continues to be used at private parties and dance venues; most often it is combined with a variety of other drugs, primarily ecstasy.

Inhalants continue to be reported as commonly used, mostly by teens and young adults.

Intentional abuse of Coricidin HBP, the over-the-counter cold and flu medicine, is increasing in case reports to Children’s Hospital of Michigan. These tablets contain dextromethorphan. Multiple tablets are taken for a dissociative effect; use of up to 40 pills at a time has been reported. During 2000, 44 cases were reported to the poison control center, while in the first 10 months of 2001, at least 52 cases involved this drug. Most cases were teens, and nearly two of every three cases were males. About two of every three cases required hospitalization. In the first 4½ months of 2002, 52 intentional abuse cases were reported to the poison control center. Among these cases, a typical male would be 16 years old, while a typical female would be 14. Eight of these cases were suspected suicide attempts.

Abuse of cough syrup (also containing dextromethorphan) continues to be noted. Shoplifting is reportedly a common way of obtaining the substance.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Michigan ranks 17th among all States, with an AIDS case rate of 113.9 per 100,000 population. As of January 1, 2002, a cumulative total of 11,925 cases of AIDS had been reported in Michigan. Only 2 of Michigan’s 83 counties have no reported AIDS cases. Cases in Detroit/Wayne County continue to account for 55 percent of Michigan’s total cases.

IDUs continue to account for 30 percent of total AIDS cases; 23 percent have only this risk factor and 7 percent are IDUs who also have male-to-male sex as a risk factor.

Of the 8,090 male cases currently living with AIDS or HIV, 14 percent are IDUs and 7 percent are in the dual risk group.

Among the 2,388 females living with AIDS or HIV, 31 percent are IDUs, 39 percent were infected

through heterosexual contact, and 26 percent have undetermined risk factors.

Statewide, HIV prevalence is now estimated at a maximum of 3,410 IDUs and 1,090 IDUs who also engage in male-to-male sex. The estimate for IDUs is a slight increase over prevalence estimates for the prior 6 months, as is the dual risk group estimate. The total HIV prevalence estimate for Michigan increased from 13,500 cases to 15,300 cases.

Hepatitis C cases reported to the MDCH communicable disease surveillance system began to show increases in 1998, with 464 cases, compared with 362 cases in the prior year. In 1999, total cases increased by 72 percent to 798. In 2000, cases again increased sharply to 2,754, a 245-percent increase from 1999. However, much of this apparent increase is attributed to better reporting and more people being tested, rather than an increase in individuals being infected.

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**Exhibit 1. Estimated Number of ED Drug Mentions in a Seven-County Area in Southeast Michigan: 1994–2001<sup>1</sup>**

Drug Mentions	1994	1995	1996	1997	1998	1999	2000	2001 <sup>2</sup>
Alcohol-in-combination	7,220	8,379	9,087	7,984	7,992	7,199	8,447	3,910
Cocaine	8,268	8,763	10,435	8,093	8,617	7,699	7,870	3,612
Heroin/morphine	2,160	2,390	3,188	3,028	2,879	2,653	3,328	1,812 <sup>3</sup>
PCP/PCP combinations	26	56	21	19	20	24	21	17
LSD	99	143	57	74	27	63	16	12
Amphetamine	305	292	440	359	362	178	...	...
Methamphetamine/speed	17	15	...	...	0	...	...	...
Marijuana/hashish	2,955	3,875	4,210	3,742	4,335	4,100	4,344	2,170
GHB	...	0	...	...	11	45	12	...
Ketamine	–	0	0	...	...	...	1	12
MDMA (ecstasy)	...	0	0	...	6	40	60	57
Rohypnol	–	0	0	0	0	0	0	0
Hydrocodone/combinations	89	129	165	160	185	238	371	200
Drug Episodes	17,653	18,626	20,796	17,604	17,477	16,125	17,042	8,577
Total Drug Mentions	31,633	34,152	38,952	32,487	32,582	30,207	32,740	16,198
Total ED Visits (in 1,000s)	1,436	1,513	1,537	1,449	1,461	1,481	1,474	736
Drug Episodes (rate/100,000)	432	451	498	417	409	374	388	189
Drug Mentions (rate/100,000)	775	828	933	770	763	700	746	357

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

<sup>2</sup> Data are preliminary and are for the first half of the year only.

<sup>3</sup> Heroin excludes a small, but unknown, number of morphine/combinations mentions, which have been moved to the narcotic analgesics category during this time period.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Estimated Rates of ED Drug Mentions and Episodes by Age Group in a Seven-County Area in Southeast Michigan: 1994–2000**

Rate <sup>1</sup>	1994	1995	1996	1997	1998	1999	2000
Total Drug Episodes	432	451	498	417	409	374	388
Total Drug Mentions	775	828	933	770	763	700	746
Cocaine Mentions	203	212	250	192	202	178	179
Heroin Mentions	53	58	76	72	67	62	76
Marijuana Mentions	72	94	101	89	101	95	99
Episodes by Age Group							
6–17	130	132	130	97	87	87	90
18–25	610	616	586	558	532	448	445
26–34	772	770	842	656	645	554	557
35–44	400	440	514	439	437	414	440
45–54	352	399	492	463	496	519	568 <sup>2</sup>
55 and older	62	68	73	80	80	80	93 <sup>3</sup>

<sup>1</sup> All rates are per 100,000 population.

<sup>2</sup> Represents a 101.6-percent increase from 1994 to 2000.

<sup>3</sup> Represents a 65-percent increase from 1994 to 2000.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Detroit/Wayne County Positive Drug Toxicology Cases Involving Heroin or Cocaine as an Independent Cause of Death: 1995–March 2002**

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

<sup>1</sup> The 2002 data are only for the first 3 months.

SOURCE: Wayne County Office of the Medical Examiner

**Exhibit 4. Percentages of Adult Arrestees Testing Positive for Cocaine, Opiates, and Marijuana in Detroit<sup>1</sup>: 1995–2001**

<b>Drug/Year</b>	<b>Males Positive</b>	<b>Females Positive</b>
<b>Cocaine</b>		
1995	30	61
1996	27	53
1997	23	48
1998	28	46
1999	27	46
2000 <sup>2</sup>	24	42
2001 <sup>3</sup>	22	N/A
<b>Opiates</b>		
1995	6	17
1996	7	18
1997	5	9
1998	7	22
1999	9	16
2000 <sup>2</sup>	8	24
2001 <sup>3</sup>	8	N/A
<b>Marijuana</b>		
1995	42	16
1996	46	19
1997	44	28
1998	47	22
1999	48	26
2000 <sup>2</sup>	50	24
2001 <sup>3</sup>	46	N/A

<sup>1</sup> In year 2000, a revised sampling strategy was implemented to reflect a Detroit/Wayne County representative sample; earlier samples were for city of Detroit arrestees only.

<sup>2</sup> Results for 2000 are based on a weighted sample of male arrestees; the findings for the smaller sample of female arrestees are unweighted.

<sup>3</sup> Results for 2001 are for 3rd quarter only. They are preliminary and unweighted.

SOURCE: ADAM, NIJ

**Exhibit 5a. Drug Abuse and Drug Overdose as Cause of Death in Macomb County, Michigan: 1990–2001**

<b>Year</b>	<b>Number of Cases</b>	<b>Percent Change from Prior Year</b>
1990	16	–
1997	41	+156%
1998	42	+2%
1999	55	+31%
2000	74	+35%
2001	66 (3 cases pending)	–11%

SOURCE: Office of the Medical Examiner, Macomb County Health Department

**Exhibit 5b. Age Groups of Drug Abuse and Drug Overdose Cases as Cause of Death in Macomb County, Michigan: 1998–2001**

<b>Year</b>	<b>&lt; 20</b>	<b>20–29</b>	<b>30–39</b>	<b>40–49</b>	<b>50–59</b>	<b>60–69</b>	<b>70–79</b>
1998	–	5	14	17	4	1	1
1999	–	7	22	23	2	–	–
2000	1	5	27	32	7	2	–
2001	–	11	21	25	6	3	–

SOURCE: Office of the Medical Examiner, Macomb County Health Department

# Illicit Drug Use in Honolulu and the State of Hawaii

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

## ABSTRACT

*Patterns of illicit drug use in Hawaii are still dominated by crystal methamphetamine ('ice') and marijuana. The impact of alcohol remains a serious problem. Declines in heroin use continue, as do declines in cocaine use. Ecstasy is now well established on all islands, with arrests for possession and seizures by police commonly reported. Raves are present both in Waikiki and elsewhere on the islands, and these remain unregulated and unsupervised high-risk environments for youth. Oxycodone use was reported, and nine oxycodone-involved deaths occurred. Police report oxycodone seizures and arrests during the period as well.*

## INTRODUCTION

### Area Description

The 2000 U.S. Census shows that the State's current 1.2 million population differs somewhat from the population reported in the 1990 census. The differences in the demographics of the State were reported in the December 2001 Community Epidemiology Work Group (CEWG) Proceedings (Volume II). The focus here is on some of the sociocultural differences that have emerged over the past decade.

The State has been characterized as a place mainly of Pacific Islanders and Asian Americans, and until recently this was true. Changes began to occur in Hawaii during the 1990s, especially after the implementation of the Federal North American Free Trade Agreement (NAFTA), which allowed easier access to Mexican and Canadian workers. In particular, after Hurricane Iniki on September 11, 1992, substantial numbers of Mexican workers came to the islands to do roofing and repairs on the islands of Oahu and Kauai.

The Mexican population grew to the point that by 1996, the Health Department was receiving requests for prenatal literature in Spanish for the first time in the history of the State. At about this time, references to Mexican trafficking in cocaine, black tar heroin,

and resin for crystal methamphetamine increased, especially on the Big Island (Hawaii).

Other changes in the social fabric occurred—the devastation of Hurricane Iniki, the downturn in the Asian and American economies, and the severe reduction of Asian and mainland tourists in Hawaii. The resulting shortfalls to State budgets and the increased bankruptcy rates within the small business sector have had an impact as well.

In 2001, the vulnerable position of Hawaii in the world and within the globalized economy was painfully evident. Over the past decade, the State has been thrown into recession by the slump in the Asian economies, but was able to maintain some sense of hope for the future through the stability of mainland tourism. With the events of September 11, 2001, that hope disappeared and rates of unemployment, reductions in hours of work, and bankruptcy filings soared. The economy is weak and appears to be lagging well behind the mainland resurgence. Asian tourism has not returned to its former levels, and the type of tourist coming to Hawaii is less wealthy and spends much less money than in the past. The political scene has been heavily influenced by two factors: lack of funds and the fact that almost the entire legislature and the Governor and Lieutenant Governor are up for election in fall 2002. In spite of the dramatic problems with crystal methamphetamine ("ice") regarding disruption of the social fabric of the islands, little, if any, notice was taken at the legislature. The caseloads of the Child Protective Service remain swollen by family violence and child and spousal violence reports, the police are in a constant state of vigilance regarding potential violence in their routine operations, the hospitals and emergency services personnel are well aware of the gravity of the situation, and yet, the problems escape any concerted effort on the part of the community to intervene.

In the year 2002, there is some hope. It appears that the State, in spite of the major fiscal problems, will continue to support the drug courts and to expand their mission. In addition, the increases afforded to the local High Intensity Drug Trafficking Area (HIDTA) Task Force promise to intensify interdiction. There also is

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hope that the State and Honolulu City and County will implement some sort of methamphetamine reduction program similar to that of San Diego, allowing Honolulu to give up its title of “ice capital of the United States.”

### Data Sources

This report presents current information on illicit drug use in the city and county of Honolulu (Oahu) and the neighboring island of Hawaii, based on data presented at the Honolulu CEWG meeting on April 26, 2002. Data were provided from all neighbor islands; the data for the island of Hawaii were from Hilo only. The State of Hawaii Narcotics Enforcement Division and the Federal Drug Enforcement Agency did not participate in this meeting.

The data are for June–December 2001, but are reported as annual data except as otherwise noted.

- **Treatment admissions and demographic data** were provided by the Hawaii State Department of Health, Alcohol and Drug Abuse Division (ADAD). Previous data from ADAD are updated for CEWG reports whenever ADAD reviews its records. ADAD 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 CEWG reporting period, approximately 45 percent of the treatment admissions were paid for by ADAD; the remainder were covered by State health insurance agencies or by private insurance.
- **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’s Office on bodies received for examination. The circumstances that would lead to examination of the body by the ME include unattended deaths, death by suspicious cause, and clear drug-related deaths. While the ME data are consistent, they are not comprehensive and account for only about one-third of all deaths on Oahu.
- **Law enforcement case data** are usually provided by the Narcotics/Vice Divisions of the Honolulu, Maui, Kauai and Hawaii police departments. Whenever possible, these data are updated to include cases that occurred during a previous period but were under current investigation. In the current report, no data were

received from the East Hawaii Police Department, but all others are included.

- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program. The ADAM program now reports data regularly to the CEWG. The latest report is based on 2001 data, although fourth quarter data are preliminary. The ADAM project collects data at the Central Receiving Unit of the Honolulu Police Department.
- **Drug price and purity data** were provided by the Honolulu Police Department, Narcotics/Vice Division.
- **Drug seizure data** were provided by the Drug Enforcement Administration (DEA) and police departments.
- **Acquired immunodeficiency syndrome (AIDS) data** on newly reported cases were provided by the Hawaii State Department of Health.
- **Emergency department (ED) drug mentions data** have not been available in Hawaii since 1994 because ADAD canceled the Hawaii Emergency Department Episode Data (HEED) project. It is unlikely that HEED will be reinstated any time soon, given the State’s financial situation. Discussions with the Hawaii Health Information Corporation regarding its emergency room data files have stalled, as the cost of extraction cannot be borne by the CEWG or any other agency in the State. Therefore, no emergency data are available for Hawaii.

### DRUG ABUSE PATTERNS AND TRENDS

Indicators reflect the principal areas of activity with respect to substance abuse in the State of Hawaii. While much of the activity of participating agencies revolves around alcohol and tobacco, crystal methamphetamine has now risen above alcohol in terms of agency activity, including that of the Honolulu ME Office. Police, treatment, and medical examiner activity increased from previous CEWG reporting periods. Methamphetamine, cocaine, heroin, and marijuana use continue to form the focus of substance abuse activity.

Hawaiians and Whites remain in the majority among the 17 identified ethnic groups (plus 2 other categories: “other” and “unknown/blank”) who access ADAD facilities for substance abuse treatment.

During July to December 2001, 39.3 and 24.3 percent of the admissions were Hawaiians and Whites, respectively. All other groups accounted for significantly lower percentages of the total admissions.

Methamphetamine was again the leading primary substance of abuse for those admitted to treatment (37.4 percent of admissions). Alcohol, the dominant primary substance for many years, now accounts for 27.2 percent. It is important to point out that almost all polydrug treatment admissions list alcohol as a substance of abuse. Marijuana remains the third most frequently reported primary substance for treatment admissions at 21.4 percent. The 25–34 and 35–44 age groups had the highest representation among treatment admissions. While marijuana abuse accounts for the majority of treatment admissions among those younger than 18, the abuse of crystal methamphetamine still looms as a major treatment category for this younger group.

Drug prices in Honolulu have shifted somewhat because of the economic situation. There is a large and stable drug supply, which makes access to drugs much easier for abusers. Heroin and cocaine prices have adjusted, with larger quantities becoming cheaper. In general, methamphetamine decreased in price, suggesting an even greater demand and/or supply. The Big Island of Hawaii shows no change in terms of the concerns of county vice and narcotics officials. Mexican nationals continue to import black tar heroin and maintain their diversified product line, which also includes cocaine, amphetamine, and crystal methamphetamine. White powder heroin from Asia is now present in very small amounts and does not appear to be widely distributed in the islands in any quantity.

Ice continues to dominate the Hawaiian drug market. Prices have declined, perhaps indicating that more ice is available on the street. It is now easier to purchase larger quantities of ice than in the past. Police evidence of increased ice availability includes clandestine labs, almost exclusively reprocessing labs that continue to be closed at a regular pace.

Because of a lack of security forces at neighbor island airports, and thousands of miles of coastline with only a small Coast Guard presence in the State, shipping drugs to Hawaii is relatively safe and easy. From the neighbor islands, interisland flights are being used again, because of reduced security. The mainland supply chain is the main source of the precursor chemicals used for reprocessing crystal methamphetamine, and the need for clandestine manufacture of the drug is not present. The purity of ice in Hawaii is reported to approach 100 percent, but

no DEA price and purity reports have been received for several years.

Marijuana remains a drug for which related arrests result from circumstance, rather than targeted enforcement efforts. The Big Island Police Department continues to partner with the Air National Guard for “Operation Green Harvest.” This program has been in operation for more than a decade. The effort is intended to destroy the plants rather than seek interdiction directly. Nearly 100,000 plants are seized per half-year on the Hilo (east) side of the island; another approximately 30,000 plants are seized on the Kona (west) side of the island. Oahu efforts during this period have netted about 15,800 plants; officials have seized almost 5,000 pounds in Maui and about 4 pounds in Kauai.

The Hawaii DEA continues its efforts to deal with crystal methamphetamine, and, in particular, to break the supply route from California for the chemicals necessary to operate Hawaii's ice labs. During the past several months, the Honolulu Police Department (HPD) seized and closed several clandestine methamphetamine labs and seized more than 4 tons of the drug.

The following sections present annual data. In the police activity data exhibits, all neighbor island data have been combined and titled “Neighbor Islands” because of the inconsistencies in data reporting from these police departments. The Honolulu data represent reports from the HPD. For ME data, the original values have been multiplied by 10 in the exhibits, allowing them to be presented on the same axes as treatment data for comparison purposes. The stability of these data is assured.

### **Cocaine and Crack**

Cocaine and crack treatment admissions continue to show declines, with 550 admissions in 2000 and 433 in 2001. As shown in exhibit 1, admissions for cocaine were quite stable from 1996 to 1999 and began a decline in 2000 that continued into 2001. Cocaine and crack now rank fourth as primary drugs of abuse among treatment admissions, after methamphetamine, alcohol, and marijuana.

Over the past 6 years, the Honolulu ME Office has consistently reported between 22 and 32 deaths per year with cocaine-positive toxicology screens (exhibit 1). The 2001 data are consistent with that pattern. Again, it should be noted that the number of deaths is 24 for 2001 and not 240, because the data have been multiplied by 10 to allow for presentation on the same number axis as treatment data.

According to the HPD, cocaine prices have changed only for the larger quantities of the drug. With declining use of the drug, police arrests have decreased as well. The number of HPD cocaine cases plummeted over the past 5 years (exhibit 2). That trend continued in 2001, when cocaine cases represented only about 12 percent of the number of cases reported in 1996. Neighbor island data are from all islands and show a similar pattern.

### **Heroin and Other Opiates**

Black tar heroin monopolizes the heroin market of Hawaii and is readily available in all areas of the State. China white is uncommon, but present. Purity levels are quite variable for black tar (20–60 percent). According to the HPD, heroin prices are now stable in Honolulu, costing \$50 per quarter gram, \$200 per gram, and \$5,000 per ounce.

Heroin treatment admissions continued the decline that began in 1999 (exhibit 3). The number of admissions for heroin abuse in 2001 (278) was nearly one-half of that in 1998, when a record level of heroin treatment admissions was recorded (521). In 2001, heroin ranked fifth as a primary drug among treatment admissions, at 2.8 percent of all admissions.

The Honolulu ME reported that deaths in which heroin was detected are keeping pace with the annual trend of about 22 per year (exhibit 3). In 2001, there were 25 deaths with positive heroin toxicology screens.

Honolulu police reported only 17 heroin cases in 2001, compared with 74 in 2000 (exhibit 4). Neighbor island police reported 39 heroin cases during 2001, about one-half the number recorded in 2000.

Oxycodone seizures and arrests related to the drug were reported by police sources. The Honolulu medical examiner reported nine oxycodone-involved death mentions.

### **Marijuana**

Statewide, marijuana treatment admissions are currently the highest in the 10 years of data recorded by the Hawaii CEWG (exhibit 5). There were 1,544 admissions for marijuana treatment in 2001. In examining the treatment data, it is important to note that the number of persons in treatment for marijuana use has tripled since 1992. It is also noteworthy that while marijuana is listed as the primary drug of abuse at treatment admission, many of these clients also used other substances.

From 1996 to 2000, the Oahu ME reported 15 to 25 deaths per year in which marijuana was found in the specimens submitted for toxicology screening (exhibit 5). In 2001 there were 36 such deaths.

Updated marijuana prices show modest increases in prices. According to the Honolulu Narcotics/Vice Division, marijuana sells for \$5–\$20 per joint; \$100–\$200 per quarter ounce, based on quality; \$250–\$500 per ounce (low quality); \$400–\$800 per ounce (higher quality); and \$6,000–\$9,000 per pound. As yet, there is no sign of blunts.

Honolulu police continue to monitor, but do not systematically report, case data for marijuana. Possession cases are steady at about 650 per year, although distribution cases have continued to increase. Law enforcement sources speculate that much of the Big Island's marijuana is brought to Oahu for sale, and the police case data for the Big Island have increased substantially. The data on marijuana police cases are shown in exhibit 6.

### **Methamphetamine**

On the basis of several indicators, Hawaii can now definitely lay claim to being the crystal methamphetamine capital of the United States. Methamphetamine remains the drug of choice in the island chain. California-based Mexican sources use Hawaii's cultural diversity to facilitate smuggling and distribution to and within the islands. 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 remain extremely high, exceeding those for alcohol. A total of 2,644 admissions occurred during 2001, compared with 2,419 in 2000. Exhibit 7 shows the trend over the past decade. The rate of increase in demand for treatment space for methamphetamine has been geometric, not linear. This situation has so far outstripped the treatment system's capacity that people who might desire treatment would not be likely to receive it in a timely manner.

Oahu ME mentions of crystal methamphetamine were between 24 and 39 cases per year from 1995 to 2000 (exhibit 7). In 2001, 54 decedents had a positive toxicology screen for ice. The number of deaths involving ice now exceeds the number in which alcohol is present.

Crystal methamphetamine prices have decreased considerably over the past year for larger quantities.



Ice is sold in the islands as "clear" (a cleaner, 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 Oahu: \$50 (wash) or \$75 (clear) per one-tenth gram; \$100–\$200 (wash) or \$600–\$900 (clear) per gram; \$250–\$400 (wash) or \$1,000–\$2,000 (clear) per quarter ounce; and \$2,200–\$3,000 (wash) per ounce.

HPD methamphetamine case data decreased in 2001 (exhibit 8). The annual number of cases peaked in 1995 and declined during most years thereafter. In 2001, there were 631 Honolulu police cases and 876 from the neighbor islands.

Data on adult male arrestees tested in the Honolulu ADAM site were not promising with regard to crystal methamphetamine. Data for 2001 (weighted for the first three quarters and unweighted for the fourth quarter) show that amphetamines (almost entirely methamphetamine) constituted the drug category most frequently found in urine samples of the arrestees. In the final quarter of 2001, the proportion of arrestees with positive toxicology screens for methamphetamine was nearly 50 percent. The figure for all of 2000 was about 37 percent.

### 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, these drugs account for fewer than 10 treatment admissions.

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 have 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

Hallucinogens account for fewer than five treatment admissions per year. No ME mentions of hallucinogens 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 CEWG reporting period.

No hallucinogen case data were generated for 2001.

### Methylenedioxyamphetamine (MDMA)

MDMA (ecstasy) is reportedly well-established on all the islands. Raves operate in Waikiki and elsewhere on the islands. Raves continue to be unregulated and unsupervised high-risk settings for youth. Arrests for possession of ecstasy and seizures by police are commonly reported.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

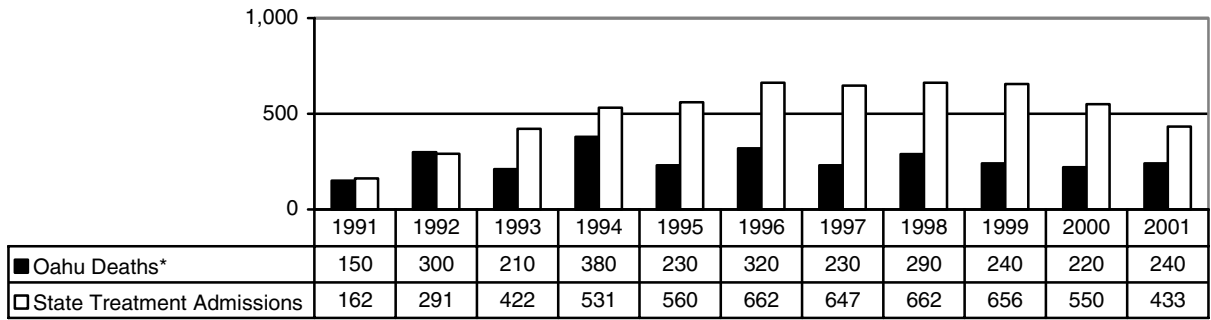
The first case of the acquired immunodeficiency syndrome (AIDS) in Hawaii was reported in 1983 and new cases have appeared each year. By 2001, the number of AIDS cases totaled 2,581, and the rate of new cases per 100,000 population was 10.5 (exhibit 9).

Of the AIDS cases in Hawaii, 68 percent are attributed to "men having sex with men" (MSM), 7 percent to injection drug use, and 3 percent to the dual category of MSM/IDU.

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*For inquiries concerning this report, please contact Dr. D. William Wood, University of Hawaii at Manoa, Department of Sociology, 2424 Maile Way, Room 210, Honolulu, Hawaii 96822, Phone: 808-956-7117, Fax: 808-965-3707, E-mail: <dwwood@hawaii.edu>.*

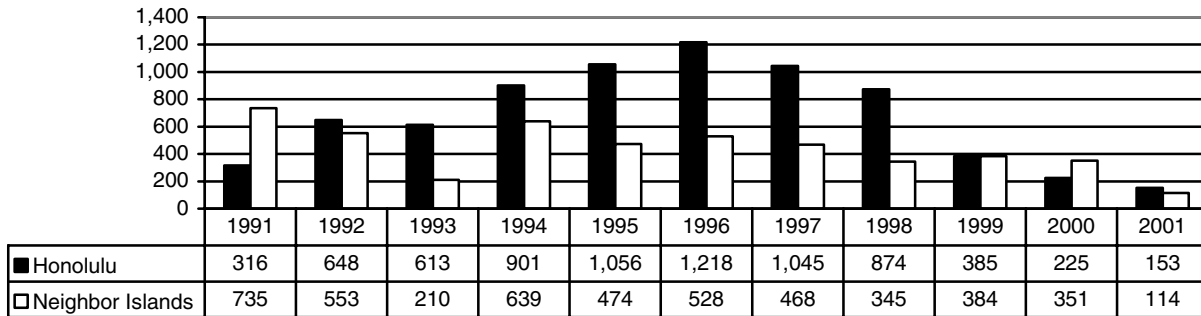
**Exhibit 1. Hawaii Cocaine Use Indicators by Year and Number: 1991–2001**



\* Death data have been multiplied by 10.

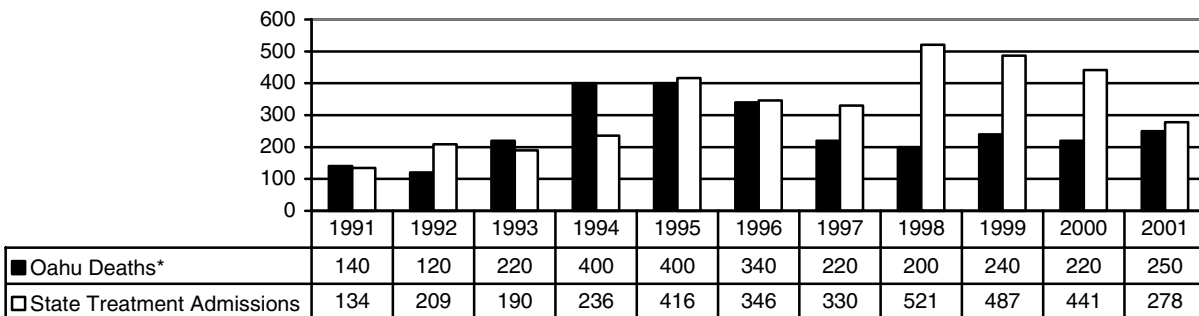
SOURCES: Medical Examiner Office and ADAD

**Exhibit 2. Hawaii Cocaine Police Cases by Year and Number: 1991–2001**



SOURCE: Police departments

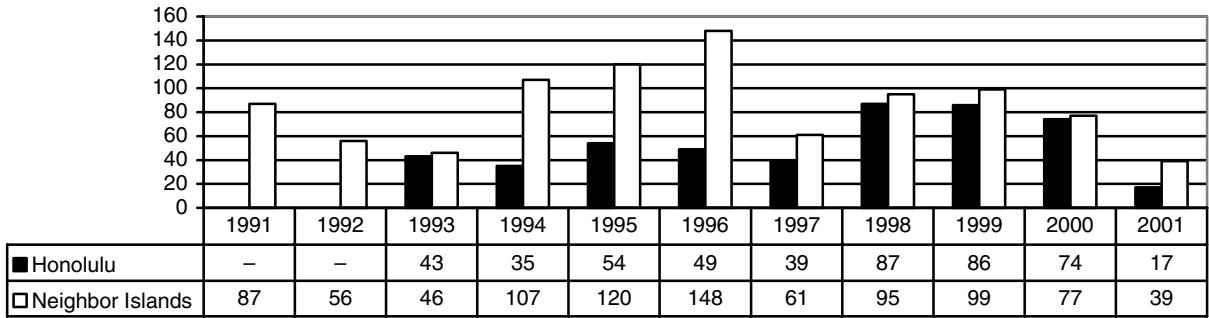
**Exhibit 3. Hawaii Heroin Use Indicators by Year and Number: 1991–2001**



\* Death data have been multiplied by 10.

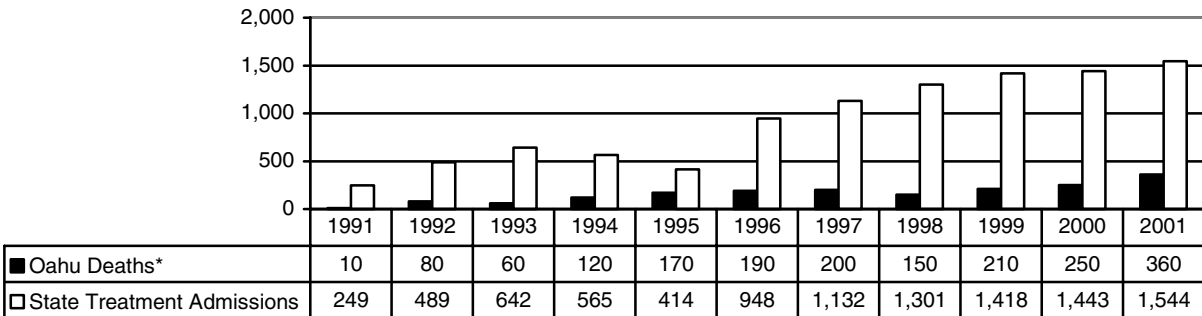
SOURCES: Medical Examiner Office and ADAD

**Exhibit 4. Hawaii Cocaine Police Cases by Year and Number: 1991–2001**



SOURCE: Police departments

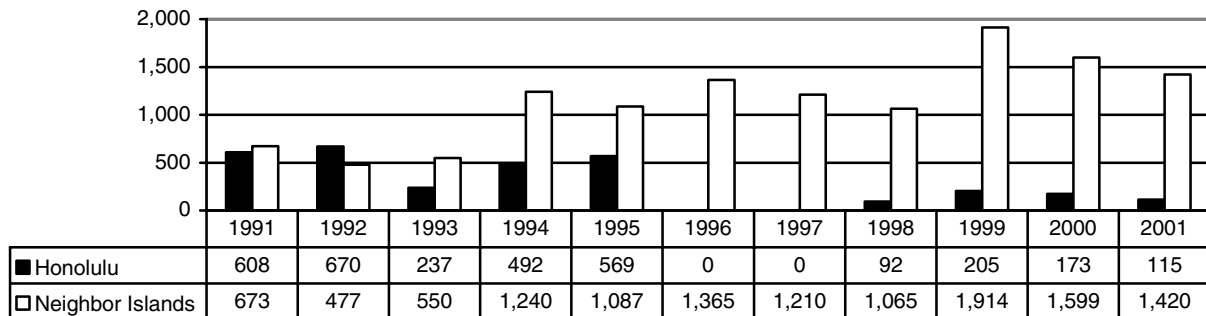
**Exhibit 5. Hawaii Marijuana Use Indicators by Year and Number: 1991–2001**



\* Death data have been multiplied by 10.

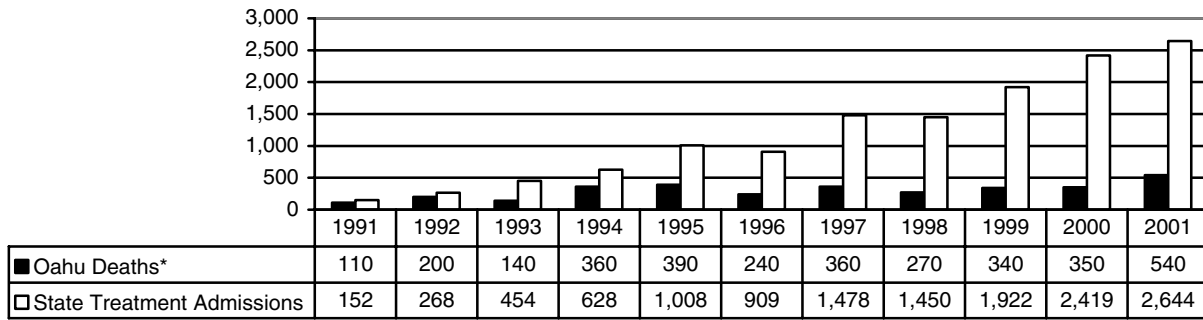
SOURCES: Medical Examiner Office and ADAD

**Exhibit 6. Hawaii Marijuana Police Cases by Year and Number: 1991–2001**



SOURCE: Police departments

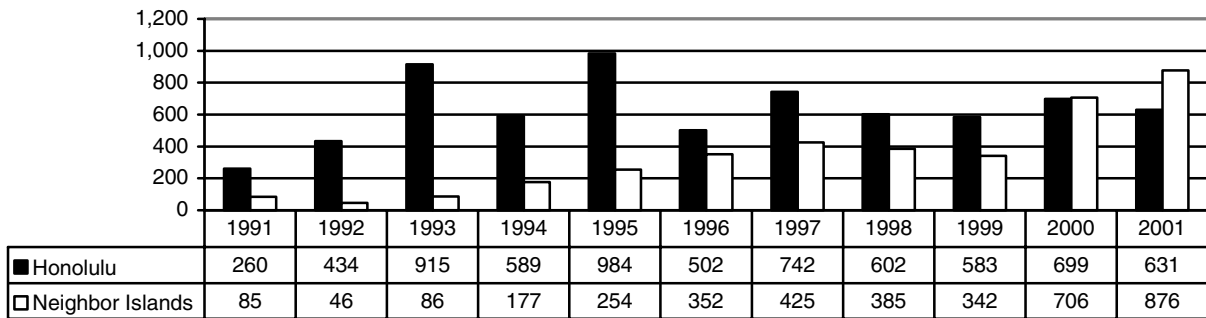
**Exhibit 7. Hawaii Methamphetamine Use Indicators by Year and Number: 1991–2001**



\* Death data have been multiplied by 10.

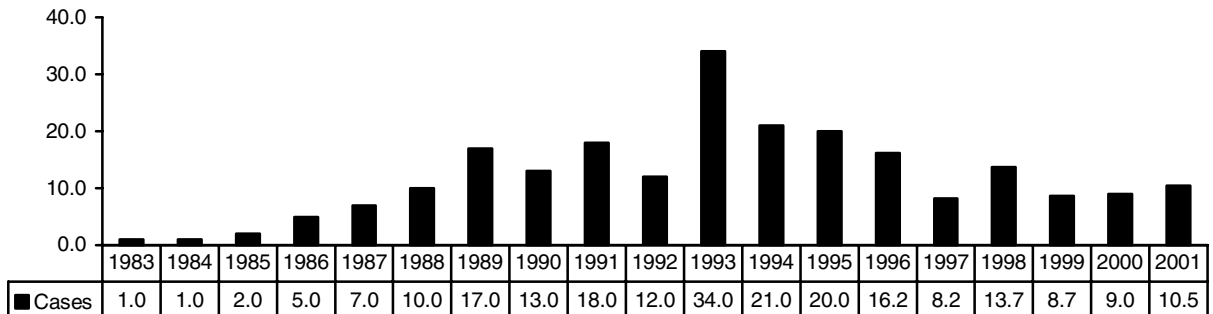
SOURCES: Medical Examiner Office and ADAD

**Exhibit 8. Hawaii Methamphetamine Police Cases by Year and Number: 1991–2001**



SOURCE: Police departments

**Exhibit 9. Newly Reported Cases<sup>1</sup> of AIDS Per 100,000 Population Reported in Hawaii: 1983–2001**



<sup>1</sup> N=2,581

SOURCE: Hawaii State Department of Health

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

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

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## ABSTRACT

*Crack/cocaine and heroin continue to rank first and second as the principal illicit drugs of abuse in Los Angeles County. Over 35 percent of county-contracted treatment and recovery program admissions are associated with primary heroin abuse. Cocaine is the second most commonly mentioned major substance of abuse among ED drug episodes. There are indications, however, that cocaine popularity has peaked and even declined in many regions throughout southern California. In those areas, methamphetamine has supplanted cocaine in popularity. The cleanup costs associated with the production of methamphetamine in California are about \$4 million per year. This is just one among many indicators of the enormity of the methamphetamine clandestine lab problem in the area. Marijuana is the most widely used drug in Los Angeles County. Unlike heroin, cocaine/crack, and methamphetamine, marijuana is not associated with as many negative consequences. Anecdotal evidence from a variety of local sources lends support to the claim that the nonmedical use of prescription medications such as narcotic analgesics and the use of club drugs, specifically MDMA and GHB, are rapidly increasing in Los Angeles County. According to local law enforcement officials, there has been no discernable change in the production or transportation of narcotics since the last reporting period. Large narcotic shipments continue to bypass Los Angeles in favor of smaller outlying communities. There appears to be a reemphasis on street-level dealing as a method of distribution. Anecdotal evidence also suggests that narcotic dealers are taking advantage of the post-September 11th deployment of Los Angeles Police Department Narcotics Division personnel to aggressively market their products and increase sales in the absence of a large law enforcement contingent. While the proportion of AIDS cases has stabilized for Black males and decreased for White males, Hispanic males continue to constitute a larger percentage of the total.*

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## INTRODUCTION

### Area Description

The City of Los Angeles, with approximately 3.8 million residents—an estimated 8,146 persons per square mile—is the largest city in California and the second largest city in the United States. 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. More than 7.9 million 20-foot cargo container units moved into the two ports in fiscal year (FY) 1999, according to the 2001 report of the National Drug Intelligence Center (NDIC).

Los Angeles is also home to the world's third busiest airport—Los Angeles International Airport (LAX). The airport handles over 1,000 cargo flights each day; 50 percent of this activity is international in origin or destination, according to 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.

In a recent report, NDIC stated that increased law enforcement pressure in urban areas is causing gangs to establish new territories and markets in smaller communities and rural areas. As a result, gang

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<sup>1</sup> The author is affiliated with Integrated Substance Abuse Programs, University of California, Los Angeles, California.

violence is spreading from urban to rural areas. Los Angeles County has an estimated 1,350 gangs with 152,000 members. Many of the Los Angeles-based gangs have chapters in cities throughout the United States. These gangs are extremely violent and create harmful environments that threaten public safety.

Exhibit 1 provides a major metropolitan area and California city comparison of the percentage of adults 20 years and older whose highest grade completed was sixth or lower, and the total share of adults who never finished high school. According to the Economic Policy Institute, approximately 1 in 10 adults in the Los Angeles region has 6 years of education or less. The rate is the worst of all U.S. metropolitan areas, including the immigrant magnets of New York, Chicago, and Miami, and is more than double that of San Francisco, San Diego, and Sacramento (featured in the February 5, 2002, *Los Angeles Times* and based on the Current Population Survey, December 2001). In addition, nearly 25 percent of Los Angeles region adults never completed high school—about double the rate among San Francisco and San Diego adults. Only agricultural areas such as Visalia and Modesto have larger shares of nongraduates.

A separate study, conducted by the Center for Labor Market Studies at Northeastern University in Boston, states that “from 1983 to 1999, the number of workers lacking a high school diploma decreased by 20 percent nationwide, yet increased by 50 percent in the Los Angeles–Long Beach metropolitan area.” This trend has enabled the Los Angeles area to retain and even increase low-wage manufacturing and service jobs that have disappeared elsewhere and helps to explain why blue-collar employment grew in Los Angeles at more than twice the national rate.

### Data Sources

This report describes current drug trends in Los Angeles County from 1996 to June 2001. Information was collected from the following sources:

- **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 1996–June 2001. Data for the first half of 2001 are preliminary.
- **Drug treatment data** were derived from the California Department of Alcohol and Drug Programs (ADP), California Alcohol and Drug

Data System (CADDSS); and Los Angeles County alcohol and other drug (AOD) treatment and recovery program admission data for January 1999–December 2001.

- **Illicit drug-induced death data** were provided by the Los Angeles County Department of the Coroner and represent select drug-related mortality data for 1996–2001. In addition, drug mortality mentions in the DAWN system were presented for the year 2000. The DAWN system covered 100 percent of both the metropolitan statistical area (MSA) jurisdictions and MSA population in 2000.
- **Drug availability, price, purity, and distribution data** were derived from the Los Angeles Police Department (LAPD): the Drug Enforcement Administration (DEA)’s Domestic Monitor Program (DMP); the Los Angeles High Intensity Drug Trafficking Area (LA HIDTA); the Los Angeles County Regional Criminal Information Clearinghouse (LA CLEAR); and the NDIC of the U.S. Department of Justice, California Southern District Drug Threat Assessment (December 2000).
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were derived from the Los Angeles County Department of Health Services, HIV Epidemiology Program. The data are cumulative through 2001.
- **Education data** were derived from the *Los Angeles Times* article entitled, “LA Workers Held Back by Low Education Rate,” February 5, 2002.
- **Demographic and geographic data** were provided by the United Way of Greater Los Angeles and the Los Angeles County Department of Health Services, Public Health.
- **Hepatitis B and C data** were derived from the Los Angeles County Department of Health Services Morbidity/Communicable Disease Surveillance Unit for July–December 2001.

### DRUG ABUSE PATTERNS AND TRENDS

#### Cocaine and Crack

Cocaine/crack was second only to alcohol-in-combination as the most frequently mentioned major substance of abuse in the Los Angeles–Long Beach metropolitan area from January to June 2001, accounting for 22 percent of all DAWN ED drug

mentions (exhibit 2). The proportion of ED cocaine/crack mentions in ED drug episodes rose from 32 percent in the first half of 1998 to 38 percent in the first half of 2001.

As shown in exhibit 3, ED cocaine/crack mentions totaled 4,876 in the first half of 2001, a nonsignificant increase of 9 percent from the second half of 2000, but a continuation of the rising trend that began in the first half of 1997. Of the 4,876 ED cocaine/crack mentions reported in the first half of 2001, 68 percent occurred among males and 31 percent among females (1 percent were “unknown”). Forty-seven percent of the mentions were among Blacks, followed by 27 percent among Hispanics, and 19 percent among Whites (6 percent were of unknown race/ethnicity). The 35-and-older age category accounted for the highest percentage of cocaine/crack mentions (57 percent), followed by the 26–34 (25 percent) and 18–25 (16 percent) categories. Approximately three-quarters of the ED cocaine mentions occurred during multidrug episodes. When asked about drug use motive, more than one-half (54 percent) reported cocaine dependence. “Chronic effects” (41 percent) was the most frequently reported reason for ED contact. Overdose was reported as a reason for ED contact by an additional 9 percent of the cocaine mentions.

The rate of population-adjusted ED cocaine/crack mentions remained stable (at approximately 50 mentions per 100,000 population) from the second half of 2000 to the first half of 2001 (exhibit 4). From the first half of 1996 to the last half of 1999, population-adjusted ED cocaine/crack mentions fluctuated between 27 and 42. Since January 2000, cocaine mentions per 100,000 population have risen, though not significantly, and remained in the low fifties. With regard to population-adjusted ED cocaine mentions in the six western CEWG sites (Denver, Los Angeles, Phoenix, San Diego, San Francisco, and Seattle), Seattle led the group in the second half of 2000, with 88 mentions per 100,000 population, while San Diego had the lowest number (21 per 100,000).

Although cocaine/crack continues to rank highest in terms of DAWN ED illicit drug mentions, approximately 19 percent of Los Angeles County treatment and recovery program admissions between July and December 2001 reported crack or powder cocaine as the primary drug of abuse (exhibit 5). As a percentage of the total, cocaine admissions have remained stable since July 1999. As in the past, alcohol was the most commonly abused secondary drug among primary cocaine admissions (42 percent), followed by marijuana (19 percent). The preferred route of

administration for 88 percent of the cocaine admissions was smoking; another 8 percent of the cocaine admissions reported intranasal use as the preferred route of administration (exhibit 6).

From July to December 2001, 62 percent of the primary cocaine admissions were male. Blacks constituted the largest percentage of cocaine admissions (57 percent), followed by Hispanics (22 percent), and Whites (16 percent). Compared with other major illicit drug admissions, primary cocaine admissions encompassed the largest proportion of Blacks. The majority of cocaine admissions were age 36 and older (59 percent).

According to the DAWN mortality data, cocaine was the second most commonly mentioned drug in Los Angeles County cases in 2000 (with 471 mentions) (exhibit 7). The proportion of cocaine death mentions among all drug mentions increased slightly, from 12 percent of all mentions in 1999 to 16 percent of all drug mentions in 2000. A total of 136 drug deaths reported to DAWN in 2000 were associated exclusively with cocaine; 33 were cocaine-induced deaths and 103 were cocaine-related. A combination of alcohol and cocaine contributed to an additional 84 deaths, a combination of cocaine and heroin/morphine contributed to an additional 50 deaths, and a combination of alcohol, cocaine, and heroin/morphine contributed to an additional 40 deaths. A majority (74 percent) of the single-drug cocaine deaths were classified as accidental/unexpected.

Citywide cocaine arrests decreased 54 percent, from 2,342 in the first half of 2001 to 1,074 in the second half. Cocaine arrests accounted for 10 percent of all narcotics arrests made between July and December 2001.

Powder cocaine seizures decreased 29 percent, from 534 to 377 pounds between the two halves of 2001. Rock cocaine seizures decreased as well (63 percent), from 95 to 35 pounds over the same time period. The year-end 2001 total of all powder cocaine seizures was 62 percent lower than the year-end 2000 total. The street value of the seized cocaine (both powder and rock) accounted for 20 percent of the total street value of all drugs seized in the second half of 2001.

Cocaine remains widely available in Los Angeles County. The wholesale price for 1 kilogram of cocaine ranges from \$14,000 to \$16,000, a slight decrease from the wholesale price reported in the December 2001 CEWG report. The current retail price of cocaine is \$80 per gram, \$600–\$700 per ounce, and \$80,000 per kilogram. The purity of cocaine available in Los Angeles County remains

high and stable at approximately 80–85 percent. There are indications that cocaine popularity has peaked and even declined in many regions throughout the LA HIDTA. In those areas, methamphetamine has supplanted cocaine in popularity.

According to NDIC, cocaine is the most significant drug threat to the Central District of California, which includes Los Angeles County. The primary smugglers and distributors of cocaine are Mexican drug trafficking organizations and other Mexican criminal groups. These organizations and groups obtain cocaine from Colombian drug trafficking organizations and then smuggle the drug into the district for wholesale distribution. Most of the cocaine moved into the LA HIDTA is transported overland across the U.S.-Mexico border. Interstates 5, 10, 40, and 405 are principal roads used to smuggle cocaine, primarily in commercial and personal vehicles. Crack cocaine continues to be distributed at the retail level by African-American and Hispanic street gangs.

In the Los Angeles area, cocaine is sold at the street level through a call-and-deliver system rather than open-air sales. According to NDIC, buyers order cocaine by telephone and distributors deliver it to the buyers' homes or other agreed-upon locations. The call-and-deliver system reduces the likelihood of large losses should law enforcement arrest a distributor.

## Heroin

From January to June 2001, heroin was the fourth most frequently mentioned major substance of abuse in the Los Angeles–Long Beach metropolitan area, accounting for 7 percent of the total DAWN ED drug mentions (exhibit 2). ED heroin/morphine mentions as a proportion of ED drug episodes remained stable at about 14–15 percent from 1996 to 1999 (exhibit 2). Since July 1999, however, the proportion of ED heroin/morphine mentions in ED drug episodes has declined to approximately 11–12 percent.

ED heroin mentions increased 9 percent, from 1,386 mentions in the second half of 2000 to 1,506 in the first half of 2001 (exhibit 3), although this increase was not statistically significant. Of the 1,506 ED heroin mentions reported in January–June 2001, 73 percent were among males (a significant increase of 16 percent from the last half of 2000). Hispanics continued to dominate the heroin ED mentions at 41 percent, followed by Whites (34 percent) and Blacks (16 percent). The 35-and-older age category accounted for the highest percentage of heroin mentions (72 percent), followed by the 26–34 (18

percent) and 18–25 (9 percent) categories. Since January 2000, heroin mentions have been evenly split between single-drug and multidrug episodes.

Heroin dependence was reported as the drug use motive among the vast majority (85 percent) of the ED mentions in the first half of 2001. Chronic effects (47 percent) and overdose (26 percent) were the two most frequently reported reasons for ED contact. In terms of patient disposition, 46 percent were treated and released, and an additional 43 percent were admitted to the hospital.

The population-adjusted rate of heroin/morphine ED mentions in the Los Angeles–Long Beach metropolitan area remained stable since the December 2001 CEWG reporting period, at 16 mentions per 100,000 population. Since 1996, the population-adjusted rate of heroin/morphine ED mentions has fluctuated between 14 and 21 per half-year (exhibit 4).

Population-adjusted ED heroin mentions in the six western CEWG sites show that San Francisco led the group in the year 2000, with 73 mentions per 100,000 population, while Phoenix had the lowest number (12 per 100,000 population) (exhibit 4).

The percentage of primary heroin admissions to Los Angeles County treatment and recovery programs continues to decrease slightly overall, from 40 percent of all admissions in January–June 2001 to 36 percent (8,033 admissions) in July–December 2001 (exhibit 5). In the second half of 2001, primary heroin admissions were predominantly male (72 percent), older than 35 (72 percent), somewhat more likely to be Hispanic (44 percent) than White (36 percent) or Black (13 percent) (exhibit 6), and likely to report cocaine as a secondary drug of abuse (23 percent), followed by alcohol (9 percent). Eighty-nine percent of the primary heroin admissions injected heroin, 6 percent smoked the drug, and 3 percent used it intranasally. Compared with other major types of illicit drug admissions, primary heroin admissions had the largest proportion of Hispanics and users age 36 and older.

According to the DAWN mortality data, heroin/morphine was the most commonly mentioned drug in Los Angeles County cases reported to DAWN in 2000, with 473 mentions (exhibit 7). The proportion of heroin/morphine mentions in all drug-related death mentions increased slightly, from 14 percent of all mentions in 1999 to 16 percent in 2000. A total of 76 drug deaths reported to DAWN were associated solely with heroin/morphine; 42 were heroin/morphine-induced deaths, and 34 were heroin/



morphine-related. A combination of alcohol and heroin/morphine accounted for an additional 60 deaths, and a combination of cocaine and heroin/morphine for another 50. In addition, a combination of alcohol, cocaine, and heroin/morphine contributed to 40 deaths, and a combination of alcohol, heroin/morphine, and narcotic analgesics to 24. A majority (86 percent) of the single-drug heroin/morphine deaths were classified as accidental/unexpected.

Citywide heroin arrests decreased 15 percent since the last CEWG reporting period, from 3,514 in the first half of 2001 to 2,981 in the second half. Heroin arrests accounted for 28 percent of all narcotics arrests between July and December 2001.

In a major reversal of trends, citywide seizures of black tar heroin decreased 98 percent, from 322 to 5 pounds between the first and second halves of 2001. Similarly, seizures of other types of heroin decreased 92 percent, from 35 to 3 pounds over the same time period. The year-end 2001 total of black tar heroin seizures was approximately 775 percent higher than the year-end 2000 total. And the year-end 2001 total of all other heroin seizures was 240 percent higher than the year-end 2000 total. The street value of the seized heroin accounted for 2 percent of the total street value of all drugs seized in the second half of 2001.

The wholesale price per kilogram of black tar heroin has increased since the last CEWG reporting period, to approximately \$18,000–\$22,000, with a street value of \$32,000–\$50,000. The retail cost is \$90–\$100 per gram, and the cost of a *pedazo* (Mexican ounce) is \$600–\$700 (up from approximately \$500–\$600 one year ago). A regular ounce is 28.5 grams, while a Mexican ounce is 25 grams. The LA HIDTA reports that Mexican black tar heroin has a purity level of 16–18 percent, which is approximately 10 percent lower than the purity reported by the LAPD in the last CEWG reporting period. Law enforcement officials are uncertain why the purity level diminished so much. One speculation is that the higher purity reported earlier was related to competition for customers between Colombian and other traffickers.

Half-year DMP data (January–June 2001) substantiate LA HIDTA's reports regarding the purity of heroin being sold on the streets of Los Angeles. All samples analyzed were Mexican in origin. The average purity of the samples was 17.5 percent, and the average price per milligram pure was \$0.65. Both the price and purity of the heroin purchased in Los Angeles were below the national price and purity averages of \$1.05 and 35 percent.

Average price ranged from \$0.30 in Newark to \$3.53 in St. Louis, while average purity ranged from 10.3 percent in Seattle to 71 percent in Philadelphia.

Mexican brown heroin sells for \$24,000–\$34,000 per kilogram wholesale and \$35,000–\$50,000 per kilogram retail. A kilogram of South American (Colombian) heroin sells for \$86,000–\$100,000 and continues to have an extremely high purity level (94 percent). There is some indication that Colombian heroin traffickers are beginning to expand operations within the LA HIDTA. Southeast Asian heroin (China white) is not often encountered in Los Angeles because of users' preference for black tar heroin. However, Los Angeles is a transshipment center for the distribution of China white to the east coast. This type of heroin sells on the streets of Los Angeles for \$70,000–\$80,000 for 700–750 grams and \$35,000–\$40,000 for 300–350 grams.

According to Federal, State, and local law enforcement officials, heroin distribution in Los Angeles has changed little over the last 5 years. Mexican trafficking organizations remain fully entrenched in all aspects of the heroin trade, including importation and wholesale and retail distribution of Mexican black tar and Mexican brown powdered heroin. Most users continue to use Mexican black tar heroin. Los Angeles is a major distribution center and transshipment point for Mexican black tar and brown powdered heroin destined for locations within California as well as cities primarily in the Western United States. Mexican black tar heroin, smuggled and sold by Mexican drug trafficking organizations, is increasingly available throughout the Central District of California (including Los Angeles County). South American heroin, produced and supplied by Colombian drug trafficking organizations, is also available in the area. Although Southeast Asian and Southwest Asian heroin are transshipped through Los Angeles to the Eastern United States, they are not encountered as frequently as Mexican heroin by law enforcement officials in the area.

### Other Opiates/Narcotics

DAWN ED mentions of narcotic analgesics, such as codeine and hydromorphone, continued to increase steadily, but not significantly, from 628 mentions in the second half of 2000 to 683 mentions in the first 6 months of 2001. In addition to the mentions of narcotic analgesics, there were 332 mentions of narcotic analgesic combinations during January–June 2001. Mentions of such combinations have fluctuated at or above 300 since the beginning of 1999.

In July–December 2001, 430 admissions (2 percent of all admissions) to Los Angeles County treatment and recovery programs reported a drug from the other opiates/synthetics category as their primary drug of choice. Other opiates/synthetics admissions were up slightly from the approximately 400 admissions reported during the first half of 2001. Sixty percent of the other opiates/synthetics admissions were male, 68 percent were White, and 75 percent were age 36 or older.

Since 1996, the Los Angeles County Department of the Coroner's Toxicology Laboratory has detected OxyContin (a long-lasting, time-release form of oxycodone) in 27 cases, 15 of them in 1999–2001. Of the 27 deaths, 14 were ruled accidental, 9 suicide, 2 natural, and 2 undetermined. In 14 of the 27 cases, an additional opiate was detected in the decedent's system.

According to the DAWN mortality data, narcotic analgesics were the third most commonly mentioned drugs in Los Angeles County cases reported to DAWN in the year 2000 (exhibit 7). Of the 407 narcotic analgesic mentions, codeine accounted for 49 percent and hydrocodone for 20 percent. Among the 1,192 drug deaths reported to DAWN in 2000, there were also 115 mentions of other analgesics, of which acetaminophen accounted for 70 percent.

The proportion of narcotic analgesics mentions increased slightly, from 12 percent of all drug death mentions in 1999 to 14 percent in 2000. A total of nine drug deaths reported to DAWN were associated exclusively with narcotic analgesics, of which three were narcotic analgesics-induced and six were narcotic analgesics-related. A combination of heroin/morphine and narcotic analgesics contributed to an additional 41 deaths, and a combination of alcohol, heroin/morphine, and narcotic analgesics contributed to an additional 24 deaths. A majority (67 percent) of the single-drug narcotic analgesics deaths were classified as suicides.

According to local law enforcement officials, diverted pharmaceuticals, specifically OxyContin, hydrocodone, alprazolam (Xanax), and diazepam (Valium), continue to pose a tremendous abatement challenge. Numerous Internet chat rooms are devoted to abusers seeking to illegally obtain legitimate pharmaceuticals through the mail.

### **Marijuana**

Marijuana/hashish was the third most frequently mentioned major substance of abuse in the Los Angeles–Long Beach metropolitan area in 2000,

accounting for 12 percent of all ED drug mentions (exhibit 2). The proportion of marijuana/hashish ED mentions among ED drug episodes remained stable at approximately 22 percent during the first half of 2001.

ED marijuana mentions increased slightly (7 percent), from 2,627 mentions in the second half of 2000 to 2,814 mentions in the first half of 2001 (exhibit 3). Between the first halves of 2000 and 2001, the number of ED marijuana mentions decreased 13 percent, but the decrease was not significant. Of the 2,814 ED marijuana mentions reported in January–June 2001, 67 percent occurred among males, 26 percent among Hispanics, and 21 percent among Whites. The age group with the largest proportion of ED marijuana mentions was the 35-and-older group (36 percent), followed by 18–25-year-olds (26 percent), and 26–34-year-olds (23 percent). These demographic patterns were stable between the first half of 2000 and the first half of 2001. Most of the ED marijuana mentions occurred during multidrug episodes. Only about 15 percent occurred during an episode in which marijuana was the only drug mentioned. Marijuana dependence was reported as the drug use motive for 33 percent of the mentions (a slight increase from the previous reporting period). Sixty percent were admitted to the hospital, while 38 percent were treated in the ED and released.

In January–June 2001, the population-adjusted rate of marijuana/hashish ED mentions in Los Angeles was 30 mentions per 100,000 population (exhibit 4). This rate has remained stable since the last CEWG reporting period. The population-adjusted ED marijuana mentions in 6 western CEWG sites show that Seattle led the group in the year 2000, with 36 mentions per 100,000 population. San Diego and San Francisco had the lowest number of population-adjusted marijuana mentions (19 per 100,000).

The percentage of primary marijuana admissions remained stable at approximately 9 percent of all Los Angeles County treatment and recovery program admissions between the first and second halves of 2001 (exhibit 5). The total number of marijuana admissions decreased 10 percent from the first half of 2001 (2,258) to the second half of 2001 (2,028). Males (73 percent) and individuals younger than 18 (47 percent) constituted the majority of these admissions; 43 percent were Hispanic, 28 percent were Black, and 19 percent were White (exhibit 6). The proportion of young marijuana users has decreased. In January–June 2001, 54 percent of the primary marijuana admissions were younger than 18, compared with 47 percent in the second half of 2001. In the last half of 2001, alcohol remained the

secondary drug of choice for 44 percent of the primary marijuana admissions; another 12 percent reported cocaine, and an additional 9 percent reported methamphetamine as their secondary drug of choice. Compared with other major illicit drug admissions, primary marijuana admissions had the largest proportion of males and users age 17 and younger.

According to the DAWN mortality data, marijuana was mentioned in 32 of the 1,192 drug-related deaths that occurred in Los Angeles County in 2000 (exhibit 7). The proportion of marijuana death mentions increased slightly, from 0.5 percent of all mentions in 1999 to 1.0 percent in 2000. A total of eight drug deaths reported to DAWN were associated solely with marijuana, but none were marijuana-induced. An equal proportion (38 percent) of the single-drug marijuana deaths were classified as either suicide or accidental/unexpected.

Citywide marijuana arrests decreased (24 percent) since the last CEWG reporting period, from 2,771 in the first half of 2001 to 2,107 in the second half of 2001. Marijuana arrests accounted for 20 percent of all narcotics arrests between July and December 2001.

Citywide seizures of marijuana decreased 40 percent, from 8,012 pounds during the first half of 2001 to 4,794 pounds during the second half. The year-end 2001 total of marijuana seizures was 34 percent lower than the year-end 2000 total. The street value of the seized marijuana accounted for 72 percent of the total street value of all drugs seized in July–December 2001.

Mexican low-grade marijuana is prevalent throughout the LA HIDTA. It has been noted that prefabricated “blunts” are currently being sold in local gas station markets and other types of convenience stores. The wholesale price of low-grade marijuana is \$300–\$400 per pound, \$60–\$80 per ounce, and \$10 per gram. The retail price per pound of low-grade marijuana is \$2,500. Domestic middle-grade outdoor and indoor growers continue to increase their share of the local marijuana market. The wholesale price of domestic middle-grade marijuana is \$1,000–\$1,200 per pound, \$200–\$250 per ounce, and \$25 per gram. Sinsemilla (high-grade) marijuana has a very high tetrahydrocannabinol (THC) content and is prized for its high potency. Wholesale prices of sinsemilla are as follows: \$2,500–\$6,000 per pound, \$400–\$600 per ounce, and \$60–\$80 per one-eighth ounce. There are indications that “BC bud,” a hybrid type of cannabis bud grown in Canadian British Columbia, continues to be smuggled into southern California. A pound of BC bud has a wholesale value of \$6,000. Purportedly,

a pound of BC bud is being swapped for a pound of cocaine. Demand for hashish, the compressed form of THC-rich resinous cannabis material, is limited throughout the LA HIDTA. When available, hashish has a wholesale price of \$8,000 per pound.

### Stimulants

Methamphetamine/speed was among the top five most frequently mentioned major substances of abuse in the Los Angeles–Long Beach metropolitan area in the year 2000, accounting for 3.3 percent of all DAWN ED drug mentions, with ED mentions of amphetamines accounting for an additional 2.8 percent (exhibit 2). The proportions of ED methamphetamine and amphetamine mentions in ED drug episodes have remained stable at about 6 percent and 5 percent, respectively, since 1996.

Five of the six western CEWG sites continue to dominate the population-adjusted methamphetamine ED mentions (exhibit 4). In the first half of 2001, San Francisco led with 14 mentions per 100,000 population, followed closely by San Diego (13), Los Angeles and Phoenix (8 each), and Seattle (7). Denver, on the other hand, had 2 mentions per 100,000.

DAWN data show that the total number of ED methamphetamine mentions remained relatively stable, increasing slightly (6 percent) from the second half of 2000 to the first half of 2001 (exhibit 3). The total number of ED amphetamine mentions increased as well (17 percent) over the same time period, and the change was also nonsignificant. Seventy percent of the ED methamphetamine mentions reported between January and June 2001 occurred among males, 46 percent among Whites, and 41 percent among Hispanics. A comparable proportion of 18–25-year-olds, 26–34-year-olds, and those 35 and older mentioned methamphetamine during an ED drug episode (29, 32, and 28 percent, respectively).

Approximately 60 percent of the ED methamphetamine mentions occurred during multidrug episodes. When asked about drug use motive, one-half reported methamphetamine dependence, and another approximately 40 percent reported psychic effects. Chronic effects and unexpected reaction were reported as reasons for ED contact among 41 and 38 percent of the mentions, respectively.

Primary methamphetamine admissions to Los Angeles County treatment and recovery programs continue to increase (exhibit 5). The total number of methamphetamine admissions increased another 25 percent from the first half of 2001 to the second half

of 2001. The 3,015 primary methamphetamine admissions that were reported from July–December 2001 accounted for more than 13 percent of all admissions (exhibit 5). Among those admissions, 55 percent were male (exhibit 6). Nearly 64 percent of the admissions were between the ages of 18–35. Whites (51 percent) were the predominant racial/ethnic group among primary methamphetamine admissions, followed by Hispanics (33 percent). Compared with other major illicit drug admissions, primary methamphetamine admissions had the largest proportion of females (45 percent), Whites (51 percent), Asian/Pacific Islanders (3.5 percent), 18–25-year-olds (27 percent), and 26–35-year-olds (37 percent).

The demographics for primary amphetamine admissions were comparable to primary methamphetamine admissions in terms of age and race/ethnicity, except that a slightly higher proportion of Whites reported amphetamine rather than methamphetamine as their primary problem. And unlike primary methamphetamine admissions, more females (55 percent) than males (45 percent) reported amphetamines as their primary problem.

The top three preferred routes of methamphetamine administration among treatment clients continued to be smoking (59 percent), intranasal use (23 percent), and intravenous injection (11 percent). On the other hand, the preferred routes of administration for other amphetamines were smoking (57 percent), intranasal use (20 percent), and oral ingestion (18 percent). Primary methamphetamine and other amphetamine admissions continued to use either alcohol or marijuana secondarily.

According to the DAWN mortality data, methamphetamine and other amphetamines were mentioned in 155 and 61 of the 1,192 drug deaths, respectively, that were reported in Los Angeles County in 2000 (exhibit 7). Methamphetamine's proportion of all drug-related death mentions increased slightly, from 3 percent in 1999 to 5 percent in 2000. Conversely, the proportion of other amphetamine mentions among all drug death mentions remained stable at 2 percent from 1999 to 2000. A total of 25 drug deaths reported to DAWN were associated solely with methamphetamine and other amphetamines; 8 were methamphetamine and amphetamine-induced deaths, and 16 were methamphetamine and amphetamine-related. The vast majority (92 percent) of the methamphetamine and amphetamine deaths were classified as accidental/unexpected.

Citywide amphetamine arrests decreased (23 percent), from 64 in the first half of 2001 to 49 in the

second half of the year. Amphetamine arrests accounted for fewer than 1 percent of all narcotics arrests between July and December 2001.

Citywide methamphetamine seizures decreased 58 percent between the two halves of 2001 (from 192 to 81 pounds). The 2001 year-end methamphetamine seizure total was 25 percent lower than the corresponding 2000 year-end total. The street value of the methamphetamine seized between July and December 2001 constituted 5 percent of the total street value of all drugs seized during that time period.

The wholesale price per pound of methamphetamine is \$5,000–\$6,000 (with a street value of \$32,000–\$50,000), up slightly from the previous CEWG reporting period. The street value is \$500–\$700 per ounce, \$100–\$120 per one-eighth ounce (“eight-ball”), and \$60 per one-sixteenth ounce (“teener”).

“Ice,” or crystal methamphetamine, a potent form of methamphetamine, is frequently encountered in the Los Angeles area. Anecdotal evidence suggests, however, that ice is smuggled to Hawaii from California by Asian organized criminal groups. A pound of ice sells for \$35,000–\$40,000 wholesale in Hawaii and \$22,000–\$31,000 in Los Angeles. The wholesale price of an ounce of ice is \$2,400–\$3,900.

A double case of pseudoephedrine (17,000 60-milligram tablets per case) sells for \$2,000–\$3,400. In addition, a 1,000-count bottle of 60-milligram tablets sells for \$200. The price for a double case of pseudoephedrine increased in the aftermath of the September 11th terrorist attacks. Most of the pseudoephedrine is imported or smuggled into the United States from Canada and transshipped to the west coast. Anecdotal evidence also suggests that 1,000-count bottles are smuggled into the United States from Canada by Middle Eastern groups who, in turn, are brokering bulk quantities to Mexican national methamphetamine traffickers.

According to LA CLEAR, there are indications that the purity level of finished methamphetamine is once again increasing in potency. Mexican national methamphetamine traffickers continue to cut methamphetamine with methylsulfonylmethane (MSM), but they are beginning to increase the purity to levels seen several years ago. The purity of methamphetamine available in the Los Angeles area has increased recently to approximately 30–35 percent. This development signals the reversal of a long-standing trend of reducing methamphetamine purity to a low of 15–20 percent.

The cleanup costs associated with clandestine methamphetamine labs in California averages approximately \$4 million per year. This is just one among many indicators of the enormity of the problem.

“Beavis and Butthead” labs, small-scale stovetop labs set up to manufacture methamphetamine for personal use, continue to get much attention because of the frequency of explosions. “Dirt lab” production is another trend reported in the area. Hardcore drug users process the dirt and the dumped or spilled finished product found at abandoned methamphetamine labs to extract the chemicals needed to produce the drug.

Large-scale labs set up by Mexican nationals are beginning to migrate from southern California towards the Central Valley. Methamphetamine continues to pose a serious threat to the local community, coupled with its ease of manufacture, low costs linked to the establishment of a clandestine lab, and the collateral violence linked to its distribution, manufacturing, and abuse.

Los Angeles County accounted for 26 percent of the total methamphetamine clandestine lab activities in 2001, according to the LA HIDTA. Ninety-eight percent of the county’s clandestine lab activities can be attributed to methamphetamine lab seizures. The only other county within the LA HIDTA that exceeded Los Angeles County’s activity was San Bernardino, which accounted for 47 percent of the activities in 2001.

The methamphetamine clandestine lab trafficking problem is further exacerbated with chemical brokers providing pseudoephedrine to Mexican national trafficking groups who manufacture methamphetamine. A record-setting pseudoephedrine “bust” took place in southern and northern California in December 2001. This investigation culminated with the seizure of 10.4 tons of bulk pseudoephedrine tablets. Federal, State, and local task forces have made significant progress targeting Middle Eastern groups who are largely responsible for most of the pseudoephedrine trafficking in the Nation.

According to the NDIC, methamphetamine ranks second to cocaine as a significant drug threat to the California Central District. The district is classified as a major source of domestically produced methamphetamine. Mexican drug trafficking organizations, which operate a number of “superlabs,” use the district as both a distribution center and a transshipment hub. In response to increased law enforcement pressure, some larger methamphetamine lab operations are being relocated to areas outside the

district. Mexican drug trafficking organizations control the wholesale and retail distribution of methamphetamine in the district. They supply powdered methamphetamine to Asian criminal groups who then convert it into crystal methamphetamine. These highly organized Asian criminal organizations and gangs dominate the sale of ice in the Los Angeles area.

### Depressants

Los Angeles ED mentions of antidepressants (including monoamine oxidase (MAO) inhibitors, selective serotonin reuptake inhibitors (SSRIs), and tricyclic antidepressants) reported to the DAWN system decreased significantly (16 percent), from 516 mentions in the second half of 2000 to 432 mentions in the first half of 2001. In addition, ED mentions of benzodiazepines decreased, though not significantly, from 1,058 in the second half of 2000 to 931 in the first half of 2001. This signals the reversal of an increasing trend that began in the middle of 1999. ED mentions of barbiturates, on the other hand, remained relatively stable increasing only slightly, from 166 mentions in the second half of 2000 to 172 mentions in the first half of 2001.

Los Angeles County treatment and recovery program admissions report that barbiturates, benzodiazepines, or other sedatives and hypnotics as primary drugs of abuse continue to account for fewer than 1 percent of all admissions.

According to DAWN mortality data, 142 mentions of benzodiazepines among Los Angeles County drug deaths were reported to DAWN in 2000 (exhibit 7). Of those, 40 percent were mentions of diazepam. In addition to mentions of benzodiazepines, 293 mentions of antidepressants were among the 1,192 drug deaths reported to DAWN in 2000.

Once again, local law enforcement officials report that clonazepam (Klonopin), a legal anticonvulsive medication, has been encountered with increasing frequency in Los Angeles area raves and clubs.

### Hallucinogens

The proportion of DAWN ED hallucinogen mentions among ED drug episodes continues to remain low and stable at approximately 5 percent and has accounted for 2–3 percent of all drug mentions since the mid-1990s. The number of ED mentions attributable to phenylcyclidine (PCP) increased significantly (32 percent) from the second half of 2000 to the first half of 2001. In addition, ED mentions of miscellaneous hallucinogens increased by more than 50 percent during the same time period. Conversely, ED lysergic acid diethylamide

(LSD) mentions remained stable at about 120 mentions from July–December 2000 to January–June 2001. The rates of PCP and LSD ED mentions per 100,000 population remained low and stable from 1994 to 2000.

Over the past several years, the proportion of primary PCP treatment and recovery program admissions has stabilized at approximately 1 percent. The number of primary PCP admissions remained relatively stable from the first half of 2001 (198) to the second half of the year (207) (exhibit 5). Cocaine (22 percent), alcohol (20 percent), and marijuana (18 percent) were the secondary drugs used most frequently by primary PCP admissions. The vast majority of PCP admissions continue to smoke the drug.

There were no notable changes from the December 2001 reporting period in terms of user demographics, except that a slightly higher proportion of Black users and a slightly lower proportion of Hispanic users entered treatment for a primary PCP problem in the second half of 2001. Other hallucinogens, such as LSD, peyote, and mescaline, continue to account for approximately 0.1 percent of the total treatment admissions.

Anecdotal evidence suggests that LSD is much more common than law enforcement realizes, possibly because it is often taken with methylenedioxy-methamphetamine (MDMA or “ecstasy”). The mixture of LSD and MDMA is referred to as “candy flipping.”

According to DAWN mortality data, hallucinogen mentions as a percentage of total drug-related death mentions increased ever so slightly, from 0.6 percent of all mentions in 1999 to 0.7 percent in 2000 (exhibit 7). The “hallucinogens” category includes PCP, LSD, and miscellaneous hallucinogens. Three deaths were deemed single hallucinogen drug deaths in 2000.

According to the Los Angeles County Department of the Coroner, PCP was detected post mortem in 134 cases investigated in 2000–2001. The confirmed positive PCP rate was 1.3 percent (134 per 10,432 cases). The mode of death for 63 percent of the 134 PCP-positive cases was homicide. Of these homicides, 93 percent resulted from a gunshot wound.

Citywide PCP arrests increased 33 percent, from 64 in the first half of 2001 to 85 in the second half. PCP accounted for fewer than 1 percent of all narcotics arrests between July and December 2001.

Citywide PCP seizures decreased nearly 70 percent between the first and second halves of 2001 (from 22

to 7 pounds). The 2001 year-end PCP seizure total was 13 percent lower than the corresponding 2000 year-end total. The street value of the PCP seized between July and December 2001 accounted for less than 1 percent of the total street value of all drugs seized during that time period.

The wholesale price of PCP per gallon is \$6,500–\$8,000, and retail prices are \$30,000 per gallon, \$125–\$175 per ounce, and \$20–\$30 per sherm cigarette. The LA HIDTA notes that there has been a resurgence of PCP trafficking in the area throughout the last several years. Most of the PCP is destined primarily for markets outside the HIDTA. Los Angeles-based Black street gangs are the producers, suppliers, and distributors of PCP.

The wholesale dosage price of LSD is \$150–\$200 for 100 doses. Typically, a single dose has a retail value of \$5–\$10. At the retail level, psilocybin mushrooms cost about \$20 per one-eighth ounce. This drug is most frequently encountered in the rave scene and increasingly on college campuses.

### Club Drugs

Anecdotal evidence from a variety of local sources lends support to the claim that the use of club drugs, especially MDMA and gamma hydroxybutyrate (GHB), is rapidly increasing in Los Angeles County. As stated in the December 2001 report, Los Angeles County treatment and recovery programs are not required to report specific club drugs such as GHB and MDMA separately. Instead, these types of drug admissions are included in broader drug categories, such as “stimulants” or “tranquilizers.”

The numbers of DAWN ED club drug mentions continue to represent a much smaller percentage of all mentions than mentions of other major substances of abuse. In Los Angeles, 59 ED MDMA mentions were reported to the DAWN system in the first 6 months of 2001. This represented a significant 39-percent decrease from the second half of 2000. ED mentions of GHB decreased nearly 57 percent from the second half of 2000 to the first half of 2001, from 74 to 32 mentions. Mentions of ketamine (“Special K”) and flunitrazepam (Rohypnol) remained marginal. These decreases may signal the start of a decreasing trend in ED episodes and mentions associated with the use or abuse of club drugs, but it is too early to tell.

In the year 2000 unadjusted ED MDMA mentions, Chicago, New York, and Los Angeles exceeded other areas, with 215, 200, and 177 mentions, respectively. Out of six western CEWG areas, Los Angeles had the highest number of ED MDMA mentions in 2000, followed by Seattle and San Francisco (exhibit 8). However, in terms of population-adjusted ED MDMA mentions, San Francisco and Seattle led, with 7 and 6 mentions per 100,000 population, respectively. Chicago had 4 mentions per 100,000 population, and New York and Los Angeles both had 2 mentions per 100,000.

According to the DAWN ED data, males were slightly more likely than females to mention MDMA during an ED episode in 2000 (52 vs. 45 percent, respectively). Whites were more likely than Blacks or Hispanics to mention MDMA. The majority of MDMA mentions (74 percent) occurred among individuals 25 and younger; 18–25-year-olds were twice as likely as 12–17-year-olds to mention MDMA during an ED drug episode. Only 5 percent of the MDMA mentions occurred among individuals age 35 and older.

As stated in the December 2001 CEWG report, ED GHB mentions increased 15 percent, from 130 mentions in 1999 to 149 mentions in 2000. In 2000, almost three-quarters of the GHB mentions occurred among males (72 percent). An overwhelming 80 percent of the GHB mentions occurred among Whites. In addition, 32 percent of the mentions occurred among individuals age 18–25, 38 percent among those age 26–34, and 28 percent among those age 35 or older. In terms of unadjusted ED GHB mentions, San Francisco and Los Angeles dominated the western United States (exhibit 8). Los Angeles also led the Western States with 15 ED ketamine mentions. Fourteen ED ketamine mentions were reported in both San Francisco and Phoenix. Finally, San Diego led with 8 unadjusted ED flunitrazepam mentions in 2000.

According to DAWN mortality data, club drug mentions as a percentage of total drug-related death mentions increased from 0.4 percent of all mentions in 1999 to 0.9 percent of all mentions in 2000 (exhibit 7). The “club drugs” category includes ecstasy, ketamine, GHB/gamma butyrolactone (GBL), and flunitrazepam. Eleven deaths were deemed single-drug deaths from a club drug in 2000.

Flunitrazepam first gained notoriety in the Los Angeles area in 1995 after being linked to several highly publicized sexual assault cases. At that time, the drug was widely available in the area. Availability has dropped significantly since 1997,

when the drug became a Schedule IV Controlled Substance in California. While flunitrazepam is a popular teenage drug in other areas, it is most commonly abused by hardcore heroin and cocaine users in Los Angeles, who also abuse clonazepam. Flunitrazepam has a retail value of \$6–\$10 per 1-milligram pill.

The prices of GHB are \$65–\$100 per 16-ounce bottle wholesale and \$5–\$20 per bottle capful retail. The vast majority of GHB users ingest the drug as a liquid, either in straight shots or mixed with a drink. Some teens in Los Angeles reportedly have been found with a putty-like form of GHB. Because it is hydroscopic, it absorbs moisture and is difficult to keep dry. Thus, teens let it become like putty and pick off a little to put in their drinks. In Los Angeles, the average GHB user is White, middle class, and between the ages of 13 and 50. Use is expanding, however, to other ethnic and socioeconomic groups. The broad age range may be related to the distinct groups of users (partygoers vs. those who are addicted to the drug and use it every day). Anecdotal evidence suggests that more analog GHB products are on the scene than actual GHB. An analog known as valeric acid (GHV) has appeared in the last year. It is sold as “Sublimiss,” “Midnight Blue,” and “4 Sleep” on the Internet.

In multiple quantities, MDMA sells for \$12 per pill wholesale. At the retail level, ecstasy usually sells for \$25–\$40 per pill. A standard dose of ecstasy is 60–150 milligrams, which is equivalent to about 1–2 pills. MDMA use continues to increase among high school and junior high school students. Use among Black adolescents and young adults is increasing as well. Rave promoters are beginning to target the hip-hop scene.

On the streets, ketamine sells for \$60–\$100 per 10-milliliter vial or \$20 per 0.2 grams of powder. In the party scene, ketamine is often taken with MDMA, which is known as “kitty flipping.”

The increased availability of MDMA in the Los Angeles area is evidenced by the quantity of seizures over the last few years. In January 2000, more than 40,000 tablets were seized at LAX. Less than 3 months later, approximately 490,000 tablets were seized in Los Angeles. At the time, it was the single largest seizure in the United States. However, in July 2000, the record was broken, when over 2 million tablets were seized at LAX. The estimated street value of the seized tablets was \$40 million.

According to the NDIC, more than 95 percent of the MDMA available in Los Angeles is produced in and

shipped from European countries, via air and sea routes. Israeli organized crime syndicates control most of the European market and are the primary MDMA source for distribution groups in the United States. There is evidence that Russian organized crime is also involved in the smuggling and wholesale distribution of MDMA.

A bill currently under consideration in the California legislature would require promoters of rave parties to certify that they can control the use of illegal drugs at their events. The bill, authored by Rep. Nancy Havice (D-Bellflower), would require evidence, 30 days in advance of the event, that the promoter can recognize and prevent the use of illegal drugs and drug paraphernalia, as reported by Join Together in 2002.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

##### **AIDS and HIV Infection**

A cumulative total of 43,305 adult/adolescent AIDS cases were reported in Los Angeles County through December 31, 2001. Some 473 of those cases were reported between September 1 and December 31, 2001. Approximately 16,400 Los Angeles County residents are currently living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 6 percent of the 774,467 cumulative cases nationwide and 35 percent of the 123,819 cumulative cases in California. Of the total cases reported in Los Angeles County, 49 percent occurred among Whites, 28 percent among Hispanics, 20 percent among Blacks, 45 percent among 30–39-year-olds, and 93 percent among males.

The proportion of White male adult/adolescent AIDS cases has decreased over the last several years, from 45 percent of all cases reported in 1993 to 25 percent of all cases reported in 2001 (exhibit 9). The proportion of Black male adult/adolescent AIDS cases has remained relatively stable at or about 20 percent of all cases. Hispanic male AIDS cases, however, have increased in proportion, from 27 percent of all cases reported in 1993 to 39 percent of all cases in 2001. All three major racial/ethnic subgroups of female adult/adolescent AIDS cases have remained low and stable since the mid-1990s.

Seventy-seven percent of males diagnosed with AIDS and reported as of December 31, 2001 were exposed to the disease through male-to-male sexual contact. Another 6 percent were exposed through injection drug use, 7 percent through a combination of male-to-male sexual contact and injection drug use, and 1 percent through either heterosexual contact or a blood transfusion. The exposure category was

“other or undetermined” for the remaining 8 percent of male AIDS cases. In this timeframe, 46 percent of females diagnosed with AIDS were exposed to the disease through heterosexual contact. An additional 26 percent were exposed through injection drug use and 8 percent through a blood transfusion. The exposure category was “other or undetermined” for the remaining 21 percent of female AIDS cases.

In Los Angeles County, 7 percent of the total cumulative AIDS cases involved injection drug use as the primary route of exposure. Among the 3,068 cases primarily attributable to injection drug use, 74 percent occurred among males. Blacks remain the modal group of male injection drug users (IDUs) among AIDS cases (accounting for 37 percent), followed by White males (32 percent) and Hispanic males (30 percent). Among female IDUs with AIDS, Blacks continue to represent the majority (45 percent), followed by Whites (31 percent) and Hispanics (22 percent). An additional 6 percent of the total cumulative cases were attributable to a combination of male-to-male sexual contact and injection drug use. Fifty-three percent of the male-to-male sexual contact and injection drug use cases occurred among White males.

The total number of new cases reported to the HIV Epidemiology Program decreased 14 percent, from 1,653 cases reported in 2000 to 1,418 cases reported in 2001 (exhibit 10). The number of AIDS cases attributable to men having sex with men (MSM), male IDUs, male heterosexual contact, and female heterosexual contact decreased (18, 4, 25, and 37 percent, respectively) from 2000 to 2001. Conversely, the number of AIDS cases attributable to male-to-male sexual contact/injection drug use and female injection drug use increased (16 percent and 8 percent, respectively) from 2000 to 2001.

In January 2002, seven new children with HIV infection were reported to the Pediatric Spectrum of HIV Disease Study (PSD) of the Los Angeles County Department of Health Services. While this number is now within the county average of 3–5 cases every year, the reporting of these children all at once was unusual and emphasized that while pediatric HIV infection has declined in the county, it has not been eliminated. As of January 30, 2001, 1,688 HIV-exposed and -infected children who received care were reported to and followed by PSD. From 1990 to 1998, approximately 135 children were reported each year, with a declining proportion infected (42 to 23 percent, respectively). In 1999 and 2000, the total number reported declined to approximately 100 because of an overall decreasing birth rate in the



county and fewer newly infected children referred to the county for care.

### **Hepatitis B and C**

Within the Los Angeles County Department of Health Services, the lead unit for the surveillance and investigation of suspected and confirmed communicable disease cases and outbreaks is the Acute Communicable Disease Control. The Morbidity/Communicable Disease Surveillance Unit receives Confidential Morbidity Reports on all reportable communicable diseases not managed by other disease control programs (i.e., AIDS, sexually transmitted diseases [STDs], tuberculosis [TB], and lead poisoning). Twenty-two hepatitis B acute cases and six hepatitis C acute cases were reported,

confirmed, and closed in the Los Angeles County Communicable Disease Reporting System from July to December 2001. Hepatitis B ( $n=56$ ) and hepatitis C ( $n=11$ ) acute cases reported from January to December 2001 were down 22 and 66 percent, respectively, from the total number of hepatitis B ( $n=72$ ) and hepatitis C ( $n=32$ ) acute cases reported from January to December 2000.

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**Exhibit 1. Education Levels: How Los Angeles Compares to Major U.S. and California Cities by Percent**

<b>U.S. Metropolitan Areas</b>	<b>Completed 6th Grade or Less</b>	<b>Never Finished High School</b>
Los Angeles	10.8	24.4
Atlanta	1.3	12.3
Boston	1.4	10.9
Chicago	3.6	13.5
Denver	2.7	10.5
Houston	6.4	22.7
Miami	9.6	21.6
New York	5.8	21.0
Seattle	2.3	9.0
Washington	1.6	10.2
<b>California Cities</b>	<b>Completed 6th Grade or Less</b>	<b>Never Finished High School</b>
Los Angeles	10.8	24.4
Fresno	10.8	18.8
Modesto	19.3	34.3
Sacramento	3.8	14.5
San Diego	3.0	12.4
San Francisco	4.7	11.7
Visalia	34.0	53.0

SOURCE: Economic Policy Institute, based on Current Population Survey, December 2001

**Exhibit 2. Los Angeles–Long Beach Estimated ED Mentions for Selected Drugs as a Percentage<sup>1</sup> of Total Drug Episodes: 1997–June 2001**

<b>Substance of Abuse</b>	<b>1997</b>		<b>1998</b>		<b>1999</b>		<b>2000</b>		<b>Jan–June 2001</b>	
	<b>Number</b>	<b>(%)</b>	<b>Number</b>	<b>(%)</b>	<b>Number</b>	<b>(%)</b>	<b>Number</b>	<b>(%)</b>	<b>Number</b>	<b>(%)</b>
Alcohol-in-Combination	4,650	(27)	6,129	(36)	8,195	(40)	10,993	(43)	5,377	(42)
Cocaine/Crack	4,703	(27)	5,779	(34)	6,768	(33)	9,094	(36)	4,876	(38)
Heroin/Morphine	2,471	(14)	2,601	(15)	2,923	(14)	3,177	(13)	1,506	(12)
Marijuana/Hashish	2,084	(12)	3,422	(20)	5,472	(26)	5,846	(23)	2,814	(22)
Methamphetamine	1,229	(7)	786	(5)	910	(4)	1,375	(5)	737	(6)
Amphetamines	728	(4)	541	(3)	866	(4)	1,072	(4)	630	(5)
PCP	696	(4)	605	(4)	731	(4)	823	(3)	484	(4)
LSD	186	(1)	162	(<1)	229	(1)	217	(<1)	123	(1)
Total Drug Episodes	17,187		17,103		20,667		25,286		12,845	
<b>Total Drug Mentions</b>	<b>29,684</b>		<b>29,805</b>		<b>36,945</b>		<b>45,015</b>		<b>22,622</b>	

<sup>1</sup>Percentage totals may add to more than 100 since there can be multiple drug mentions in an episode.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Estimated Semiannual ED Mentions in Los Angeles–Long Beach: 1997–June 2001**

Year	1997		1998		1999		2000		2001
	1H	2H	1H	2H	1H	2H	1H	2H	1H
Cocaine	2,295	2,408	2,629	3,150	3,183	3,586	4,622	4,472	4,876
Heroin	1,324	1,147	1,214	1,387	1,431	1,491	1,791	1,386	1,506
Marijuana	1,061	1,023	1,343	2,079	2,517	2,955	3,219	2,627	2,814
Methamphetamine	596	633	418	368	414	496	682	693	737
Amphetamines	337	391	272	268	410	456	532	540	630

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 4. Population-Adjusted Rates (Per 100,000 Population) of ED Major Illicit Drug Mentions Among Western CEWG Sites: January 1999–June 2001**

Drug/City	Jan–June 1999	July–Dec 1999	Jan–June 2000	July–Dec 2000	Jan–June 2001
Heroin/Morphine					
Denver	19	20	20	21	17
Los Angeles	17	17	21	16	16
Phoenix	19	22	20	20	12
San Diego	21	23	24	18	15
San Francisco	76	114	92	77	73
Seattle	61	66	72	55	38
Cocaine					
Denver	41	45	42	41	28
Los Angeles	37	42	54	51	52
Phoenix	42	49	41	44	27
San Diego	18	27	20	21	16
San Francisco	48	72	66	59	63
Seattle	56	73	81	88	70
Marijuana					
Denver	18	24	25	25	20
Los Angeles	30	35	37	30	30
Phoenix	27	23	22	29	21
San Diego	17	21	20	19	19
San Francisco	10	19	21	17	19
Seattle	21	20	37	35	36
Methamphetamine					
Denver	2	5	4	3	2
Los Angeles	5	6	8	8	8
Phoenix	7	9	13	16	8
San Diego	11	13	17	14	13
San Francisco	16	19	17	20	14
Seattle	8	10	16	12	7

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 5. Number of Treatment Admissions in Los Angeles County by Primary Illicit Drug of Abuse: July 1999–December 2001**

Year	Jul–Dec 1999	Jan–Jun 2000	Jul–Dec 2000	Jan–Jun 2001	Jul–Dec 2001
Heroin	12,138	12,333	10,642	9,527	8,033
Cocaine	4,584	4,609	4,342	4,349	4,354
Marijuana	1,633	1,817	1,736	2,258	2,028
Methamphetamine	1,992	2,181	1,959	2,403	3,015
PCP	162	171	166	198	207
<b>Total Admissions</b>	<b>26,122</b>	<b>26,849</b>	<b>23,719</b>	<b>23,697</b>	<b>22,430</b>

SOURCE: California Alcohol and Drug Data System

**Exhibit 6. Characteristics of Treatment Admissions in Los Angeles County by Primary Illicit Drug and Percent: July–December 2001**

Characteristics	Cocaine	Heroin	Marijuana	Methamphetamine	All Admissions
Gender					
Male	62.4	71.7	72.5	54.9	66.2
Female	37.6	28.3	27.5	45.1	33.8
Race/Ethnicity					
White/non-Hispanic	15.8	36.4	19.2	51.0	32.9
Black/non-Hispanic	57.1	12.8	27.8	3.4	24.9
Hispanic origin	21.5	44.2	42.6	33.3	34.3
American Indian	<1.0	<1.0	<1.0	1.4	<1.0
Asian/Pacific Islander	1.5	<1.0	1.9	3.5	1.7
Other	3.8	5.1	7.0	7.4	5.4
Age					
17 and younger	1.4	<1.0	47.4	5.6	6.9
18–25	11.0	6.7	23.9	26.7	12.9
26–35	28.6	21.6	14.8	37.2	25.2
36 and older	59.0	71.5	13.9	30.4	55.0
Route of Administration					
Oral	2.1	1.1	2.0	5.6	21.3
Smoking	87.9	6.1	97.3	58.8	35.4
Inhalation	8.3	3.1	<1.0	22.9	5.3
Injection	<1.0	89.2	0.0	11.4	37.3
Unknown/other	<1.0	<1.0	<1.0	1.3	<1.0
Secondary Drug	Alcohol	Cocaine	Alcohol	Alcohol	Alcohol
<b>Total Admissions (N)</b>	<b>4,354</b>	<b>8,033</b>	<b>2,028</b>	<b>3,015</b>	<b>22,430</b>

SOURCE: California Alcohol and Drug Data System

**Exhibit 7. Los Angeles County DAWN Mortality Data—Mentions of Selected Drugs as a Percentage of Total Drug Mentions: 1996–2000**

Drug Category	1996		1997		1998		1999		2000	
	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Alcohol-in-Combination	425	(14)	316	(12)	405	(14)	500	(11)	395	(13)
Cocaine/Crack	546	(19)	450	(18)	425	(15)	544	(12)	471	(16)
Heroin/Morphine	554	(19)	425	(17)	444	(16)	644	(14)	473	(16)
Marijuana/Hashish	9	(<1)	12	(<1)	17	(<1)	24	(<1)	32	(1)
Methamphetamine	146	(5)	172	(7)	111	(4)	147	(3)	155	(5)
Amphetamines	93	(3)	122	(5)	78	(3)	102	(2)	61	(2)
Club Drugs <sup>1</sup>	–	(0)	2	(<1)	6	(<1)	18	(<1)	27	(<1)
Hallucinogens <sup>2</sup>	38	(1)	20	(<1)	13	(<1)	25	(<1)	22	(<1)
Inhalants	13	(<1)	12	(<1)	28	(1)	70	(2)	–	–
Narcotic Analgesics <sup>3</sup>	341	(12)	292	(11)	315	(11)	530	(12)	407	(14)
Other Analgesics	32	(1)	34	(1)	58	(2)	95	(2)	115	(4)
Benzodiazepines	155	(5)	132	(5)	182	(6)	213	(5)	142	(5)
Antidepressants	244	(8)	191	(8)	248	(9)	441	(10)	293	(10)
All Other Substances	339	(12)	361	(14)	506	(18)	1,175	(26)	392	(13)
Total Drug Deaths	1,154		982		1,134		1,887		1,192	
Total Drug Mentions	2,935		2,541		2,836		4,528		2,985	
Total Deaths Certified	9,485		6,627		5,439		9,133		8,537	

<sup>1</sup>Includes ecstasy (MDMA), ketamine, GHB/GBL, and flunitrazepam.

<sup>2</sup>Includes PCP, LSD, and miscellaneous hallucinogens.

<sup>3</sup>Includes opiates other than heroin.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 8. Unadjusted ED Club Drug Mentions Among Western CEWG Sites: 1997–2000**

Drug/CEWG Site	1997	1998	1999	2000
MDMA (Ecstasy)				
Denver	11	6	15	57
Los Angeles	24	30	52	177
Phoenix	6	2	20	76
San Diego	8	14	25	47
San Francisco	35	38	47	107
Seattle	20	19	32	128
GHB				
Denver	7	13	71	43
Los Angeles	... <sup>1</sup>	48	130	149
Phoenix	3	2	17	16
San Diego	34	34	77	65
San Francisco	83	102	138	151
Seattle	...	17	34	57
Ketamine				
Denver	2	0	1	12
Los Angeles	0	...	7	15
Phoenix	...	...	4	14
San Diego	...	4	13	12
San Francisco	1	2	4	14
Seattle	2	0	3	4
Flunitrazepam				
Denver	0	0	0	0
Los Angeles	0	0	...	...
Phoenix	0	0	1	...
San Diego	7	8	5	8
San Francisco	1	0	0	0
Seattle	0	...	1	0

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

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 9. Annual Adult/Adolescent AIDS Cases by Year of Diagnosis and Race/Ethnicity: 1993–2001<sup>1</sup>**

Group	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
Males									
White	1,770 (45)	1,581 (43)	1,426 (42)	1,065 (40)	628 (30)	537 (30)	443 (28)	347 (26)	198 (25)
Black	702 (18)	703 (19)	597 (17)	491 (18)	424 (20)	373 (21)	312 (20)	265 (20)	159 (20)
Hispanic	1,065 (27)	983 (27)	987 (29)	799 (30)	715 (34)	651 (36)	596 (37)	520 (38)	309 (39)
Other	76 (2)	89 (2)	78 (2)	63 (2)	51 (2)	48 (3)	47 (3)	27 (2)	33 (4)
Females									
White	78 (2)	50 (1)	74 (2)	54 (2)	45 (2)	35 (2)	34 (2)	34 (3)	16 (2)
Black	106 (3)	140 (4)	128 (4)	99 (4)	117 (6)	73 (4)	86 (5)	73 (5)	40 (5)
Hispanic	113 (3)	100 (3)	128 (4)	116 (4)	93 (5)	85 (5)	70 (4)	83 (6)	40 (5)
Other	2 (<1)	7 (<1)	10 (<1)	7 (<1)	8 (<1)	5 (<1)	4 (<1)	4 (<1)	2 (<1)
<b>Total (N)</b>	<b>3,912</b>	<b>3,653</b>	<b>3,428</b>	<b>2,694</b>	<b>2,081</b>	<b>1,807</b>	<b>1,592</b>	<b>1,353</b>	<b>797</b>

<sup>1</sup> Percentages may not add to 100 due to rounding.

SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology Program, *Advanced HIV Disease (AIDS) Quarterly Surveillance Summary*, January 15, 2002

**Exhibit 10. Number of AIDS Cases Reported in 2000–2001 in Los Angeles County by Gender, Race/Ethnicity, and Exposure Category**

Category	2000			2001		
	1H	2H	Total	1H	2H	Total
Gender						
Male	683	744	1,427	539	694	1,233
Female	112	114	226	88	97	185
Race/Ethnicity <sup>1</sup>						
White	229	269	498	188	229	417
Black	190	228	418	136	232	368
Hispanic	359	333	582	281	301	582
Exposure Category						
MSM	421	468	889	318	410	728
MSM/IDUs	34	23	57	29	37	66
Male IDUs	38	52	90	31	55	86
Female IDUs	20	19	39	16	26	42
Male heterosexual contact	27	17	44	10	23	33
Female heterosexual	48	43	91	27	30	57
<b>Total</b>	<b>795</b>	<b>858</b>	<b>1,653</b>	<b>627</b>	<b>791</b>	<b>1,418</b>

<sup>1</sup> Persons of other racial/ethnic groups, including Asian, American Indian, and Alaskan Native, were not included because of the small numbers that result in unstable estimates.

SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology Program, *Advanced HIV Disease (AIDS) Quarterly Surveillance Summary*, January 15, 2002



# Drug Abuse in Miami and South Florida

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## ABSTRACT

*The use of cocaine with various opioids (oxycodone, heroin, hydrocodone, or methadone) is fueling an increase in emergencies and deaths. The cocaine-abusing population continues to age, with only one in five cocaine emergency department (ED) cases involving patients younger than 30. Local heroin ED mentions continued to increase in 2001 at one of the fastest growth rates in the Nation. In addition, heroin-related deaths continue to rise in South Florida. Oxycodone was the cause of more fatalities than heroin, cocaine, or any other substance in Broward County during 2001. Predominantly White males, age 30 or older, are seeking treatment and visiting emergency departments because of heroin or oxycodone abuse. Oxycodone and other narcotic analgesics continue to be substituted for heroin, and more recently, vice versa. Marijuana indicators were relatively stable in 2001. Yet, the drug continues to place youth in harm's way as illustrated by the fact that 43 percent of all Broward County adolescent and young adult homicide victims (age 13–29) in 2001 tested positive for marijuana, while only one tested positive for cocaine. Consequences for GHB and its related precursors have declined since peaking in the first half of 2000, when the drug was made a Schedule I federally controlled substance. MDMA problems continued to increase in the first half of 2001. Prior to September 11, 2001, ecstasy trafficking, availability, and use appeared at record levels. Since then, different methods of smuggling have surfaced. Abuse of amphetamines other than ecstasy appears to be increasing. Many indicators point to a high level of alprazolam (Xanax) abuse.*

## 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 White, 21 percent are Black, 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, 28 other municipalities, and an unincorporated area. The county covers 1,197 square miles, including 25 miles of coastline. According to the 2000 census, the population was 1,649,925. The population is roughly 63 percent White, 21 percent Black, and 17 percent Hispanic. Broward County is the second most populated county in Florida and accounts for approximately 10 percent of Florida's population. Broward was the top growth county in Florida in the 1990s, adding 367,000 more people. Palm Beach County (population 1,154,464) is located due north of Broward County and is the third most populated county in the State. Together, the 5.4 million people of these 3 counties constitute one-third of the State's 16.3 million population.

Approximately 25 million tourists visit the area annually. The region is a hub of international transportation and the gateway to commerce between the Americas, accounting for sizable proportions of the Nation's trade: 40 percent with Central America, 37 percent with the Caribbean region, and 17 percent with South America. South Florida's airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic. These ports of entry make this region a major port of entry for illicit drugs. Smuggling by cruise ship passengers is an important trend in South Florida drug trafficking and has apparently been growing since airline security increases after September 11, 2001.

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

- Proximity to the Caribbean and Latin America exposes South Florida to the entry and distrib-

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ution 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 a leading U.S. cocaine importation center. 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—most 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.

### Data Sources

This report describes current drug abuse trends in Miami and South Florida, using the data sources summarized below.

- **Drug Treatment data** were provided by the Broward Addiction Recovery Center (BARC) for 2001 and by Spectrum Programs, Inc., for 1999 through 2001.
- **Drug-related mortality data** were provided by the Broward County Medical Examiner Department in “Drug Deaths 1999–2000,” a review of all deaths in Broward County directly caused by or associated with drugs; the Florida Department of Law Enforcement Medical Examiners Commission, 2001 Report of Drugs Identified in Deceased Persons by Florida Medical Examiners; and the Miami-Dade County Medical Examiner’s Department for 1990 to 2000.
- **Emergency department drug mentions data** were derived from the Broward General Medical Center (BGMC) Emergency Department Drug Abuse Case Review, which is a review of all drug abuse cases presenting to the emergency department (ED) for the four semiannual periods from the first half of 2000 through 2001; and from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA) for 1994 through the first half of 2001. Data for 2001 are preliminary.
- **Drug analyses data** were derived from reports of illicit substances analyzed in 1999–2001 by

the Broward Sheriff’s Office (BSO) Crime Lab and the System to Retrieve Information on Drug Evidence (STRIDE).

- **Heroin price and purity data**, preliminary for 2001, were obtained from the DEA’s Domestic Monitor Program (DMP).
- **Drug seizure information** was available from the U.S. Customs Service.
- **School survey data** were from two sources: the Florida Youth Surveys on Substance Abuse for 2000 and 2001, which provide prevalence data on drug use among Florida students in grades 6–12, and the 2001 Miami-Dade School Survey conducted by The Miami Coalition for A Safe and Drug-Free Community which provides prevalence and risk-factor data on Miami-Dade public and parochial middle and high school students. Student drug-use data were also derived from the Monitoring the Future (MTF) Study conducted by the Institute for Social Research, University of Michigan in 2001.

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

### DRUG ABUSE PATTERNS AND TRENDS

#### Cocaine and Crack

South Florida cocaine abuse rates continue to rank among the highest in the Nation, as indicated by ED visits, crime lab data, and drug treatment admissions. Cocaine deaths increased in 2001, with a growing number of the cases involving cocaine in combination with an opioid. Older patients continue to dominate among those seeking emergency medical care and addiction treatment for cocaine abuse.

There were 45 cocaine-induced deaths in Miami-Dade County in 2001, a 50-percent increase over the 30 cocaine-induced deaths in 2000 (exhibit 1). The 2001 number is similar to that for 1999, when there were 43 cocaine-induced deaths, and for 1998, when there were 39 such deaths. The number of cocaine-related deaths remained stable, with 149 cases in 2001 compared with 144 in 2000. The number of cases in 2001 reflects a 39-percent decline from 1998, when there were 246 cocaine-related deaths.

In Miami-Dade County in 2001, heroin was detected in 2 of the 45 decedents whose primary cause of death was cocaine abuse. Additionally, cocaine was detected in 17 (37 percent) of the 32 heroin-induced deaths during the year. Other drugs detected in

cocaine-induced deaths included oxycodone (three cases), methamphetamine (two cases), and MDMA (one case). (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.) Other nonspecific, polydrug mixtures were also detected in six of the cocaine-induced cases.

In Broward County, 57 cocaine-induced fatalities were among the 94 cocaine-related deaths reported during 2001. In 2000, 40 cocaine-induced deaths were among the 80 cocaine-related deaths, suggesting that cocaine is more likely to be the cause of death when detected in recent cases. A review of the 33 cocaine-induced deaths during the last 6 months of 2001 reveals that 14 (42 percent) of the decedents also tested positive for heroin or oxycodone. Among these 14 decedents, cocaine and heroin were considered causes of death in 6 cases, cocaine and oxycodone were the causes in 7, and cocaine, oxycodone, and heroin were all considered causes in 1 death. During the second half of 2001, 4 of the 19 cocaine-*without*-heroin-or-oxycodone decedents (21 percent) were Black, whereas only 1 of the 14 cocaine-*with*-heroin-or-oxycodone decedents (7 percent) was Black. It appears as though the recent increase in cocaine-deaths may be at least partly attributable to the opioid-cocaine combinations.

Among the combined 243 cocaine-related deaths in both Broward and Miami-Dade Counties during 2001, fewer than 2 percent were younger than 18, 11 percent were 18–25, 25 percent were 26–34, 47 percent were 35–50, and 15 percent were older than 50.

In Miami-Dade County during the first half of 2001, there were 2,165 cocaine/crack ED mentions in the DAWN system (exhibit 2). These cases represent a small, nonsignificant decrease from the previous 6 months. However, annual data show significant increases in cocaine/crack ED mentions between 1994 and 2000 (59 percent), between 1998 and 2000 (23 percent), and between 1999 and 2000 (9 percent). The rate of ED cocaine mentions per 100,000 population trended up significantly between 1994 and 2000, reaching a peak of 225 in 2000. The preliminary rate in the first half of 2001 was 98. The demographic group showing a significant increase in cocaine ED mentions was those age 55 and older, with mentions rising 90 percent between the first halves of 2000 and 2001.

A daily review of all ED charts at BGMC was conducted to gauge illicit substance abuse-related ED cases in 2001. A total of 69,892 charts were reviewed, and drug abuse was identified in 3.5 percent (2,420 cases). This was an average of

approximately 6.5 drug abuse cases per day. During 2000, 3.1 percent of all ED cases involved illicit substance use.

Cocaine was clearly the most commonly involved illicit drug, accounting for 1,290 (53 percent) of the BGMC drug abuse cases in 2001. Among the 606 cocaine cases in the second half of 2001, males accounted for 73 percent, Whites for 47 percent, Blacks for 46 percent, and Hispanics/others for 7 percent. Eighty-one percent of the cocaine-using BGMC patients were age 30 or older, continuing a trend towards older cocaine ED patients. Only 3 percent were younger than 20, 16 percent were in their twenties, 43 percent were in their thirties, 31 percent were in their forties, and 7 percent were age 50 or older.

The most common reasons for visiting the BGMC ED for cocaine use were as follows:

- Depression/suicidal—37 percent
- Dependence/seeking detoxification—8 percent
- Trauma/accidents—8 percent
- Chest pain/cardiac problems—7 percent
- Psychosis/schizophrenia/hallucinations—6 percent
- Gastrointestinal complaints—2 percent

Crack cocaine was specifically mentioned in 32 percent of the BGMC ED cases in the second half of 2001. Cocaine was used in combination with alcohol in 42 percent of these cocaine ED cases. This dangerous combination forms a cometabolite, cocaethylene, which can dramatically increase toxicity. Another combination involved cocaine and marijuana (23 percent of all cocaine cases).

Addiction treatment profiles were compiled using data from two major treatment providers: the Broward Addiction Recovery Center and Spectrum Programs. A comparison with 2000 data is not appropriate, because BARC data were not available for that period.

In the second half of 2001, cocaine abuse accounted for 22 percent of the treatment admissions sample from both BARC and Spectrum, compared with 27 percent in 2000 and 16 percent in 1999. Of the 606 cocaine treatment clients in the second half of 2001, 43 percent were White, 38 percent were Black, and 19 percent were Hispanic/other. In these same

facilities, 66 percent of the admissions were age 35 or older, 25 percent were 26–34 years, 8 percent were 18–25, and 1 percent were younger than 18.

Powder cocaine and crack are still described as “widely available” throughout Florida. Cocaine remains the most commonly analyzed substance by the BSO’s Crime Lab, where it accounted for 79 percent of all items analyzed in the last half of 2000.

Crack cocaine sells for \$5–\$20 per one-tenth gram and is roughly 80 percent pure in Miami. Powder cocaine sells for \$40–\$60 per gram (approximately 80 percent pure). The cocaine kilogram price range remains fairly stable at \$18,000–\$22,000, according to law enforcement officials.

This region is a major port of entry for illicit drugs because South Florida’s airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic, and because of the wide-scale smuggling by air and sea cargo handlers in those ports of entry. Cruise ship smuggling is mentioned as an important trend by law enforcement in South Florida. Local EDs have taken care of several cruise ship cocaine bodypackers in 2001; prior to that, the ED bodypacking cases were from air travel.

The Florida Youth Surveys on Substance Abuse for 2000 and 2001 show that fewer than 1 percent of middle school students statewide reported past-30-day use of powder cocaine, with a decline in 2001. The same survey revealed that approximately 0.5 percent of Florida middle school students reported current crack cocaine abuse, with a slightly rising trend observed in 2001. Current powder cocaine use was reported by about 2 percent of Florida high school students, and current crack use was reported by about 0.5 percent. Both powder cocaine and crack use declined for high school students in 2001. The 2001 Miami-Dade School Survey revealed that 1.8 percent of middle and high school students reported current cocaine use. This rate has remained stable over the past 6 years, yet the “perceived risk of harm from cocaine use” declined a full 10 percentage points from 1997 to 2001.

## Heroin

Miami led the Nation with the greatest growth in DAWN heroin ED mentions, increasing significantly by 463 percent between 1994 and 2000. That growth stabilized in Miami-Dade County during 2001 as heroin abuse spread north, with rising consequences for Broward and Palm Beach Counties that fueled a 30-percent increase in heroin-induced deaths statewide. A major opiate epidemic has settled into

South Florida, with the greatest consequences appearing in Palm Beach County, immediately north of Broward County. 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 oxycodone are for withdrawal or because the patient is seeking detoxification. Oxycodone, hydrocodone, and methadone problems continue because these drugs are being abused in combination with and partially supplanting heroin. It is quite possible that users are beginning to substitute heroin for narcotic analgesics and particularly for oxycodone, which may be getting harder to obtain.

Miami-Dade County reported that heroin was detected in 51 decedents during 2001. It was the cause of death in 32 of those cases (exhibit 3). Both these numbers represent significant declines over the previous year. During 2000, the 72 heroin-related fatalities in Miami-Dade County included 61 heroin-induced deaths. The 2001 deaths represent the fewest number attributed to heroin for the county since 1996, when there were 31 heroin-induced deaths. Of the 32 heroin-induced decedents in 2001, other drugs were detected in 26, including cocaine in 17, oxycodone in 3, MDMA in 2, and methamphetamine in 1. Other, nonspecific polydrug mixtures were also detected in 13 of the heroin-induced cases.

In Broward County during 2001, heroin was detected in 53 deaths. In 51 of these cases, heroin was considered a cause of death. In 14 of these deaths, the combination of cocaine and heroin was determined to be the cause. Hydrocodone, oxycodone, methadone, and benzodiazepines were combined in some of the heroin deaths, while seven were related to heroin alone. Heroin combined with various mixtures of alcohol, benzodiazepines, and methadone accounted for the remaining heroin-related deaths.

Broward County heroin decedents remained predominantly White—93 percent in 2001, 92 percent in 2000, and 95 percent in 1999. Eighty percent of the decedents in 2001 were male, similar to the last several years.

Of the 104 heroin-related decedents in Broward and Miami-Dade Counties combined during 2001, none were younger than 18, 12 percent were age 18–25, 18 percent were 26–34, 57 percent were 35–50, and 13 percent were older than 50.

From 1995 to 2000, Miami-Dade County recorded the greatest number of heroin deaths of any county or medical examiner district in the State. In 2000, there were 61 heroin-induced deaths in Miami-Dade County and 24 in Broward County, but in 2001 there

were 32 in Miami-Dade and 51 in Broward. In 2001, Miami-Dade County ranked fifth in the State for heroin deaths, behind Palm Beach County (57 deaths), Broward County (51), Orlando (34), and Tampa (34).

In Miami-Dade County, DAWN rates of heroin ED mentions per 100,000 population have trended up since 1994, increasing significantly from 48 in 1999 to 74 in 2000, with Miami reporting the largest percentage increase in heroin ED mentions nationally during that time period (463 percent). In the first half of 2001, there were 824 heroin ED mentions, representing a 21-percent increase over the same period in 2000 (exhibit 2). Males accounted for 82 percent of these 2001 heroin ED mentions, a significant increase from the first half of 2000. Among the heroin ED mentions, White non-Hispanics accounted for 58 percent, Blacks for 24 percent, and Hispanics for 17 percent. The number of Hispanic mentions increased significantly (93 percent) between the first halves of 2000 and 2001. One-third of the patients were age 26–34, another third were 35–44, one-fourth were older than 44, and 9 percent were 18–24. Data on episode characteristics show that dependence accounted for 95 percent of the “drug use motive” for heroin; two-thirds of the mentions cited “seeking detoxification” as the reason for ED contact.

Based on a daily review of all ED charts at BGMC for the second half of 2001, there were 70 heroin cases (6 percent of all illicit substance abuse cases), a slight decline from the first half of 2001, when there were 89 cases (7 percent). However, the total for 2001, 159 cases, represented a 15-percent increase from 2000, when there were 138 heroin cases.

The BGMC heroin cases in the second half of 2001 were predominantly older White males experiencing withdrawal and/or seeking detoxification. Males accounted for 67 percent of the ED patients; 64 percent were White. There were no teenagers; 27 percent of patients were in their twenties, 37 percent were in their thirties, 30 percent were in their forties, and 6 percent were age 50 or older.

Heroin was the sole drug of abuse (with or without alcohol) in 40 percent of the heroin BGMC ED cases, and cocaine was a coexposure in 30 percent; heroin was used with a benzodiazepine in 24 percent of cases and with marijuana in 9 percent. Alcohol was involved in 31 percent of cases. The most common reason for the patient to visit the ED was withdrawal/seeking detoxification (39 percent of the cases). Depression accounted for 34 percent of the cases, followed by altered mental status (16 percent);

6 percent were in the ED for medical clearance for jail or rehabilitation. Psychosis accounted for only 3 percent of the heroin ED cases.

Addiction treatment clients for primary heroin abuse during 2001 totaled 358, or 5 percent of the BARC and Spectrum treatment sample reviewed. One-half of these clients were older than 35, one-third were age 25–34, and the remaining 17 percent were 18–24. White non-Hispanics accounted for 62 percent of the heroin treatment clients, Hispanics for 27 percent, and Blacks for 11 percent.

During 2001, only 149 heroin cases were analyzed by the BSO Crime Lab, compared with 188 such cases during 2000. The decline may be related in part to a change in operating procedure at the crime lab. Last year, the lab examined all noncannabis cases submitted. In 2001, however, the lab worked only cases filed by the State Attorney’s Office, and of those, only the items requested. This change has resulted in a 20-percent decrease in the total number of items tested.

Colombian heroin is still described as widely available in South Florida, with ethnographers saying it became more available and purer between 2000 and 2001. South Florida heroin prices have remained steady at about \$60,000–\$65,000 per kilogram over the past year after declining sharply several years ago. Purity at the kilogram level is estimated to range from 70 to 95 percent. According to the DMP, Miami’s heroin street purity is estimated at 17–23 percent, with the lowest price per milligram pure in the region’s history (\$1.03). A bag of heroin (roughly 20 percent purity) weighing about one-tenth of a gram sells for \$10 as the most common unit of street heroin.

The 2001 Florida Youth Survey on Substance Abuse shows that fewer than one-third of 1 percent of both middle and high school students reported past-30-day use of heroin, a slight decrease from 2000 for middle school students and a sharp decrease for high school students. Current heroin use was reported by 1.1 percent of Miami-Dade middle and high school students in the 2001 survey conducted by The Miami Coalition.

### **Other Opiates/Narcotics**

Deaths from opiates other than heroin have been tracked in Florida since 2000. Methadone-related deaths increased 71 percent statewide between 2000 and 2001, rising from 209 to 357. It was the cause of death in one-half of those cases. The number of oxycodone and hydrocodone deaths rose 45 percent

from 660 in 2000 to 957 in 2001. The two drugs were not tracked separately in 2000. There were 537 oxycodone-related deaths in 2001 and 420 hydrocodone-related deaths. The specified drug was the cause of death in 59 percent of the oxycodone-related cases, and hydrocodone was the cause of death in 35 percent of the hydrocodone-related deaths. Oxycodone deaths declined 14 percent between the first and second halves of 2001 as public awareness increased about this emerging drug problem.

Miami-Dade County reported 24 oxycodone-related deaths in 2001; 16 were oxycodone-induced deaths (exhibit 4). Broward County recorded 73 oxycodone-related deaths, with 58 oxycodone-induced deaths. In Palm Beach County, there were 57 oxycodone-related and 37 oxycodone-induced deaths.

Miami-Dade County reported 13 hydrocodone-related deaths in 2001, of which 5 were hydrocodone-induced. Broward County recorded 28 hydrocodone-related deaths, of which 21 were hydrocodone-induced. In Palm Beach County, 13 of the 41 hydrocodone-related deaths were hydrocodone-induced.

Miami-Dade County reported 2 methadone-related deaths in 2001; both were considered methadone-induced. Broward County recorded 22 methadone-related deaths, with 19 considered methadone-induced. In Palm Beach County, there were 43 methadone-related deaths, with 22 considered methadone-induced.

A summary of 2001 narcotic-induced deaths from the Florida Medical Examiners Commission reveals that Broward County had a total of 149 such deaths, led by oxycodone, while heroin led in both Palm Beach County, which had 129 narcotic-induced deaths, and Miami-Dade, which had 55 such deaths.

Information on the 37 oxycodone-induced deaths from Broward County in the second half of 2001 shows that 3 decedents were teenagers (8 percent), 8 were in their twenties (22 percent), 7 were in their thirties (19 percent), 15 were in their forties (41 percent), and 4 (11 percent) were age 50 or older. Males accounted for 79 percent of the decedents, and 91 percent were White. As with most fatal overdoses, these deaths rarely involved one drug alone. In fact, only 1 of the 34 oxycodone-caused deaths in the last half of 2001 involved oxycodone alone. In 62 percent of the cases, alprazolam (Xanax) was also involved, identified by either a toxicology screen or by history, and in 18 percent of the cases, heroin and oxycodone combined to cause the death. Hydrocodone, cocaine, and alcohol were also

combined with oxycodone in several deaths. In addition, there were five other narcotic analgesic deaths in which hydrocodone was considered the cause of death, and 10 deaths in which methadone was considered the cause in the second half of 2001.

The number of DAWN narcotic analgesics ED mentions in Miami-Dade County increased 181 percent between 1994 and 2000, rising from 86 mentions to 242. In the first half of 2001, there were an estimated 128 narcotic analgesics ED mentions (exhibit 2). The number of ED mentions for narcotic analgesic combinations also increased significantly (49 percent), from 86 to 128 between 1994 and 2000. National increases in ED mentions for these categories over the same time period parallel the Miami trend.

Nationally, all ED mentions of drugs containing hydrocodone/combinations increased 116 percent, from 9,320 in 1994 to 20,098 in 2000. Oxycodone/combinations ED drug mentions increased 166 percent, from 4,069 in 1994 to 10,825 in 2000, and there was a 68-percent increase from 1999 to 2000. While DAWN data for specific narcotic medications are not available at the local level, a review of the national data reveals that these increases in narcotic ED mentions have been fueled by the drug oxycodone alone, rather than in combination medications. The dramatic rise in abuse of narcotic medication since 1996 may be explained by the introduction in that year of the sustained-release form of oxycodone, OxyContin, which does not contain another analgesic such as aspirin or acetaminophen. Nationally, the DAWN ED mentions for oxycodone (alone, not in combination products) rose 3,692-percent, from 100 to 3,792 mentions between 1996 and 2000.

A total of 104 oxycodone overdose ED cases were treated at BGMC in 2001. Males accounted for 71 percent of the clients and 84 percent were White. The ages of these patients ranged from 18 to 58. There were 3 teenagers, 20 patients in their twenties, 22 in their thirties, 54 in their forties, and 5 age 50 or older. The brand name product, OxyContin, was specifically mentioned in 71 percent of these cases. The route of administration was unclear upon reviewing most charts.

In 40 percent of these cases, the reason for visiting the BGMC ED was dependence/withdrawal. In 30 percent of the cases, the drug's use was clearly non-medical. In 14 percent of cases, the oxycodone was being used for other psychic effects (such as excessive amounts used for pain relief). In 14 percent of cases, the oxycodone was taken in a suicidal gesture.

Twenty-six percent of the oxycodone ED patients at BGMC presented with central nervous system depression, and 5 percent visited the ED because of convulsions. Naloxone was administered to 14 percent of these ED cases. Twenty-nine percent of these patients required hospital admission, and the remaining patients were treated and released from the emergency department. Co-ingestants in these cases included benzodiazepines (in 30 percent of the cases, and especially alprazolam, in 5 percent of all cases), marijuana (14 percent), cocaine (17 percent), other opioids such as heroin or methadone (13 percent), and hydrocodone (10 percent).

The BSO Crime Lab worked 95 oxycodone cases in the second half of 2001, compared with 80 such cases in the first half, 71 in the second half of 2000, and 69 in the first half of 2000. There were also 69 hydrocodone cases in the second half of 2001, 44 in the first half of 2001, 58 in the second half of 2000, and 69 in the first half of 2000.

### **Marijuana**

Cannabinoids were detected in 707 deaths in Florida in 2001, an 8-percent increase over the 652 marijuana-related deaths in 2000.

In Miami-Dade County, marijuana ED mentions reported by DAWN increased 148 percent between 1994 and 2000, reaching 1,768; mentions seemingly stabilized in the first half of 2001 at 909 (exhibit 2). In 2000, Miami ranked third in the DAWN system for the highest rate of marijuana ED mentions (91 per 100,000 population), behind Philadelphia at 101 mentions and Detroit at 99. A demographic profile of the cases from the first half of 2001 reveals that 74 percent were male, 37 percent were White, 45 percent were Black, and 18 percent were Hispanic. Ten percent of these marijuana ED patients were age 12–17, 26 percent were 18–25, 24 percent were 26–34, and 39 percent were age 35 and older.

At the BGMC, there were 832 marijuana ED cases in 2001, representing 34 percent of all drug ED mentions. Seventy-five percent of the patients were male. Whites accounted for 57 percent of marijuana ED cases, Blacks for 34 percent, and Hispanics or “others” for 9 percent. Ten percent were teenagers, 29 percent were in their twenties, 30 percent were in their thirties, 21 percent were in their forties, and 10 percent were age 50 or older.

Marijuana was the only illicit drug (with or without alcohol) in 41 percent of the BGMC ED marijuana cases. More than one-third of the Broward marijuana

ED cases involved marijuana in combination with cocaine, which was discussed briefly in the cocaine section of this report. Marijuana was also found in combination with MDMA or amphetamines in 16 additional cases. In 14 percent of the cases, alcohol was the only documented co-ingestant with marijuana.

The most common reasons for BGMC marijuana ED visits in the second half of 2001 were as follows:

- Depression/suicidal—31 percent
- Psychiatric-related (e.g., hallucinations, anxiety, bizarre behavior, delusions)—10 percent
- Trauma—9 percent
- Altered mental status—8 percent
- Chest pain—5 percent

Marijuana is still the most popular drug among young people visiting the emergency department. More than one-half (53 percent) of all illicit substance abuse cases in the 12–25 age group involved marijuana. By comparison, 35 percent of all such cases in this age group involved cocaine; 29 percent involved benzodiazepines, of which alprazolam accounted for 64 percent; and 6 percent each involved MDMA and heroin. (These figures total more than 100 percent because some cases are combinations.)

In 2001, 2,257 addiction treatment clients (25 percent of the study treatment sample) cited marijuana as the primary drug of abuse. Forty-three percent of these clients were Black, 41 percent were White, and 16 percent were Hispanic or “other.” In contrast to cocaine and heroin patients, those seeking treatment for marijuana tended to be younger: 48 percent were age 17 or younger, and 30 percent were 18–25.

In Broward County in 2001, 23 homicides involved victims who were age 13–29. Of these, 10 (43 percent) tested positive for marijuana. Only one tested positive for cocaine: a 22-year-old White male who also tested positive for methylated amphetamines.

Marijuana is still described as widely available throughout Florida, with local commercial, sinsemilla, and hydroponic grades available. One-quarter ounce of sinsemilla, with an estimated tetrahydrocannabinol (THC) content of 10–18 percent, sells for \$100–\$120.

In the 2001 MTF Study, 49 percent of 12th graders nationally said that they had tried marijuana at least once. This was the fourth highest rate since 1987; only 1997, 1998, and 1999 rates were higher. In the 2000 National Household Survey, among 12–17-year-olds who said their parents would strongly

disapprove of them even trying marijuana once, 7 percent had used an illicit drug within the last month. Among the same age group, those who said their parents would not strongly object, 31 percent had used an illicit drug within the last 30 days. The Miami-Dade Survey revealed a continuing downward trend in current marijuana use among middle and high school students, from 13.4 percent in 1995 to 9.4 percent in 2001. Yet, the perceived use of marijuana by friends and ease in obtaining the drug increased between 1999 and 2001.

### **Gamma Hydroxybutyrate (GHB)**

GHB, an anesthetic, is a commonly abused substance in South Florida. The drug is known by numerous street names, including “liquid X,” “G,” “scoop,” “Somatomax,” and “Georgia home boy,” and there are several compounds that are converted by the body to GHB. Two important precursors to GHB are being abused as well: gamma butyrolactone (GBL) and 1,4 butanediol (1,4 BD).

BD-containing products may list active ingredients as tetramethylene glycol; suclo B; 1,4-butylene glycol; butane-1; 4 diol; butylene glycol; and 1,4-tetramethylene glycol. Brand names of BD-containing products include Zen, Serenity, Somatopro, InnerG, NRG3, Enliven, Growth Hormone Release Extract (GHRE), Thunder Nectar, Weight Belt Cleaner, Rest-Q, X-12, Dormir, Amino Flex, Orange FX, Rush, Lemon fX Drop, Cherry fX, Bomb, Borametz, Pine Needle Extract, Promusol, and BVM. Artfully worded labels often state that the product does not contain GHB or 2(3) furanone dihydro. These labels may also state that the product is a cleaner and harmful if swallowed. However, BD-containing products have been sold in health food stores with dietary supplements. A 32-ounce bottle typically sells for \$40–\$70, a price similar to that for GBL- and GHB-containing products, but far out of proportion to what most reasonable people would pay for a “cleaner.”

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, a critical turning point for the data presented in this report.

In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001. However, there were only eight GHB deaths in the second half of 2001, a 60-

percent decrease from the previous 6 months. This same pattern is observed in the ED data from the previous year discussed below.

GHB deaths in Miami-Dade County declined from three in 2000 to one in 2001.

In Broward County in 2001, there were no deaths in which GHB was considered a cause. From 1996 to 2000, 11 deaths involved GHB (2 in 1996, 2 in 1997, 3 in 1998, 1 in 1999, and 3 in 2000). In nine of these cases, GHB was mentioned as one of the causes of death. In another case, the patient was admitted to a hospital for GHB intoxication, appeared to have recovered, and subsequently succumbed for other reasons. In one other death, the patient was brought to BGMC ED dead on arrival from a multiple drug overdose that included GHB by history; however, the medical examiner found GHB to be noncontributory.

Eight of the nine GHB-caused fatalities involved co-ingestants, including alcohol, cocaine, marijuana, benzodiazepines, opioids, carisoprodol (Soma), sertraline (Zoloft), and MDMA. Alcohol was detected in seven cases, with the concentrations raging from 90 to 340 milligrams per deciliter. (Legally drunk in Florida is identified as an alcohol concentration of 80 milligrams per deciliter.) One recent fatality involved no co-ingestants and no alcohol. This case is important because it refutes the commonly espoused misperception that GHB is fatal only when it is used with another central nervous system depressant.

Across the country, there was a dramatic increase (8,773 percent) in DAWN GHB ED mentions, from 56 in 1994 to 4,969 in 2000. Although ecstasy has probably received more media attention and may have been used more, there were more GHB than ecstasy ED visits in 2000 and in most years prior to 2000. However, in the first half of 2001, there were 1,610 GHB ED mentions nationally compared with 2,385 MDMA ED mentions, with neither showing a significant change from the first half of 2000.

In Miami-Dade County, DAWN ED mentions for GHB rose from 2 in the last half of 1997 to 28 in the first half of 2000, before declining to 17 in the last half of 2000 and 17 again in the first half of 2001 (exhibit 2). The decrease between the first halves of 2000 and 2001 was statistically significant.

During the second half of 2001, the BGMC ED treated 39 people with GHB or GHB precursor overdose. This compares with 32 in the first half of 2001 and 77 in all of 2000. In most of the GHB overdose cases during the second half of 2001, the



reason for the ED visit was decreased responsiveness/coma usually lasting less than 3 hours.

The ages of the GHB toxicity patients at BGMC in the last half of 2001 ranged from 18 to 44, with an average of 28.5 years. There was 1 teenager (3 percent); 21 (54 percent) were in their twenties, 14 (36 percent) were in their thirties, and 3 (8 percent) were in their forties. Thirty-two of these GHB overdose patients were men (82 percent); 34 (87 percent) were White non-Hispanic, 4 (10 percent) were Black non-Hispanic, and race/ethnicity was unknown in 1 (3 percent) of the cases.

Among the GHB BGMC patients in the last half of 2001, a urine toxicology screen was amphetamine-positive in 11, cocaine-positive in 8, and marijuana-positive in 4. A urine toxicology screen was not obtained for every case.

Alcohol was involved in 18 of the 39 cases, confirmed either by history or through an alcohol level test. In the GHB cases for which a blood alcohol level was obtained, the level ranged from 0 to 273 milligrams per deciliter.

The location of the incident requiring the ED visit was a local bar or nightclub or the beach in 12 cases (31 percent), and a car in 4 (10 percent). Nineteen persons (49 percent) presented to the ED between 11 p.m. and 6 a.m.

Eleven (28 percent) of the 39 patients were completely comatose (Glasgow Coma Scale of 3). Airway assistance (e.g., nasal trumpet, oxygen) was required on three patients. At least three (8 percent) of the patients vomited. Most patients were treated and released from the ED within several hours. However, 2 of the 39 patients required hospital admission, and 6 patients (15 percent) required endotracheal intubation.

During 2001, 3 GHB, 13 GBL, and 7 BD cases were analyzed by the BSO Crime Lab. Only three GHB cases and one GBL case were analyzed by the crime lab in the second half of 2000, compared with 12 GHB-related cases and 1 GBL case during the first half of the year.

Ethnographers in Miami report a slight decline in GHB availability in South Florida, noting that the drug sells for \$5–\$10 per “swig” or “hit,” with a 32-ounce bottle of GBL or 1,4 BD selling for \$40–\$70.

**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 “hug drug” that can promote empathy, relaxation, and sexuality. Many indicators such as crime lab statistics, drug confiscations in the area, and national survey data point to increased abuse of this drug. For the first time, in 2000 more teens said they had abused MDMA or ecstasy than cocaine.

Each ecstasy pill generally contains 75–125 milligrams of MDMA. Wholesale prices in the United States are approximately \$8 per pill for 100 units, but retail prices in clubs and raves are \$10–\$50. According to local law enforcement sources, South Florida ecstasy prices may have begun to drop in the first half of 2001, reflecting increased supply. In addition, giveaway deals are often brokered to establish future customers.

The major sources of the designer logo-emblazoned pills seem to be clandestine labs in Western Europe, especially the Netherlands and Belgium. There are unverified rumors of clandestine labs in South Florida attempting MDMA production.

There were 14 methylated amphetamine-related deaths in Miami-Dade County in 2001; 5 were considered to have been caused by the drug. There were four such deaths in Broward County in 2001, of which two were caused by the drug. Florida recorded 147 methylated amphetamine-related deaths statewide in 2001; in 37 of these cases, the drug was considered the cause of death.

In Miami-Dade County, 99 MDMA ED mentions were reported by DAWN in the first half of 2001, a 130-percent increase from the first half of 2000 (exhibit 2). A total of 105 MDMA mentions were reported for all of 2000, a significant increase from the 2 reported in 1994.

BGMC reported 79 cases involving MDMA during 2001. These can be divided into three major categories: those in which ecstasy was specifically mentioned in the medical record and the patient tested positive for amphetamines (18 cases); those in which ecstasy was mentioned but the toxicology screen was either not obtained or negative for amphetamines (43 cases); and those cases in which ecstasy was not specifically mentioned but was suspected, based on circumstances and the fact that the urine screen was positive for amphetamines (18 cases). In the previous 6-month period, there were 13 cases in which ecstasy was suspected but not mentioned and the toxicology screen was

amphetamine positive. One recent change may be that many of the amphetamine-positive toxicology screens represent methamphetamine or another amphetamine, so one cannot assume it is MDMA.

There were fewer BGMC ED MDMA cases in the second half of 2001 than in the first half. It is suspected that this is an effect of increased airport security since September 11, 2001. Only 14 of the 79 ED cases presented after September 11. Most of the above-mentioned cases were White non-Hispanic youth: 89 percent were White non-Hispanic, 22 percent were in their teens, 61 percent were in their twenties, 15 percent were in their thirties, and one patient who was 53. Many of the cases involved a combination of ecstasy and some other drug of abuse, including alcohol (45 percent); marijuana (36 percent); GHB (32 percent); cocaine (35 percent); and benzodiazepines, especially alprazolam/Xanax (20 percent of cases).

The reason for the MDMA ED visit was altered mental status/decreased responsiveness in 40 percent of the cases; depression/suicidal ideation in 20 percent; and anxiety, agitation, confusion, paranoia, or bizarre behavior in 16 percent. All except one of these patients were treated and discharged from the emergency department without requiring hospital admission.

Based on information provided by the DEA's STRIDE program, the State of Florida is the highest MDMA trafficking area in the country, followed by New York and California. According to the U.S. Customs Service, the quantity of MDMA tablets seized nationally increased from 400,000 in 1997 to 750,000 in 1998, 3,500,000 in 1999, and 9,300,000 in 2000. According to data from law enforcement sources, analysis of alleged MDMA samples in 2000 showed that 12 percent contained amphetamine or methamphetamine but no MDMA, 5 percent contained no controlled substances, and 3 percent were determined to be other substances (e.g., caffeine, ephedrine, dextromethorphan, and diphenhydramine) but were sold as ecstasy. The average dose of a tablet containing MDMA was 87 milligrams. In 2000, 63 percent of tablets were smuggled into the United States by airline passengers, 27 percent by express mail, and 10 percent by ship. The most common departure points for MDMA smuggled into the country were the Netherlands (77 percent), Belgium (8 percent), Germany (3 percent), and Spain (3 percent).

As of January 1, 2000, the BSO Crime Lab began to report MDMA separately. During 2000, MDMA accounted for 244 cases. For comparison, during the

same year, heroin accounted for only 188 cases, lysergic acid diethylamide (LSD) for 52 cases, methamphetamine for 23 cases, ketamine for 28 cases, and GHB/GBL for 16 cases. During 2001, 253 ecstasy cases were conducted, which was more than cases for heroin, LSD, GHB, GBL, BD, and methamphetamine combined.

According to the national MTF Study, MDMA use was at an all-time high among 8th, 10th, and 12th graders in 2001—higher than cocaine use among these age groups. In addition, there has been a sharp increase in the availability of ecstasy. In 1999, 40 percent of those teens surveyed said that ecstasy was fairly or very easy to get; by 2001, 62 percent claimed the drug was fairly or very easy to get. This increased availability has resulted in price decreases and giveaway deals that could result in new legions of users. Ecstasy is being used at private parties now as much as at raves. MDMA current use was reported by 2.8 percent of Miami-Dade 7th–12th graders in the 2001 survey conducted by the Miami Coalition.

The first report of internal bodypacking involving ecstasy originated in Miami in the last part of 2001. An individual flew into Miami from Canada after having swallowed numerous packets containing MDMA. The objective, apparently, was to retrieve the pills from his feces for illicit distribution. This case is interesting because it happened after September 11, 2001; given the increased security measures, high demand, and high profit potential, bodypacking could become a more routine smuggling method in the future.

### **Other Stimulants**

Methamphetamine has traditionally been a much larger issue in California, Texas, Nevada, and even in the Midwest than it has been on the east coast. Even in the State of Florida, most amphetamine/methamphetamine cases were on the west coast in the Tampa area and in rural Polk County. There are some preliminary indications that this may be changing. First, despite a cutback in the BSO Crime Lab caseload in 2001, the number of methamphetamine cases conducted by the lab increased to 39 from 30 in 2000. In addition, local law enforcement officials and ethnographers report a recent increase in crystal methamphetamine use, particularly among gay men, who refer to the drug as "Tina." Finally, assuming that the increased airport and port security since September 11, 2001, will result in a decreased supply of foreign-made MDMA, more easily produced domestic amphetamines and methamphetamines are likely to be substituted to capitalize on available profits.

Either d-methamphetamine or l-methamphetamine was identified in 44 of the 147 methylated amphetamine-related deaths in Florida during 2001. Both types were found in 36 of the decedents, and d-methamphetamine was found in combination with MDMA in 1 death case.

Between the first halves of 2000 and 2001, the number of amphetamine-related DAWN ED mentions in Miami-Dade County declined from 45 to 31 (exhibit 2). Over the same time period, there was a significant 86-percent increase in the number of methamphetamine-related ED mentions, from 7 to 13. It is still unclear how hospital staffs classify which cases are for amphetamines and which are for methamphetamines.

In the last 6 months of 2001, there were 29 BGMC ED cases in which amphetamines of some type were either mentioned in the history or detected in a toxicology screen, more than the total for “ecstasy” cases. Of the 29 cases, 90 percent were White and 76 percent were male. Four were in their twenties, 13 were in their thirties, nine were in their forties, and 3 were in their fifties. Most cases were amphetamine-positive on their toxicology screens (23, or 79 percent); in the majority of cases, the exact form of the amphetamine was not documented. However, a smokable form of methamphetamine was specifically documented in three cases. Cocaine was a co-intoxicant in eight cases (28 percent), marijuana in six (21 percent), GHB in three (10 percent), benzodiazepines in six (21 percent), and heroin or oxycodone in three (10 percent). Four patients came to the ED for altered mental status, five for gastrointestinal problems, and five for depression. Other common chief complaints included chest pain ( $n=4$ ), overdose ( $n=2$ ), and other psychiatric problems.

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. The University of Miami and the University of Florida will include questions about its abuse in future substance abuse surveys on campus.

### **Lysergic Acid Diethylamide (LSD)**

LSD, a synthetic hallucinogen popularized in the 1960s in the United States, is usually abused orally in small tablets (“microdots”), thin squares of gelatin (“windowpanes”), or blotter paper. It is not easily detected on most hospital urine toxicology screens. The drug became popular again in the 1990s at lower doses as a stimulant and “mild” hallucinogen.

There were 34 LSD DAWN ED mentions in Miami-Dade County in the first half of 2001, a significant increase over the 24 reported in the first half of 2000 (exhibit 2). Six LSD cases were reported by the BGMC during the same time period.

LSD appears to be losing popularity among young people. According to the national 2000 MTF Study, the percentage of 12th graders saying they had tried LSD within the last year dropped significantly, from 8.8 percent in 1996 to 6.6 percent in 2000. In 2001, the Miami-Dade School Survey found that only 1.7 percent of students in grades 7 to 12 reported current LSD use, down from 3.8 percent in 1995.

The BSO Crime Lab identified 22 LSD samples in the first 6 months of 2001, compared with 52 in 2000.

### **Benzodiazepines**

For a variety of reasons, it is much more difficult to track benzodiazepine abuse than other forms of substance abuse. However, there are certainly some indicators that benzodiazepines, particularly alprazolam, are a substantial problem. The BSO Crime Lab conducted 258 alprazolam case investigations in the first half of 2001 and 244 in the second half. This is roughly double the cases involving ecstasy, and more than double those involving oxycodone. In fact, the BSO Crime Lab worked more alprazolam cases in 2001 than those for any other drug except cocaine.

There were 1,378 mentions of benzodiazepines among the 1,304 decedents in Florida during 2001 whose deaths were caused by one or more drugs. This is a 5-percent increase over 1,314 mentions in 2000. Of the 2001 deaths, a benzodiazepine was identified as the cause of death in 297 cases (23 percent).

Nationally, DAWN data reveal that alprazolam is the fifth most commonly mentioned drug in ED visits across the country. This ranks behind cocaine, alcohol-in-combination, marijuana, and heroin. These rankings are the same in Miami-Dade County, where DAWN benzodiazepine-related ED mentions totaled 502 in the first half of 2001, representing a nonsignificant 6-percent increase over the same period in 2000 (exhibit 2).

Alprazolam seems to be popular among opioid abusers—it was involved in 21 of the 34 Broward County oxycodone deaths in the second half of 2001 as well as in many of the heroin deaths. Benzodiazepines were involved in 14 (30 percent) of 46 oxycodone hospital ED cases in the second half of

2001; the specific benzodiazepine, alprazolam, was involved in 10 (22 percent) of the oxycodone cases.

Alprazolam seems to be very popular among high school students as well. Two girls, one age 14 and the other 13, became lethargic and required the use of activated charcoal and supportive care after taking alprazolam together at a skating rink in Broward County during the second half of 2001. Also, according to Broward High School substance abuse counselors, the most common drugs of abuse among high school youth are alcohol, marijuana, and Xanax. Students refer to Xanax tablets as “zany bars” or “bars.”

### **Bodypacking**

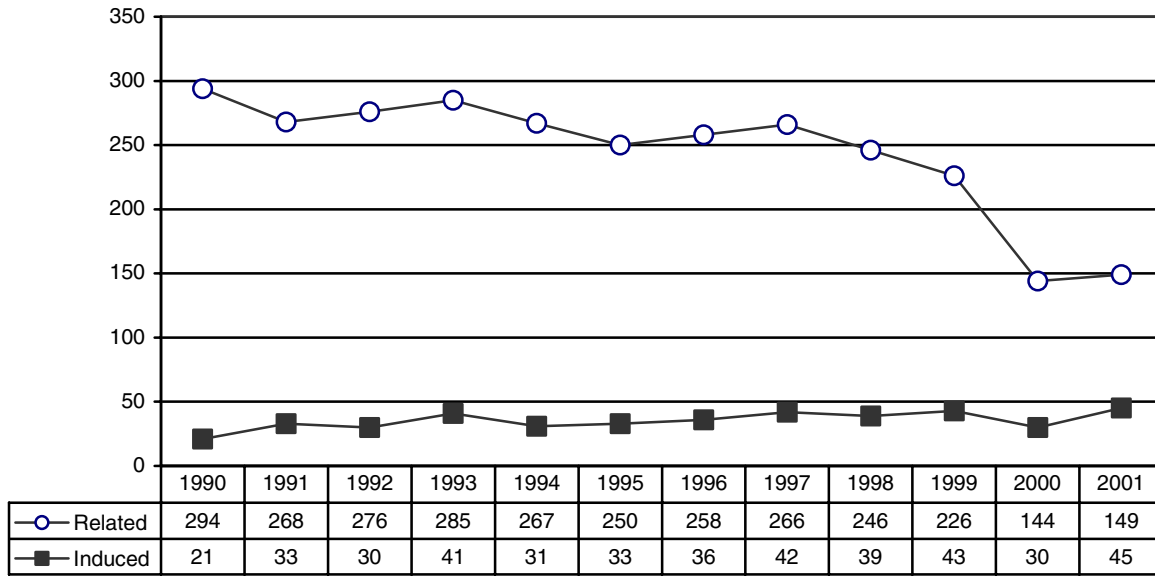
A bodypacker is an individual who ingests packets of illicit drugs in an effort to smuggle those drugs into this country. Often, bodypackers apprehended from

the Hollywood/Ft. Lauderdale International Airport are brought to BGMC for treatment. During the last 6 months of 2001, 17 bodypackers were treated at BGMC; 14 (82 percent) had ingested latex-covered packets of cocaine. There were 11 men (65 percent) and 6 women (35 percent), and they claimed to have ingested 38–115 packets, with an average of 73 in those cases where a history of the amount was available. The average age of these individuals was 29.6. Of the 17 bodypackers, 7 (41 percent) were Black, 6 (35 percent) were White, 2 (12 percent) were Hispanic, and 2 (12 percent) were of unknown race. For each of the cocaine bodypacking cases in which the country of origin was documented, it was Jamaica. For every case in which a drug was documented, it was cocaine.

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**Exhibit 1. Number of Cocaine-Related and Cocaine-Induced Deaths in Miami-Dade County: 1990–2001**



SOURCES: Miami-Dade Medical Examiner's Department and Florida Medical Examiners Commission

**Exhibit 2. Number of ED Mentions for Selected Drugs in Miami-Dade County: July 1996–June 2001<sup>1</sup>**

Drug Category	Jul-Dec 1996	Jan-Jun 1997	Jul-Dec 1997	Jan-Jun 1998	Jul-Dec 1998	Jan-Jun 1999	Jul-Dec 1999	Jan-Jun 2000	Jul-Dec 2000	Jan-Jun 2001
Cocaine	1,615	1,638	1,616	1,768	1,785	1,872	2,146	2,131	2,252	2,165 <sup>2</sup>
Heroin	230	278	314	364	403	453	464	681	771	824
Marijuana	511	564	460	561	553	574	709	855	913	909
Amphetamines	-	19	8	26	37	23	31	45	39	31
Methamphetamines	4	2	8	7	9	-	6	7	8	13 <sup>2,3</sup>
MDMA (Ecstasy)	3	15	13	3	9	26	34	43	62	99 <sup>2,3</sup>
LSD	20	33	30	24	30	24	26	24	31	34 <sup>2</sup>
PCP	11	6	7	7	6	3	6	-	7	2 <sup>3</sup>
GHB	0	0	2	2	8	7	22	28	17	17 <sup>2</sup>
Benzodiazepines	391	354	361	344	417	358	392	472	490	502
Narcotic Analgesics	62	66	73	56	133	78	119	115	127	128
Narcotic Analgesic Combinations	41	34	40	51	33	44	33	66	62	58

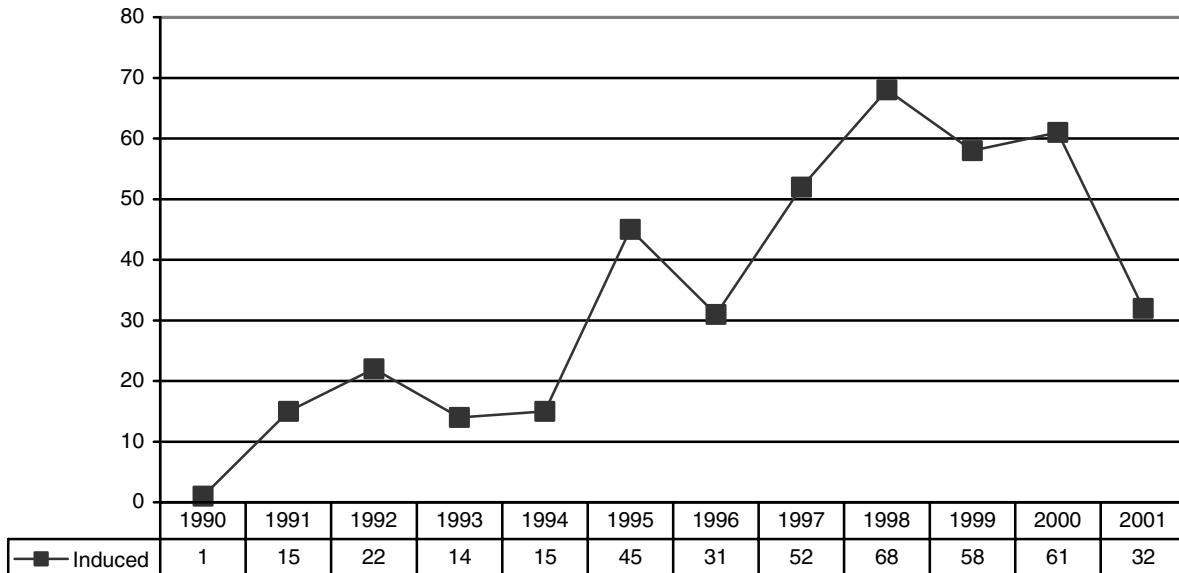
<sup>1</sup> Estimates for the first half of 2001 are preliminary.

<sup>2</sup> Statistically significant at p<0.05 between the first half of 2000 and the first half of 2001.

<sup>3</sup> Statistically significant at p<0.05 between the last half of 2000 and the first half of 2001.

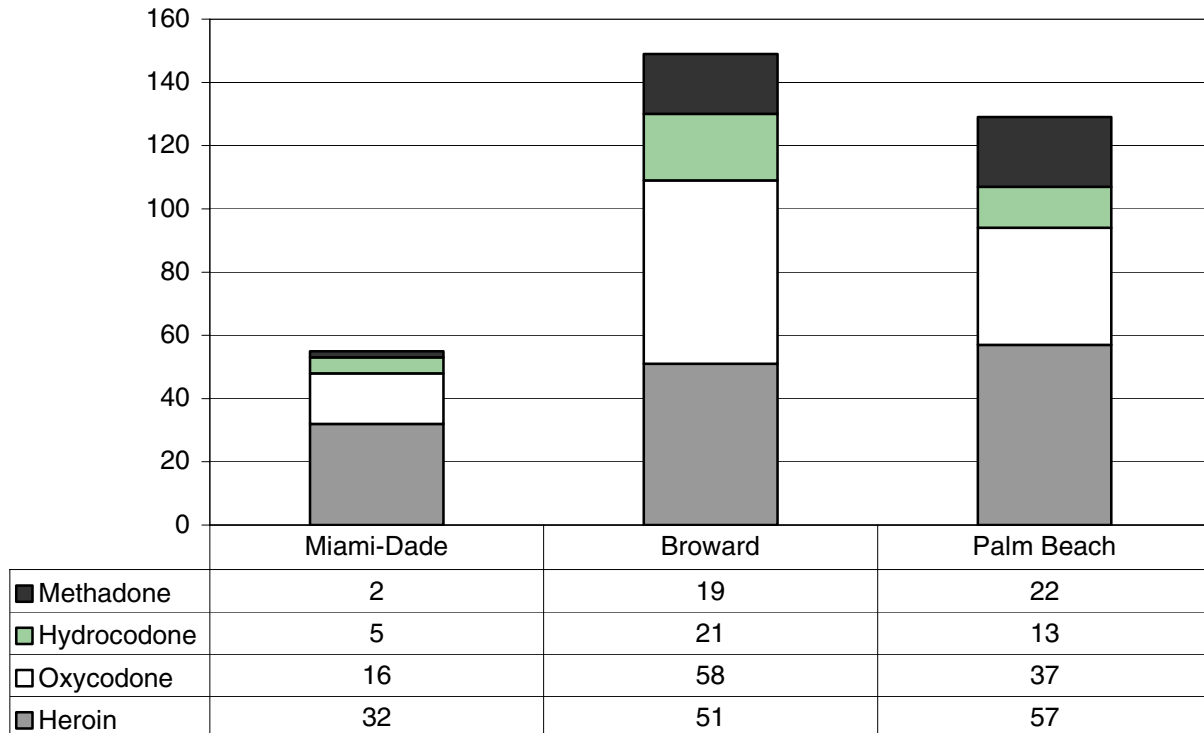
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Number of Heroin-Induced Deaths in Miami-Dade County: 1990–2001**



SOURCE: Miami-Dade Medical Examiner's Department and Florida Medical Examiners Commission

**Exhibit 4. Number of Narcotic-Induced Death Mentions in Three Florida Counties: 2001**



SOURCE: Florida Medical Examiners Commission

# Drug Abuse Trends in Minneapolis/St. Paul, Minnesota

Carol L. Falkowski<sup>1</sup>

## ABSTRACT

*While the number of people entering addiction treatment programs and hospital emergency departments for heroin-related problems increased very gradually over the past decade, the amount of heroin recently seized by law enforcement officials grew dramatically, and in one agency doubled from 2000 to 2001. Similarly, opiate-related deaths, most from accidental heroin overdose, continued upward trends that began in 2000, driven by an unprecedented, steady supply of high-purity, low-cost heroin in the metropolitan area. Growing abuse of OxyContin (continuous release oxycodone, a prescription analgesic) by seasoned drug abusers escalated, particularly in rural Minnesota. Most cocaine-related indicators declined (deaths, hospital emergencies, admissions to addiction treatment programs), although law enforcement seizures presented more of a mixed picture. The number of clandestine methamphetamine labs, law enforcement seizures, and treatment admissions increased, while methamphetamine-related deaths rose in Hennepin County and declined in Ramsey County, and hospital emergencies were stable. The rapid, sharp increase in GHB and MDMA (ecstasy) hospital emergencies from 1999 to 2000 slowed somewhat in 2001, yet law enforcement seizures increased substantially for MDMA. Laboratory analysis continues to confirm that a variety of chemical compounds other than MDMA are also being sold as ecstasy. Marijuana use among Minnesota youth has increased since 1992, while alcohol and tobacco use has generally declined (except that smoking among 12th graders was slightly higher in 2001 than in 1992). Marijuana was the primary drug of abuse for one out of five people who entered addiction treatment programs in 2001; of those, one-half were under the age of 18.*

## INTRODUCTION

### Area Description

The Minneapolis and St. Paul, Minnesota, metropolitan area includes Minneapolis, the capital city of St. Paul, and the counties of Hennepin, Ramsey, Anoka, Dakota, and Washington.

According to the 2000 census, the population is 2,482,353, one-half of the total Minnesota 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.

Whites account for 84 percent of the population in the five-county metropolitan area and 65 percent in the cities of Minneapolis and St. Paul. In Hennepin County, African-Americans constitute the largest minority group, while Asians are the largest minority group in Ramsey, Anoka, Dakota, and Washington Counties. The remaining area of the State is less densely populated and rural in character. To the north, Minnesota shares an international border with Canada that is largely a wilderness area. To the west, Minnesota borders two of the Nation's most sparsely populated States, North Dakota and South Dakota.

### Data Sources

Data sources used in this report are shown below.

- **Drug-related mortality data** on drug abuse-related deaths are from both the Hennepin County and Ramsey County Medical Examiners through December 2001. Hennepin County cases include those 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 at the time of death.
- **Hospital emergency department (ED) data** are from the Drug Abuse Warning Network (DAWN), Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Public Health Service. These data are weighted estimates of all drug abuse-related ED mentions in non-Federal, short-term general hospitals in the standard metropolitan statistical area through June 2001. Data for the first half of 2001 are preliminary. A single drug abuse-related ED episode can involve the mention of up to four drugs and alcohol-in-combination.

<sup>1</sup> The author is affiliated with the Butler Center for Research, Hazelden Foundation, Center City, Minnesota.



- **Drug treatment data** are from addiction treatment programs (residential, outpatient, and extended care) in the five-county metropolitan area, as reported on the Drug and Alcohol Abuse Normative Evaluation System of the Minnesota Department of Human Services from 1997 through 2001.
- **Arrestee data** on drug abuse among people arrested in Hennepin County are from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice, U.S. Department of Justice, under the local direction of the Minneapolis Medical Research Foundation. Researchers interviewed an unweighted sample of 3,708 arrestees and a weighted sample of 613 arrestees during the first three quarters of 2001. A voluntary urine specimen followed each interview. The figures presented are the combined results of urinalysis obtained from arrestees during those three quarters.
- **Law enforcement data** on drug seizures and prices are from various law enforcement agencies, including not only the Drug Enforcement Administration (DEA), but also the Hennepin, Washington, and Ramsey County Sheriffs, and the St. Paul and Minneapolis Police Departments. Crime lab data are from the St. Paul Police Department, the Minneapolis Department of Health and Family Support, and the Minnesota Bureau of Criminal Apprehension.
- **School survey data** are from the Minnesota Student Survey, a school-based survey administered to public school students in grades 6, 9, and 12 by the Minnesota Department of Children, Families, and Learning every 3 years since 1989. Only school districts that participated in all four surveys since the early 1990s (1992, 1995, 1998, and 2001) are included in the trend analysis, representing 69 percent of all districts and students in Minnesota.
- **State prescription rate data** on OxyContin are from congressional testimony on December 11, 2001, by Asa Hutchinson, Administrator of the U.S. Drug Enforcement Administration, before the House Committee on Appropriations' Subcommittee on Commerce, Justice, State, and Judiciary.
- **Data on the acquired immunodeficiency syndrome (AIDS)** are from the Minnesota Department of Health, 2001 AIDS Surveillance Report.

Additional information is from law enforcement officers, addiction treatment program staff, poison control specialists, outreach workers, and school-based drug abuse counselors.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

Cocaine-related mortality declined in both Hennepin and Ramsey Counties from 2000 to 2001 (exhibit 1). In Hennepin County, deaths fell from 43 to 37. These included 4 deaths caused by cocaine toxicity (cocaine-induced deaths) and 33 with recent cocaine use listed as a significant condition contributing to the death, including 2 stillbirths involving maternal use of cocaine during pregnancy. The average age of decedents was 38.4; 51.4 percent were African-American, 48.6 percent were White, and 81.0 percent were male.

From 2000 to 2001, cocaine-related deaths in Ramsey County fell from 17 to 11 (6 were cocaine-induced, and cocaine was reportedly present at the time of death in 5). The average age of decedents was 38.0; five were African-American, five were White, one was Hispanic, and 82.0 percent were male.

The population-based rate of cocaine-related hospital emergencies declined slightly in the first half of 2001 to 16 per 100,000, falling below that of marijuana (20 per 100,000) (exhibit 2).

People who entered addiction treatment programs with cocaine as the primary substance problem accounted for 11.8 percent of total admissions in 2001, compared with 13.5 percent in 2000 (exhibits 3 and 4). As in prior years, most of the cocaine admissions (81.6 percent) were crack users; most (68.7 percent) were male, and most (87.7 percent) were age 26 and older (exhibit 4).

Trends in the amount of cocaine seized by law enforcement agencies were variable. For example, DEA seizures rose from 85 to 101 pounds (FY 2000–2001), but seizures declined in the Hennepin County Sheriff Narcotics Unit. Mexican criminal organizations remain involved with cocaine trafficking, and gangs remain involved with street-level crack distribution. Cocaine prices were \$100 per gram, \$200 per “eightball” (one-eighth ounce, 3.5 grams), \$700–\$800 per ounce, and \$22,000 per kilogram. A rock of crack sold for \$5 or \$10. Among adult male arrestees in 2001, 27.2 percent tested positive for cocaine, compared with 25.7 percent in 2000 (exhibit 5).

## Heroin

Opiate-related mortality increased in recent years. In 2001 in Hennepin County, there were 58 opiate-related deaths, most from accidental heroin overdose, compared with 41 in 2000, 27 in 1999, and 26 in 1998 (exhibit 1). The average age of decedents was 40.5; 69.0 percent were White, 29.0 percent were African-American, and 86.0 percent were male. Eight deaths involved methadone and nine also involved cocaine.

In 2001, Ramsey County reported 19 opiate-related deaths, compared with 17 in 2000, 12 in 1999, and 12 in 1998. The average age of decedents was 40.7; 79 percent were White, 16 percent were African-American, and 52.6 percent were male. Two deaths also involved cocaine, and two involved methadone.

The rate of hospital ED mentions of heroin per 100,000 population in Minneapolis/St. Paul in the first half of 2001 was five, the lowest of all DAWN reporting cities, although at a significantly higher rate than in the first half of 2001, when the rate was 4 per 100,000 population (exhibit 2).

People entering addiction treatment programs with heroin as the primary substance problem accounted for 2.9 percent of total admissions in 2001, compared with 3.1 percent in 2000, and only 1.5 percent in 1991 (exhibits 3 and 4). Most of the heroin admissions in 2001 were male (68.8 percent), 83.4 percent were age 26 and older, and 42.7 percent reported sniffing as the primary route of administration. Smoking heroin by laying lines on a piece of aluminum foil, heating the foil from below, and inhaling the vapors, often known as “chasing the dragon,” is known as “foiling” in Minneapolis; it was reported by 2.6 percent of heroin treatment admissions in 2001 as the primary route of administration. In addition to abstinence-based treatment programs, 7 methadone maintenance programs serve 1,412 clients in the metropolitan area.

Heroin seized by law enforcement officials included white, off-white, brown, or tan powder and chunks of Mexican black tar heroin. Law enforcement seizures of heroin doubled in Hennepin County from 2000 to 2001. At the State crime lab, 176 grams were analyzed in 2002 (January through May), compared with 23 grams in all of 2001. Heroin purity levels remained high. Even experienced addicts can easily overdose by using unexpectedly high-purity heroin. The high purity, coupled with growing availability, falling prices, and an intranasal route of administration also contributed to the increased mortality rate.

Heroin prices ranged from \$20 to \$50 per dosage unit or “paper.” Grams sold for \$300–\$450. Among Minneapolis adult male arrestees in 2001, 5.4 percent tested opiate-positive, compared with 3.0 percent in 2000 (exhibit 5).

## Other Opiates/Narcotics

Prescription narcotic analgesics (painkillers) are sometimes used as heroin substitutes or in addition to street heroin. Fentanyl lollipops recently made their way into the illicit drug market and sold for \$450 each. Hydromorphone (Dilaudid) pills sold for \$50 each and were once the prescription narcotic most preferred by heroin abusers.

The abuse of oxycodone, particularly OxyContin (long-acting oxycodone), recently increased. Since its introduction in 1995, OxyContin has become the number-one prescription Schedule II narcotic in the United States. The annual number of OxyContin prescriptions nationwide reached 6 million in 2000. County drug abuse assessors in two rural, northern Minnesota counties first reported OxyContin abuse in 2001. Information from multiple sources now suggests that it is a significant and growing problem in the northern, rural parts of the State. The users are typically chronic heroin addicts or drug abusers who obtain prescriptions from doctors, and then sell the pills individually at highly inflated prices to finance their own habits. Minnesota ranked 44th in the number of OxyContin prescriptions written per 100,000 population in 2000. The State crime lab reported 18 cases involving oxycodone in 2001, compared with 19 in 2000, 11 in 1999, 14 in 1998, and 7 in 1997. In 2002, seven cases were reported through May. In 2000, there were 95 hospital ED mentions of oxycodone (including oxycodone/acetaminophen combinations).

Opium is routinely shipped from Asia to the Asian community in the Twin Cities area. In April 2002, 90 opium-soaked tablecloths from Thailand en route to Minneapolis were intercepted by law enforcement officials at O’Hare International Airport in Chicago. When combined with heated solvents, together the cloths would have yielded about 9 pounds of heroin.

## Marijuana

Behind alcohol and tobacco, marijuana is the most commonly abused drug among adolescents. Marijuana use among Minnesota students remains more prevalent now than in 1992. According to the Minnesota Student Survey, 30.3 percent of 12th graders reported past-year marijuana use in both 2001

and 1998, compared with 27.4 percent in 1995 and 20.4 percent in 1992 (exhibit 6). Among 9th graders, past-year marijuana use was reported by 19.8 percent in 2001, compared with 24.1 percent in 1998, 21.4 percent in 1995, and 9.6 percent in 1992. Among Minnesota 6th graders, past-year marijuana use was reported by 2.6 percent in 2001, compared with 4 percent in 1998, 3 percent in 1995, and 1.4 percent in 1992.

Hospital emergencies involving marijuana increased throughout the decade, with the drug most often found in combination with other drug or alcohol use. In the first half of 2001, the population-based rate of hospital ED mentions of marijuana surpassed that of cocaine (exhibit 2). Also, the rate per 100,000 population increased significantly from the first half of 2000. Marijuana joints are sometimes dipped into other psychoactive substances prior to smoking to achieve additional effects or enhance those of the marijuana alone. Joints dipped in formaldehyde, or embalming fluid, which is often mixed with phencyclidine (PCP), are known as “wets,” or “water.” Joints dipped in PCP are known as “wet daddies.”

One out of five (21.9 percent) people entering addiction treatment programs in 2001 reported marijuana as the primary drug of abuse, compared with only 8 percent in 1991 (exhibits 3 and 4). Of the 4,013 marijuana-related admissions in 2001, 50.0 percent were under age 18, 79.8 percent were age 25 or younger, and nearly one-half (49.5 percent) were entering treatment for the first time.

A large, indoor marijuana growing operation located inside an art supply storefront in suburban Burnsville was shut down in April 2002 by law enforcement officials. More than 4,000 plants were seized, making it the largest indoor growing operation seizure to date in Dakota County. The store was in close proximity to a high school.

Marijuana costs \$3–\$5 per individual cigarette or “joint,” and more for “dipped” ones. Standard commercial grade sold for about \$80 per ounce and \$600–\$900 per pound. “BC Bud,” also known as “hydro,” is a high-potency Canadian marijuana imported from British Columbia. Notable for its bright green, sparkling appearance and pronounced psychoactive effects, it sold for up to \$400 per ounce and \$100 per quarter-ounce. The amount of marijuana seized by multiple law enforcement agencies increased in 2001. Among arrestees in Minneapolis in 2001, 54.0 percent tested marijuana-positive, virtually the same percentage as in 2000 (54.2 percent) (exhibit 5).

## Stimulants

The most common stimulant of abuse, methamphetamine, is also known in the area as “meth,” or “crystal.” In Hennepin County, methamphetamine/amphetamine-related deaths rose from 6 in 2000 to 8 in 2001 (exhibit 1). Included in the eight deaths in 2001 was a stillbirth, and maternal amphetamine abuse during pregnancy was listed as a significant condition contributing to the death. Also included were the death of a 19-year-old African-American male involving methylenedioxymethamphetamine (MDMA) and the mixed-drug overdose death of a 49-year-old White male involving PCP and amphetamine. In Hennepin County in 2000, three of the six deaths, all males in their twenties, involved recent MDMA use as a significant contributing condition.

In Ramsey County, methamphetamine-related deaths fell from 11 in 2000 to 2 in 2001. Neither of the 2 deaths in 2001 involved MDMA, while 3 of the 11 deaths did in 2000. The three MDMA decedents in 2000 included a 17-year-old male and two women in their twenties.

The rate of methamphetamine hospital ED mentions remained unchanged from the last half of 2000 to the first half of 2001, at 4 per 100,000 population (exhibit 2). There were 103 ED mentions of methamphetamine in the first half of 2001, compared with 154 in all of 2000 and 112 in 1999.

In 2001, 4.7 percent of the people entering addiction treatment programs cited methamphetamine as the primary drug (exhibits 3 and 4), compared with 3.0 percent in 2000, and only 0.3 percent in 1991. Women constituted 36 percent of all methamphetamine admissions in 2001, the highest percentage within any drug category. Nearly one-half (47.7 percent) were age 25 or younger and 92.7 percent were White. Sniffing was the most common route of administration (41.8 percent), followed by smoking (30.5 percent) and injection (18.7 percent).

Do-it-yourself, clandestine methamphetamine labs that are typically operated by the drug’s abusers continued to increase throughout the State. In 2001, 236 methamphetamine labs were dismantled with the assistance of the DEA in Minnesota, compared with 138 in 2000, 109 in 1999, and 46 in 1998. In 2002 through May 8, 98 such labs were dismantled. While most labs are outside the core metropolitan area, one was dismantled in a residential area of St. Paul in May 2002. According to law enforcement sources, the level of sophistication of the labs has increased,

and one lab produced methcathinone, or “cat,” a variant of methamphetamine. The volatile, toxic ingredients and makeshift conditions of most clandestine methamphetamine labs heighten the risk of injury to bystanders and law enforcement personnel and contaminate surrounding areas.

Methamphetamine prices were \$90–\$100 per gram, \$200 per “teener” (one-sixteenth ounce), \$240–\$280 per eightball (one-eighth ounce), \$600–\$800 per ounce, and up to \$10,000 per pound. Among Minneapolis arrestees in 2001, 2.8 percent tested positive for methamphetamine, compared with 1.6 percent in 2000 (exhibit 5).

The methamphetamine comes in white, tan, and various pastel colors, depending on the process type and length, and the raw ingredients. Crystalline-like methamphetamine, known as “glass” or “ice,” and distinctively white, fluffy-looking methamphetamine have also appeared. Methamphetamine seizures generally increased from 2000 to 2001, and in some cases they nearly doubled. The most common cutting agent was dimethyl sulfone (DMSO<sub>2</sub>), a fluffy, white substance used to treat arthritis in horses.

MDMA, a methamphetamine with mild hallucinogenic properties, also known as “ecstasy,” “X,” or “e,” is typically sold as pills or capsules. MDMA was increasingly encountered by law enforcement officials and abused by young people in the metropolitan area.

One MDMA-related death was reported in Hennepin County in 2001, that of a 19-year-old male for whom recent MDMA use was cited as a significant contributing condition. No such deaths were reported in Ramsey County in that year. In 2000, there were three MDMA-related decedents in Hennepin County (age 23, 24, and 26) and three in Ramsey County (age 17, 22, and 25).

There were 16 hospital ED mentions involving MDMA in 1999, 65 in 2000, and 34 in 2001 (first half) (exhibit 7). Hennepin Regional Poison Center received 39 calls regarding MDMA in 2001, compared with 45 in 2000.

Seizures of MDMA rose substantially at all levels of law enforcement. The amount of MDMA submitted to the lab in Minneapolis, for example, rose from 2,047 dosage units in 2000 to more than 7,000 in 2001. One St. Paul case in 2001 involved 10,000 pills intercepted in the mail. Between FY 2000 and FY 2001, DEA seizures increased from 1,493 to 12,375 tablets and from 255 to 1,431 grams.

Not all pills that are sold as ecstasy contain MDMA, however. With increasing frequency, other substances are compressed into pills or capsules and sold as ecstasy. Methylenedioxyamphetamine (MDA), a chemical similar in effect to MDMA, was being sold as MDMA and appeared in local crime labs. Dimethyltryptamine (DMT), alphanethyltryptamine (AMT), and dipropyltryptamine (DPT), which are molecular variants of tryptamine, have also been reported. MDX was identified as a substance of abuse by local high school students, who allegedly purchased it as a white powder off the Internet. In a southern suburb, 480 pink tablets with overlapping arcs imprinted on them were sold as ecstasy, but they actually contained chemical variations of piperazine. Piperazine dihydrochloride is used in veterinary practice as an anthelmintic (dewormer) medicine.

Khat, a plant that is chewed or brewed in tea for its stimulant effects in east Africa and the Middle East, first appeared several years ago within the Somali refugee community in the Twin Cities and Rochester, Minnesota. Its active ingredients, cathinone and cathine, are controlled substances in the United States. In May 2002, Washington County had its first seizure of khat (30 pounds), which had been shipped, freshly cut, from Africa.

Methylphenidate (Ritalin), which is prescribed for attention deficit hyperactivity disorder (ADHD), is also abused by crushing the pills and using them intranasally. Methylphenidate sells for \$5 per pill. School counselors continued to report recreational nutritional supplement and energy drink consumption by youth, sometimes in massive amounts. Products that promise high energy, stimulation, and mood elevation typically contain caffeine or ephedrine or both.

### **Hallucinogens**

Lysergic acid diethylamide (LSD) is typically sold as saturated, tiny pieces of paper known as “blotter acid” for \$5–\$10 per dosage unit. There were 17 ED mentions of LSD in the first half of 2001, compared with 31 in 2000 and 65 in 1999.

Ketamine, a veterinary anesthetic also known as “Special K,” first appeared as a drug of abuse in Minnesota in 1997. Associated with raves and nightclubs, it is most often found locally as a powder that is used intranasally or pressed into pills. The effects of ketamine, like those of PCP, detach users from their environment, confuse thought, and impair speech and coordination. Ketamine is short-acting (less than 1 hour) and also produces hallucinations. There was one ketamine ED mention in 2000 and one in 2001 (first half).

Other hallucinogens include psilocybin mushrooms and the dissociative anesthetic PCP. Mushrooms sell for up to \$200 per dried ounce, and are also sold frozen. PCP-soaked cigarettes and marijuana joints were reported by crime labs, easily distinguished by their pungent, chemical odor. PCP can also be injected or used intranasally. In 2001, 2.8 percent of Minneapolis arrestees tested positive for PCP, compared with 1.8 percent in 2000. There were 13 ED mentions of PCP in the first half of 2001, compared with 19 in 2000 and 18 in 1999. In Hennepin County in 2001, there was one mixed-drug overdose death that involved PCP and amphetamine.

### Sedatives/Hypnotics

Flunitrazepam (Rohypnol), a long-acting pharmaceutical benzodiazepine, is not approved for medical use in the United States, but it is prescribed in many other countries for the treatment of sleep disorders. As a street drug it is known as “roofies,” “roach pills,” “Mexican Valium,” or “rope.” Because it produces amnesia, it has been used in drug-assisted rapes and assaults, but has been replaced by gamma hydroxybutyrate (GHB) in recent years. There were no ED mentions of flunitrazepam in 2001, 2000, or 1999.

GHB, a depressant that produces effects like drunkenness, sells for \$10 per capful, shot glassful, or swig. It is sometimes mixed in bottled water containers. In larger doses it can produce seizures, unconsciousness, and respiratory arrest. Known as “G,” “Gamma,” “Liquid E,” or “Liquid X,” GHB is also used in drug-assisted rapes, although DAWN tracks only those cases in which people knowingly ingest drugs.

While ED mentions of GHB increased markedly from 1999 to 2000, they declined between 2000 and the first half of 2001 (exhibit 7). There were 25 hospital ED mentions of GHB in 2001 (first half), 93 in all of 2000, 33 in 1999, and 8 in 1998. GHB mentions increased significantly from 1994, when there was only 1 mention, to 2000, from 1998 to 2000, and from 1999 to 2000. Hennepin Regional Poison Center reported 41 calls regarding GHB and related products in 2001, compared with 65 in 2000.

Gamma butyrolactone (GBL), known as furanone dihydro, is a chemical cousin of GHB, and 1,4 butanediol, known as “BD,” or “1,4 BD,” is related to both GHB and GBL. Once ingested, these substances convert into GHB. Despite recent State and Federal regulatory action, they are still sometimes found on the Internet, in nutritional supplements, or in cleaning fluids. In February 2001, a district court upheld the

conviction of a Washington County man found in possession of 4,000 dosage units of GBL.

Among some adolescents, over-the-counter medications continue to be used in excessive amounts to achieve mood-altering effects. In particular, cough preparations containing dextromethorphan (DXM) are popular, as are some motion sickness products. School-based counselors continued to report on DXM, which is available in powder or capsule form for \$5.

### Other Drugs/Substances

Fewer Minnesota adolescents use alcohol now than in 1992. The Minnesota Student Survey found that 67.5 percent of 12th graders reported past-year alcohol use in 2001, compared with 69.7 percent in 1998, 68.4 percent in 1995, and 80.1 percent in 1992 (exhibit 6). Among ninth graders, past-year alcohol use was reported by 46.8 percent in 2001, compared with 53.9 percent in 1998, 50.7 percent in 1995, and 64 percent in 1992. Among Minnesota sixth graders, past-year alcohol use was reported by 14.4 percent in 2001, compared with 19.6 percent in 1998, 23.1 percent in 1995, and 25 percent in 1992.

Alcohol-related deaths outnumbered those for any illicit drug. Alcohol, as reported by DAWN, is included only when it is used in combination with other drugs. There were 1,780 ED mentions of alcohol-in-combination in 2000, compared with 1,678 in 1999. In the first half of 2001, there were 1,013 mentions, a significant increase from the first half of 2000.

While alcohol treatment admissions outnumber those for any single illegal drug, they declined as a percentage of total admissions throughout the 1990s. Roughly one-half (55.5 percent) of the people entering addiction treatment programs in 2001 reported alcohol as the primary substance problem, compared with 75 percent in 1991 (exhibit 4). Sixty percent were 35 and older.

Tobacco use among Minnesota youth (grades 6, 9, and 12) declined from 1998 to 2001, and for 6th and 9th graders was lower in 2001 than in 1992 (exhibit 8). According to the 2001 Minnesota Student Survey, 34.7 percent of 12th graders, 18.7 percent of 9th graders, and 3.5 percent of 6th graders reported use of tobacco in the past month. Adolescents who smoke tobacco are much more likely to abuse other drugs than adolescents who do not smoke. The majority of patients entering addiction treatment programs reported daily nicotine use.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Most AIDS cases in Minnesota (88 percent) are in the Minneapolis/St. Paul area. Of the 1,772 people living with AIDS in Minnesota in 2001, the exposure categories were as follows: men who have sex with men (MSM) (59.6 percent), injection drug users (IDUs) (8.9 percent), MSM/IDUs (6.1 percent), heterosexual contact (9.5 percent), other (2.3 percent), and undetermined (13.5 percent).

Many people with a history of injection drug abuse contract the hepatitis C virus (HCV), a blood-borne liver disease, the symptoms of which may not appear for many years after initial exposure. Among methadone patients, it is estimated that at least 80 percent are HCV-infected.

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**Exhibit 1. Drug-Related Deaths in Hennepin and Ramsey Counties, Minnesota: 1997–2001**

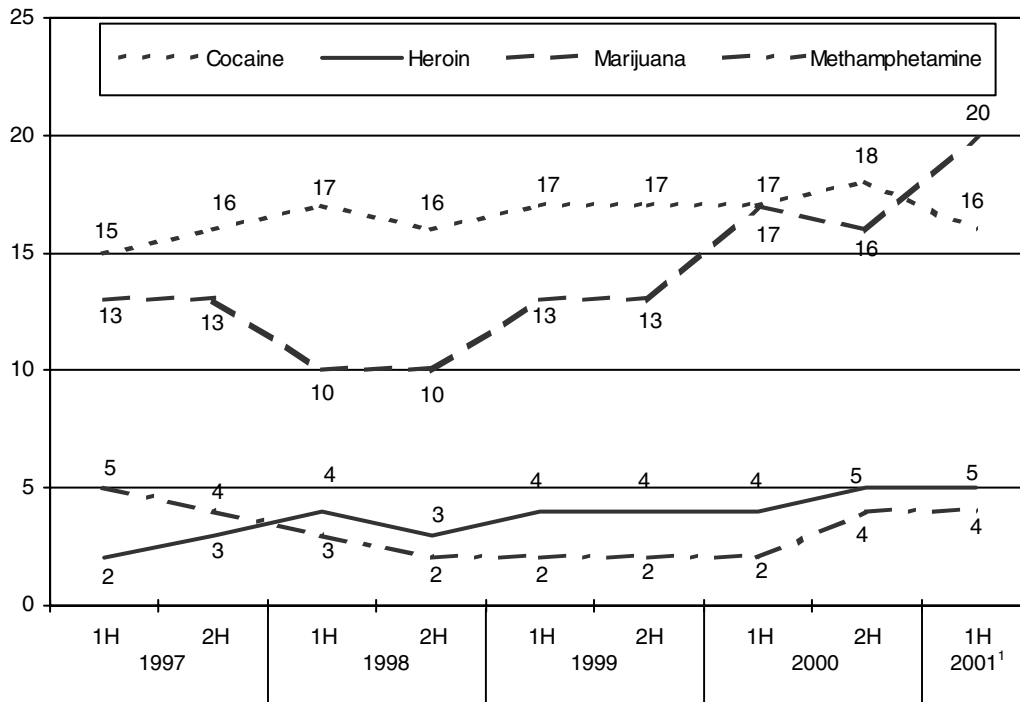
County/Drug	1997	1998	1999	2000	2001
<b>Hennepin County<sup>1</sup></b>					
Cocaine	51	39	43	43	37
Opiates	27	26	27	41	58
Methamphetamine	2	4	2	6 (includes 3 MDMA)	8 (includes 1 MDMA)
<b>Ramsey County<sup>2</sup></b>					
Cocaine	7	5	5	17	11
Opiates	6	12	12	17	19
Methamphetamine	2	4	4	11 (includes 3 MDMA)	2

<sup>1</sup> 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.

<sup>2</sup> 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.

SOURCE: Medical Examiners for Hennepin and Ramsey Counties

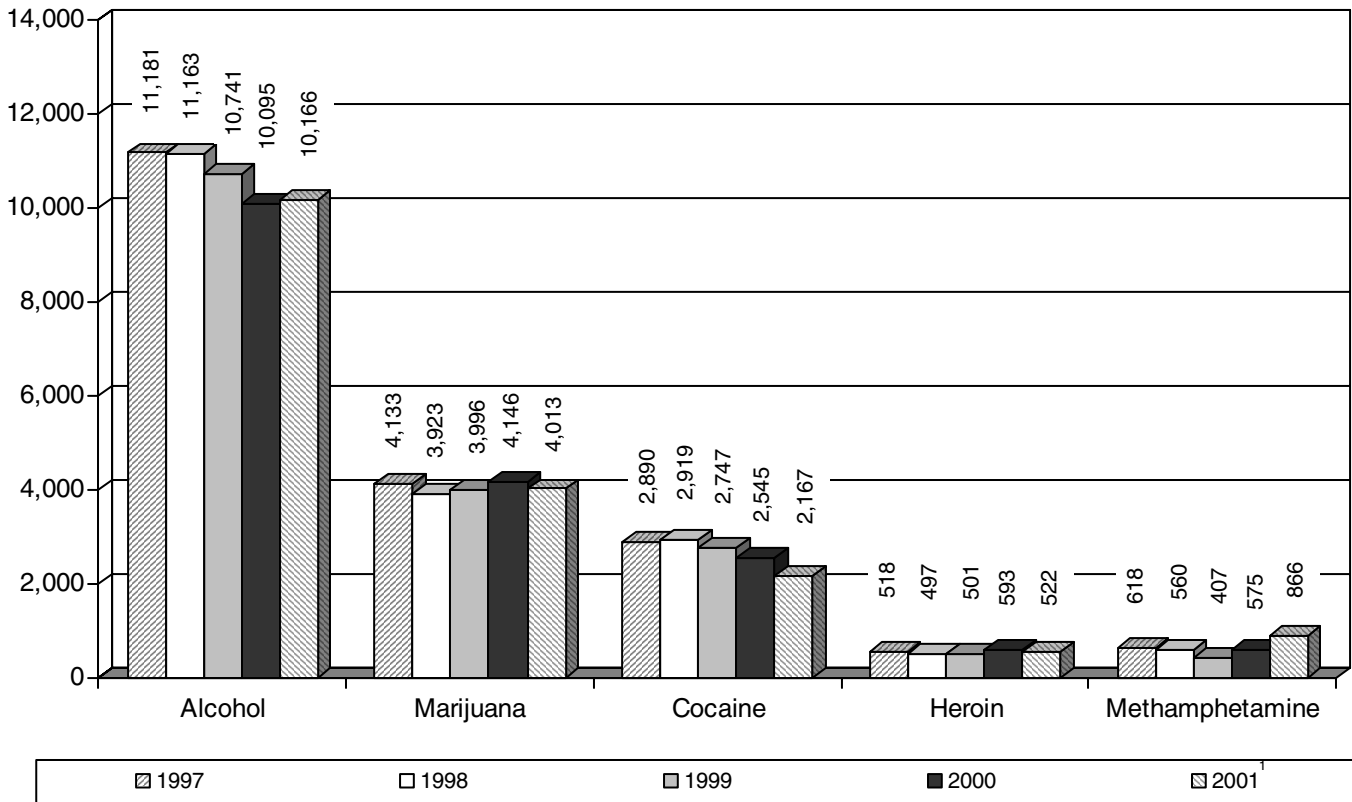
**Exhibit 2. Rate per 100,000 Population of Hospital ED Mentions of Selected Drugs in Minneapolis/St. Paul: 1997–June 2001 (by Half Year)**



<sup>1</sup> Data for the first half of 2001 are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Number of Admissions to Addiction Treatment Programs in Minneapolis/St. Paul by Primary Drug: 1997–2001**



<sup>1</sup> N=18,304

SOURCE: Drug and Alcohol Abuse Normative Evaluation System, Minnesota Department of Human Services, 2002

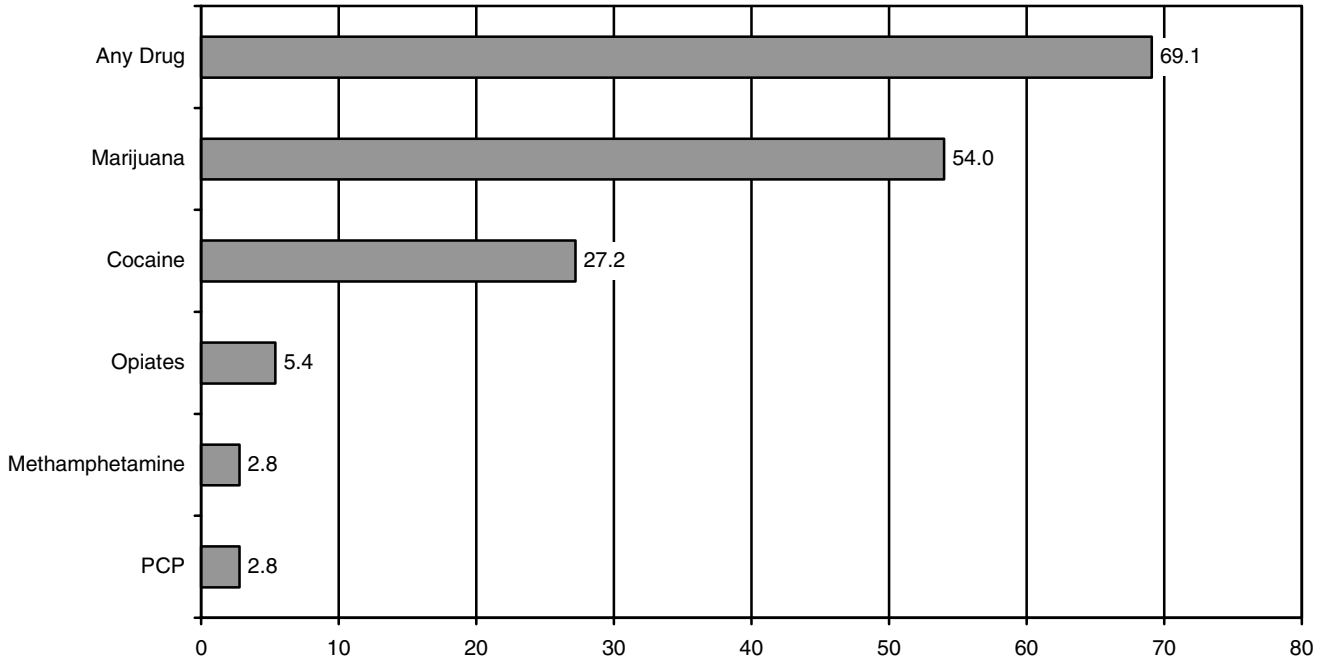


**Exhibit 4. Characteristics of Persons Admitted to Addiction Treatment Programs in Minneapolis/St. Paul by Primary Drug and Percent: 2001**

Characteristic	Alcohol	Marijuana	Cocaine	Metham- phetamine	Heroin
Total (N=18,304)	(10,166)	(4,013)	(2,167)	(866)	(522)
Percent of Total	55.5	21.9	11.8	4.7	2.9
Gender					
Male	77.2	78.4	68.7	63.9	68.8
Female	25.8	21.6	31.3	36.1	31.2
Race/Ethnicity					
White	80.9	70.2	41.6	92.7	49.3
African-American	11.2	19.2	51.1	0.6	43.9
Hispanic	3.2	3.5	3.6	2.5	4.3
American Indian	3.0	2.8	1.8	1.5	1.0
Asian	0.5	1.4	0.4	1.3	0.2
Age Group					
18 and younger	4.4	50.0	2.6	14.4	0.6
18–25	14.6	29.8	9.7	33.3	16.1
26–34	21.1	11.8	31.2	25.8	30.3
35 and older	60.0	8.4	56.5	26.6	53.1
Route of Administration					
Smoking			81.6	30.5	2.6
Sniffing			15.8	41.8	42.7
Injection			2.5	18.7	54.7
Other			–	(oral) 8.9	–
Secondary Drug	Marijuana 57.8	Alcohol 75.9	Alcohol 56.9	Marijuana 46.4	Cocaine 33.7
Tertiary Drug	Cocaine 36.3	Alcohol 28.9	Marijuana 41.3	Alcohol 47.1	Alcohol 31.8
First Treatment Episode	32.2	49.5	18.9	34.0	22.8
Daily Nicotine Use	60.3	61.3	64.3	74.0	74.3

SOURCE: Drug and Alcohol Normative Evaluation System, Minnesota Department of Human Services, 2002

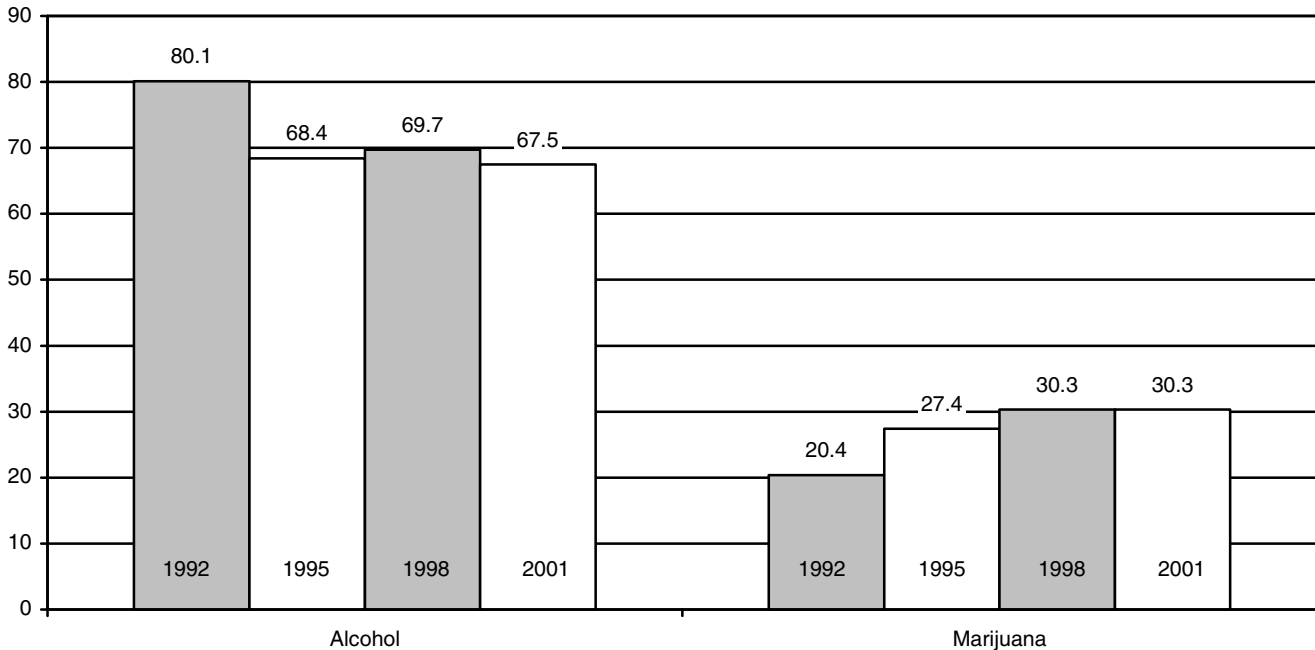
**Exhibit 5. Percentages of Adult Male Arrestees in Minneapolis Who Tested Positive for Drugs by Type of Drug and Percent: January–September 2001<sup>1</sup>**



<sup>1</sup> n=1,064.

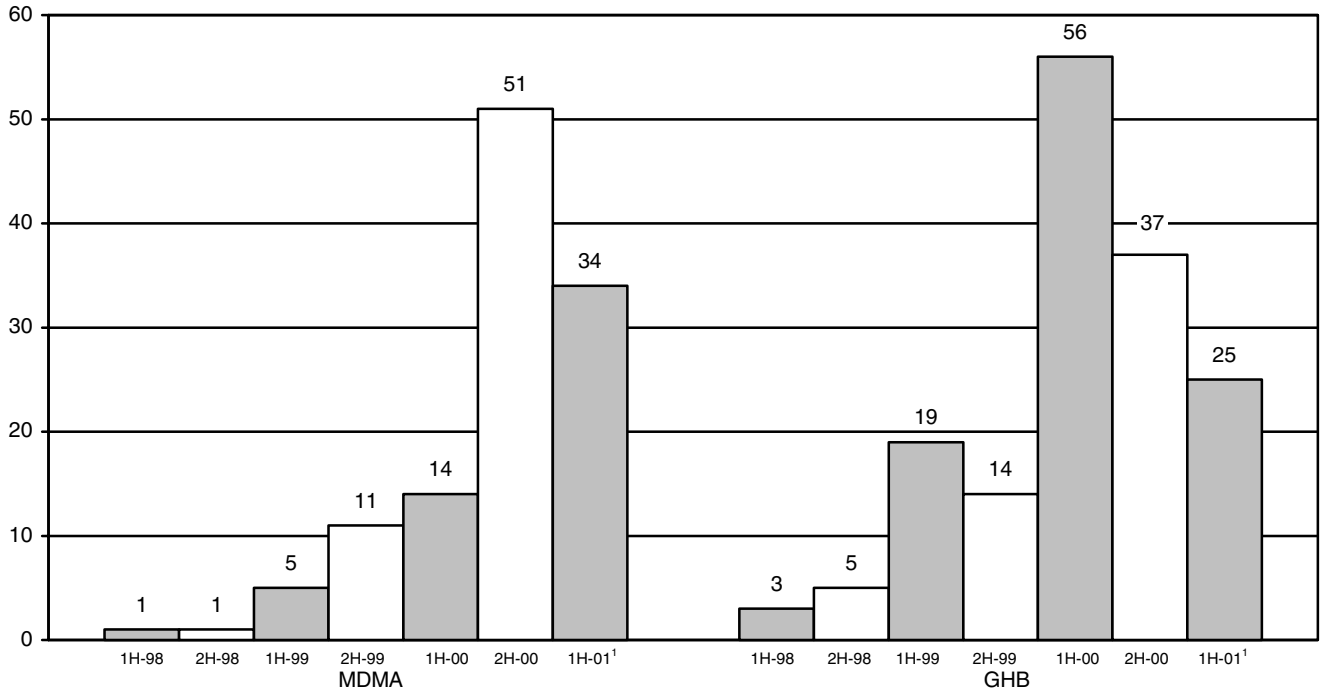
SOURCE: ADAM, NIJ

**Exhibit 6. Past-Year Alcohol and Marijuana Use by High School Seniors in Minnesota by Year and Percent: 1992–2001**



SOURCE: Minnesota Student Survey, Minnesota Department of Children, Families, and Learning, 2002

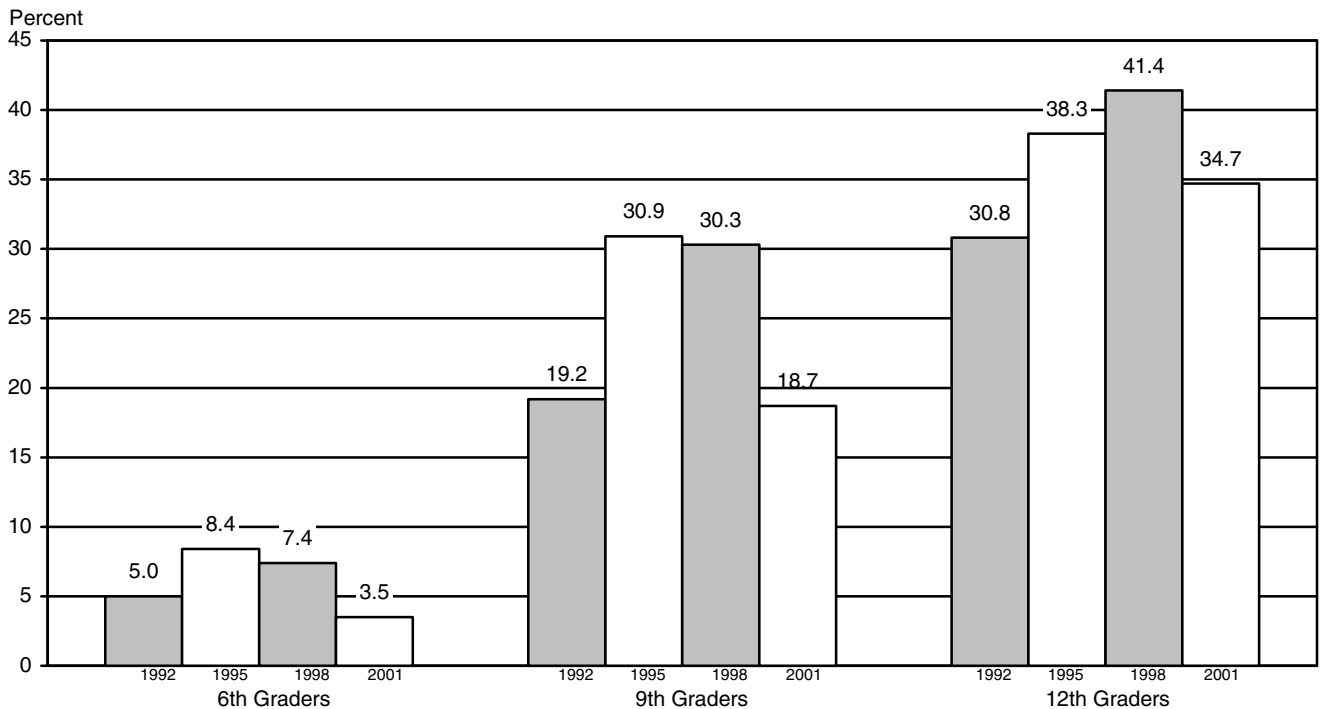
**Exhibit 7. Number of Hospital ED Mentions of Club Drugs in Minneapolis/St. Paul: 1998–June 2001 (by Half Year)**



<sup>1</sup> Data for the first half of 2001 are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 8. Past-Month Tobacco Use by 6th, 9th, and 12th Graders in Minnesota by Year and Percent: 1992–2001**



SOURCE: Minnesota Student Survey, Minnesota Department of Children, Families, and Learning, 2002

# Some Indicators of Drug Abuse in Newark

Abate Mammo, Ph.D. and Richard Schadl, M.A.<sup>1</sup>

## ABSTRACT

*This report presents drug abuse indicators in Newark and its primary metropolitan statistical area (PMSA), using data from a variety of sources. As in previous years, most treatment admissions (96.5 percent) in the first half of 2001 were illicit-drug related. Heroin accounted for 79.1 percent of primary treatment admissions in Newark, compared with 6.3 percent for crack/cocaine and 5.1 percent for marijuana. Heroin use as a primary, secondary, or tertiary drug in Newark increased from 80.8 percent in 2000 to 83.1 percent in the first half of 2001. In the Newark PMSA excluding Newark, heroin use as a primary, secondary, or tertiary drug also increased, from 60.2 percent of all drug use in 2000 to 62.2 percent in the first half of 2001. Heroin use as a primary, secondary, or tertiary drug increased statewide as well, from 48 to 50.5 percent over the same period. Consistent with treatment data, ED heroin mentions in the Newark PMSA account for the largest proportion of drug mentions (20.9 percent in the first half of 2001). Although only 6.3 percent of Newark treatment admissions in the first half of 2001 reported cocaine/crack as their primary drug of abuse, cocaine and/or crack were often reported as a secondary or tertiary drug. Cocaine/crack accounted for 41.3 percent of Newark primary, secondary, or tertiary drug treatment admissions and for 21.2 percent of Newark PMSA ED mentions in the first half of 2001. Between 2000 and the first half of 2001, heroin purity declined from 72.2 percent to 70.4 percent, while its price fell from 33 to 30 cents per milligram pure. Most of the heroin sold in the Newark PMSA was South American. Statewide, heroin injection has continued to increase among admissions age 18–25. In Newark City, heroin injection increased from 23.2 percent in the first half of 2000 to 26.9 percent in the first half of 2001. Ecstasy, GHB, and ketamine use are rarely reported in the Newark PMSA. There were 250 drug-related deaths in 2000, up from 225 in 1999 in the Newark PMSA. While both cocaine- and heroin-related deaths continued to increase between 1997 and 2000, deaths due to heroin abuse increased faster than those for any other drug. In 2000, 4 oxycodone*

*overdose deaths in New Jersey and a total of 57 oxycodone mentions were reported in the State medical examiner data.*

## INTRODUCTION

### Area Description

The population of Newark declined from 329,248 in 1980 to 275,221 in 1990; it further declined to 273,546 in 2000. Even with this sharp population decline, Newark remains the largest city in the State and houses diverse population groups. In 1990, Blacks accounted for 56 percent of the population, compared with 16 percent for non-Hispanic Whites and 26 percent for Hispanics. By comparison, in 2000 Blacks accounted for 55 percent, non-Hispanic Whites for 14 percent, and Hispanics for 29 percent. Only 4 percent reported multiple races. In 2000, about 5 percent of the population lived in group quarters, and 2.7 percent were institutionalized. More than one-half (51.9 percent) of the families had underage children, and 27.9 percent of Newark residents were younger than 18. Although the recent introduction of multiple race categories makes data less comparable with previous years, the relative share of the population groups has not changed much. The 2000 census suggested a fall in fertility, with only 7 percent of Newark residents age 5 or younger, compared with 10 percent in 1990. The average household size in Newark was 2.99, slightly larger than in 1990 (2.91). Statewide, the average household size increased from 2.70 to 2.75 during the same time period. Newark residents had one of the lowest per capita incomes (\$13,009) in 1999, compared with \$9,424 in 1989.

### Data Sources

This report uses data from various sources, as indicated below.

- **Drug treatment data** were obtained from the Alcohol and Drug Abuse Data System (ADADS), a statewide, episode-based data system operated by the Division of Addiction Services of the Department of Health and Senior

<sup>1</sup> The authors are affiliated with Research and Information Systems, Division of Addiction Services, New Jersey Department of Health and Senior Services in Trenton, New Jersey.

Services. The data include demographic information, drug use history, and detailed information on the three most abused drugs at the time of admission. ADADS has been operating since July 1, 1991, and contains more than 700,000 admission and discharge records. Treatment information obtained from ADADS includes all statistics for Newark City, the Newark PMSA, and the State. This report uses treatment data primarily from the first half of 2001. Major drug treatment admissions for Newark and the rest of the Newark PMSA, excluding Newark City, are also presented. In addition, data from the Client Oriented Data Program dating from 1985 to the first half of 1991 are used to study trends in drug injection among Newark and statewide heroin treatment admissions.

- **Emergency department (ED) drug mentions data** were obtained from the February 2002 issue entitled “Emergency Department Trends From the Drug Abuse Warning Network Preliminary Estimates January–June 2001 with Revised Estimates 1994–2000.” The Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration (SAMHSA) compiled the Drug Abuse Warning Network (DAWN) data. The DAWN system collected data on ED cases in the Newark PMSA (i.e., in Essex, Morris, Somerset, and Union Counties). Data for the first half of 2001 are preliminary.
- **Drug-related mortality data** were obtained from the SAMHSA January 2002 report entitled “Mortality Data From the Drug Abuse Warning Network 2000.” 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 metropolitan statistical area (MSA) jurisdictions and 88 percent of the MSA population in 2000.
- **Heroin purity and price data** were obtained from the Intelligence Division, Office of Domestic Intelligence, Domestic Strategic Unit, Drug Enforcement Administration (DEA). The Intelligence Division of DEA collects data every quarter for the Domestic Monitor Program (DMP) from 23 U.S. metropolitan areas on the purity, retail price, and origin of heroin by purchasing it through undercover operations.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data** were obtained from the statewide AIDS

Registry maintained by the New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control, HIV/AIDS Surveillance Program. Data compiled as of December 31, 2001, are used in this report.

#### DRUG ABUSE PATTERNS AND TRENDS

Drug abuse indicators for Newark (Newark City), the Newark PMSA, and the State, as appropriate, are presented in this report. Since Newark City exhibits patterns of drug abuse that are usually unique from the rest of the PMSA, and because the State is diverse in many ways, comparative indicator data are presented for each to exhibit drug abuse variations.

Exhibit 1 shows overall changes in selected indicators for specific drug types between 2000 and the first half of 2001.

In Newark City, alcohol-related treatment admissions were stable, with their share remaining at about 8 percent (8.3 percent in 2000 and 8.4 percent in the first half of 2001) (exhibit 2). Consistent with treatment data, ED alcohol-in-combination mentions in the Newark PMSA declined from 2,377 to 2,123 between 1999 and 2000, while ME cases remained stable at 97 and 98, respectively.

Heroin was the most prominent drug of abuse in the Newark PMSA. Primary heroin treatment admissions accounted for 79.1 percent of all treatment admissions in Newark City, compared with 47.0 percent in the State. Heroin abuse increased in the State between 2000 and the first half of 2001, with evidence of the drug’s spread of the drug into suburbs and rural areas. The rate of ED heroin mentions in the Newark PMSA declined from 260 to 238 per 100,000 population. The number of heroin ED mentions also decreased, from 2,285 in the first half of 2000 to 1,944 in the first half of 2001. Consistent with the rise in heroin abuse in the Newark PMSA, ME heroin deaths rose by 39.8 percent between 1999 and 2000. Also consistent with the rise in heroin use in the Newark PMSA and the State, heroin-related deaths in 2000 exceeded cocaine-related deaths for the first time in the past decade.

Cocaine use continued to decline both in Newark and its PMSA. In Newark City, treatment admissions for primary abuse of cocaine/crack accounted for only 6.3 percent of all treatment admissions in the first half of 2001, compared with 8.3 percent in 2000. ED cocaine mentions also declined between the first halves of 2000 and 2001. Unlike the reported decline in cocaine abuse, cocaine-related deaths continued to increase in the Newark PMSA. Between 1999 and

2000, cocaine-related deaths increased by 5.4 percent (from 130 to 137).

In the first half of 2001, primary marijuana use accounted for 5.1 percent of all treatment admissions in Newark City (exhibit 2), down from 5.6 percent in 2000. Consistent with its primary use, marijuana as a primary, secondary, or tertiary drug also declined to 12.1 percent of treatment admissions in the first half of 2001, compared with 16.6 percent in 2000 (exhibit 3). ED marijuana mentions were slightly up in Newark City, from 274 in the first half of 2000 to 290 in the first half of 2001. The decline in marijuana abuse is consistent with the 33.3-percent decline in marijuana-related ME deaths in the Newark PMSA.

Phencyclidine (PCP) and other hallucinogens were rarely reported in the Newark PMSA. Among treatment admissions, there were only 17 primary, secondary, or tertiary PCP admissions in 1999, compared with 34 in 2000 and 26 in the first half of 2001. By comparison, there were 67 other hallucinogen mentions in 1999, 65 in 2000, and 59 in 2001. Consistent with treatment data, ED PCP mentions totaled 6 in 1999, 40 in 2000, and 18 in the first half of 2001, while other hallucinogen mentions fell from 6 in 1999 to 0 in both 2000 and the first half of 2001.

Methamphetamine use was rare among treatment admissions in the Newark PMSA, with only 25 admissions in 1999, 22 in 2000, and 7 in the first half of 2001. There were only four ED methamphetamine mentions in 2000, compared with 0 in the first half of 2001.

Club drugs, such as methylenedioxymethamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), and ketamine, were rarely reported by clients in the Newark PMSA. While still rare, there were 18 ED MDMA mentions in the first half of 2001, compared with 20 in both 1999 and 2000. By comparison, partial reporting in 2001 shows there were four treatment admissions with MDMA as their primary, secondary, or tertiary drug.

Overall, substance abuse treatment admissions in the Newark PMSA increased between 1999 and 2000, with most of the increase being driven by heroin.

Newark City continues to have the largest number of illicit drug abusers per capita compared with other parts of the State, yet needs assessment studies indicate that only a small percentage were in treatment. It was estimated that there were 15,619

heroin abusers and 4,043 cocaine abusers in Newark in 1999. However, only 19.0 percent of those with primary heroin abuse and 8.6 percent of those with primary cocaine abuse problems received treatment in 1999.

Statewide, the proportionate share of heroin treatment admissions as a primary, secondary, or tertiary drug grew from 46.1 percent (or 25,562 admissions) in 1999 to 50.5 percent (or 14,382 admissions) in the first half of 2001. By comparison, primary, secondary, or tertiary alcohol treatment admissions declined from 55.9 percent (or 30,997 admissions) in 1999 to 50.4 percent (or 14,372 admissions) in the first half of 2001, while marijuana mentions declined from 27.2 percent (15,100) to 26.8 percent (7,632) in the first half of 2001.

The 2001 survey of middle school students suggested a substantial decrease among students in the use of alcohol, marijuana, inhalants, hallucinogens, cocaine, and heroin. The survey showed that 2.4 percent of students in grades 7 and 8 had used club drugs in their lifetime. Lifetime use of any illicit drug declined from 20.7 percent in 1999 to 15.6 percent in 2001.

In 1999, 24.0 percent of primary heroin treatment admissions in Newark injected the drug, compared with 22.3 percent in the first half of 2001 (exhibit 2). Heroin injection among 18–25-year-old treatment admissions continued to increase, from 26.1 percent in 1999 to 36.1 percent in the first half of 2001 (exhibit 4). Statewide, injection by 18–25-year-old clients increased from 49.5 percent in 2000 to 53.0 percent in the first half of 2001 (exhibit 5). Heroin injection by clients age 18–25 was highest among Whites (56.9 percent), followed by Hispanics (44.4 percent) and Blacks (27.9 percent).

During the period in which heroin injection increased, its purity rose modestly, except for some year-to-year fluctuations. Heroin purity in the Newark PMSA was 70.4 percent in the first half of 2001, down from 72.2 percent in 2000. Heroin purity remained high in the Newark PMSA, second only to Philadelphia among the 23 DAWN cities.

Consistent with the high prevalence of heroin injection, the largest single category (38.3 percent) of statewide cumulative HIV/AIDS cases as of December 2001 (50 percent in 2001) was related to injection drug use. AIDS registry data also show that 38 percent of people living with HIV/AIDS had injection as their primary mode of transmission.

HIV/AIDS cases were predominantly Black (57 percent) or Hispanic (20 percent).

In 2000, the total number of drug-related deaths in the Newark PMSA was 250. Seventy-five percent of the decedents were male, with Blacks and Whites accounting for 45 and 43 percent of the ME drug-related deaths, respectively. Most of the decedents (90 percent) were older than 25, with 67.6 percent age 35 or older.

Arrests for the sale and manufacture of drugs in the Newark PMSA increased from 5,244 in 1999 to 5,405 in 2000. By comparison, arrests for drug possession and use declined from 13,537 in 1999 to 12,657 in 2000. Most of those arrested for sale and manufacture (79.7 percent) and 55.4 percent of those arrested for possession and sale lived in Essex County, where Newark is located. Statewide, arrest patterns were similar to patterns in the Newark PMSA.

### **Cocaine and Crack**

Primary cocaine/crack treatment admissions in Newark accounted for 6.3 percent of treatment admissions (4.3 percent for crack cocaine and 2.0 percent for powder cocaine) in the first half of 2001 (exhibit 2). In 2000, 5.6 percent were primary crack abusers and 2.7 percent were powder cocaine abusers, for a total of 8.3 percent. Most of the recent decline in cocaine abuse may be attributed to the reduced use of the drug by Newark residents. Despite cocaine's small share as a primary drug among treatment admissions, it remained popular as a secondary drug for alcohol-in-combination and primary heroin clients in Newark. Consistent with Newark data, cocaine abuse as a primary, secondary, or tertiary drug in the rest of the Newark PMSA decreased slightly to 36.0 percent in the first half of 2001 from 38.9 percent in 2000 (exhibit 3).

In the first half of 2001, males accounted for 77.2 percent of powder cocaine admissions and 45.6 percent of crack cocaine admissions in Newark (exhibit 2). The majority (91.3 percent) of powder cocaine admissions in Newark were older than 25; 58.4 percent of crack cocaine and 59.7 percent of powder cocaine admissions were at least 35 years old.

More than two-thirds (68.7 percent) of cocaine/crack admissions in Newark smoked the drug, while 28.0 percent used it intranasally in the first half of 2001. Reversing the long-term trend, cocaine injection among cocaine/crack treatment admissions increased from about 2 percent in 1999 to 4.9 percent in 2000, but fell to 3.3 percent in the first half of 2001.

Cocaine/crack use varied by race/ethnicity in Newark. In the first half of 2001, 90.4 percent of crack admissions were non-Hispanic Black, 5.6 percent were Hispanic, and 4.0 percent were non-Hispanic White. By comparison, 64.9 percent of powder cocaine admissions were non-Hispanic Black, 26.3 percent were Hispanic, and 8.8 percent were non-Hispanic White.

Cocaine as a primary, secondary, or tertiary drug among treatment admissions in the Newark PMSA increased only slightly from 39.9 percent (or 6,083) in 2000 to 38.4 percent (or 6,047) in 2001. Excluding Newark City, cocaine treatment admissions as primary, secondary, or tertiary drug decreased from 38.9 percent in 2000 to 36.0 percent in the first half of 2001 (exhibit 3).

After declining from 246 to 201 per 100,000 population between 1994 and 1997, the rate of ED cocaine mentions in the Newark PMSA increased to 208 per 100,000 population in 1998. However, the rate declined significantly between 1999 (172 mentions) and 2000 (147). ED data suggest that cocaine mentions for the entire year of 2001 may continue to drop, since they totaled only 71 in the first half of 2001.

Cocaine prices have been remarkably stable over the years. Cocaine sold for \$5–\$30 per bag in the Newark PMSA in the first quarter of 2001. A recent New Jersey survey on clients in methadone clinics in Newark also estimated the median price of cocaine to be \$5–\$35 per bag.

Cocaine-related deaths increased to 137 in 2000, up from 130 in 1999. The increase in cocaine-related deaths was consistent with the marginal increase in cocaine mentions among treatment admissions in the Newark PMSA.

### **Heroin**

In Newark City, there were 2,277 primary heroin admissions in the first half of 2001 (exhibit 2), compared with 1,949 in the first half of 2000, suggesting an increase in the number of primary heroin admissions. The share of primary heroin admissions also increased, to 79.1 percent from 76.5 percent in the first half of 2000.

In the first half of 2001, males accounted for 59.7 percent of heroin admissions. The racial/ethnic distribution of heroin admissions in Newark reflects the population distribution of the city, with non-Hispanic Blacks accounting for 71.6 percent, non-Hispanic Whites for 6.4 percent, and Hispanics for

20.1 percent of heroin treatment admissions. Almost 95 percent (94.8 percent) of primary heroin admissions were older than 25, with 62.7 percent age 35 or older.

Heroin abuse as a primary, secondary, or tertiary drug was proportionately higher in the city (83.1 percent in the first half of 2001) than in the rest of the Newark PMSA (62.2 percent excluding Newark City) (exhibit 3). Its share has continued to rise in the rest of the Newark PMSA, growing from 60.2 percent (6,169 mentions) in 2000 to 62.2 percent (3,297 mentions) in the first half of 2001. Early indications for 2002 suggest a further increase in the proportionate share of heroin mentions both in the Newark PMSA and the State. The continued increase of heroin mentions beyond Newark City reflects the spread of heroin to suburban and rural counties of the State.

In the early 1980s, intranasal use of heroin was less common than injecting; in 1992, intranasal use surpassed injecting. The substitution of intranasal use for injection among heroin users was believed to have resulted from improved purity and the heavy toll of the AIDS epidemic among injection drug users (IDUs). The current pattern, however, challenges the long-held belief about the relationship between injection and purity. Heroin smoking remains rare in Newark, with only 1 percent of primary treatment admissions reporting this route of administration (exhibit 2).

In the first half of 2001, 76.5 percent of Newark's primary heroin admissions used the drug intranasally, while 22.3 percent injected it. Heroin injection continues to increase in the city after reaching a low of 20 percent in 1995, with the increase being driven by heroin injection among 18–25-year-old clients (exhibit 4).

Statewide, 59.9 percent of treatment admissions used heroin intranasally, and 39.2 percent injected it. Consistent with the increase in Newark, heroin injection continued to rise in the State after reaching its lowest point in 1995. As in Newark, the statewide increase in heroin injection was most pronounced for 18–25-year-olds (exhibit 5). Heroin injection by those age 35 or older appears to have stabilized both in Newark and the State.

Following the increase that started in 1990, heroin ED mentions surpassed cocaine mentions in 1993. Between 1994 and 1998, the rate of heroin ED mentions rose from 262 to 282, but declined significantly between 1998 and 2000, when the rate was 238. A comparison between the first halves of

2000 and 2001 shows no significant change (125 vs. 103, respectively). Among Newark PMSA treatment admissions, the share of heroin mentions surpassed that of cocaine mentions in 1994 after a lag of 1 year from the crossover in Newark (exhibit 3). This trend of increasing heroin admissions in the Newark PMSA (excluding Newark City) has continued, with no indication of a decline in sight.

Although heroin purity is still very high, it has been fluctuating in recent years. In the first half of 2001, heroin purity was estimated at 70.4 percent per pure milligram. In 2000, heroin was 72.2 percent pure, compared with 67.5 percent in 1999. The price per milligram of heroin has continued to fall in recent years. In the first half of 2001, the average price of a milligram of heroin was \$.30, compared with \$.33 in 2000. The Newark PMSA has the second highest heroin purity (after Philadelphia) coupled with the lowest price among the 21 DAWN cities. Most of the heroin sold in the Newark PMSA is South American.

In 2000, ME data show 179 heroin-related deaths in the Newark PMSA, up from 128 in 1999 and 107 in 1998. Consistent with the ever-increasing percentage of heroin admissions among treatment admissions in the Newark PMSA, heroin-related deaths exceeded cocaine-related deaths in 2000, accounting for 28.6 percent of all ME drug mentions in the PMSA.

### **Opiates Other than Heroin**

There were 117 primary, secondary, or tertiary “other opiate” or synthetic drug abusers among treatment admissions in the first half of 2001 in the Newark PMSA, of which 21 were in Newark. The corresponding numbers in 2000 were 183 and 29, respectively. Statewide, 889 “other opiate” or synthetic narcotic mentions were reported in the first half of 2001, compared with 1,292 in 2000.

In 2000, there were 4 oxycodone overdose deaths in New Jersey and a total of 57 oxycodone mentions reported among State ME cases.

### **Marijuana**

In the first half of 2001, marijuana accounted for 5.1 percent of primary treatment admissions in Newark (exhibit 2), which was lower than the drug's share in 2000 (5.6 percent).

Only 13.0 percent of primary marijuana treatment admissions were age 35 or older in the first half of 2001. Most marijuana treatment admissions (59.6 percent) were younger than 26, with 28.1 percent younger than 18. A substantial proportion (36.3



percent) of primary marijuana treatment admissions in Newark also abused alcohol as a secondary drug, and 6.2 percent abused alcohol as a tertiary drug.

There were 29 ED marijuana mentions per 100,000 population in 2000. First-half 2001 ED data suggest that the rate of marijuana ED mentions in the Newark PMSA remains stable. In the same time period, 20.0 percent of treatment admissions in the Newark PMSA (excluding Newark City) reported using marijuana as a primary, secondary, or tertiary drug, compared with 12.1 percent in Newark (exhibit 3). ME marijuana deaths declined by 33.3 percent (from 21 to 14) between 1999 and 2000 in the Newark PMSA.

Marijuana seizures in New Jersey increased from 1,813 in 1998 to 3,299 in 1999.

Prices of marijuana were stable in the Newark PMSA. According to the DEA, marijuana sold for \$5–\$10 per bag and \$2–\$5 per joint in the first quarter of 2001.

### Stimulants

MDMA use is still rare in Newark City. In the Newark PMSA, there were 38 ED MDMA mentions in 1999 and only 20 in 2000. In the first half of 2001, ED data show 19 MDMA mentions in the Newark PMSA, a significant increase from the 11 reported in the first half of 2000. Based on partial treatment admissions data, there were 33 mentions with MDMA as a primary, secondary, or tertiary drug in New Jersey in the first half of 2001. There were only four MDMA admissions in the Newark PMSA in the first half of 2001. By comparison, there were 64 MDMA mentions of use 6 months prior to admission to treatment by statewide clients.

In the first half of 2001, only one primary methamphetamine treatment admission was reported in Newark City. Methamphetamine use as a primary, secondary, or tertiary drug was reported only three times in Newark and seven times in the Newark PMSA. Methamphetamine use was also rare in the State, with its use as a primary, secondary, or tertiary drug reported 190 times in 2000, and 91 times in the first half of 2001.

### Depressants

Benzodiazepines remain the fifth most abused drugs in Newark after alcohol, heroin, cocaine, and marijuana. In the first half of 2001, benzodiazepine use was reported as a primary, secondary, or tertiary drug by 0.9 percent of treatment admissions, compared with 0.7 percent in 2000. Unlike the lower

share among treatment admissions and in ED mentions, benzodiazepine ME mentions in the Newark PMSA accounted for 5.6 percent of total ME drug mentions (35 of 626) in 2000, down from 9.1 percent in 1999 (49 of 536).

GHB and ketamine (“Special K”) are reportedly used at rave parties around college campuses. According to the 2001 DAWN data, GHB ED mentions were too few for valid estimates. There were 12 ketamine ED mentions in the first half of 2001, compared with 5 in the first half of 2000. Statewide, partial reporting of club drugs revealed only one and nine mentions, respectively, of GHB and ketamine use as a primary, secondary, or tertiary drug.

The State also included club drug use in its 2001 middle school substance use survey. The preliminary data show a 2.4 percent lifetime use of club drugs including MDMA, GHB, and ketamine by students in grades 7 and 8, with past-30-day use reported at 0.9 percent. This level of use by middle school students is high by any standard at such a young age.

### Hallucinogens

In the Newark PMSA, PCP abuse as a primary, secondary, or tertiary drug increased from 34 mentions in 2000 to 26 in the first half of 2001. There were only two treatment admissions in the first half of 2001 for primary PCP use. Only 18 ED PCP mentions were reported in the first half of 2001 in the Newark PMSA. Statewide, PCP use as a primary, secondary, or tertiary drug was reported by 339 treatment admissions in 2000 compared with 220 in the first half of 2001.

Lysergic acid diethylamide (LSD) use remains low in the Newark PMSA, with 20 ED mentions in 1999 and only 10 in 2000. ED LSD mentions were too few for precise estimates in the first half of 2001.

### Alcohol

In Newark City, primary alcohol abuse among treatment admissions declined from 26.0 percent to 8.4 percent between 1992 and 2000. Alcohol-only admissions accounted for 3.5 percent, and alcohol-in-combination accounted for 4.9 percent of total Newark City primary treatment admissions in the first half of 2001 (exhibit 2).

Alcohol continues to be used as a concomitant drug among cocaine, heroin, and marijuana treatment clients. In the first half of 2001, 32.8 percent of crack admissions and 36.3 percent of marijuana admissions reported alcohol as their secondary drug. More

importantly, alcohol abuse as a primary, secondary, or tertiary drug has continued to decline in the State. In the Newark PMSA excluding Newark City, alcohol as a primary, secondary, or tertiary drug fell from 47.3 percent in 2000 to 38.3 percent in the first half of 2001, compared with the drop from 26.7 to 23.2 percent in Newark City. Statewide, alcohol abuse as a primary, secondary, or tertiary drug declined from 52.2 percent in 2000 to 50.4 percent in the first half of 2001. Middle school surveys corroborated the decline in alcohol use in New Jersey.

As expected, large proportions of alcohol-only treatment admissions (82.0 percent) and alcohol-in-combination admissions (92.3 percent) were older than 25 in the first half of 2001 (exhibit 2). In the Newark PMSA, alcohol-in-combination ME cases in the first half of 2001 were stable (98 in 2000 and 97 in 1999), while the proportionate share of ME cases declined from 18.1 percent in 2000 to 15.7 percent in the first half of 2001.

### **Tobacco**

A large proportion of substance abusers are heavy cigarette smokers. In the first half of 2001, 82.0 percent of treatment admissions in Newark reported smoking cigarettes, compared with 77.2 percent in the State.

Cigarette smoking in Newark continued to vary by gender, race/ethnicity, and type of drug abused. Overall, 79.6 percent of male clients and 85.9 percent of female clients smoked cigarettes in the first half of 2001. Among male treatment admissions in Newark in the first half of 2001, heroin admissions smoked the most (85.6 percent), followed by admissions for alcohol-in-combination (80.1 percent), crack (75.2 percent), cocaine (71.9 percent), alcohol-only (66.7 percent), and marijuana (51.7 percent). The percentages of female cigarette smokers among heroin, alcohol-in-combination, alcohol-only, crack, cocaine, and marijuana admissions were 87.6 percent, 82.5 percent, 83.3 percent, 82.4 percent, 61.5 percent, and 57.1 percent, respectively.

Females also smoked cigarettes at a higher proportion compared with males within each racial/ethnic group. Statewide, 75.3 percent of male and 81.5 percent of female treatment admissions smoked cigarettes. Gender and racial/ethnic variations in cigarette smoking in the State were similar to variations in Newark.

Smoking has become increasingly less popular in the general public, with only 20 percent of adults and 38 percent of high school students in 1998 smoking cigarettes in the 30 days prior to the survey date. By comparison, only 7.2 percent of students in grades 7 and 8 in 2001 smoked cigarettes in the 30 days prior to the survey, while 12.5 smoked cigarettes in 1999.

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

The drug-abusing population in Newark and the rest of the State and those living with HIV/AIDS exhibit similar characteristics. There were 5,809 people living with HIV/AIDS in Newark as of December 31, 2001. Of these, 5,367 were adults/adolescents and 2,432 (41.8 percent) were females; 43.5 percent of the adult/adolescent cases were IDUs (exhibit 6). Only 8 percent were younger than 20 and 19 percent were older than 49. Sixty-six percent of the cases were in the 30–49 age group.

The population living with HIV/AIDS in Newark was overwhelmingly non-Hispanic Black (80 percent), followed by Hispanic (16 percent). In Newark, the AIDS Registry data suggest that for every 1,000 non-Hispanic Black residents, there are about 28 people living with HIV/AIDS. The rates for Hispanics and non-Hispanic Whites are also alarmingly high, at 10.9 and 4.7 per 1,000, respectively.

Statewide, the number of people living with HIV/AIDS as of December 31, 2001, was 30,536, of which 28,856 were adults; 35.4 percent of the adult cases were females. IDUs, including those who engage in male-to-male sex, accounted for 38.3 percent of statewide adult cases (exhibit 7).

Only 5 percent of statewide cases were younger than 20 and 19 percent were older than 49. The race/ethnicity distribution of people living with HIV/AIDS statewide is also skewed towards non-Hispanic Blacks, who accounted for 57 percent of all cases, and Hispanics, who accounted for 20 percent.

A large and growing proportion of females in New Jersey (37 percent as of December 31, 2001) were infected through heterosexual contact, compared with 10 percent for males. In Newark the corresponding percentages, respectively, were 37 and 13.

The recent increase in heroin injection by young adults (age 25 or younger), the rise in heroin abuse, and the sharp increase in heroin-related deaths suggest a possible increase in the prevalence of

infectious diseases. However, no data are yet available to document any rise in the prevalence of infectious diseases.

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**Exhibit 1. Selected Indicators for Specific Drugs in the Newark PMSA: 2000–June 2001**

Drug Use Mentions	Treatment Data	ED Mentions (1H00–1H01)
Alcohol-in-Combination	Stable	Nonsignificant decrease
Heroin	Increased	Nonsignificant decrease
Cocaine	Decreased	Nonsignificant decrease
Marijuana	Stable (but increased for admissions #25)	Nonsignificant increase
PCP	Increased	Nonsignificant decrease
Methamphetamine	Decreased	Stable
Ecstasy (MDMA)	N/A	Nonsignificant increase
Ketamine	N/A	Nonsignificant increase
Total	Increased	Decreased
Other Trends		
Heroin purity	Increased	
Heroin price	Decreased	
Injection	Increased	
Drug-related deaths	Increased (Driven by heroin, cocaine, narcotic analgesics, and antidepressants)	

SOURCES: Division of Addiction Services, State Department of Health and Senior Services; Adapted from DAWN, Office of Applied Studies, SAMHSA (first-half 2001 data are preliminary); DMP, DEA

**Exhibit 2. Demographic Characteristics of Primary Alcohol, Cocaine, Heroin, and Marijuana Treatment Admissions in Newark City by Percent<sup>1</sup>: January–June 2001**

Demographic Characteristic	Alcohol-Only	Alcohol-in-Combination	Crack	Cocaine	Heroin	Marijuana
Gender						
Male	82.0	71.8	45.6	77.2	59.7	85.6
Female	18.0	28.2	54.4	22.8	40.3	14.4
Race/Ethnicity						
White	17.0	7.8	4.0	8.8	6.4	2.1
Black	47.0	77.5	90.4	64.9	71.6	74.7
Hispanic	33.0	14.1	5.6	26.3	20.1	21.9
Other	0.0	0.7	0.0	0.0	1.9	1.4
Age at Admission						
17 and younger	1.0	2.1	0.0	0.0	0.1	28.1
18–25	16.0	5.6	4.0	8.8	5.0	31.5
26–34	17.0	28.9	37.6	31.6	32.1	27.4
35 and older	65.0	63.4	58.4	59.7	62.7	13.0
Route of Administration						
Smoking	–	–	100	–	1.0	100.0
Inhaling	–	–	–	89.5	76.5	–
Injecting	–	–	–	10.5	22.3	–
All other/multiple	100	100	–	1.2	0.0	–
Most Frequently Reported Secondary Drug	–	Cocaine/Crack 56.3	Alcohol 32.8	Heroin 38.0	Cocaine/Crack 36.5	Alcohol 36.3
Most Frequently Reported Tertiary Drug	–	Cocaine/Crack 14.1	Heroin 20.0	Alcohol 17.5	Alcohol 8.0	Alcohol 6.2
<b>Total (N=2,879)</b>	<b>(100)</b>	<b>(142)</b>	<b>(125)</b>	<b>(57)</b>	<b>(2,277)</b>	<b>(146)</b>
<b>Percentage of Total</b>	<b>3.5</b>	<b>4.9</b>	<b>4.3</b>	<b>2.0</b>	<b>79.1</b>	<b>5.1</b>

<sup>1</sup>Percentages may not add to 100 due to rounding.

SOURCE: ADADS, Research and Information Systems, Division of Addiction Services, State Department of Health and Senior Services

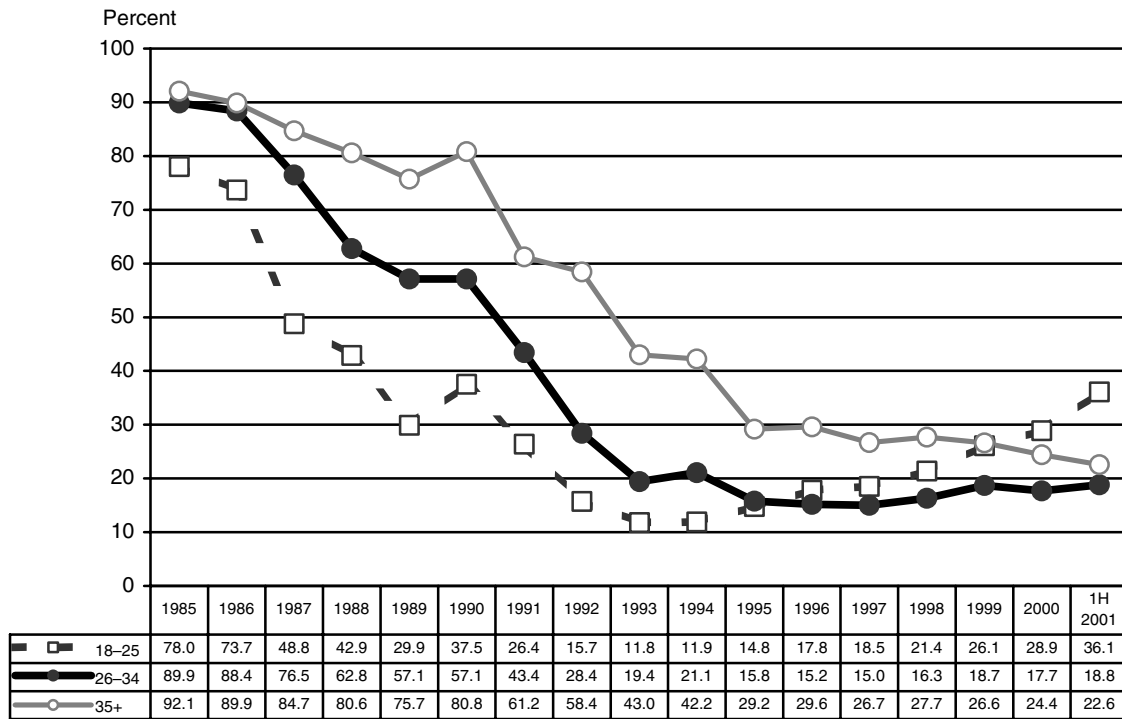
**Exhibit 3. Primary, Secondary, or Tertiary Admissions in the Newark PMSA (Excluding Newark City) and Newark City by Drug Type and Percent: 1992–June 2001**

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	1H2001 <sup>1</sup>
Heroin (PMSA)	30.5	40.4	44.9	50.9	52.0	53.9	58.0	59.9	60.2	62.2
Heroin (City)	54.0	66.8	70.4	79.0	78.6	78.6	80.5	80.4	80.8	83.1
Cocaine (PMSA)	49.0	45.6	42.9	44.3	44.4	41.1	41.6	40.7	38.9	36.0
Cocaine (City)	65.7	57.0	53.5	52.8	52.8	47.4	45.7	47.6	42.2	41.3
Marijuana (PMSA)	21.5	21.4	21.3	22.5	21.8	23.1	22.3	20.4	22.1	20.0
Marijuana (City)	12.4	12.6	15.0	12.7	15.5	16.5	14.5	14.2	16.6	12.1

<sup>1</sup>1H2001 = first half of 2001.

SOURCE: ADADS, Research and Information Systems, Division of Addiction Services, State Department of Health and Senior Services

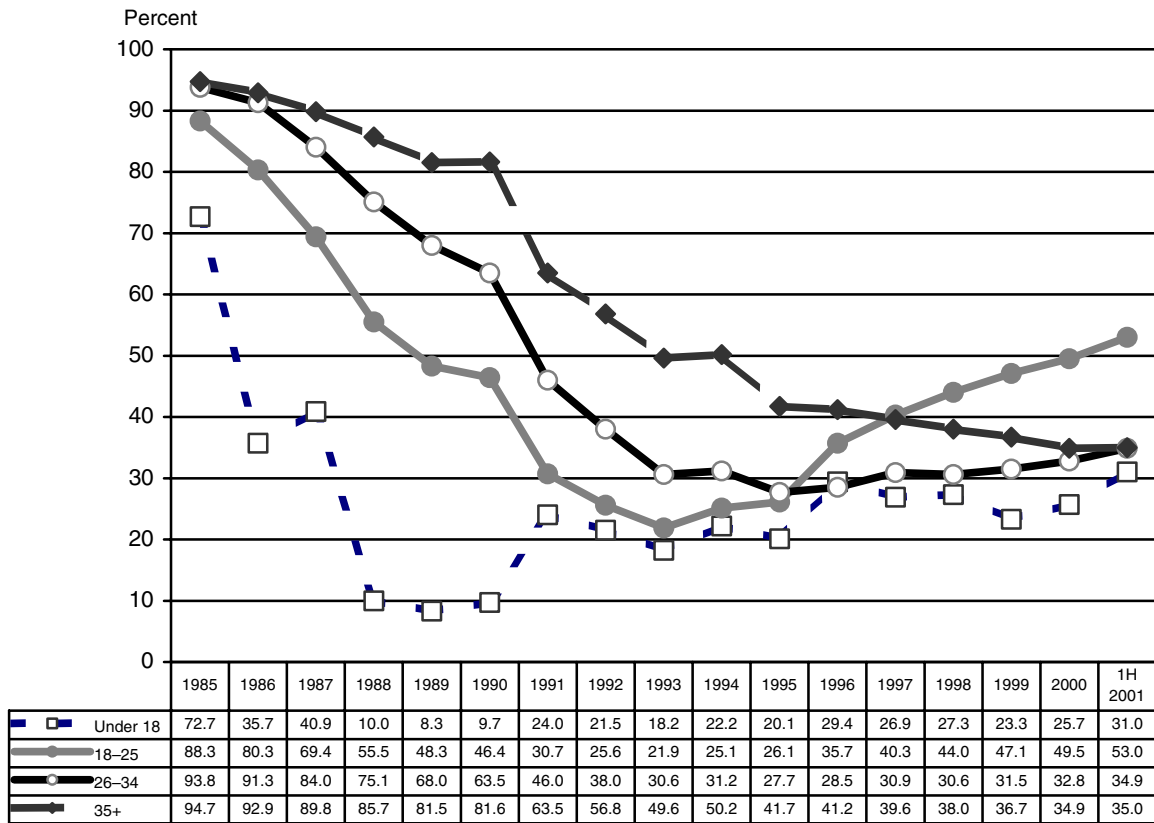
**Exhibit 4. Percent of Heroin Injectors Among Treatment Admissions by Age Group in Newark City: 1985–June 2001<sup>1</sup>**



<sup>1</sup>1991 and 2001 data reflect partial year reporting only.

SOURCES: Client Oriented Data Program and ADADS

**Exhibit 5. Percent of Heroin Injectors Among Treatment Admissions by Age Group in New Jersey: 1985–June 2001<sup>1</sup>**



<sup>1</sup>1991 and 2001 data reflect partial year reporting only.

SOURCES: Client Oriented Data Program and ADADS

**Exhibit 6. Number and Percent of Adult/Adolescent and Pediatric Cases Living With HIV/AIDs in Newark by Exposure Category and Gender as of December 31, 2001**

Exposure Category	Males		Females		Total	
	N	(%)	N	(%)	N	(%)
Adult/Adolescent						
Men/sex/men (MSM)	480	(15)	0	(0)	480	(9)
Injection drug user (IDU)	1,344	(42)	832	(38)	2,176	(41)
IDU/MSM	160	(5)	0	(0)	160	(3)
Hemophiliac	13	(<1)	0	(0)	13	(<1)
Heterosexual contact	415	(13)	807	(37)	1,222	(23)
Transfusion with blood/products	9	(<1)	16	(1)	25	(<1)
Risk not specified/other	743	(23)	548	(25)	1,291	(24)
<b>Total</b>	<b>3,164</b>	<b>(100)</b>	<b>2,203</b>	<b>(100)</b>	<b>5,367</b>	<b>(100)</b>
Pediatric						
Hemophiliac	0	(0)	0	(0)	0	(0)
Parent at risk/has AIDS/HIV	212	(99)	224	(98)	436	(99)
Transfusion with blood/products	0	(0)	0	(0)	0	(0)
None of the above/other	1	(<1)	5	(2)	6	(<1)
<b>Total</b>	<b>213</b>	<b>(100)</b>	<b>229</b>	<b>(100)</b>	<b>442</b>	<b>(100)</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

**Exhibit 7. Number and Percent of Adult/Adolescent and Pediatric Cases Living With HIV/AIDs in New Jersey by Exposure Category and Gender as of December 31, 2001**

Exposure Category	Males		Females		Total	
	<i>N</i>	(%)	<i>N</i>	(%)	<i>N</i>	(%)
Adult/Adolescent						
Men/sex/men (MSM)	4,957	(27)	0	(0)	4,957	(17)
Injection drug user (IDU)	6,676	(36)	3,561	(35)	10,237	(35)
IDU/MSM	826	(4)	0	(0)	826	(3)
Hemophiliac	67	(<1)	1	(<1)	68	(<1)
Heterosexual contact	1,836	(10)	3,750	(37)	5,586	(19)
Transfusion with blood/products	94	(1)	141	(1)	235	(1)
None of the above/other	4,180	(22)	2,767	(27)	6,947	(24)
<b>Total</b>	<b>18,636</b>	<b>(100)</b>	<b>10,220</b>	<b>(100)</b>	<b>28,856</b>	<b>(100)</b>
Pediatric						
Hemophiliac	7	(1)	0	(0)	7	(<1)
Parent at risk/has AIDS/HIV	809	(98)	833	(98)	1,642	(98)
Transfusion with blood/products	3	(<1)	6	(1)	9	(1)
None of the above/other	10	(1)	12	(1)	22	(1)
<b>Total</b>	<b>829</b>	<b>(100)</b>	<b>851</b>	<b>(100)</b>	<b>1,680</b>	<b>(100)</b>

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

# Overview of Drug Abuse Indicators in New Orleans

Gail Thornton-Collins<sup>1</sup>

## ABSTRACT

*Drug-related deaths represented 65 percent of the deaths reported by the Orleans Parish Coroner's Office in 2000; they increased to 75 percent in 2001. Crack cocaine remained a serious problem in the New Orleans area, but treatment admissions trended down, ED mentions dropped, and fewer females were arrested with cocaine-positive drug screens. Increases in black tar heroin abuse in the inner city were confirmed by the rise in the number of young Black murder victims who tested positive for this type of heroin. The number of ED mentions for narcotic analgesics/ combinations rose. Marijuana indicators such as treatment admissions and the proportion of male adult arrestees testing marijuana-positive were stable, but ED mentions declined. Club and designer drugs increased slightly in availability and abuse, with MDMA being the most prevalent and popular club drug. AIDS and HIV cases increased in Louisiana. Injection drug users accounted for 18 percent of adult AIDS cases and 24 percent of HIV cases statewide through May 2002. During the same time period, Orleans Parish accounted for 39 percent of all AIDS cases in the State. Homicides increased from 215 in 2000 to 222 in 2001.*

## INTRODUCTION

### Area Description

Located in southern Louisiana, New Orleans covers 366 square miles, of which 164 are water. Jefferson Parish borders the city on the west. About one-half of the metropolitan area's 1.2 million inhabitants live in Orleans Parish, the largest of Louisiana's 64 parishes.

New Orleans is serviced by several deep-water ports located at the confluence of the Nation's two principal waterways: the Gulf Intracoastal Waterway and the Mississippi River. Barge lines and more than 100 steamship lines service the ports, with more than 4,000 ships calling annually.

New Orleans has two airports: the New Orleans International Airport, which serves all cargo airlines, and the New Orleans Lakefront Airport, which serves general aviation, and corporate and private aircraft.

Domestic and international trade 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 following sources:

- **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 1998 through the first half of 2001. Data for the first half of 2001 are preliminary.
- **Drug-related homicide and suicide data** were provided by the Orleans Parish Coroner's Office for 1999, 2000, and 2001.
- **Drug treatment data** were provided by the Louisiana State Office for Addictive Disorders and by not-for-profit treatment facilities for Louisiana parishes for 1996–2001.
- **Arrestee drug testing data** came from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2000, the first three quarters of 2001 for adult males, and the first two quarters of 2001 for adult females.
- **Drug arrest data** were provided by the New Orleans Police Department (NOPD) for calendar years 2000 and 2001.
- **Drug price, purity, and seizure information** was provided by the New Orleans Division of the Drug Enforcement Administration (DEA) for 2000–2001.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the Louisiana State Health Department and represent new and cumulative

<sup>1</sup> The author is affiliated with the New Orleans Health Department, New Orleans, Louisiana.



cases through May 2002.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine and Crack

Crack cocaine continues to be readily available in the New Orleans area. Crime and violence associated with cocaine/crack have affected the inner city as well as rural areas. Most cocaine trafficking originates in Colombia and Mexico-based organizations.

DAWN ED data for the first halves of 1998 through 2001 show that the rates of cocaine/crack ED mentions per 100,000 population fluctuated in New Orleans, dropping from 109 in the first half of 1998 to 57 in the first half of 2001 (exhibit 1). Between the first halves of 2000 and 2001, the rate of cocaine/crack ED mentions declined from 77 to 57. Drug-related cocaine death mentions increased from 16 to 57 between 1991 and 2000.

Over the last 10 years, the proportion of primary cocaine treatment admissions among all drug treatment admissions declined from 58 percent in 1991 to 33 percent in 2001 (exhibit 2). More than 900 people entered treatment with cocaine as their primary drug of abuse in 2001. Black males continued to dominate among cocaine admissions, representing 56 percent, an increase over 2000. The proportion of cocaine admissions remained stable at 8 percent for White males, declined from 33 to 31 percent for Black females, and increased from 5 to 6 percent for White females.

ADAM data for the first three quarters of 2001 show that 37.2 percent of the adult male arrestees tested positive for cocaine, compared with 34.8 percent in all of 2000 (exhibit 3). Nearly 31 percent of adult female arrestees tested cocaine-positive in the first half of 2001, compared with slightly more than 41 percent in 2000.

The NOPD reported 2,176 arrests for cocaine possession in 2001, an increase of 27 percent (exhibit 4). The percentage increase in cocaine possession arrests was greatest among Black females (45.0 percent), while it was more modest among White males (16.1 percent). Conversely, cocaine possession arrests decreased among White females, from 140 to 63 (55 percent). Arrests for cocaine distribution also increased from 2000 to 2001, from 934 to 1,031—a 10.4-percent increase. The increase in cocaine distribution arrests was proportionately highest among White females (38.5 percent).

Price and purity for cocaine and crack remained stable in 2002. Powder cocaine prices averaged \$80–\$150 per gram, \$800–\$1,200 per ounce, and \$20,000–\$28,000 per kilogram (exhibit 5). Crack prices ranged from \$80 to \$150 per gram and from \$18,000 to \$25,000 per kilogram.

### Heroin

Although heroin indicators are mixed, the DEA and NOPD reported a resurgence of heroin trafficking in New Orleans. Heroin-related death mentions, arrests, and overdoses are indicators of this problem. Based on the Coroner's Office report, heroin trafficking and use appear to have increased in the inner city area because of the rise of young Black male murder victims who tested positive for black tar heroin. Both Mexican-produced black tar heroin and white Colombian heroin are readily available on the streets in New Orleans.

The rate of heroin ED mentions per 100,000 population increased between the first halves of 1998 and 2000, from 21 to 38, increased further to 41 in the second half of 2000, but declined to 21 in the first half of 2001 (exhibit 1).

The percentage of heroin treatment admissions has trended upward over the last 10 years, from 2 percent of all admissions in 1991 to 15 percent in 2001 (exhibit 2). Black males represented the largest proportion of the 2001 primary heroin admissions at 69 percent, down from 74 percent in 2000. Primary heroin admissions increased slightly from 11 to 12 percent among White males, from 9 to 11 percent among Black females, and from 5 to 8 percent among White females.

Among adult arrestees in the ADAM program, there was little change in the percentage of males testing positive for opiates—15.5 percent in 2000 and 15.3 percent in the first three quarters of 2001 (exhibit 3). However, assuming no major change among females in 2001, there may well be a decrease from 2000 in the percentage testing opiate-positive.

The NOPD reported 274 heroin possession arrests in 2001, down from 395 in 2000. Heroin distribution arrests totaled 544, a 118.5-percent increase from 249 in 2000 (exhibit 4). Black males and females dominated the heroin distribution arrests, with dramatic increases from 2000 to 2001. Heroin distribution arrests among Black males rose from 159 to 402 (152.8 percent), and those for their female counterparts increased from 10 to 98 (880.0 percent). Heroin distribution arrests among White females increased from 3 in 2000 to 22 in 2001, while those for White males decreased by nearly 77 percent, from 73 to 17.

DMP data in the first half of 2001 showed heroin purity at 46.2 percent, with an average price per milligram of \$1.26. Among the 18 CEWG areas covered by DMP, New Orleans ranked sixth in average heroin purity. Heroin prices dropped slightly between 2000 and 2002. Gram prices dropped from \$450–\$750 in 2000 to \$300–\$600 in 2002. Ounce prices for heroin decreased from \$5,000–\$10,000 to \$4,500–\$9,000, and kilogram prices dropped from \$140,000–\$175,000 to \$80,000–\$100,000 (exhibit 5).

### Other Opiates/Narcotics

According to DEA sources, hydromorphone (Dilaudid) remains a big problem in the New Orleans area. Abuse of the drug is most prevalent among Blacks. Hydrocodone (Vicodin), oxycodone (Percodan), and propoxyphene (Darvon) remain the most commonly used opiates/narcotics other than heroin. Prices are \$5 per 5-milligram dose for hydrocodone, \$25–\$50 per K-2's for hydromorphone, and \$5–\$15 per dosage unit for oxycodone.

Law enforcement agencies also suggest that abuse of OxyContin (a long-lasting, time-release form of oxycodone) is at an epidemic level. Most trafficking is within organized user groups. Sources indicate that the drug moves from Texas along the river; local physicians are reportedly heavily involved in illegal distribution of OxyContin.

The number of DAWN ED mentions for narcotic analgesics rose steadily from the first half of 1998 ( $n=184$ ) to the first half of 2001 ( $n=302$ ), an increase of 64 percent (exhibit 1).

Primary admissions for narcotic synthetics and opiates other than heroin represented 2 percent of the 2001 treatment admissions, up from 1 percent in 2000 (exhibit 2). White males dominated in these treatment admissions, representing 46 percent; White females represented 28 percent, Black males 11 percent, and Black females 15 percent.

### Marijuana

Although marijuana indicators are stable, the drug continues to be abused by all social and economic groups in New Orleans, including school-age children. Marijuana availability has increased because of home-grown marijuana activity and trafficking of Mexican-grown marijuana. DEA sources report that marijuana distribution by Jamaican and Hispanic organizations along Interstate 10 has increased.

The rates of DAWN ED mentions for marijuana continued a slow decline, from 60 in the first half of 1998 to 35 in the first half of 2001 (exhibit 1). The percentage change between the second half of 2000 and the first half of 2001 was a decrease of 20 percent.

Treatment admissions for primary marijuana abuse fluctuated between 1991 and 2001 and remained relatively stable between 2000 and 2001, when marijuana represented 31 percent of all admissions (exhibit 2). Between 2000 and 2001, there was little change in the percentages of primary marijuana admissions by gender or racial/ethnic group. Black males continued to predominate, at 74 percent of this admission group.

Among the New Orleans ADAM sample, adult male arrestees were more likely than females to test positive for marijuana (exhibit 3). In the preliminary data for 2001, 46.2 percent of the male arrestees and 28.5 percent of the females tested marijuana-positive.

According to the NOPD, marijuana possession arrests declined in 2001, while distribution arrests increased. Nevertheless, arrests for possession of marijuana remained higher than those for possession of cocaine or heroin (exhibit 4). From 2000 to 2001, arrests for marijuana possession declined 4 percent, from 5,731 to 5,500, while those for distribution increased 50.9 percent. Black males continued to account for the largest proportion of this arrestee group for marijuana possession, rising from 64.5 percent in 2000 to 70.3 percent in 2001. Black males also predominated in arrests for marijuana distribution, but less so in 2001 (56.7 percent) than in 2000 (70.6 percent). This was true also for Black females, who accounted for 13.1 percent of those arrested for distribution of marijuana in 2000, but only 4.8 percent of this group in 2001. Among Whites, increases occurred in arrests of marijuana distribution from 2000 to 2001: 135 percent for White males and 1,053 percent for White females.

Marijuana-related death mentions rose from 26 in 1996 to 59 in 2000. Marijuana alone was involved in 14 deaths; there were 86 drug mentions (including marijuana) in the remaining 45 deaths.

Marijuana prices remained stable, averaging \$2–\$5 per joint, \$100 per gram, \$125–\$160 per ounce, \$800–\$1,000 per pound, and \$2,000 per kilogram. Hashish sold for \$150 per ounce and tetrahydrocannabinol (THC) liquid for \$200 per milliliter.

### Methamphetamine

Despite the low indicators for methamphetamine, abuse

appears to be on the rise because instructions on how to produce the drug are available on the Internet and it is relatively easy to procure precursor chemicals. Although no labs have been found in New Orleans, some have been found in Louisiana or neighboring States. Theft and purchases of anhydrous ammonia for manufacturing methamphetamine present potential health and safety hazards.

The rate of methamphetamine ED mentions in New Orleans remained low, at 1 per 100,000 population. In the recent ADAM data, no arrestees were reported as testing positive for the drug.

Prices for methamphetamine are \$100–\$150 per gram, \$1,400–\$1,600 per ounce, and \$16,000–\$20,000 per pound (exhibit 5).

### **Club Drugs**

According to the DEA, club and designer drugs are available in New Orleans, and abuse of these drugs is cause for alarm. Methylendioxyamphetamine (MDMA or ecstasy) is the most widely used of these drugs, especially among teenagers and young adults involved in the rave scene.

Ketamine, gamma hydroxybutyrate (GHB) and its precursor gamma butyrolactone (GBL), lysergic acid diethylamide (LSD), and flunitrazepam (Rohypnol) seizures show an increase in the use and abuse of these substances in New Orleans. Sources indicate that these drugs come into Louisiana from California via Houston.

The prices for different club and designer drugs vary. A capsule of MDMA sells for between \$15 and \$25, while GHB and GBL sell for \$5 per capsule and \$10 per ounce (exhibit 5). Ketamine costs \$50–\$60 per pill, Rohypnol \$5 per pill, and LSD \$5 per tablet.

### **Homicides/Deaths**

The Orleans Parish Coroner's Office reported 222 homicides for 2001, up from 215 in 2000 and 165 in 1999. Previous data show that homicides peaked at 373 in 1995, declining to 336 by 1997 and to 165 in 1999, before their recent rise. Drug-related death mentions represented 75 percent of the 1999 cases, dropped to 65 percent in 2000, and returned to 75 percent in 2001. In 2001, 79 suicides were reported, up from 72 in 2000 and 50 in 1999. The percentage of drug-related suicides rose from 10 to 50 percent between 1999 and 2001.

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

Through May 1, 2002, 6,082 adult cases of AIDS were reported in Louisiana (exhibit 6). Of these, 18 percent were attributed to injection drug use, 35 percent to men having sex with other men, and 8 percent to the dual category of injection drug use and men who have sex with men. A higher percentage of females than males were classified as injection drug users (IDUs)—23 versus 16 percent by May 2002.

Through May 2002, IDUs accounted for 24 percent of the HIV cases in Louisiana.

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**Exhibit 1. Estimated Emergency Department Rates<sup>1</sup> or Number of Mentions for Selected Drugs in Orleans Parish: 1998–June 2001**

Half-Year Dates	Rate: Cocaine/ Crack	Rate: Heroin/ Morphine	Rate: Marijuana/ Hashish	Number of Mentions: Narcotic Analgesics
1H98	109	21	60	184
2H98	90	21	40	174
1H99	89	23	46	197
2H99	87	30	41	188
1H00	77	38	42	228
2H00	85	41	44	257
1H01 <sup>2</sup>	57	21 <sup>3</sup>	35	302

<sup>1</sup> All rates are based on 100,000 population.

<sup>2</sup> Data for the first half of 2001 are preliminary.

<sup>3</sup> Heroin data exclude a small but unknown number of morphine combinations that have been moved to the narcotic analgesics category for this time period.

SOURCE: DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Treatment Admissions for Orleans Parish by Primary Drug of Abuse: 1996–2001**

Primary Drug	1996		1997		1998		1999		2000		2001	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Heroin	514	(9)	632	(10)	684	(21)	860	(20)	453	(13)	433	(15)
Non-Rx Methadone	0	(0)	19	(<1)	0	(0)	4	(<1)	1	(<1)	2	(<1)
Other Opiates and Synthetics	159	(3)	187	(3)	83	(3)	75	(2)	34	(1)	54	(2)
Alcohol	1,353	(23)	1,435	(23)	636	(19)	457	(11)	689	(20)	542	(19)
Barbiturates	45	(1)	6	(<1)	3	(<1)	23	(1)	2	(<1)	1	(<1)
Other Sedatives and Hypnotics	17	(<1)	1	(<1)	1	(<1)	2	(<1)	4	(<1)	2	(<1)
Amphetamines	20	(<1)	27	(<1)	36	(1)	6	(<1)	3	(<1)	5	(<1)
Cocaine	1,662	(29)	1,834	(29)	997	(30)	1,158	(28)	1,211	(34)	947	(33)
Marijuana/Hashish	1,603	(28)	1,754	(28)	735	(22)	1,572	(37)	1,089	(31)	889	(31)
Hallucinogens	10	(<1)	3	(<1)	0	(0)	10	(<1)	2	(<1)	3	(<1)
Inhalants	194	(3)	3	(<1)	93	(3)	2	(<1)	1	(<1)	1	(<1)
Tranquillizers	53	(1)	107	(2)	0	(0)	0	(0)	3	(<1)	0	(0)
Phencyclidine (PCP)	150	(3)	209	(3)	0	(0)	0	(0)	1	(<1)	0	(0)
Other <sup>1</sup>	8	(<1)	41	(1)	44	(1)	36	(1)	20	(1)	30	(1)
<b>Total (N)</b>	<b>5,788</b>	<b>(100)</b>	<b>6,258</b>	<b>(100)</b>	<b>3,312</b>	<b>(100)</b>	<b>4,205</b>	<b>(100)</b>	<b>3,513</b>	<b>(100)</b>	<b>2,909</b>	<b>(100)</b>

<sup>1</sup> Includes gambling, tobacco, and over-the-counter drug treatment admissions in the years 2000 and 2001.

SOURCE: Louisiana State Office for Addictive Disorders and not-for-profit treatment facilities

**Exhibit 3. Percentages of Adult Arrestees Testing Positive for Selected Drugs in New Orleans: January 2000 through September 2001**

Drug	Males <sup>1</sup>		Females <sup>2</sup>	
	2000	1st–3rd Q2001	2000	1st–2nd Q2001
Cocaine	34.8	37.2	41.1	30.7
Opiates	15.5	15.3	8.5	7.3
Marijuana	46.6	46.2	28.0	28.5

<sup>1</sup> Male data (weighted) are for the first three quarters of 2001.

<sup>2</sup> Female data (unweighted) are for the first two quarters of 2001.

SOURCE: ADAM, NIJ

**Exhibit 4. Drug Arrests in Orleans Parish by Race/Ethnicity, Gender, and Offense: 2000–2001**

Drug/Offense	Males						Females						Total	
	Black		White		Other		Black		White		Other			
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Cocaine Possession	1,161	1,576	174	202	5	0	231	335	140	63	1	0	1,712	2,176
Cocaine Distribution	764	824	25	31	2	3	128	154	13	18	2	1	934	1,031
Heroin Possession	290	215	64	33	1	0	22	13	18	13	0	0	395	274
Heroin Distribution	159	402	73	17	4	4	10	98	3	22	0	1	249	544
Marijuana Possession	3,697	3,869	1,417	1,085	41	18	323	333	253	192	0	3	5,731	5,500
Marijuana Distribution	608	736	117	275	1	5	113	62	19	219	3	2	861	1,299
Scheduled Drugs Possession	0	522	0	382	0	0	0	112	0	136	0	0	0	1,152
Scheduled Drugs Distribution	0	636	0	181	0	1	0	55	0	69	0	1	0	943
Other Drugs	201	172	87	78	1	1	39	31	14	92	0	0	342	374
Drug Paraphernalia	1,102	1,053	705	540	14	7	335	314	182	134	1	2	2,339	2,050

SOURCE: New Orleans Police Department

**Exhibit 5. Drug Prices in New Orleans Area: 2002**

<b>Drug</b>	<b>Quantity</b>	<b>Price</b>
Powder Cocaine	Gram	\$80–\$150
	Ounce	\$800–\$1,200
	Pound	\$12,000–\$15,000
	Kilogram	\$20,000–\$28,000
Crack	Rock	\$10–\$25
	Gram	\$80–\$150
	Ounce	\$800–\$1,200
	Pound	\$12,000–\$15,000
Heroin	Kilogram	\$18,000–\$25,000
	Gram	\$300–\$600
	Bundle	\$600–\$800
	Ounce	\$4,500–\$9,000
Marijuana	Kilogram	\$80,000–\$100,000
	Gram	\$100
	Ounce	\$125–\$160
	Pound	\$800–\$1,000
Sinsemilla	Kilogram	\$2,000
	Gram	\$150
	Ounce	\$300–\$400
	Pound	\$2,000–\$3,000
Methamphetamine	Kilogram	\$4,000–\$4,800
	Gram	\$100–\$150
	Ounce	\$1,400–\$1,600
	Pound	\$16,000–\$20,000
Lysergic Acid Diethylamide (LSD)	Dose	\$1.50–\$8.00
	Sheet	\$200–\$400
MDMA	Capsule	\$15–\$25
Gamma Hydroxybutyrate (GHB)	Capsule	\$5

SOURCE: New Orleans DEA

**Exhibit 6. Louisiana AIDS Cases by Gender and Exposure Category: Cumulative Through May 1, 2001, and May 1, 2002**

Exposure Category	Males				Females				Totals			
	2001		2002		2001		2002		2001		2002	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Men/Sex/Men (MSM)	2,097	(47)	2,180	(45)	0	(0)	0	(0)	2,097	(38)	2,180	(36)
Injection Drug User (IDU)	709	(16)	790	(16)	266	(24)	298	(23)	1,000	(18)	1,088	(18)
MSM/IDU	449	(10)	465	(10)	0	(0)	0	(0)	449	(8)	465	(8)
Heterosexual Contact	265	(6)	293	(6)	436	(39)	487	(38)	701	(13)	780	(13)
Transfusion/Transplant	25	(<1)	25	(<1)	24	(2)	32	(2)	49	(<1)	57	(<1)
Hemophilia/Coagulation Disorder	28	(<1)	26	(<1)	1	(<1)	0	(0)	29	(<1)	26	(<1)
Unknown	861	(19)	1,014	(21)	390	(35)	472	(37)	1,251	(22)	1,486	(24)
<b>Total Adult Cases</b>	<b>4,464</b>	<b>(100)</b>	<b>4,793</b>	<b>(100)</b>	<b>1,117</b>	<b>(100)</b>	<b>1,289</b>	<b>(100)</b>	<b>5,581</b>	<b>(100)</b>	<b>6,082</b>	<b>(100)</b>
<b>Pediatric Cases</b>	<b>31</b>		<b>31</b>		<b>30</b>		<b>31</b>		<b>60</b>		<b>62</b>	

SOURCE: Louisiana State Health Department

# Drug Use Trends in New York City

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## ABSTRACT

*Drug use trends changed, with all the major drugs showing increases. With the exception of arrests and the number of births to cocaine-using women, cocaine indicators in New York City, which declined at the end of the last decade, began to increase. Heroin trends remained mixed, although several showed signs of increasing. Heroin remained available at very high purity levels. Marijuana indicators continued to reach new peaks. Prescription drugs, including medications for HIV infection, continued to be diverted. Ecstasy was widely available throughout New York City, on the street as well as at dance clubs and large social events. For AIDS cases in New York City, injection drug use remained the modal risk factor. The effects of September 11, 2001, on the New York City drug scene are being closely monitored.*

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## INTRODUCTION

### Area Description

New York City, with 8 million people, is by far the largest city in the United States. It is situated in the southeastern corner of the State on the Atlantic coast and encompasses an area of 320 square miles. It has nearly 600 miles of waterfront and one of the world's largest harbors.

Historically, New York City has been home to a large multiracial, multiethnic population. Findings from the 2000 census show that the population diversity continues: 45 percent are White; 27 percent are Black; 27 percent are Hispanic of any race; 10 percent are Asian and Pacific Islander; and less than 1 percent are Native American, Eskimo, and Aleut. Nearly 2 million New York City residents are foreign born, and nearly 700,000 legal immigrants became New York City residents between 1990 and 1998. The Dominican Republic is currently the city's largest source of immigrants.

The city remains the economic hub of the Northeast. Its main industries include services and wholesale and

retail trade. Of the more than 3.5 million people employed in the city, 20 percent commute from surrounding areas. Overall, the unemployment rate in New York City for April 2002 was 7.7 percent, compared with 6.1 percent in New York State and 6.0 percent in the Nation. According to the Bureau of Labor Statistics, these rates are dramatically higher than the unemployment rate for April 2001, when the rate was 5.5 in New York City and 4.5 for the State. New York City experienced an over-the-year employment decrease of 106,300, the largest of any metropolitan area. The bureau attributes the employment decline to the September 11, 2001, attacks on the World Trade Center and the aftermath. Jobs 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 about 1990 to 2001, 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 Administration (SAMHSA), for 1991 through the first half of 2001. The weighted data are based on a representative sample of hospitals in New York City and Westchester, Rockland, and Putnam Counties. The 2001 data are preliminary.
- **Drug abuse-related death data** are from the DAWN mortality system. Data from 1991 through 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. The DAWN system covered 75 percent of the metropolitan statistical area (MSA) jurisdictions and 87 percent of the MSA population in 2000.

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- **Treatment admissions data** were provided by the New York State Office of Alcoholism and Substance Abuse Services (OASAS) for 1991–2001 and include both State-funded and nonfunded admissions.
- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for the first two quarters of 2001.
- **Drug-related arrest data** were provided by the New York City Police Department (NYPD) for 1991 to the first half of 2001.
- **Drug price, purity, and trafficking data** were provided by the Drug Enforcement Administration (DEA) and the DEA's Domestic Monitor Program (DMP) for heroin. These data are supplemented by information from the OASAS Street Studies Unit (SSU) reports.
- **Cocaine use during pregnancy data** were provided by the New York City Department of Health for 1991–2000.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the New York City Department of Health.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

In general, cocaine indicators, which had been declining, are beginning to show increases, and the drug still accounts for major problems in New York City (exhibit 1).

For the New York City metropolitan area, DAWN estimates for ED mentions remained relatively stable between 1994 and 1998 (from 20,145 to 19,549), but declined significantly from 1998 to 2000. The preliminary estimate for the first half of 2001 (8,546) shows a nonsignificant increase. The preliminary rate of cocaine emergencies per 100,000 population in the New York City metropolitan area for the first half of 2001 was 94. This represents the highest level since the second half of 1998, when the rate was 114. The comparable national rate for the first half of 2001 was 35; this rate has been relatively stable since 1994.

While primary cocaine treatment admissions to State-funded and nonfunded programs in New York City declined from 17,572 in 1998 to 14,059 in 2000, they increased slightly in 2001 to 14,375. In 2001, cocaine

admissions constituted 21.7 percent of all New York City's 66,382 drug and alcohol treatment admissions (excluding alcohol-only) (exhibit 1).

Exhibit 2 shows demographic characteristics of cocaine treatment admissions for 2001 by the two primary modes of use: smoking crack (representing 64 percent of cocaine admissions) and using cocaine intranasally (representing 32 percent). Those who smoke crack are more likely to be female (38 vs. 25 percent), Black (69 vs. 44 percent), re-admissions to treatment (78 vs. 68 percent), and without income (37 vs. 27 percent). The two groups are similar in secondary drugs of abuse, primarily alcohol and marijuana. All admissions for primary cocaine abuse represent an aging population. The recent increase in Hispanics among treatment admissions who use cocaine intranasally stabilized to 35 percent in 2001.

ADAM urinalysis data for the first and second quarters of 2001 show drug positives remaining the highest for cocaine. Findings for the first two quarters of 2001 show cocaine positives for 46 percent of males and 61 percent of females.

The SSU finds cocaine availability and purity to be relatively stable. Several sources report that cocaine purity has been increasing over the last several months; it now matches or exceeds pre-September 11, 2001, levels. Following the World Trade Center tragedy, there was a period when some cocaine sellers and users expected to have a problem obtaining the drug because of heightened security, but these fears seem to have been unfounded. Powder cocaine sales are conducted almost exclusively through in-house connections. There are few street sellers of powder cocaine. It appears that law enforcement efforts have been especially successful in discouraging cocaine street sales. Of the cocaine street sellers observed in the city, the majority were Black or Hispanic young males, with Hispanic sellers outnumbering Black sellers at a 2:1 ratio. Of the few cocaine street sellers observed, most worked alone. Those who did not tended to work in pairs or with very small drug crews.

Although most cocaine sellers have moved indoors because of police efforts, the personal use seller does not operate from the same location as dealers selling larger quantities. These are two independent groups, operating from distinct locations. Following September 11, 2001, and continuing into the earlier part of 2002, cocaine was sold in \$10, \$20, and \$25 packages, with the latter two being the most common prices. Approximately two-thirds of the cocaine sold is packaged in clear plastic bags. About one-half of the powder cocaine sales do not involve the use of labels or

brand names in order to hamper police efforts to trace drugs to sellers. Given the high purity of the cocaine currently available, many crack users freebase. Heroin users also purchase cocaine to use in combination with heroin to produce a speedball effect.

Of all the street drugs, crack seems to have been the least affected by the events of September 11, 2001. Crack continues to represent the lowest priced drug per package. Although police efforts have forced much of the crack selling indoors, much crack selling continues to operate openly on the street. Street crack selling seems to be confined to poor neighborhoods. The sellers tend to be Black or Hispanic young males, with almost twice as many Blacks as Hispanics. Crack street sellers tend to have larger crew sizes (e.g., hawkers, steerers, and lookouts) than other drug sellers. Interestingly, competing sellers appear to be cooperative toward each other, an additional layer of security against police efforts. Crack locations seem to have loiterers and users in the vicinity. Of the crack sales observed by the SSU, most involved \$5 or \$10 packages. The \$3 bags that were seen last year have not been found. Most sellers are packaging their product in clear plastic bags or aluminum foil, with the former being preferred because the standardized size of the bags makes accurate packing easier. Fears about the possibility of decreased purity and “beat” (fake) crack after September 11, 2001, appear to have been unfounded. Field researchers also reported an increase in the number of females observed buying crack. Among young crack users, smoking “woolies” (crack in cigars or wrapped in tobacco leaves) remains the most popular route of administration. According to street interviews, combining crack with other drugs is gaining popularity again. While older heroin users have been using crack to produce a speedball effect, younger crack users are sniffing heroin to manage their high. Other crack users prefer “space basing”—smoking crack and phencyclidine (PCP) together. Those who like this combination say that the PCP slows down and prolongs the intensity of the high.

The DEA reports that prices for cocaine powder are \$22,000–\$30,000 per kilogram and \$900–\$950 per ounce. To minimize conspicuous traffic, transactions are few but prices are high. The DEA reports that crack sells for about \$1,000–\$1,500 per ounce and \$27–\$45 per gram.

DAWN figures for cocaine-involved deaths, which declined steadily from 1995 to 1999, showed a 26-percent increase in 2000 (to 492 from 392 in 1999) (exhibit 1).

The NYPD reports a decline in cocaine arrests since 1995 ( $n=40,846$ ). The number of cocaine arrests in 2000 was 31,919, essentially the same as in 1999, but a 22-percent decrease since 1995. Of the 13,956 cocaine arrests in the first half of 2001, 83 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 490 in 2000—an 85-percent decline over 11 years (exhibit 1).

## Heroin

Heroin trends, which had appeared to stabilize, are mixed for this CEWG reporting period (exhibit 3). Heroin ED mentions in the New York metropolitan area had been generally increasing in the early 1990s, totaling 11,185 in 1994. While the number of heroin ED mentions declined from 11,129 to 9,302 between 1994 and 1999, the estimate for 2000 increased to 11,009 mentions. The changes were not statistically significant. The preliminary estimate for the first half of 2001—6,498—suggests a dramatic but nonsignificant increase and is the highest recorded half-year total since 1996. The New York metropolitan area recorded a rate of 71 heroin mentions per 100,000 population for the first half of 2001, an extremely high rate. The estimated national rate was 16 heroin mentions per 100,000 population.

Primary heroin admissions to all treatment programs in New York City have been gradually increasing. Between 1991 and 2001, admissions increased from 15,085 to 22,779, a 51-percent increase over the 10-year period (exhibit 3). In 2001, primary heroin admissions constituted 34 percent of New York City’s 66,382 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, 2000, and 2001. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 37 percent in 2001.

Exhibit 4 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in 2001 by mode of use. In general, primary heroin admissions are overwhelmingly male (74 percent), older than 35 (65 percent), more likely to be Hispanic (53 percent) than Black (25 percent) or White (20 percent), usually re-admissions to treatment (86 percent), and likely to report cocaine as a secondary drug of abuse (34 percent). Compared with heroin injectors, intranasal users are more likely to be Hispanic (57 vs. 48 percent) and first admissions to treatment (16 vs. 9 percent). In contrast, primary heroin injectors are more likely than intranasal users to be White (31 vs. 12 percent), to report cocaine as a secondary drug of abuse (40 vs. 30 percent), and to have started use before reaching age 20 (58 vs. 42 percent).

In addition to heroin admissions to traditional treatment programs, heroin admissions for detoxification or crisis services in New York City have become sizable in number. These special services are usually short-term, provided in a hospital or community-based setting, and medically supervised. In 1995, 4,503 such admissions were reported for heroin abuse; by 2000, 15,040 comparable admissions were reported; and by 2001 that figure increased to 15,908.

DAWN medical examiner (ME) figures for heroin-involved deaths in the New York City metropolitan area present an inconsistent picture over the last few years, with both increases and decreases. In 2000, there were 193 heroin-involved deaths (exhibit 1).

ADAM urinalysis data show fewer adult arrestees testing positive for opiates than for cocaine or marijuana. In the first two quarters of 2001, 15 percent of females tested opiate-positive, as did 18 percent of males.

From 1992 to 2000, the DMP found average heroin purities to be generally above 60 percent. Preliminary findings for the first half of 2001 show an average purity of 55.7 percent, down from 62.9 percent in 2000. The associated price is \$0.61, an increase from \$0.42 per milligram pure in 2000. Kilogram prices are \$65,000–\$80,000 for South American heroin, \$65,000–\$140,000 for Southwest Asian heroin, and \$40,000–\$80,000 for Southeast Asian heroin.

The SSU reports that heroin availability and price remain relatively stable. Heroin purity has reportedly increased over the last several months, returning to pre-September 11, 2001 levels. Initially following the World Trade Center tragedy, heroin sellers and users had concerns about a possible supply problem because of heightened security. Over time, however, tensions began to ease, and the quantity and quality of heroin

rebounded. Currently, police initiatives against street-level heroin selling continue and have proven effective. After September 11, many heroin sellers migrated to the street because they felt the police were too preoccupied with security measures to bother with street drug selling. Currently most heroin sales are conducted off the street, especially sales involving large amounts of heroin. Concerned with avoiding arrest, the house connections require that potential buyers have an introduction by a known and trusted buyer before they gain entrée. Despite the effectiveness of the law enforcement initiatives, however, a small proportion of heroin sellers continue to operate on the street in various parts of the city.

Street sellers tend to be young males between the ages of 20 and 30, although heroin sellers as old as 50 have been observed. There are approximately equal numbers of Hispanic and Black heroin street sellers. They tend to operate on the street near storefronts, hallways, alleys, backyards, or parks.

Heroin in New York City is sold in plastic bags. Alternative packaging methods (pyramid paper and aluminum foil) have been largely phased out. Based on sales observed by the SSU, the most common heroin package costs \$10 and weighs one-tenth of a gram. Less common are the \$5 and \$15 bags. Sellers are again offering package deals for bundles, for example, selling 10 \$10 packages for \$90 or an 11-package bundle for the price of 10. Drug users indicate that heroin is being diluted or “cut” with various substances, including zolpidem (Ambien), as well as other sleep medications.

Most users, particularly those 35 and younger, report that they are snorting heroin. This is primarily related to the high purity levels and the fear of needles and AIDS. Despite needle exchange programs and pilot programs that allow needle sales by pharmacies, needles continue to be sold on the street for \$1 or \$2.

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 1). Heroin arrests increased slightly between 1999 and 2000 (from 32,949 to 33,665), still representing a decline of 12 percent from 1995. The number of heroin arrests for the first half of 2001 appears to be roughly at the same level as in 2000.

## **Marijuana**

In New York City, marijuana indicators continue to increase steadily and dramatically (exhibit 5). The total number of marijuana ED mentions—estimated from the current sample of hospitals—rose from

2,578 in 1994 to 3,544 in 2000. This increase, however, was not significant. The preliminary estimate for the first half of 2001 (1,984) suggests a continuing but slight increase. The rate of marijuana ED mentions for the first half of 2001 for the New York City metropolitan area was 22 per 100,000 population, suggesting stability in the rates since 1994. The comparable national estimate was 20 per 100,000 population in 2000.

Primary marijuana admissions to all treatment programs have been increasing steadily over the past several years. The number increased more than eightfold between 1991 and 2001, from 1,374 to 13,270, the highest annual number (exhibit 1). In 1991, primary marijuana admissions represented less than 5 percent of all treatment admissions; by 2001, these admissions represented nearly 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 2001. The vast majority were male (81 percent), and 38 percent were younger than 21. More than one-half (56 percent) were Black, about 31 percent were Hispanic, and 10 percent were White. Alcohol was the secondary drug of abuse for 44 percent of the marijuana admissions, and most had some criminal justice status (71 percent).

According to the SSU, marijuana availability is high and potency continues to rise, while a disparity in quality and price continues. Because of police efforts, most marijuana is sold through house connections and not on the street, particularly for bulk sales involving one-half ounce or more. There are three basic types of marijuana packages—cigars/cigarettes laced with the drug, plastic bags, and manila envelopes. The plastic bag is the favored packing method, since it allows the buyer to examine the product. Marijuana is sold in three sizes: \$5, \$10, and \$20 quantities. The \$10 bag remains the most frequently sold package size. Field researchers found that marijuana sellers in the city were predominantly Black or Hispanic young males, with twice as many Black as Hispanic sellers. The two most sought after varieties are “hydro,” grown hydroponically, and “skunk,” which is organically grown. Both are reputed to produce a long and intense high. Smoking a marijuana blunt in conjunction with drinking 40 ounces of malt liquor, known as a “B-40,” is still the most popular method of use among young marijuana smokers. Many stores sell “blunt” wraps (i.e., flat cigar leaves) that are used to wrap marijuana for smoking. These wraps come in flavors such as honey, berry, vanilla, chocolate, champagne, and cognac. Researchers

were also told of dipping marijuana in PCP or in the liquid that has been used to cook crack in order to produce a more intense high.

Adult arrestees in the ADAM samples for the first two quarters of 2001 were much more likely to test positive for marijuana than for opiates. Approximately 39 percent of male arrestees tested positive for marijuana, as did 32 percent of the females. For males, the number of marijuana-positives approached that for cocaine-positives.

According to the DEA, marijuana prices can range from \$200 to \$2,000 per pound wholesale, and from \$1,000 to \$5,000 per pound for hydroponic marijuana.

In spite of decriminalizing possession of small amounts of marijuana, the NYPD continues to make a record number of marijuana-related arrests in New York City (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. Data from the first half of 2001 show arrests at about the same level as in 2000. About 98 percent of these arrests were for misdemeanors, and 32 percent involved persons age 20 or younger. Moreover, cannabis arrests accounted for 45 percent of all drug arrests in New York City in the first half of 2001, a dramatic change from earlier years.

### **Stimulants**

Although methamphetamine is popular in other parts of the Nation, there were relatively few arrests, ED mentions, deaths, and treatment admissions related to the drug in New York City. In fact, in 2000, only three methamphetamine deaths were reported in the five boroughs of New York City. The SSU has been unable to find any indication that this drug is being sold on the street, but it continues to report methamphetamine availability in dance clubs and among gay males.

### **Depressants**

Indicators of the nonmedical use of psychoactive prescription drugs (e.g., hospital emergencies, deaths, and treatment admissions) have not been increasing. However, 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 95 percent, from 323 in 1994 to 631 in 2000. There continue to be few (about 1

percent) treatment admissions with a psychoactive prescription drug as the primary drug of abuse.

Among medical examiner 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.

According to the SSU, a variety of psychoactive prescription drugs are increasingly available on the street, such as alprazolam (“footballs”); clonazepam; clonidine (Catapres); diazepam; the antidepressant amitriptyline (Elavil or “sticks”); and hydrocodone (Vicodin), an opiate. The three most popular are Xanax, selling for \$2–\$5 per pill; Catapres, selling for \$1–\$2 per pill; and Elavil, selling for \$1–\$2 per pill. Other users have told the SSU that injecting liquid morphine from patches of fentanyl (a synthetic opiate) produces an intense high. Another popular pill on the street is Ambien, because it is inexpensive and it reportedly produces an effect similar to a heroin high when a large enough quantity is taken. Drugs used to treat human immunodeficiency virus (HIV) infection are also being diverted to the street, including dronabinol (Marinol) and megestrol acetate (Megace). These drugs are used medically to counter the effects of wasting syndrome associated with the illness. Medications are sometimes sold back to pharmacies and warehoused for future sales, or they are shipped to other countries in desperate need of these medications.

### **Hallucinogens**

According to the SSU, PCP is readily available in certain areas in the city, particularly in Harlem. The number of PCP ED mentions declined significantly from 852 in 1994 to 237 in 2000. 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.

In Harlem, PCP sells for \$10 per bag and is packaged in small plastic bags. Although it may be available as a bottled liquid, it is primarily sold in packets of marijuana, parsley, or mint leaves that have been soaked in PCP.

### **Club Drugs**

The SSU continues to report the availability of methylenedioxymethamphetamine (MDMA), a stimulant with hallucinogenic properties, in many areas of

the city. MDMA is often called “ecstasy” or “XTC,” although other substances are often sold as ecstasy. MDMA ED mentions increased significantly from 7 in 1994 to 200 in 2000. A projection based on the 104 mentions in the first half of 2001 suggests MDMA ED mentions will increase slightly for the full year. However, these mentions seem to be stabilizing.

The selling of ecstasy is no longer limited to clubs and large social events. Regular street drug spots are increasingly carrying ecstasy, which sells for \$15 to \$30 per pill. A variety of ecstasy pills have been reported: a pill with an “E,” a red pill with a heart imprint, or a “stacker” or “double ecstasy.” According to some street sources, heroin and crack sellers provide ecstasy wholesalers with an established distribution network and greater access to Hispanic and Black communities where ecstasy use is currently increasing. Pills are sometimes covered in Tootsie Roll candy and called “rolls.” They can also be placed on candy necklaces.

Available as a club drug in New York City, the veterinary anesthetic ketamine produces effects similar to PCP and visual effects similar to lysergic acid diethylamide (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.

Another club drug of concern is gamma hydroxybutyrate (GHB). While GHB ED mentions in New York City are very low, they increased to 31 in 2000, up from 16 in 1999 and 5 in 1998.

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

The AIDS epidemic, with its impact on injection drug users (IDUs), has played a crucial role in shaping the New York City drug scene over the last 2 decades.

The cumulative total of 128,141 adult and pediatric AIDS cases reported in New York City through December 2001 represents a rate of more than 1,600 cases per 100,000 New Yorkers. Of New York City’s cumulative 126,130 adult AIDS cases, 55,161 (44 percent) involve heterosexual IDUs. Homosexual males account for 38,236 cases (30 percent).

Among heterosexual IDUs who have contracted AIDS in New York City, 74 percent are male and 26 percent are female. About 43 percent of these individuals are age 30–39. Blacks continue to be the modal group, accounting for 42 percent, followed by Hispanics (37 percent) and Whites (25 percent). Among female IDUs

alone, Black women remain the majority (53 percent), followed by Hispanic women (34 percent) and White women (13 percent). Female IDUs are also younger than their male counterparts: 63 percent are age 39 or younger, compared with 54 percent of the males.

Of the 2,011 pediatric AIDS cases (children age 12 or younger at time of diagnosis), 47 percent involve mothers who have injected drugs. An additional 16

percent involve mothers who were sex partners of IDUs. Thus, at least 63 percent of the children with AIDS have parents who are in some way involved with injection drug use.

Overall, reports show that 77,992 New Yorkers have died of AIDS, representing 61 percent of all those who have contracted the disease.

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**Exhibit 1. Semiannual Cocaine Trends for Selected Indicator Data in New York City by Number: 1991–2001**

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine <sup>1</sup>	Cocaine Emergency Department Mentions <sup>2</sup>	Treatment Admissions: Cocaine as Primary Drug of Abuse <sup>3</sup>	Cocaine Arrests <sup>4</sup>	Births to Women Using Cocaine <sup>5</sup>
1991	1H		7,769	5,314		
	2H		8,330	7,232		
	Total	804	16,099	12,546	37,769	2,239
1992	1H		9,180	7,753		
	2H		11,233	7,224		
	Total	733	20,413	14,977	33,708	1,786
1993	1H		10,499	6,978		
	2H		10,586	7,219		
	Total	818	21,085	14,197	31,296	1,611
1994	1H		10,084	7,794		
	2H		10,130	7,613		
	Total	755	20,145	15,407	38,200	1,288
1995	1H		9,915	8,371		
	2H		9,808	7,836		
	Total	908	19,723	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	437	19,549	17,572	35,577	742
1999	1H		7,386	8,346		
	2H		7,413	7,567		
	Total	392	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	—	8,546	7,343	13,956	—
	2H	—	—	7,032	—	—
	Total	—	—	14,375	—	—

SOURCES: <sup>1</sup> DAWN, Office of Applied Studies, SAMHSA, including New York City, Long Island, and Putnam County through 1995 (Starting with 1996 the data include New York City only)

<sup>2</sup> DAWN, Office of Applied Studies, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2001 data are preliminary)

<sup>3</sup> New York State OASAS-funded and nonfunded treatment admissions

<sup>4</sup> New York City Police Department

<sup>5</sup> New York City Department of Health

**Exhibit 2. Characteristics of Primary Cocaine Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City by Mode of Administration: 2001**

<b>Demographic Characteristic</b>	<b>Percent Total (N=14,375)</b>	<b>Percent Smoking Crack (n=9,264)</b>	<b>Percent Using Cocaine Intranasally (n=4,671)</b>
Gender			
Male	66	61	75
Female	34	38	25
Age at Admission			
25 and younger	7	5	12
26–35	33	33	32
36 and older	60	62	56
(Average age)	(37.5 years)	(37.8 years)	(36.6 years)
Race			
Black	60	69	44
Hispanic	24	18	35
White	14	11	19
No Source of Income <sup>4</sup>	33	37	27
Some Criminal Justice Status	46	44	52
Re-admissions	75	78	68
Age of First Use			
14 and younger	6	5	8
15–19	28	24	36
20–29	44	47	39
30 and older	22	24	17
Secondary Drug of Abuse			
Alcohol	47	48	46
Marijuana	22	21	23
Heroin	6	6	5

<sup>1</sup> Figures on this table may differ somewhat from figures cited on other tables because computer runs may have been executed at different times and files are being updated continuously.

<sup>2</sup> State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup> Nonfunded programs receive funding through sources other than OASAS.

<sup>4</sup> Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: NYS OASAS



**Exhibit 3. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1991–2001**

Year	Semiannual/ Annual Period	Deaths Involving Heroin <sup>1</sup>	Heroin/Morphine Emergency Department Mentions <sup>2</sup>	Treatment Admissions: Heroin as Primary Drug of Abuse <sup>3</sup>	Heroin Arrests <sup>4</sup>	Average Purity of Street Heroin (%) <sup>5</sup>
1991	1H		2,684	7,180		
	2H		3,335	7,905		
	Total	582	6,019	15,085	23,622	(50.6)
1992	1H		3,879	8,219		
	2H		4,503	8,004		
	Total	681	8,382	16,223	23,509	(62.3)
1993	1H		5,131	8,369		
	2H		6,220	8,620		
	Total	796	11,351	16,989	24,595	(66.1)
1994	1H		5,561	9,070		
	2H		5,624	9,117		
	Total	612	11,185	18,187	33,206	(63.9)
1995	1H		5,288	9,286		
	2H		5,440	9,001		
	Total	751	10,728	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	269	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	171	9,302	20,879	32,949	(61.8)
2000	1H		5,378	10,944		
	2H		5,630	10,672		
	Total	193	11,009	21,616	33,665	(62.9)
2001	1H	–	6,498	11,324	16,315	
	2H	–	–	11,455	–	
	Total	–	–	22,779	–	(55.7)

SOURCES: <sup>1</sup>DAWN, Office of Applied Studies, 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)

<sup>2</sup>DAWN, Office of Applied Studies, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2001 data are preliminary)

<sup>3</sup>New York State OASAS-funded and nonfunded treatment admissions

<sup>4</sup>New York City Police Department

<sup>5</sup>DEA

**Exhibit 4. Characteristics of Primary Heroin Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City by Mode of Administration: 2001**

<b>Demographic Characteristic</b>	<b>Percent Total (N=22,779)</b>	<b>Percent Using Heroin Intranasally (n=13,637)</b>	<b>Percent Injecting Heroin (n=8,358)</b>
Gender			
Male	74	74	74
Female	26	26	26
Age at Admission			
25 and younger	8	6	9
26–35	27	29	25
36 and older	65	65	65
(Average age)	(38.8 years)	(38.6 years)	(39.2 years)
Race			
Black	25	29	19
Hispanic	53	57	48
White	20	12	31
No Source of Income <sup>4</sup>	26	27	24
Some Criminal Justice Status	35	40	27
Readmissions	86	84	91
Age of First Use			
14 and younger	13	11	16
15–19	35	31	42
20–29	35	38	32
30 and older	17	20	10
Secondary Drug of Abuse			
Alcohol	12	12	11
Marijuana	7	9	5
Cocaine	34	30	40

<sup>1</sup> Figures on this table may differ somewhat from figures cited on other tables because computer runs may have been executed at different times and files are being updated continuously.

<sup>2</sup> State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup> Nonfunded programs receive funding through sources other than OASAS.

<sup>4</sup> Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: OASAS

**Exhibit 5. Semiannual Marijuana Trends for Selected Indicator Data in New York City by Number: 1991–2001**

Year	Semiannual/ Annual Period	Marijuana Emergency Department Mentions <sup>1</sup>	Treatment Admissions: Marijuana as Primary Drug of Abuse <sup>2</sup>	Cannabis Arrests <sup>3</sup>
1991	1H	605	687	4,762
	2H	591	687	
	Total	1,196	1,374	
1992	1H	896	953	5,078
	2H	1,134	1,003	
	Total	2,030	1,956	
1993	1H	1,011	1,207	6,145
	2H	1,081	1,497	
	Total	2,092	2,704	
1994	1H	1,181	2,031	8,815
	2H	1,408	1,793	
	Total	2,578 <sup>4</sup>	3,824	
1995	1H	1,516	2,171	12,357
	2H	1,460	2,159	
	Total	2,976	4,330	
1996	1H	1,723	2,845	18,991
	2H	1,848	3,185	
	Total	3,571	6,030	
1997	1H	1,939	3,794	27,531
	2H	1,900	3,657	
	Total	3,839	7,451	
1998	1H	1,986	4,554	42,030
	2H	1,696	4,473	
	Total	3,682	9,027	
1999	1H	1,799	5,119	43,122
	2H	1,692	5,100	
	Total	3,491	10,219	
2000	1H	1,856	5,664	60,455
	2H	1,688	5,487	
	Total	3,544	11,151	
2001	1H	1,984	6,677	27,693
	2H	—	6,593	
	Total	—	13,270	

SOURCES: <sup>1</sup> DAWN, Office of Applied Studies, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2001 data are preliminary)

<sup>2</sup> New York State OASAS-funded and nonfunded treatment admissions

<sup>3</sup> New York City Police Department

<sup>4</sup> DAWN, Office of Applied Studies, SAMHSA (the total has been adjusted according to revised data, but the half-year totals have not been revised)

**Exhibit 6. Characteristics of Primary Marijuana Admissions<sup>1</sup> to State-Funded<sup>2</sup> and Nonfunded<sup>3</sup> Treatment Programs in New York City: 2001**

<b>Demographic Characteristic</b>	<b>Percent of All Treatment Programs (N = 13,270)</b>
Gender	
Male	81
Female	19
Age at Admission	
20 and younger	38
21–25	26
26–35	23
36 and older	13
(Average age)	(24.9 years)
Race	
Black	56
Hispanic	31
White	10
No Source of Income <sup>4</sup>	21
Some Criminal Justice Status	71
Readmissions	48
Age of First Use	
14 and younger	49
15–19	41
20–29	8
30 and older	2
Secondary Drug of Abuse	
Alcohol	44
Cocaine	11

<sup>1</sup> Figures on this table may differ somewhat from figures cited on other tables because computer runs may have been executed at different times and files are being updated continuously.

<sup>2</sup> State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

<sup>3</sup> Nonfunded programs receive funding through sources other than OASAS.

<sup>4</sup> Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State OASAS

# Drug Use in Philadelphia, Pennsylvania

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## ABSTRACT

*Although the rate of cocaine emergency department (ED) mentions per 100,000 population declined from 1999 through the first half of 2001, cocaine was still the most mentioned drug in Philadelphia EDs. In 2001, 83 percent of the 2,086 cocaine treatment admissions were crack smokers. According to the DEA Domestic Monitor Program, heroin purity in Philadelphia remained the highest in the national study, at 71 percent during the first half of 2001. Also in the first half of 2001, the rate of heroin ED mentions per 100,000 population (53) was the highest DAWN rate reported in Philadelphia in at least 12 years. The average number of drugs mentioned in ED cases did not continue to increase after doing so from the first half of 1998 through the second half of 2000. However, the average number of drugs detected in decedents by the medical examiner continued to increase through the second half of 2001. In the first half of 2001, deaths with the presence of drugs were higher than in any other half-year since mortality records began in 1970. There was an 18-percent decline from that peak in the second half of 2001. As of December 31, 2001, for the fifth consecutive half-year, heroin/morphine detections in decedents exceeded cocaine detections. The number of deaths with the presence of heroin/morphine decreased by 5 percent from 2000 to 2001. The preliminary rate of marijuana ED mentions in the first half of 2001 was the highest among CEWG cities. Focus groups reported the increased availability and use of commercial blunt wrappers made of cigar tobacco leaves as an alternative to buying cigars for wrapping marijuana and other additives. Participants also reported increased use of oxycodone products and alprazolam.*

## INTRODUCTION

### Area Description

Philadelphia, the largest city in the State, is located in the extreme southeastern corner of Pennsylvania. The 2000 U.S. census count of 1,517,550 Philadelphia residents represents a 7-percent increase from the

1990 census count, despite interim estimates of population decline. The 2000 Philadelphia population was 45 percent White, 43.2 percent African-American, 0.3 percent American Indian and Alaska Native, 4.5 percent Asian, 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 July 1, 1994, to June 30, 2001. Data for the first half of 2001 are preliminary.
- **Treatment admissions data** for programs in Philadelphia County were provided by the Pennsylvania Department of Health, Client Information System, for July 1, 1995, through December 31, 2001. Data from January 1, 2001, are preliminary and subject to revision because of the treatment reporting schedule, which results in frequent delays of up to 1 year between a treatment admission and the reporting of that event.
- **Drug-related mortality data** were provided by the Philadelphia Medical Examiner (ME) Office. These data cover mortality cases with toxicology reports indicating that sufficient quantities of drugs have been a potential factor in deaths. The time period is January 1, 1995, through December 31, 2001. (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.

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The Philadelphia ME also distinguishes between persons who appeared to have a lethal reaction to what might be considered a light or moderate amount of drugs and persons whose toxicology reports showed a high level of drugs in their systems.)

- **Arrestee urinalysis data** on booked adult arrestees were derived from Arrestee Drug Abuse Monitoring (ADAM) program reports for January 1, 2001, through September 30, 2001.
- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA) through June 30, 2001.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating Office on AIDS cases from November 1, 1981, to December 31, 2001.

In addition to these sources, this report draws on focus group discussions with former drug users currently enrolled in treatment programs, as well as outreach workers assigned to homeless populations, substance abusers, and persons with human immunodeficiency virus (HIV) infection.

#### DRUG ABUSE PATTERNS AND TRENDS

Preliminary DAWN ED data for the first half of 2001 show the average number of drug abuse mentions per hospital episode remained relatively stable, at 1.89 drugs per episode (exhibit 1). The number of single-drug DAWN ED episodes increased significantly from the first half of 2000 to the first half of 2001, when they totaled 5,296 episodes. While the number of multidrug ED episodes increased from the first half of 2000 to the first half of 2001, the change was not significant. "Drug dependence" and "psychic effects" were reportedly the two motives for drug use that increased most, based on DAWN ED episode data from the last half of 1996 to the first half of 2001.

The average number of drugs detected in decedents by the ME increased in the second half of 2001 for the eighth consecutive half-year, to 2.91 (exhibit 2). That figure was the highest average on record. Mortality cases with positive toxicology reports decreased less than 3 percent, from 680 in 2000 to 661 in 2001. Of the 661 deaths in 2001, adverse reactions to drugs accounted for 56 percent, overdose for 4 percent, and violence for 16 percent; 24 percent of the deaths were attributed to other causes.

White males accounted for the largest proportion of drug-positive decedents in the last 11 half-year periods through December 2001, accounting for 34–44 percent of all cases. Whites, as a group, constituted the plurality of death cases from 1995 through 2001, ranging from 46 to 54 percent. Males accounted for 76 percent of all deaths with positive toxicology reports in 1999, 74 percent in 2000, and 76 percent in 2001. In 2000, males accounted for 76 percent of drug-positive deaths among Whites, 73 percent among African-Americans, and 84 percent among Hispanics. Among females, Whites accounted for the largest number of drug deaths from 1996 through 2001 (45–55 percent), followed by African-Americans (34–55 percent). Hispanics accounted for 3–8 percent, and Asians for 0–2 percent, of all female deaths.

In the ADAM study in the first 9 months of 2001, booked arrestees in Philadelphia ranked eighth highest in the 31-city panel in positive urinalysis results for multiple drugs and fifth highest with respect to the NIDA-5 drugs (cocaine, opiates, marijuana, methamphetamine, and phencyclidine [PCP]). The latter is particularly remarkable considering the lack of methamphetamine cases in this city. In the ADAM measurement of heavy drug use of a NIDA-5 drug, Philadelphia ranked second (72.6 percent within the past 30 days) among 28 cities (median=40.6 percent). In the measurement of risk for dependence, Philadelphia ranked second (52.1 percent) among 28 cities (median=39.4 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 ( $n=2.06$ ). In the second half of 2001, the average was 1.97 drugs of abuse.

In spring 2002, focus groups consisting of drug users who were new to treatment estimated that of the regular drug-using population, 12 percent use just one drug per day, 44 percent use two, 28 percent use three, and 16 percent use four or more different drugs per day.

#### Cocaine and Crack

Cocaine/crack remains the major drug of abuse in Philadelphia. The estimated rate of cocaine/crack ED mentions in the Philadelphia primary metropolitan statistical area (PMSA) increased from 106 per 100,000 population in the second half of 2000 to 118 in the first half of 2001, although the change was not significant (exhibit 1). The preliminary rate in the

first half of 2001 ranked the second highest among the 21 metropolitan areas in DAWN. From the first half of 2000 to the first half of 2001, the rate of cocaine ED mentions among persons age 45–54 increased significantly, from 77 to 112 per 100,000. Rates continued to be higher among males than females and, by age group, were highest among persons age 26–29. In the first half of 2001, the rate of cocaine ED mentions per 100,000 population was 159 for males and 386 for persons age 26–29.

ME data show that cocaine was present in 4 percent fewer cases in 2001 than in 2000 (exhibit 2). Despite this decrease, the presence of cocaine in total drug-positive toxicology reports remained stable at 45–47 percent from 1998 through 2001, substantially lower than the peak of 67 percent in the first half of 1993.

Another drug(s) was found in 89 percent of all ME cocaine-positive cases in the second half of 2001, with heroin/morphine being present in 37 percent of cocaine-positive toxicology reports. Cocaine in combination with alcohol remains a significant finding in cocaine-positive toxicology reports. In 2000 and 2001, 37 and 23 percent, respectively, of such reports revealed the presence of alcohol, with 32 percent indicating this combination in the second half of 2001. ME toxicology unit staff view alcohol as a particularly dangerous substance when it is used in combination with substances that normally do not produce death.

The preliminary treatment data for 2001 show that cocaine as a primary drug accounted for 30 percent of all treatment admissions, down from 33 percent in 2000 (exhibit 3). Cocaine treatment admissions peaked in 1991, at 63 percent.

Males accounted for 59 percent of primary cocaine drug treatment admissions in 2001 (exhibits 3 and 4). African-Americans accounted for 82 percent, Whites for 11 percent, Hispanics for 5 percent, and Asians and others for 2 percent.

In 2001, 83 percent of the 2,086 primary cocaine admissions reported smoking the drug, 15 percent reported intranasal use, and only 2 percent reported injecting (exhibit 4). Since the first half of 1990, at least 80 percent of cocaine treatment admissions have reported smoking the drug. Of all male cocaine admissions in 2001, nearly 80 percent reported smoking the drug; the comparable figure for females was 87 percent.

In the first half of 2001, the Philadelphia ADAM site reported that 80 percent of female adult urine screens were positive for cocaine, the highest percentage among

CEWG sites included in ADAM. Nearly 36 percent of the adult male arrestees in the second and third quarters of 2001 also tested cocaine-positive, the third highest level among CEWG sites in the ADAM study.

During spring 2002 focus group sessions, former drug users new to formal treatment indicated that they perceived no reduction in the number of crack users, compared with either the previous autumn or 1 year earlier. Crack is still considered as easy to acquire as it has been since the beginning of the epidemic 14½ years ago.

The predominant form of crack sold in Philadelphia is "ready rock," which costs \$5 and ranges in size from 6 to 9 millimeters. The size has changed very little since 1996, when it was larger. Some dealers offer a smaller rock (called a "trey") for \$3, sometimes selling two treys for \$5. Treys range in size from 3 to 5 millimeters. Shapes of crack range from circular to bumpy circular to parallelogram. Powder cocaine is not as readily available in small (\$5) quantities, but \$10 and \$20 bags are quite common. Spring 2002 participants estimated that about 68 percent of powder cocaine buys are for intranasal use, 17 percent are injected straight, and 15 percent are injected in a "speedball."

Crack users continue to report frequent use of 40-ounce bottles of malt liquor, beer, or other drugs, including alprazolam (Xanax), diazepam (Valium), marijuana, or cigarettes. Powder cocaine, oxycodone, and methadone were less frequently mentioned as drugs used with crack. Brand names for crack, reported for the first time by autumn 1997 focus groups, have been consistently reported by focus groups through the spring of 2002. Still, it is much more common for crack to be sold in colored packets than with brand names or logos. The spring 2002 focus groups continued to report an aging crack-using population, mostly in their late twenties through thirties, with fewer new users. The spring 2002 groups estimated the crack-using population as 50 percent African-American, 19 percent White, 27 percent Hispanic, and 4 percent Asian.

### Heroin and Morphine

According to preliminary DMP data, the street-level purity of heroin in Philadelphia was 71 percent in the first half of 2001, the highest of all cities in the program for the 4½ years. The national average for heroin purity ranged from 36 to 42 percent from 1997 through 2000 and was 35 percent during the first half of 2001. The average price per milligram pure in Philadelphia was 38 cents in the first half of 2001—the third least costly in the study—compared with the national average of \$1.05 per milligram pure.

From 1994 to 2000, the rate of heroin ED mentions per 100,000 population increased significantly, from 53 to 96. The preliminary rate in the first half of 2001 was 53, the sixth highest among the CEWG sites (exhibit 1). Between the first halves of 2000 and 2001, the rate of heroin ED mentions increased significantly among 26–29-year-olds (from 87 to 203) and for those age 55 and older (from 2 to 4). The rate among males continued to be more than twice that for females (77 vs. 31) and was highest among 26–29-year-olds.

For the 5 half-years ending in December 2001, positive heroin/morphine toxicology reports occurred in 46 to 51 percent of all deaths with the presence of drugs (exhibit 2). White males accounted for 54 percent of all positive heroin/morphine toxicology reports in the second half of 1999, 45 percent in each half of 2000 and in the first half of 2001, and 50 percent in the second half of 2001.

As a proportion of all drug-positive deaths in the first half of 2001, positive heroin/morphine toxicology reports accounted for 57 percent of White male cases, 41 percent of African-American male cases, 70 percent of Hispanic male cases, 51 percent of White female cases, 29 percent of African-American female cases, and 75 percent of Hispanic female cases. As a proportion of all drug-positive deaths in the second half of 2001, positive heroin/morphine toxicology reports accounted for 60 percent of all White male cases, 35 percent of African-American male cases, 61 percent of Hispanic male cases, 38 percent of White female cases, 22 percent of African-American female cases, and 75 percent of Hispanic female cases. Heroin/morphine was also detected in the only Asian female case in the second half of 2001.

Toxicology reports detecting the presence of heroin/morphine do not indicate a disproportionate number of deaths among younger persons. Since the mid-1990s, fewer than 16 percent of the heroin-positive decedents have been age 25 or younger. In the latter half of 1999, 8 percent of heroin-positive decedents were in this young age group; in the two halves of 2000, 6 and 15 percent, respectively, were in this age group. In each half of 2001, 15 percent were 25 or younger.

During the 4 half-years from January 2000 through December 2001, heroin/morphine alone was identified in 16, 12, 11, and 11 percent of the respective heroin/morphine toxicology reports. Cocaine, in addition to heroin/morphine, accounted for 36, 45, 68, and 35 percent, respectively, during these periods; 48, 43, 21, and 54 percent of the respective heroin/morphine reports indicated the presence of other drugs from January 2000 through December 2001.

In 2001, heroin admissions outnumbered those for alcohol, and heroin as primary drug of choice ranked second behind cocaine (exhibit 3). Heroin admissions accounted for 26 percent of all admissions in 2001 and 22 percent in 2000. During 2001, 65 percent of all heroin treatment admissions were male (exhibit 5).

As depicted in exhibit 5, the preferred routes of administration for heroin, illegal methadone, and other opiates have been relatively stable among treatment admissions. Within the “swallowed” route, the increasing numbers from the first half of 1999 through the first half of 2001 could suggest that users of pharmaceutically produced synthetic opiates have been entering treatment. (The data for the second half of 2001 are subject to revision and will undoubtedly reflect higher levels in the next report.)

In the second and third quarters of 2001, 11.1 percent of adult male arrestees in the Philadelphia ADAM study tested positive for opiates. This was the fourth highest percentage among CEWG sites included in ADAM. Also, in the first half of 2001, 30 percent of adult female arrestees tested opiate-positive, the highest level in the CEWG/ADAM sites.

The spring 2002 focus group participants identified 74 percent of the heroin packaging brands identified by the autumn 2001 group. Only two new brands were mentioned by the spring 2002 respondents, as opposed to 18 new brands last autumn. The \$10 bag 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 in their midteens; the autumn 2001 and spring 2002 groups stated that new users begin in their late teens. All groups since autumn 2000 have reported that the average heroin user injects the drug five times per day.

Speedballing was more likely to be mentioned during the heroin rather than the cocaine section of focus group discussions. This could suggest that it is less of a step for regular heroin users to add cocaine to their drug-taking habits than for cocaine users to consider adding heroin and injecting to their drug-taking routines. The autumn 2001 focus groups estimated that 42 percent of heroin users were speedballers; the spring 2002 groups estimated that 30 percent of heroin users were speedballers.

### **Other Opiates**

The diversion and misuse of oxycodone products, including OxyContin, continue to receive local media attention. Preliminary rates of DAWN ED mentions of



narcotic analgesics and narcotic analgesic combinations per 100,000 population have been trending up, reaching 33 in the first half of 2001 (exhibit 1). The rates for both narcotic analgesics and narcotic analgesic combinations increased significantly from the first half of 2000 to the first half of 2001. The 658 oxycodone/combinations ED mentions in Philadelphia in the first half of 2001 was the highest across all CEWG areas.

There were 10 positive toxicology ME reports for oxycodone for the 2½ years from January 1995 through July 1997 (exhibit 2). In the subsequent 2½ years, ending December 31, 1999, there were 58 positive toxicology reports for oxycodone, followed by 102 positive toxicology reports for oxycodone in the subsequent 2 years ending December 31, 2001. Spring 2002 focus groups reported the spread of oxycodone use to all racial/ethnic groups, an even split between male and female users, the youngest age of new oxycodone users as 15, and oxycodone use in combination with heroin or crack.

Hydrocodone mentions in mortality cases have also increased (exhibit 2). There were 13 positive toxicology ME reports for hydrocodone for the 2½ years from June 1995 through July 1997. In the subsequent 2½ years ending December 31, 1999, there were 32 positive toxicology reports for hydrocodone, followed by 65 positive toxicology reports for the drug in the subsequent 2 years ending December 31, 2001.

### **Marijuana**

The rate for marijuana ED DAWN mentions per 100,000 population in Philadelphia increased significantly from 51 in the first half of 2000 to 59 in the first half of 2001 (exhibit 1). The most dramatic (but nonsignificant) change within age groups was among 18–19 year-olds; the rate for this group in the first half of 2000 was 157 per 100,000 population, compared with 255 in the first half of 2001.

Marijuana was the primary drug of abuse in 14 percent of treatment admissions in 2000 and 15 percent in 2001 (exhibit 3). Among all 2001 admissions, marijuana was mentioned by 37 percent as a primary, secondary, or tertiary drug. Among primary marijuana admissions, males accounted for 77 percent and African-Americans for 66 percent. When marijuana was identified as the primary drug of abuse in 2001, the average number of drugs noted as problematic was 1.87.

The ADAM data on adult male arrestees for the second and third quarters of 2001 indicated that 43 percent tested positive for marijuana at time of arrest. This was the fifth highest percentage among CEWG/ ADAM sites.

Forty-eight percent of the males reported marijuana use in the 30 days prior to arrest. In the first half of 2001, 24 percent of the adult female arrestees tested marijuana-positive.

Focus group participants and outreach workers continued to report that marijuana use is widespread throughout Philadelphia. Since 1992, focus groups have referred to marijuana use in the form of blunts, which are nicknamed "phillies" (after the most popular cigar brand used in making blunts) or "Ls" (more commonly used than phillies in the last year).

In autumn 2001 focus group sessions, participants mentioned for the first time the availability and use of commercially marketed cigar tobacco leaves, known as "blunt wraps," for wrapping marijuana (and other additives) into a blunt. This product is attractive to users because it is available in several different flavors; is less costly than cigars; and eliminates the effort of cutting off the ends of a cigar, splitting it open lengthwise and emptying the contents. Participants in the spring 2002 focus groups indicated that blunt wraps were far more available than they were in the previous autumn. Businesses that are open into the late evening have become increasingly popular as outlets for blunt wraps. The spring 2002 focus groups estimated that 40 percent of marijuana users smoke blunts made from cigars, 39 percent use blunt wraps, and 21 percent use cigarette rolling papers and smoke joints.

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). Users who were new to treatment in the spring of 2002 estimated that 30 percent of blunts are laced with PCP and 20 percent with crack (called "Turbos"). Blunt users commonly ingest beer, alprazolam, and/or cough syrup. Some users like to dip the blunt in honey to add flavor and slow the burn, which is reported as being desirable.

### **Other Drugs**

PCP began gaining popularity as an additive to blunts in 1994. Users describe its effects as making them hallucinate or "feel invincible," "crazy," "numb," or "violent." The DAWN ED rate for PCP/combinations was 8 per 100,000 population in both the second half of 2000 and the first half of 2001 (exhibit 1). This compares with a rate of 4 per 100,000 in the second half of 1996. Between the first halves of 2000 and 2001, the rate of PCP ED mentions per 100,000 increased significantly among males (from 71 to 80), females (31 to 38), and 26–29-year-olds (79 to 185). In the first half of 2001, Philadelphia ranked third among CEWG areas in the number of PCP ED mentions, which increased

significantly from the first half of 2000 (from 233 to 380).

The 60 PCP detections by the ME in decedents in 2001 constituted the highest annual total on record. The ADAM data on adult arrestees for the second and third quarters of 2001 indicated that 6.6 percent of adult male arrestees tested PCP-positive, the second highest percentage among 31 ADAM sites.

In 2001, PCP was mentioned as the primary, secondary, or tertiary drug by 3.2 percent of all treatment admissions. When PCP was identified as the primary drug of abuse in 2001, the average number of drugs noted as problematic was 2.06. At \$5 for a small bottle, PCP is easier to obtain than ever. PCP is most commonly available on mint leaves, but it is also available as a liquid.

Methamphetamine/amphetamine remains a relatively minor problem in Philadelphia. The DAWN ED rates per 100,000 population for methamphetamine in Philadelphia were 1 each in 1998, 1999, 2000, and the first half of 2001. DAWN ED amphetamine rates rose (insignificantly) from 3 mentions per 100,000 population in 1994 to 10 mentions in 2000. Methamphetamine or amphetamine was present in a low of 5 decedents in 2000 and a high of 12 decedents in 1997, 1999, and 2001 (exhibit 2). Treatment admissions for methamphetamine/amphetamine as the primary drug of abuse in 1998–2001 were 31, 33, 27, and 31, respectively (exhibit 3). Focus group members indicated that methamphetamine is still difficult to obtain, is not sold outdoors, requires a connection, and is not very popular.

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. Increasing numbers of prescription drug mentions among decedents from 2000 to 2001 included propoxyphene (Darvon), oxycodone and hydrocodone products, diazepam, alprazolam, oxazepam (Serax), and temazepam (Restoril) (exhibit 2). However, since the spring of 2000, all focus groups have reported that alprazolam has overtaken diazepam as the “most popular pill” on the street.

DAWN ED mentions for methylenedioxymethamphetamine (MDMA, or “ecstasy”) numbered 19, 27, 89, and 141, for the 4 years beginning with 1997, and the difference between 1998 and 2000 was statistically significant. MDMA was present in four mortality cases

in the second half of 1999, the first time this drug was detected by the ME. MDMA was detected in 3 and 5 decedents, respectively, in the two halves of 2000, and in 8 and 11 decedents, respectively, during the two halves of 2001. Focus groups in the spring and autumn of 2000 described MDMA as highly potent and used in combination with heroin, alcohol, and/or cough syrup. Focus groups held since the spring of 2001 have reported that MDMA is used in combination with marijuana and lysergic acid diethylamide (LSD), which better describes use in clubs or raves. In the last 1½ years, MDMA use has spread from Whites of college age and “typical clubgoers in their twenties” to African-Americans and Hispanics, and from teens to people in their thirties. MDMA sells for \$20–\$25 per dose.

Hospital ED mentions of ketamine numbered 5 in 1999 and 23 in 2000. Ketamine was detected in three decedents in the first half of 2000, the first time it appeared in Philadelphia mortality cases. No deaths with the presence of ketamine occurred in the second half of 2000, but there were two positive toxicology reports for the drug in the first half of 2001 and one in the second half. Focus group participants reported that ketamine is used in nightclubs; the drug usually sells for \$10 per tablet.

Gamma hydroxybutyrate (GHB) was mentioned in 53 DAWN ED cases in 1999 and 79 in 2000.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

As of December 31, 2001, Philadelphia recorded 14,521 cumulative AIDS cases among adults (exhibit 6). Among those cases, 5,324 involved injection drug users (IDUs). Another 808 were in the dual exposure category of IDUs who were also men who had sex with other men (MSM).

The Philadelphia AIDS Activities Coordinating Office reported a drop from the early 1990s to 2001 in the percentage of AIDS cases involving the MSM category. From the early 1990s through June 30, 2001 there had been a continual increase in the percentage of new cases among IDUs. However, the percentage of cases in the last half of 2001 closely matched the cumulative percentage for this risk group since November 1981. New cases with heterosexual contact as a risk factor continued to exceed the historical average. Heterosexual contact is the identified exposure category in nearly 16 percent of all AIDS cases to date, but it accounted for a little more than 35 percent of cases identified in calendar year 2001.

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**Exhibit 1. Rates of ED Mentions Per 100,000 Population in Philadelphia for Selected Drugs by Half-Year: Second Half of 1996–First Half of 2001<sup>1</sup>**

Major Drugs of Abuse	2H 1996	1H 1997	2H 1997	1H 1998	2H 1998	1H 1999	2H 1999	1H 2000	2H 2000	1H 2001
Total	284	291	311	335	330	337	338	308	308	341
Alcohol-in-Combination	77	80	80	89	91	91	93	85	86	94
Cocaine	118	116	123	140	135	130	130	110	106	118
Heroin	42	36	43	34	39	40	45	47	49	53
Marijuana	38	46	51	60	52	60	55	51	51	59
Narcotic Analgesics/Combinations	17	22	26	25	24	23	24	27	29	33
PCP/Combinations	4	5	5	6	6	7	5	5	8	8
Average Number of Drug Mentions per Episode	1.79	1.83	1.85	1.82	1.84	1.85	1.89	1.89	1.90	1.89

<sup>1</sup> Estimates for 2001 are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Semiannual Mortality Data in Philadelphia with the Presence of Selected Drugs as Detected by the Medical Examiner: January 1, 1995–December 31, 2001**

ME Identified Drugs	1995		1996		1997		1998		1999		2000		2001	
	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H
Cocaine	189	147	133	144	152	132	130	115	130	108	146	165	169	131
Heroin/Morphine	162	156	125	165	178	175	152	119	119	117	151	181	179	137
Amphetamine/Methamphetamine	6	4	7	4	5	7	1	5	9	3	1	4	8	4
Propoxyphene	21	8	14	13	16	26	9	12	12	10	21	18	27	16
Oxycodone	0	2	0	1	7	12	14	15	9	8	23	26	33	20
Hydrocodone	0	1	2	6	4	4	6	9	8	5	11	16	22	16
Sertraline	2	0	2	2	5	6	3	4	9	7	7	11	7	11
Fluoxetine	4	3	6	3	5	10	12	12	6	8	8	13	9	8
Diazepam	15	18	18	13	21	28	22	17	24	17	18	16	28	28
Alprazolam	5	3	11	6	9	8	9	10	3	5	9	7	18	13
Oxazepam	0	3	3	6	12	12	9	10	9	2	8	4	8	9
Temazepam	4	1	11	10	14	11	10	9	15	3	13	5	13	10
Total Deaths with the Presence of Drugs	340	292	261	304	296	311	275	259	289	244	326	354	363	298
Total Drugs Mentioned	694	560	522	609	641	635	573	555	641	562	781	864	985	867
Average Number of Drugs per Death	2.04	1.92	2.00	2.00	2.17	2.04	2.08	2.14	2.22	2.30	2.40	2.44	2.71	2.91

SOURCE: Philadelphia Medical Examiner Office

**Exhibit 3. Treatment Admissions by Primary Drug of Abuse: 1995–2001**

<b>Primary Drug</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>1</sup></b>
Cocaine	5,258	4,263	2,492	1,942	1,992	2,225	2,086
Alcohol	4,072	3,468	1,648	1,477	1,943	1,826	1,676
Heroin	3,020	2,523	1,581	920	1,199	1,466	1,780
Other Opiates	80	41	51	48	46	73	81
Marijuana	918	1,017	592	791	862	910	1,030
PCP	104	183	36	32	49	43	62
Other Hallucinogens	26	22	14	9	9	7	4
Methamphetamine/Amphetamine	56	41	27	31	33	27	31
Benzodiazepines	41	41	26	32	46	37	38
Tranquilizers	14	22	11	6	4	8	2
Barbiturates	21	25	8	13	8	3	13
Other Sedatives/Hypnotics	10	31	12	13	18	16	24
Inhalants	2	5	0	2	0	4	1
Over-the-Counter	4	2	4	7	24	5	2
Other (Not Listed)	169	148	53	17	1	60	113
<b>Total</b>	<b>13,795</b>	<b>11,832</b>	<b>6,555</b>	<b>5,340</b>	<b>6,234</b>	<b>6,710</b>	<b>6,943</b>

<sup>1</sup>Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

**Exhibit 4. Semiannual Cocaine Treatment Admissions in Philadelphia by Route of Administration and Gender: 1998–2001**

<b>Route of Administration and Gender</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>1</sup></b>
Smoked				
Male				
<i>N</i>	875	997	1,112	972
(%)	(79.3)	(81.3)	(81.5)	(79.6)
Female				
<i>N</i>	744	862	1,002	753
(%)	(88.7)	(85.7)	(88.4)	(87.1)
Intranasal				
Male				
<i>N</i>	168	172	198	212
(%)	(15.2)	(14.0)	(14.5)	(17.4)
Female				
<i>N</i>	70	120	104	95
(%)	(8.3)	(11.9)	(9.2)	(11.0)
Injected				
Male				
<i>N</i>	50	46	38	27
(%)	(4.5)	(3.8)	(2.8)	(2.2)
Female				
<i>N</i>	12	13	12	10
(%)	(1.4)	(1.3)	(1.1)	(1.2)
Other/Unknown				
Male				
<i>N</i>	10	11	16	10
(%)	(0.9)	(0.9)	(1.2)	(0.8)
Female				
<i>N</i>	13	11	15	7
(%)	(1.5)	(1.1)	(1.3)	(0.8)
Total Male				
<i>N</i>	1,103	1,226	1,364	1,221
(%)	(56.8)	(54.9)	(54.6)	(58.5)
Total Female				
<i>N</i>	839	1,006	1,133	865
(%)	(43.2)	(45.1)	(45.4)	(41.5)
<b>Total</b>	<b>1,942</b>	<b>2,232</b>	<b>2,497</b>	<b>2,086</b>

<sup>1</sup> Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

**Exhibit 5. Semiannual Heroin, Illegal Methadone, and Other Opiate Treatment Admissions in Philadelphia by Route of Administration and Gender: 1998–2001**

<b>Route of Administration and Gender</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>1</sup></b>
Injected				
Male				
<i>N</i>	379	1,101	870	733
(%)	(60.9)	(74.0)	(63.2)	(60.5)
Female				
<i>N</i>	169	576	408	376
(%)	(56.7)	(69.4)	(55.3)	(57.8)
Intranasal				
Male				
<i>N</i>	227	316	411	363
(%)	(36.5)	(21.2)	(29.9)	(30.0)
Female				
<i>N</i>	122	215	266	212
(%)	(40.9)	(25.9)	(36.0)	(32.6)
Swallowed				
Male				
<i>N</i>	3	32	45	51
(%)	(0.5)	(2.2)	(3.3)	(4.2)
Female				
<i>N</i>	2	19	42	34
(%)	(0.7)	(2.3)	(5.7)	(5.2)
Smoked				
Male				
<i>N</i>	9	27	37	36
(%)	(1.4)	(1.8)	(2.7)	(3.0)
Female				
<i>N</i>	3	14	11	11
(%)	(1.0)	(1.7)	(1.5)	(1.7)
Other/Unknown				
Male				
<i>N</i>	4	12	13	28
(%)	(0.6)	(0.8)	(0.9)	(2.3)
Female				
<i>N</i>	2	6	11	17
(%)	(0.7)	(0.7)	(1.5)	(2.6)
Total Male				
<i>N</i>	622	1,488	1,376	1,211
(%)	(67.6)	(64.2)	(65.1)	(65.1)
Total Female				
<i>N</i>	298	830	738	650
(%)	(32.4)	(35.8)	(34.9)	(34.9)
<b>Total</b>	<b>920</b>	<b>2,318</b>	<b>2,114</b>	<b>1,861</b>

<sup>1</sup> Subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

**Exhibit 6. Adult AIDS Cases in Philadelphia by Exposure Category: January 1, 2001–December 31, 2001, and Cumulative Totals Through December 31, 2001**

Exposure Category	January 1, 2001 to December 31, 2001		November 1, 1981 to December 31, 2001	
	Number	Percent	Number	Percent
IDU	411	(36.6)	5,324	(36.7)
Men/Sex/Men and IDU	29	(2.6)	808	(5.6)
Men/Sex/Men	288	(25.6)	5,791	(39.8)
Heterosexual Contact	394	(35.1)	2,288	(15.8)
Blood Products	0	(0.0)	92	(0.6)
No Identified Risk Factor	1	(0.1)	218	(1.5)
<b>Total Adult Cases</b>	<b>1,123</b>	<b>(100.0)</b>	<b>14,521</b>	<b>(100.0)</b>

SOURCE: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Drug Abuse Trends in Phoenix and Arizona

Ilene L. Dode, Ph.D.<sup>1</sup>

## ABSTRACT

*While most cocaine and crack indicators trended downward, those for treatment remained stable and prices were mixed. Oxycodone, hydrocodone, and other narcotic analgesic-related deaths rose substantially in the past 3 years, with a 23-percent increase from 1999 to 2000. A statewide survey of methadone treatment programs in June 2001 revealed that approximately 3.2 percent of admissions were addicted to OxyContin. Use of the Internet to purchase controlled pharmaceutical substances continued to be reported. Nearly one-quarter of calls to the Samaritan Regional Poison Center in 2001 were for club drugs, most frequently MDMA, GHB, PCP, LSD, Special K, and other hallucinogens such as jimson weed and ma huang. Methamphetamine indicators were relatively high. Poison center calls related to methamphetamine and amphetamine were identified twice as frequently as those for club drugs. Methamphetamine was identified in 105 drug-related deaths in 2000 and in 118 deaths from January through September 2001. The ADAM data reflected a steady upward trend in both male and female arrestees testing positive for methamphetamine. Amphetamine ED mentions have been steadily and significantly increasing. Native Americans die of alcoholism at more than seven times the rates of other Americans. The alcoholism death rate per 100,000 for all races in the United States is 6.3, compared with 46.5 for Native Americans.*

## INTRODUCTION

### Area Description

Maricopa County gained more residents in the 15 months after the 2000 census than any other county in the United States, according to the Bureau of the Census. An average of 5,600 people moved into the county each month. Currently in central Arizona, which includes the capital city of Phoenix and the 20 surrounding cities, there are more residents than in 21 other States. The population of Maricopa County (Phoenix) is 72 percent White, 21 percent Hispanic, 4 percent African-American, 2 percent Asian-American, and 1 percent other groups.

In the past decade, Arizona's population increased three times faster than that of the rest of the Nation, becoming home to more than 5.1 million people. The official census count, 5,130,632, was nearly 1.5 million more than in 1990. Racial and ethnic minorities were responsible for more than one-half of the State's total growth. Minorities now constitute 36 percent of the State's 5.1 million people, a gain from 28 percent a decade ago. The population of the State is 64 percent White, 25 percent Hispanic, 3 percent African-American, 5 percent Native American, 2 percent Asian-American, and 2 percent other groups. Since 1990, the Hispanic population has increased by 88 percent statewide. Latinos now total 1.3 million, or the equivalent of the population within the city limits of Phoenix.

In an article entitled "Indian Health Care: Separate, Unequal," Judy Nichols of the *Arizona Republic* presented data that contrast starkly with data for the majority population in the United States. Native Americans are dying at much higher rates than other Americans from accidents, alcoholism, diabetes, tuberculosis, homicide, and suicide. The average age at death for Native Americans is 55, compared with 72 for Whites. Native Americans die of alcoholism at more than seven times the rates of other Americans. The death rate per 100,000 population for Native Americans is 63.8 in the Phoenix area and 68.2 in Tucson. The highest rate (87.4 per 100,000) is in the Aberdeen Indian Health Services area.

### Data Sources

Sources used in this report are shown 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 1994 through the first half of 2001. Data for the first half of 2001 are preliminary.
- **Drug-related death data** were provided by the Maricopa County Medical Examiner (ME) Office for January 1994 through September 2001.

<sup>1</sup> The author is affiliated with EMPACT Suicide Prevention Center, Phoenix, Arizona.



- **Drug treatment data** were provided by three sources: the Treatment and Assessment Screening Center (TASC)'s Juvenile Probation Program Report (March 2002) and Adult Deferred Prosecution Program cumulative report (March 1989–March 2002); Terros, Inc.'s data on admissions to outpatient detoxification treatment (July 2001–April 2002); and the Arizona Department of Health Services (ADHS), Division of Behavioral Health Services, Bureau of Substance Abuse Treatment and Prevention Service's survey of OxyContin admissions to methadone treatment programs in the Treatment Episode Data Set (TEDS Report, 2001).
- **Arrestee drug testing data** for Phoenix were derived from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), for 2000 and the first three quarters of 2001 for males and the first two quarters of 2001 for females.
- **Drug price and purity data** were provided by the Phoenix Police Department Drug Enforcement Bureau, the Tucson Police Department, and local county sheriffs' offices, as well as the Drug Enforcement Administration (DEA) and the U.S. Customs Service.
- **Drug-related hotline call data** were provided by the Samaritan Regional Poison Center in a report entitled "Recreational Use/Human Exposure," 2000.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the DHS, Division of Disease Prevention, Office of Chronic Infectious Disease, for January 1980 through December 2001.
- **Survey data on teen substance abuse and risk behaviors** were provided by Sally J. Stevens, Ph.D., University of Arizona.
- **Native American health information** was derived from an article by Judy Nichols, "Indian Health Care: Separate, Unequal," *Arizona Republic*, April 14, 2002.

#### DRUG ABUSE PATTERNS AND TRENDS

##### Cocaine and Crack

Cocaine-related deaths ( $n=94$ ) for the first 9 months of 2001 reflect a projected decline of 25 percent, compared with all of 2000; however, combined

cocaine/morphine deaths (40) may remain stable when full-year data for 2001 are reported (exhibit 1).

Between 1994 and 2000, the number of cocaine/crack ED mentions increased 15 percent, with a 19-percent increase between 1998 and 2000, when there were 1,775 mentions. The slight decrease to 811 in the first half of 2001 did not represent a significant change from the 855 mentions in the first half of 2000 (exhibit 2a). In 1994, the rate of cocaine ED mentions per 100,000 population in Phoenix was 54, compared with 85 in 2000, an increase of nearly 70 percent; the rate in the first half of 2001 was 27 (exhibit 2b). The rate per 100,000 for Phoenix females in 1999 was 57, more than double that in 1994 (25); however, the 2000 rate declined to 48, a nonsignificant change.

African-Americans constitute 3 percent of the State population and represented an estimated 13 percent of ED cocaine mentions in the first half of 2001. Hispanics, who constitute 25 percent of the State population, represented 28 percent of ED cocaine mentions in the same time period.

Cocaine treatment admissions to the TASC Adult Deferred Prosecution Program have remained virtually unchanged, at 29.5 percent of cumulative treatment admissions since March 1989 (3,091 of 10,470) (exhibit 3a); this proportion is similar to that for the three previous reporting periods. As shown in exhibit 3b, cocaine admissions to the TASC Adult Standard and Intensive Probation Program totaled 124 (27.5 percent) in the quarter ending in March 2002, down slightly from the previous quarter. The Terros outpatient detoxification program reported that 13 percent of treatment admissions in 2000 were for cocaine abuse; the proportion declined to 9 percent in 2001 and remained stable through April 2002.

Phoenix ADAM weighted data revealed a decline in adult males testing positive for cocaine in the first three quarters of 2001 (27.5 percent) compared with 2000 (31.9 percent) (exhibit 4). There was little change for female arrestees. In 2000, 35.2 percent of adult female arrestees tested positive for cocaine, compared with 33.9 percent for the first half of 2001. Data for females were unweighted.

The ADHS, Division of Behavioral Health Services, Bureau of Substance Abuse Treatment and Prevention Services' TEDS Report shows the needs to be considered in prevention and early intervention. Sixty-four percent of treatment admissions in the behavioral health system were age 25–44, while the age at first use ranged from younger than 15 to age 17 for 41 percent of admissions.

Powder cocaine was consistently available throughout the Phoenix, Tucson, and Nogales areas of Arizona, according to the DEA. Wholesale cocaine was primarily sold in powder form in kilogram and half-kilogram pressed bricks wrapped in cellophane and packaging tape.

Retail cocaine has historically been sold in gram to ounce quantities. Street-level quantities of cocaine are usually sold in folded papers called “bindles,” small vials, or zip-lock Baggies. Prices in Phoenix for an “eightball” returned to \$120–\$150 after dropping to \$100–\$140 during the previous CEWG reporting period (exhibit 5). An ounce previously sold for \$500–\$650 in the Phoenix area; it now sells for \$400–\$800. It has been reported that a kilogram purchased for \$14,000 in Tucson sells for \$30,000 in Philadelphia.

Crack cocaine remained readily available in Phoenix and Tucson, with sales occurring in public places such as shopping center parking lots; the typical transaction involved a \$20 Baggie. Crack is usually packaged in clear plastic, but it is not unusual for crack to be held in a pocket with no packaging or even in the dealer’s mouth prior to sale.

Since the terrorist attacks of September 11, 2001, drug trafficking via commercial airlines has decreased. The DEA indicated that load vehicles and the Amtrak rail system are being used to transport currency. There was a report of sport-utility vehicles being modified with tinted windows, removal of the rear seats, and overload springs to prevent the vehicles from sagging from the weight of currency being transported into Mexico.

### **Heroin/Morphine**

The Maricopa County ME reported 137 morphine-related deaths for 2000 (exhibit 1), compared with 44 for 1989. It appears that morphine/heroin deaths peaked during 1999 and 2000. Deaths for the first 9 months of 2001 totaled 80, for a projected decrease of 22 percent for the year. Projected deaths involving the combination of heroin and methamphetamine, cocaine and methamphetamine, or all three drugs combined appear to be relatively unchanged from the previous year.

Heroin/morphine ED mentions remained stable at 841 for 2000, compared with 839 for 1999 (exhibit 2a). However, the number of heroin ED mentions increased 78 percent between 1994 and 2000 and nearly 48 percent between 1998 and 2000. The preliminary estimate of mentions for the first half of 2001 was 367, a nonsignificant decline from 2000.

The rate per 100,000 population was 40 in 2000; the preliminary rate for the first half of 2001 was 12 (exhibit 2b).

Outpatient admissions for heroin/morphine detoxification reflected a significant decline, from 70 to 46 percent among Terros clients. Heroin admissions to the TASC Adult Deferred Prosecution Program remained stable at 5.6 percent of the cumulative total (583 of 10,470) from March 1989 to March 2002 (exhibit 3a).

During 2000, 6.6 percent of ADAM male arrestees and 6.5 percent of female arrestees tested positive for opiates in Phoenix (exhibit 4). The percentage of male arrestees testing positive during the first three quarters of 2001 remained stable (at 5.8 percent), while the percentage of females increased to 9.0 percent in the first half of the year.

Black tar heroin remains the most frequently encountered form of heroin used by the well-established “traditional” community of heroin abusers in the Phoenix and Tucson metropolitan areas. Current street prices for heroin throughout Arizona are relatively unchanged, with the exception of the kilogram price. The Phoenix price increased from \$32,000–\$40,000 per kilogram during the previous reporting period to \$42,000–\$48,000 (exhibit 5). This information was based on a composite of prices provided by El Paso Intelligence Center (EPIC), DEA Phoenix Field Division offices, the U.S. Customs Service, Arizona Department of Public Safety, Maricopa County Sheriff’s Department, Phoenix Police Department, and Nogales Metro Task Force.

All of the DEA’s Domestic Monitor Program purchases of heroin were analyzed for calendar year 2001. The average cost per sample was \$86.48, with the price per milligram at \$0.37 and the average purity at 42 percent.

The DEA reported lower total arrests for the quarter because enforcement staff have been used in support of the Air Marshall program since the terrorist attacks on September 11, 2001. The Phoenix DEA Field Division suggested that a new unit in Mexico City—the Federal Agency of Investigations—may affect the availability of drugs brought across the border into Arizona.

### **Other Opiates/Narcotics**

Between June 20 and 26, 2001, the ADHS, Division of Behavioral Health Services, Bureau of Substance Abuse Treatment and Prevention conducted a survey

of admissions of OxyContin-addicted individuals in methadone treatment programs since January 2001. All 24 Arizona methadone treatment programs responded, including the Pascua Yaqui Tribal program. Methadone programs included 4 exclusively public programs, 10 exclusively private programs, 9 that serve both public and private clients, and 1 supported by tribal resources.

There were a total of 4,580 methadone program clients throughout the State during the survey period. Clients admitted to methadone treatment programs for primary OxyContin addiction numbered 101 in Phoenix, 42 in Tucson, and 5 in Bullhead City, Yuma, and Flagstaff, for a total of 148. One program identified the primary referral source as a local hospital. Another program in the Phoenix area, with 10 OxyContin admissions, identified the referral source as a physician who professed he was unaware he was prescribing OxyContin, a long-lasting, time-release form of oxycodone, to heroin addicts.

Data from the county medical examiner show a continuing rise in mentions of narcotic analgesics. These death mentions increased from 47 in 1996 to 318 in 2000, a 5.8-percent increase.

The Terros outpatient/detoxification program reported that 6 percent of treatment admissions were for “Other Narcotics,” which includes hydrocodone (Vicodin) and oxycodone (Percocet and OxyContin).

As shown in exhibit 2a, DAWN ED mentions for narcotic analgesics continued to increase to an estimated 540 for the first half of 2001, compared with 404 for the first half of 2000—a 33.7-percent increase. Narcotic analgesics combinations decreased insignificantly for the same comparison periods: 251 mentions in first half of 2000 compared with 292 in first half of 2001.

The Phoenix Diversion Group reported an ongoing investigation of an OxyContin prescription drug ring in the Phoenix area. Sources stated that 10 milligrams of OxyContin sold for \$6–\$10 per tablet and 40 milligrams sold for \$20–\$25 per tablet. Percocet and Vicodin ES sell for \$5 per tablet, diazepam (Valium) (10 milligrams) for \$4 per tablet, and methadone (10 milligrams) for \$5 per tablet.

## Marijuana

Marijuana remains readily available, despite large quantities seized by the U.S. Customs Service and the U.S. Border Patrol at the ports of entry and at remote sites along the international border. A majority of the bulk marijuana seizures along the border are

“abandoned loads” that have been stashed awaiting further transport. The size of an average load ranged from 200 to 500 pounds. Marijuana fields are generally seeded in March and April and harvested in June through August. The DEA reported that the current average height of a plant is approximately 2–2½ feet. Most of the seized marijuana has been of poor quality, with low tetrahydrocannabinol content, and has contained large numbers of seeds and stalks. No sinsemilla was identified. Sophisticated smugglers are able to compress the marijuana by hydraulic means into brick-shaped packages, which are then wrapped in plastic, paper, or both to create an airtight seal that maintains freshness.

The number of marijuana/hashish ED mentions increased significantly between the first half of 2000 (464) and the first half of 2001 (622) (exhibit 2a), an increase of 34 percent. Marijuana ED rates per 100,000 population increased nearly 138 percent from 1994 to 2000. The rate in 1994 was 23, compared with 51 per 100,000 in 2000, and was estimated at 21 in the first half of 2001 (exhibit 2b).

Marijuana was reported as the primary drug of choice by 18.5 percent of clients in the adult TASC Adult Deferred Prosecution Program during March 1989 through March 2002 (exhibit 3a). This reflects a decrease from the December 2001 report. Thirty-nine percent of juvenile admissions to the TASC Juvenile Probation Program were for marijuana treatment.

ADAM Phoenix data revealed that 39.4 percent of adult male arrestees tested marijuana-positive in the first three quarters of 2001, in contrast to 33.7 percent in 2000 (exhibit 4). There was no substantial change in the percentage of female arrestees testing positive for marijuana (around 24 percent in both periods).

Because of the steady availability, the price fluctuation of wholesale and retail quantities of marijuana is minimal. Price depends on location in Arizona, the number of middlepersons, and the size of the purchase. There were no reported price changes during the current reporting period. In Phoenix, the price of 1 ounce of marijuana ranged from \$75 to \$100 in July–October 2001 (exhibit 5). Intelligence sources state that marijuana has been placed in storage facilities at the border in Mexico and Arizona waiting to be transported. It is speculated that traffickers still hesitate to transport large amounts of marijuana because of the increased border security checks on vehicles since September 11, 2001.

The U.S. Customs Service reported that Mexican children are being used as body-carriers for marijuana and cocaine through the Port of Entry at

Nogales, Arizona. Children have been caught hiding approximately 5 pounds of cocaine or marijuana on their bodies. The children were well-dressed and paid \$100 for each trip.

### Stimulants

Mortality data projected a 49.8-percent increase for methamphetamine-related deaths in 2001 (exhibit 1). The Maricopa County ME reported a total of 51 deaths in 1998, 75 in 1999, 105 in 2000, and 118 for the first 9 months of 2001.

The number of methamphetamine ED mentions decreased from 802 in 1994 to 341 in 1999 (exhibit 2a). Methamphetamine ED mentions in 2000 totaled 600, a 76.0-percent increase from 1999. The estimated mentions for the first half of 2001 (249) did not differ significantly from the first half of 2000 (269 mentions). A comparison of ED methamphetamine mentions per 100,000 population for the first half of 2000 (13) with the preliminary rate for the first half of 2001 (8), showed no significant change (exhibit 2b).

An examination of amphetamine ED mentions from 1994 to 2000 reflects a significant increase of 64 percent, from 402 mentions in 1994 to 661 in 2000. In the first half of 2001, there were 249 mentions. The rate of amphetamine ED mentions per 100,000 population was 11 for the first half of 1998, compared with 13 for the first half of 2001 (exhibit 2b).

A statistical summary of the TASC Adult Deferred Prosecution Program revealed that 26.7 percent (2,797) of the 10,470 treatment admissions from March 1989 through March 2002 were for methamphetamine abuse (exhibit 3a). Admissions to the TASC Juvenile Probation Program for methamphetamine treatment decreased from 11 to 7 percent from the third to the fourth quarter of 2001. Seven percent of admissions to Terros, Inc., were for methamphetamine detoxification.

The ADAM adult arrestee data show progressively increasing numbers testing methamphetamine-positive. In the first three quarters of 2001, 25 percent of the adult males tested methamphetamine-positive, compared with about 19 percent in 2000 (exhibit 4). Among female arrestees in Phoenix, 29 percent tested positive in the first half of 2001, compared with 24 percent in 2000.

Methamphetamine remains widely available throughout most of Arizona in the crude, brownish Mexican

form with a purity range of 20–40 percent. “Ice” or “glass” methamphetamine has a much higher purity level, at 95–99 percent.

The DEA reported that the Sierra Vista Resident Office received information about alleged “bubble-gum” methamphetamine that appeared similar to a cube of pink bubblegum. The substance was described as having a tacky or “goosey” consistency, possibly because it was not yet dried. The Tucson Police Department bought an eightball of this substance for \$260. The normal street price for an eightball is \$140–\$160. Some persons have questioned whether the bubblegum guise is a deliberate marketing effort to appeal to a younger group of users. It was reported that knowledgeable methamphetamine users tend to avoid methamphetamine with a pinkish cast, assuming that it contains excess red phosphorus.

The DEA, local police departments, and county sheriffs’ offices have reported methamphetamine prices, which vary depending on location in the State. A kilogram sells for \$14,500 in Phoenix (exhibit 5) and \$10,000–\$18,000 in northern Arizona and Tucson. A gram sells for \$48–\$55 in Phoenix, \$60–\$100 in Tucson, and \$45–\$120 in northern Arizona. Prices are unchanged from the previous CEWG reporting period.

Methamphetamine is produced locally and imported from California and Mexico. Abuse of methamphetamine involves both self- and other-directed violent and destructive behavior. Users can be extremely paranoid, and it is not unusual for them to be heavily armed.

The DEA reported that clandestine methamphetamine operators have stolen railroad track switches to obtain elemental lithium metal. A track switch contains approximately 3 grams of lithium metal. These thefts leave remote railroad tracks in rural Arizona in a dangerous condition.

### Other Drugs/Club Drugs

Club drugs are readily available throughout Arizona. The most frequently abused are methylenedioxymethamphetamine (MDMA or ecstasy), lysergic acid diethylamide (LSD), ketamine (“Special K”), nitrous oxide (“whippits”), and gamma hydroxybutyrate (GHB). In 2000, nearly one-quarter of the calls to the Samaritan Regional Poison Center were for club drugs, most frequently MDMA, GHB, PCP, LSD, and Special K.

MDMA is second only to marijuana in use by all demographic populations. The drug is usually purchased at raves, bars, and clubs that cater to persons of college-age and it has become increasingly acceptable among the mainstream population. Ecstasy wholesale prices increased slightly, to \$5.50–\$10.50 per tablet. Retail prices were \$15–\$25 per tablet.

Several sources reported that various drugs with hallucinogenic properties are readily available throughout the State, including peyote, LSD, phen-cyclidine (PCP), and ketamine. LSD hits reportedly sell for less than the price reported in December 2001. In December 2001, the price was \$4 for one blotter hit. Currently, one blotter hit sells for \$2–\$3 retail and \$140–\$150 for one bottle (90 dosage units).

DAWN ED mentions for MDMA increased 77.4 percent from the second half of 2000 (31) to the first half of 2001 (55) (exhibit 2a). LSD mentions decreased 38.5 percent over the same period, while PCP mentions increased 60 percent to total 32 in the first half of 2001. The Maricopa County Sheriff's office arrested a man who had allegedly bitten off his 2-year-old son's thumb after taking several doses of PCP. GHB mentions for the first half of 2001 (10) were double those for the second half of 2000 (5), an increase of 100 percent.

Reported prices for GHB were \$5–\$10 per dose (1 teaspoon), \$425 for 25 pounds, \$3,200 for a 55-gallon drum wholesale, and \$4,300 for a 55-gallon drum retail.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Through December 2001, 7,851 AIDS cases were diagnosed in Arizona (exhibit 6). Of this number, 5,458 (70 percent) were identified in Maricopa County (Phoenix). Maricopa County also accounted for 3,723 (74 percent) of the State's 5,039 HIV infection cases.

Among the Arizona AIDS patients since 1981, Whites account for 72 percent, African-Americans

for 8 percent, Hispanics for 17 percent, Native Americans for 3 percent, and Asian/Pacific Islanders for fewer than 1 percent. The modal age range remains 30–39 years (45 percent,  $n=3,563$  cases). Of the 7,810 adult/adolescent (excluding pediatric) cases, males account for 91 percent and females for 9 percent.

Among the male adult/adolescent AIDS patients, 710 (10.0 percent) are injection drug users (IDUs) and 826 (11.6 percent) are classified as homosexual or bisexual IDUs; among the adult/adolescent females, 249 (35.4 percent) are IDUs. In total, injection drug use is the mode of exposure in 1,785 AIDS cases (22.8 percent).

Of the individuals with HIV infection, 4,429 are adult/adolescent males and 698 are adult/adolescent females. Of these, 486 (11.0 percent) of the males and 213 (30.5 percent) of the females are IDUs, and 411 (9.3 percent) of males are homosexual or bisexual IDUs. Injection drug use is the mode of exposure in 1,110 HIV cases (21.7 percent) overall.

#### TEEN SURVEY

A study conducted by Sally J. Stevens, Ph.D., entitled "The Teen Substance Abuse Treatment Program: Program Design, Treatment Issues and Client Characteristics" included data on risky sexual behavior. Study subjects included 109 male (75 percent) and female (25 percent) adolescents. Ninety-one percent of participants had engaged in sex, 19 percent did not have access to birth control, 27 percent of the females had been pregnant, 14 percent of males had impregnated a female, and 48 percent had parents or guardians who had not spoken with them about HIV or AIDS.

Adolescents were surveyed on their use of condoms. Seventy-five youth reported having sex within the 90 days prior to the baseline interview. These youth engaged in sex an average of 11 times, and used protection an average of only 6 times. This finding certainly stresses the need for adolescent substance abuse treatment personnel to incorporate HIV/AIDS education into the program curriculum.

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**Exhibit 1. Number of Drug-Related Death Mentions in Maricopa County (Phoenix) by Drug: 1994–2001**

<b>Drug</b>	<b>1994<sup>1</sup></b>	<b>1995<sup>2</sup></b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001<sup>3</sup></b>	<b>Projected Change— 2001 (9 Months) from 2000</b>
Cocaine	22	35	16	21	87	215	167	94	-25.0%
Morphine	52	73	77	48	90	106	137	80	-22.1%
Cocaine/Morphine Combined	14	27	24	35	65	55	54	40	-1.2%
Methadone/ Combined	8	7	11	14	26	43	37	17	-38.7%
Methamphetamine	26	50	7	15	51	75	105	118	49.8%
Methamphetamine/ Combined	3	1	10	20	30	43	48	31	-13.9%
Propoxyphene/ Other Narcotics	1	2	4	8	20	57	70	34	-35.2%
Barbiturates/ Benzodiazepines/ Other	0	4	15	55	52	41	77	18	-68.8%
<b>Total</b>	<b>126</b>	<b>199</b>	<b>164</b>	<b>216</b>	<b>421</b>	<b>635</b>	<b>695</b>	<b>432</b>	<b>-17.1%</b>

<sup>1</sup> Data do not include April.

<sup>2</sup> Data do not include September.

<sup>3</sup> January–September 2001.

SOURCE: Maricopa County Medical Examiner Office

**Exhibit 2a. Emergency Department Mentions in Phoenix for Selected Drugs by Half Year:  
July 1996–June 2001**

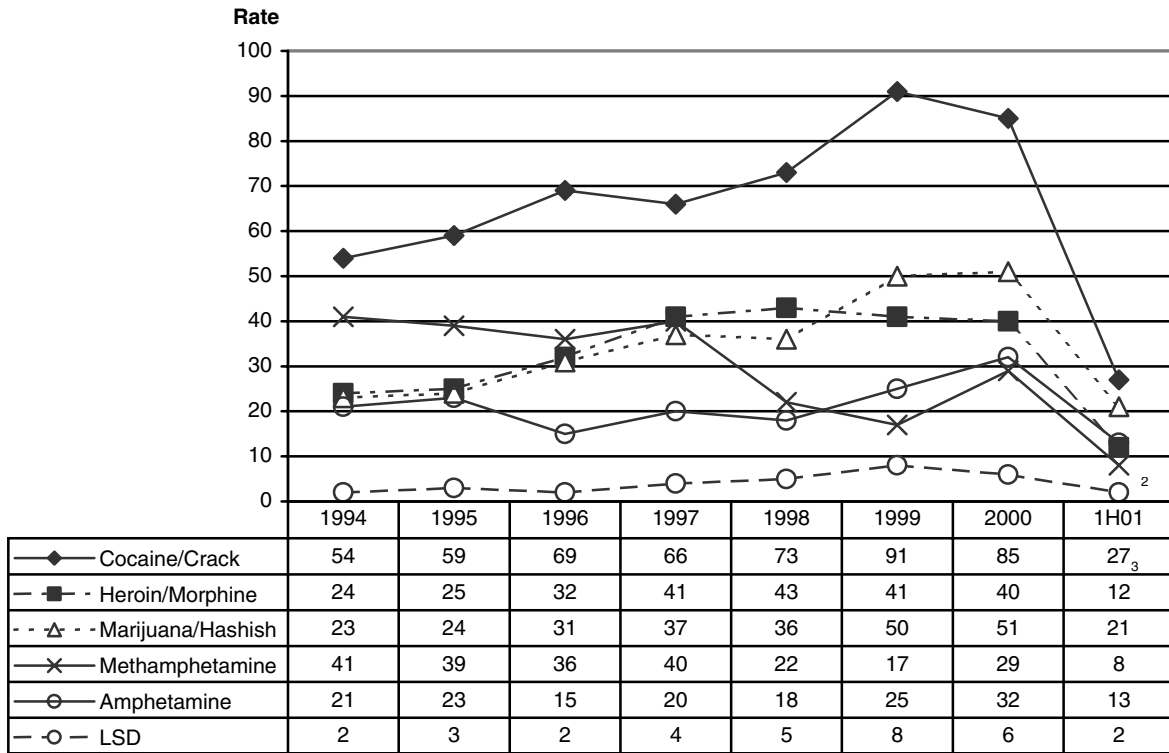
Drug Category	2H96	1H97	2H97	1H98	2H98	1H99	2H99	1H00	2H00	1H01 <sup>1</sup>
Alcohol-in-Combination	3,115	3,396	1,286	1,253	915	979	936	1,085	1,219	1,258
Cocaine/Crack	1,196	1,243	659	749	737	862	1,015	855	920	811
Heroin/Morphine	344	679	414	467	405	393	446	424	416	367 <sup>2</sup>
Marijuana/Hashish	276	357	384	386	340	548	479	464	609	622
Amphetamine	166	156	252	218	144	248	271	294	367	395
Methamphetamine	328	461	339	294	152	147	194	269	331	249
MDMA (Ecstasy)	0	1	5	1	1	7	13	45	31	55
LSD	26	41	30	40	59	97	60	58	78	48
PCP	16	16	23	28	19	18	21	27	20	32
GHB	0	2	1	2	0	5	12	11	5	10
Benzodiazepines	515	522	498	549	591	658	607	593	625	704
Miscellaneous Anxiolytics, Sedatives, and Hypnotics	164	149	131	118	173	130	161	171	153	201
Narcotic Analgesics	118	149	198	212	302	519	500	404	427	540
Narcotic Analgesics Combinations	123	140	158	160	167	209	201	251	240	292
Nonsteroidal Anti- Inflammatory Agents	137	134	155	138	149	141	143	160	224	239

<sup>1</sup> Estimates for this time period are preliminary.

<sup>2</sup> A small but unknown number of morphine/combination mentions, which have been moved into the narcotic analgesics category, are excluded during this time period.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2b. Trends in Rates<sup>1</sup> of ED Drug Mentions in Phoenix by Year: 1994–June 2001**



<sup>1</sup> Per 100,000 population.

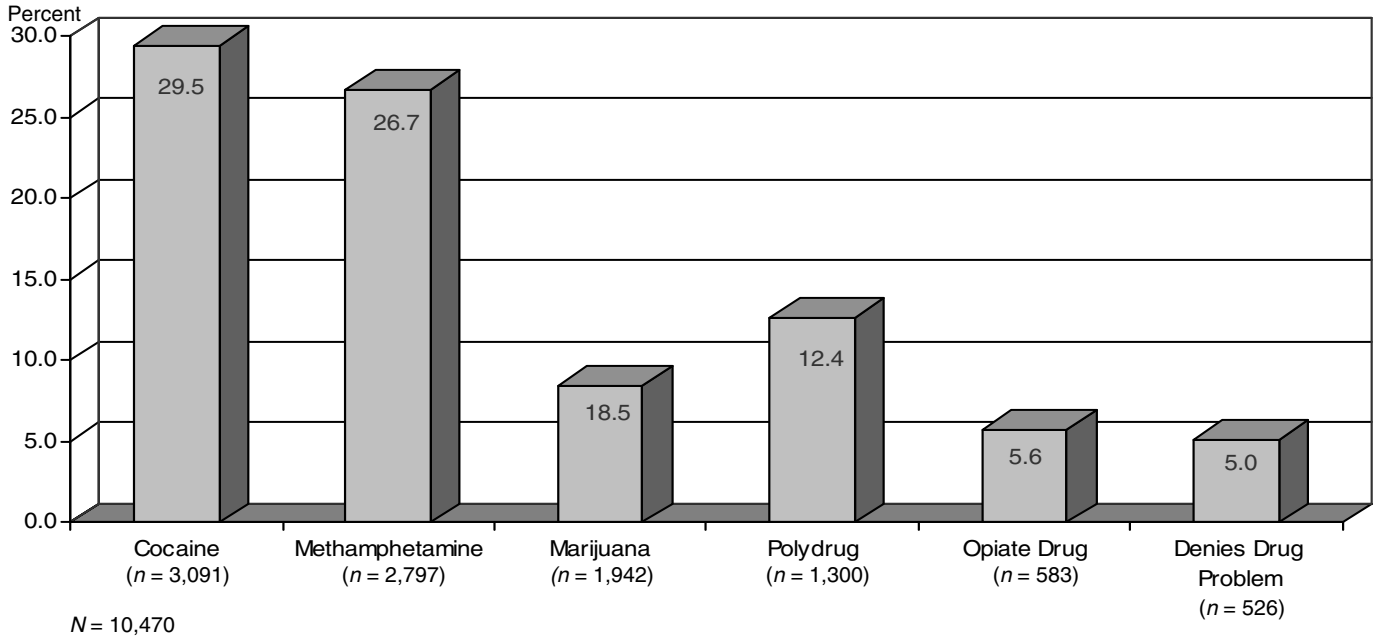
<sup>2</sup> Estimates for this time period are preliminary.

<sup>3</sup> A small but unknown rate of morphine/composition mentions, which has been moved into the narcotic analgesics category, is excluded during this time period.

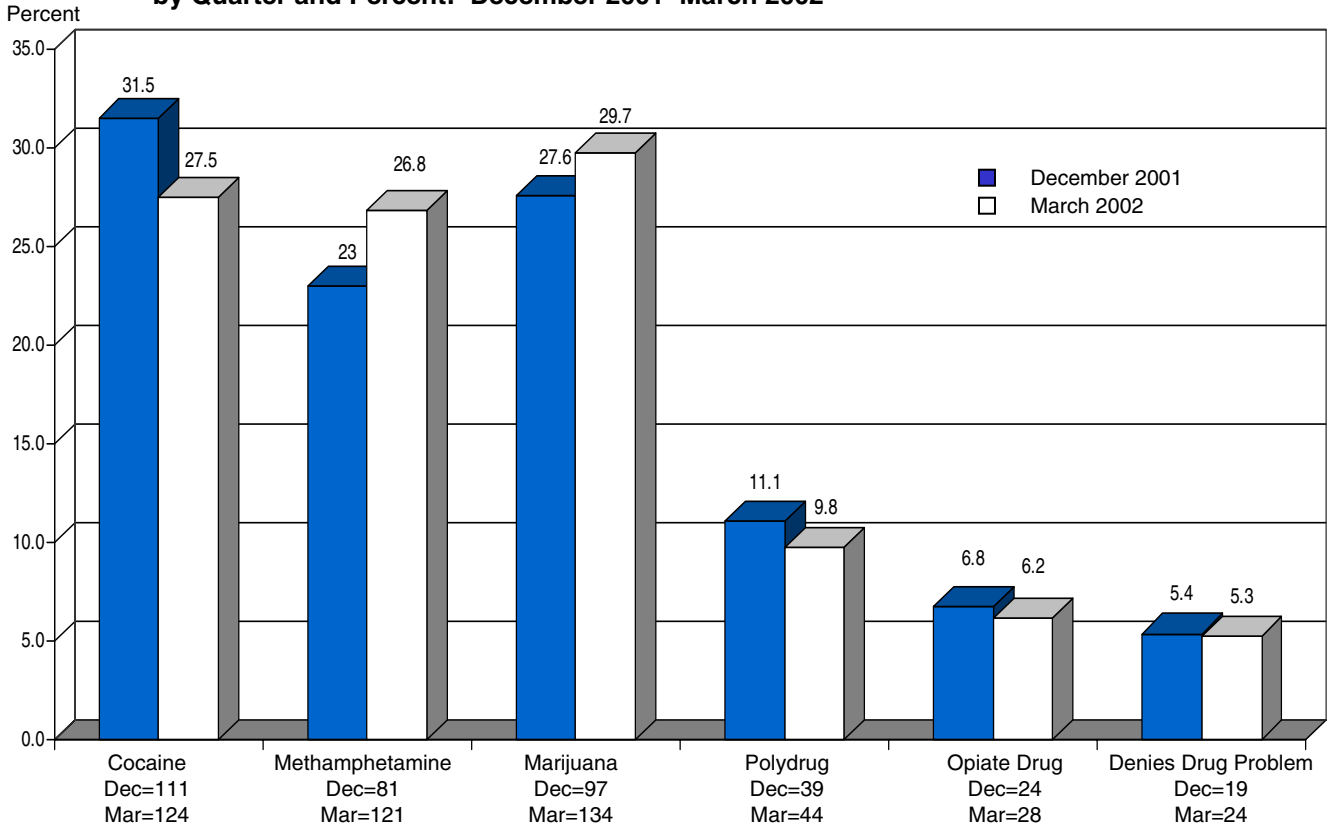
SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA



**Exhibit 3a. Adult Deferred Prosecution Program Admissions in Phoenix for Selected Drugs by Percent: March 1989–March 2002**



**Exhibit 3b. Admissions<sup>1</sup> for Maricopa County TASC Adult Standard and Intensive Probation Program by Quarter and Percent: December 2001–March 2002**



<sup>1</sup> Client reports more than one drug preference depending on availability.

SOURCES: Adult Treatment and Assessment Screening Center (TASC)—Deferred Prosecution Program Cumulative Statistical Report and Adult Standard and Intensive Probation Program Report

**Exhibit 4. Percentages of Adults Testing Positive for Selected Drugs in Phoenix by Gender: 2000 Through Third Quarter 2001**

Drug	Males		Females	
	2000	1st–3d Q 2001	2000	1st–2d Q 2001
Cocaine	31.9	27.5	35.2	33.9
Opiates	6.6	5.8	6.5	9.0
Marijuana	33.7	39.4	23.3	24.4
Methamphetamine	19.1	25.0	24.1	29.0

SOURCE: ADAM, NIJ

**Exhibit 5. Prices for Selected Drugs in Phoenix: July–October 2001**

Drug	Amount	Prices
Powder Cocaine	Gram	\$80
	Eightball	\$120–\$150
	Ounce	\$400–\$800
	Kilogram	\$15,000–\$17,000
Crack	Rock	\$20
	Ounce	\$500
	Half-kilogram	\$7,500–\$8,500
Heroin <sup>1</sup>	Gram	\$70–\$100
	Ounce (“piece” 28 grams)	\$1,000–\$1,500
	Pound (453.5 grams)	\$16,000–\$18,000
	Kilogram	\$42,000–\$48,000
Marijuana	Ounce	\$75–\$100
	Pound	\$150–\$750
Methamphetamine	Gram	\$48–\$55
	Eightball	\$140–\$160
	One-quarter ounce	\$125
	Ounce	\$300–\$600
	Pound	\$3,500–\$12,000 <sup>2</sup>
	Kilogram	\$14,500

<sup>1</sup> Average purity per sample, 39.3 percent (source, 17 Mexican samples).

<sup>2</sup> Glass methamphetamine, 95–99 percent pure.

SOURCE: DEA

**Exhibit 6. Reported Arizona AIDS and HIV Infection Cases and AIDS Case Fatality Rates by Half-Year Diagnosis: January 1980–December 2001**

Time Period	AIDS			HIV Infection		
	Number of Cases	Number of Deaths	Case Fatality Percent	Number of Cases	Additional Positive Anonymous Tests <sup>1</sup>	
1980	Jan–Dec	0	0	0		
1981	Jan–Dec	1	1	100		
1982	Jan–Dec	5	5	100		
1983	Jan–Dec	10	8	80		
1984	Jan–Dec	31	29	94		
1985	Jan–Jun	50	46	92	33	
	Jul–Dec	51	49	96	35	
1986	Jan–Jun	85	79	93	77	
	Jul–Dec	86	81	94	40	
1987	Jan–Jun	141	124	88	165	
	Jul–Dec	175	156	89	241	
1988	Jan–Jun	173	145	84	254	
	Jul–Dec	197	171	87	203	
1989	Jan–Jun	241	216	90	190	
	Jul–Dec	237	195	82	157	
1990	Jan–Jun	255	212	83	209	
	Jul–Dec	286	236	83	155	
1991	Jan–Jun	298	246	83	165	
	Jul–Dec	266	226	85	140	
1992	Jan–Jun	382	280	73	154	
	Jul–Dec	334	235	70	118	
1993	Jan–Jun	354	219	62	147	
	Jul–Dec	333	194	58	122	
1994	Jan–Jun	304	173	57	137	
	Jul–Dec	337	158	47	110	
1995	Jan–Jun	354	176	50	148	
	Jul–Dec	326	132	40	158	
1996	Jan–Jun	311	94	30	178	
	Jul–Dec	239	69	29	169	
1997	Jan–Jun	282	50	18	100	
	Jul–Dec	229	44	19	146	
1998	Jan–Jun	241	52	22	153	
	Jul–Dec	252	50	20	173	
1999	Jan–Jun	210	33	16	166	
	Jul–Dec	184	26	14	179	
2000	Jan–Jun	190	20	11	175	
	Jul–Dec	164	12	7	196	
2001	Jan–Jun	170	20	12	126	
	Jul–Dec	67	5	7	30	
<b>Total</b>		<b>7,851</b>	<b>4,267</b>	<b>54</b>	<b>4,967<sup>2</sup></b>	<b>4,380</b>

<sup>1</sup> On March 15, 1989, the option to receive HIV testing anonymously became available.

<sup>2</sup> The HIV infection total includes 18 cases with test date not reported.

SOURCE: Arizona Department of Health Services, Disease Prevention Services (Only cases meeting Centers for Disease Control and Prevention (CDC) 1993 criteria are included)

# Patterns and Trends in Drug Abuse in St. Louis

Heidi Israel Adams, Ph.D., R.N., L.C.S.W.<sup>1</sup> and Jim Topolski, Ph.D.<sup>2</sup>

## ABSTRACT

*Heroin indicators have leveled off, while cocaine retained a strong presence in all urban indicators. Methamphetamine was increasingly prominent in most St. Louis indicators. St. Louis and St. Charles County law enforcement personnel are concerned about methamphetamine use, and methamphetamine labs in rural areas continued to be a problem. Club drugs, such as MDMA and GHB, reportedly had an increasing presence in St. Louis and were the new prevention and law enforcement concerns, but indicator data on use and abuse were sparse. Marijuana indicators have been trending up in St. Louis for some time. Treatment admissions for marijuana as the primary drug of abuse more than doubled between 1997 and 2001. PCP was again noted in emergency department admissions data. In the St. Louis area, 6,002 cases of HIV and AIDS were identified through November 2001.*

## INTRODUCTION

### Area Description

The St. Louis metropolitan statistical area (MSA) includes approximately 3 million people living in the city of St. Louis; St. Louis County; the surrounding rural Missouri counties of Franklin, Jefferson, Lincoln, St. Charles, and Warren; Illinois; East St. Louis; and St. Clair County. The population of St. Louis 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 include a mixture of social classes and small towns with 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 the rural area and statewide. Limited data are also available for other parts of Missouri and offer a contrast to the St. Louis drug use picture.

### Data Sources

The sources used in this report are indicated below.

- **Emergency department (ED) drug mentions data** were derived from the Drug Abuse Monitoring Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA) for 1999–June 2001. Data for the first half of 2001 are preliminary.
- **Drug Treatment data** from the State's Treatment Episode Data Set (TEDS) were supplemented with anecdotal information from private treatment programs in St. Louis. State-wide data were derived from the Drug and Alcohol Services Information System (DASIS).
- **Drug price and purity data** were provided for heroin by the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP) for January–June 2002. Other price and purity data for the same period came from law enforcement sources, the DEA, and street informants.
- **Drug-related mortality data** were provided by the St. Louis Medical Examiner (ME)'s Office.
- **Drug intelligence data** were provided by the DEA Field Division and the Missouri Highway Patrol.
- **Human immunodeficiency virus (HIV) data** were provided by the HIV Vaccine Trials Unit at St. Louis University; cumulative data on cases of the acquired immunodeficiency syndrome (AIDS) were provided by the St. Louis Metropolitan AIDS Program.

<sup>1</sup> Dr. Israel Adams is affiliated with the Division of Infectious Diseases, Saint Louis University Medical School, St. Louis, Missouri.

<sup>2</sup> Dr. Topolski is affiliated with the Division of Evaluation, Policy, and Ethics, Missouri Institute of Mental Health, St. Louis, Missouri.

- **Qualitative and survey research data** were provided by Linda Cottler, Ph.D., Washington University, with support from multiple behavioral research grants.

No Arrestee Drug Abuse Monitoring (ADAM) program data are yet available for 2001.

#### DRUG ABUSE PATTERNS AND TRENDS

Cocaine indicators remained stable in St. Louis. While methamphetamine has become a prominent drug of abuse in other cities and in the rural areas of Missouri, cocaine has retained its dominance in the St. Louis urban area. Possible reasons for this situation are that methamphetamine is used primarily by Whites, while cocaine is used primarily by African-Americans; also, St. Louis City drug dealers are primarily African-American, and city traffickers deal cocaine and heroin. As a result, methamphetamine was not as regularly available in St. Louis City, but was more readily available outside the city.

Heroin of reasonable purity remained available in St. Louis, but it was also quite expensive compared with prices in other cities. This midwestern city is a destination market with small entrepreneurial groups marketing the drug.

Drug education and prevention activities have continued at the community level through programs such as Drug Abuse Resistance Education (DARE) and collaborative arrangements between communities and the police. These groups are particularly active in the counties surrounding St. Louis. The poor city economy continues to foster drug abuse and distribution. Marijuana remained a very popular drug of abuse among younger adults and may reflect a high number of court referrals. Gangs continued to be involved in violence and the drug trade (the two are related), with large numbers of African-American and Asian youth and young adults involved in these groups. Interdiction programs include Operation Jetway and Operation Pipeline.

#### Cocaine and Crack

According to DAWN, the rate of cocaine ED mentions per 100,000 population increased significantly between 1998 and 2000 (18.8 percent) and 1999 and 2000 (22.5 percent). The rate of ED mentions per 100,000 population in 2000 was 98 (exhibit 1a).

The St. Louis City/County ME reported that cocaine-related deaths trended downward, from 128 in 1994 to 66 in 2000. Many of the deaths in the late 1990s

were overdoses. DAWN mortality data corroborate a decreasing trend since 1994.

Cocaine treatment admissions and law enforcement data have stabilized over the past few years. Treatment admissions were stable between 2000 and 2001, at about 44 percent of primary admissions for illicit drugs (exhibit 1a). Cocaine no longer drives the efforts of St. Louis law enforcement and treatment programs. The DEA's emphasis has shifted from cocaine to methamphetamine, club drugs, and heroin, because of the political environment and the numbers of methamphetamine labs in rural Missouri.

Law enforcement sources, the DEA, and street informants continued to report high quality, wide availability, and low prices for cocaine. Cocaine was used and most available in the urban areas. Powder cocaine grams sold for \$100–\$125; purity averaged 77 percent. Crack sold for \$300–\$400 per gram and \$20 per rock on the street corner (exhibit 1b). All cocaine in St. Louis was initially in powder form and converted to crack for distribution. Cocaine was readily available on the street corner in rocks or grams. The price of a gram in Kansas City was stable at \$250. The rock price was the same in smaller cities in rural areas of Missouri, but the gram price was much higher.

The continued use of cocaine, particularly crack, by urban women has potentially severe long-term consequences, because it contributes to the spread of sexually transmitted diseases (STDs). Findings from numerous small behavioral studies of crack-abusing women have shown that crack use is predictive of multiple partners and HIV risk exposure. The STD rate in St. Louis has decreased for men, but it remains high for women.

Most cocaine users smoked crack cocaine, though some used powder cocaine. For example, among the 4,243 primary cocaine treatment admissions in 2001, 3,752 (88.4 percent) were for crack. Only injection drug users (IDUs) who combined cocaine and heroin ("speedball") used cocaine intravenously. Younger users smoked cocaine exclusively. Polydrug use was also evident in the treatment data. The reported use of marijuana, heroin, and methamphetamine in addition to cocaine suggests this trend will likely continue.

Cocaine use varied by area, and the drug was primarily used in urban areas.

#### Heroin

Heroin consistently appeared in all indicators. Heroin ED mentions increased significantly between 1994

and 2000 and between 1998 and 2000. ED mentions for the 18–25 and 26–34 age groups significantly increased in recent years, with the changes including 12–17-year-olds in the most recent 2 full years of DAWN reporting. The increase in mentions in all age groups indicates the wide availability of heroin in this MSA. In 2000, the three top reasons for seeking medical intervention were overdose, withdrawal, and seeking detoxification. An increase in the number of mentions that resulted in admissions was also noted.

Heroin-related deaths reported by the St. Louis City/County ME peaked in 1997 and leveled off in recent years. In 2000, there were 55 heroin-related deaths (exhibit 1a). Statewide heroin deaths caused by overdose alone were not very different, because heroin purity was higher in the St. Louis area than in other cities in Missouri. Many of these heroin deaths may have resulted from increased purity levels. For the first time, more heroin deaths occurred in St. Louis County than in the inner city; these deaths are interpreted as supporting the trend of increased heroin use in the suburbs.

While heroin treatment admissions increased dramatically from 1996 to 2000, admissions leveled off in 2001, when they accounted for 15 percent of admissions for illicit drug abuse (exhibit 1a). Limited slots for admissions to State-funded methadone or modified medical detoxification programs exist in Missouri, which may influence these data. When queried, private treatment programs stated that 10–25 percent of their admission screens were for heroin abuse, but admission depended on “ability to pay.” Thus, many heroin abusers in need of treatment were referred to State-supported programs or “private pay” methadone programs. Rapid detoxification, using naltrexone (Depade, ReVia), is still a treatment option at private hospitals but is expensive. In 2001, nearly 37 percent of heroin admissions were younger than 25. Of all heroin treatment admissions in 2001, about 42 percent reported smoking or intranasal use as the primary method of administration, while only 28.6 percent of the ED mentions in 2000 involved smoking heroin or intranasal use (exhibits 1a and 1b). According to counselors at treatment programs, young users reported a fear of needles as a reason for alternative methods of administration. The increased availability of consistent, higher purity heroin has led to a wider acceptance of the drug in social circles. One reason for the acceptance of higher purity heroin is that it does not have to be injected to get the desired effects. If the purity decreases significantly, many users will have to use heroin intranasally or inject it to get high.

While heroin purity increased during the past 2 years, the latest DMP report indicates that purity may be less than the level reported previously. A steady supply of Mexican heroin remained available. The DMP purchased equal quantities of heroin on both the north and south sides of the city, indicating wider market availability. Historically, heroin purity has fluctuated by area and over time, with varying availability. In the past 2 years, purchase purities ranged from 4 to 70 percent, with an average of 16 percent (exhibit 1b).

Most heroin is purchased in aluminum foil. In addition, it is sold in bundles (one-tenth-gram packages in plastic wrap and aluminum foil known as “bindles”) for \$40 (exhibit 1b). The number-5 gel capsule is also available. Most available heroin is dark brown or black tar and of consistent quality and availability. Mexican heroin is generally the only type available.

In the most recent DMP analysis, heroin cost \$3.53 per milligram, making heroin in St. Louis among the most expensive in the country. St. Louis is an end-user market and dependent on transportation of the heroin from point of entry to the Midwest. Wholesale prices remained at \$250–\$600 per gram (exhibit 1b). On street corners, heroin sold for \$250 per gram. Most business was handled by cellular phone, which has decreased the seller’s need to have a regular location, thus reducing the risk of being arrested. In St. Louis and other smaller urban areas, heroin is sold by small distribution networks, as well as by many small entrepreneurs. Wide sampling of the available drug quality can be difficult because identification is harder in this compact, free enterprise distribution pattern.

Kansas City’s heroin supply differed from that of St. Louis. Most heroin in Kansas City was black tar and was consistently of low quality (less than 10 percent pure). The gram price for this lower quality heroin was about the same as the gram price for higher purity heroin in St. Louis. The supply had been consistent during the last year, and a \$10 bag of heroin was available. Heroin had also become available in the smaller rural cities of Springfield and Joplin, each of which had a small population of IDUs using heroin and methamphetamine.

### **Other Opiates/Narcotics**

OxyContin abuse remained a concern for both treatment and law enforcement personnel. While prescription practices were closely monitored for

abuse and isolated deaths have been reported, no consistent reports were available on the magnitude of this potential problem. A long-lasting, time-release form of oxycodone, OxyContin was the most frequently stolen drug in pharmacy robberies and cost \$40 for an 80-milligram tablet on the street (exhibit 1b). Although the number of treatment admissions in this category was small, it reflects oxycodone abuse in the area. Abuse of oxycodone (Percocet and Percodan) by prescription is growing in popularity.

The use of hydromorphone (Dilaudid) remained common among a small population of White chronic addicts. The drug cost \$45–\$75 per 4-milligram pill.

### **Marijuana**

The number of ED marijuana mentions rose from 1,640 in 1999 to 1,763 in 2000. While this change was not significant, it followed significant increases between 1994 and 2000 and between 1998 and 2000. Similarly, the rate of ED marijuana mentions per 100,000 population followed a similar trend and rose significantly from 39 in 1994 to 72 in 2000 (exhibit 1a). Preliminary estimates for the first half of 2001 suggest a continuing rise.

Treatment admissions more than doubled from 1997 (1,573 admissions) to 2001 (3,210 admissions), when they accounted for about 34 percent of admissions for illicit drug abuse (exhibit 1a). Marijuana, viewed by young adults as acceptable to use, was often combined with alcohol. Persons younger than 26 accounted for more than 66 percent of primary marijuana treatment admissions in 2001.

Because of the heroin, cocaine, and methamphetamine abuse problems, in addition to the recent “club drug” scare in St. Louis, law enforcement had focused less attention on marijuana abuse. Limited resources required establishing enforcement priorities. Often, probation required participation in treatment for younger users who did not identify themselves as drug dependent. As a potential gateway drug to more serious drug abuse, marijuana was being seriously targeted in local prevention efforts and in the educational system.

Marijuana was available from Mexico or domestic indoor growing operations. Indoor production made it possible to produce marijuana throughout the year. Therefore, law enforcement officials have been focusing more attention on indoor growing operations. 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 erad-

icate crops. Much of the marijuana grown in Missouri was shipped out of the State.

### **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). The rate of ED methamphetamine mentions increased significantly (218 percent) from 2 per 100,000 in 1994 to 7 in 2000 (exhibit 1a). The number of ED methamphetamine mentions increased from 104 in 1999 to 162 in 2000, but the increase was not significant. However, there were significant increases in methamphetamine ED mentions between 1994 and 2000, and between 1998 and 2000. Nearly two-thirds of the mentions in 2000 involved males, and most were White.

In 1995, methamphetamine (“crystal” or “speed”) was found at very low levels in city indicators, but reported use increased in the last 5 years. In rural areas, methamphetamine admissions appeared regularly in the treatment data, while they were limited in number in St. Louis. Methamphetamine was 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 was not as widespread in St. Louis City. Cocaine and methamphetamine indicators were split along racial lines in the State. While the number of methamphetamine treatment admissions was still relatively low in St. Louis (177 for 2000 and 430 in 2001), it was the drug of choice after alcohol in rural treatment programs. To further support this difference between St. Louis and the rest of the State, a DASIS report on treatment admissions showed a statewide rate change from 7.0 per 100,000 in 1993 to 69.0 per 100,000 in 1999, an 873-percent increase statewide.

In 2000, methamphetamine was also detected in four ME cases in the St. Louis metropolitan area.

The number of clandestine methamphetamine labs cleaned up by the Midwest Field Division of the DEA increased to about 200 in 1999 and 250 in 2000. The intensity of these law enforcement efforts was based on the availability of funds for local police departments to clean up box labs under Community Oriented Policing Service (COPS) funding. Lab seizures dropped from 150 to 60 in the last 6-month reporting period from 2001 to 2002. Thefts of anhydrous ammonia were being monitored in the rural areas.

Locally produced methamphetamine purity fluctuated between 70 and 80 percent, while methamphetamine from Mexico was only 20–30 percent pure (exhibit 1b). In the new methamphetamine scene, Hispanic traffickers, rather than the old network of motorcycle gangs, were the predominant distributors; however, individual entrepreneurs were also involved. Shipments from super labs in the Southwest were trucked in via the interstate highway system. Methamphetamine shipments have been 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 \$37–\$100 per gram in some areas.

Use of methamphetamine and its derivatives has become more widespread among high school and college students, who do not consider these drugs as dangerous as others. Because methamphetamine is so inexpensive and easy to produce, its use is likely to continue to spread. Competition between those who import methamphetamine from Mexico and those who produce it locally is likely to affect both price and purity.

### Depressants

DAWN ED data reflect few mentions in this category, except for diazepam (Valium) and lorazepam (Ativan). In 2000, there were 184 diazepam mentions, 123 lorazepam mentions, and 1,123 alprazolam (Xanax) mentions.

Private treatment programs often provide treatment for benzodiazepine, antidepressant, and alcohol abusers. Day hospital programs and 3-day detoxification have become the treatments of choice for individuals who abuse these substances. Many of the private treatment admissions were polysubstance abusers, so a particular drug problem was 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–\$4 per 35-microgram dose (exhibit 1b). Much of this LSD is imported from the Pacific coast. DAWN data show a steady presence of LSD ED mentions from 1997 through 2000.

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 was not seen in quantity, it remained 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 were African-American. PCP ED mentions increased from 45 in 1997 to 98 in 2000.

### Club Drugs

DAWN ED data for the St. Louis MSA show few mentions of methylenedioxymethamphetamine (MDMA), with 15 in 1999 and 52 in 2000. Of the mentions in 2000, 61 percent involved males and 75 percent involved Whites. No ED mentions of ketamine or gamma hydroxybutyrate (GHB) were noted. Stimulants noted in the city have included methylenedioxymethamphetamine (MDA) and MDMA (“ecstasy,” “XTC”). MDMA is readily available at raves, which have become quite popular in St. Louis, and other dance parties and sells for \$20–\$30 per tablet. Most of the users in dance clubs and at universities are age 20–25. While use of MDMA or “X” among high school students was reportedly frequent, no indicator quantifies use in this age group.

Toxicology reports that show high levels of ecstasy were rare. Most reports about high levels of MDMA abuse were anecdotal or were part of a polydrug user’s history. Public treatment programs reported no admissions for MDMA, and the staff of private treatment programs reported MDMA as part of a polydrug abuser’s history in fewer than 2 percent of their admissions.

As part of the screening of a cohort of known MDMA users, a local researcher reports that hepatitis C was at high levels in this group. This may be related to the polydrug use history of these study participants.

Dr. Linda Cottler has conducted key informant interviews with several high school and college students to gather data on club drugs in St. Louis. In a survey of 1,250 students from a suburban St. Louis high school, 30 percent of the students stated that someone had approached them offering ecstasy. Dr. Cottler’s research group is investigating club drug use further and is using focus group interviews with users and professionals to clarify the confusing picture.

GHB use has increased in the St. Louis area. Because it is a depressant, its use with alcohol and its unpredictable purity present users with major health risks. No recent deaths have been reported from this “date-rape” drug. GHB is often sold in nightclubs for \$5 per capful or \$40 per ounce. GHB education efforts are directed toward hospital ED personnel, who often see the users initially. Use of ketamine (“Special K”), a veterinary anesthetic known for its hallucinogenic effects, had been acknowledged



anecdotally. An increase in ketamine robberies from veterinary offices has been reported.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Seropositivity among IDUs remained low in St. Louis. However, it was increasing among sexual partners of individuals practicing high-risk modes of exposure. The largest increases were found among young African-American females who were infected through heterosexual contact and young African-American males. As a result, increased specialized minority prevention efforts have been initiated.

Of the total 2,028 HIV-positive cases identified through November 2001, 7 percent were IDUs and 4 percent involved men who have sex with men (MSM) and are also IDUs (exhibit 2).

Cumulative AIDS cases totaled 3,974 through November 2001 (exhibit 4). Of these cases, 2 percent were IDUs and 2 percent were MSM/IDUs. The reported AIDS and HIV-positive cases continued to be represented primarily by persons in the MSM category.

#### SPECIAL PROJECTS AND RELATED HEALTH ISSUES

##### **Sexually Transmitted Disease Rate**

St. Louis had a syphilis epidemic in 1993 and 1994. In 2000, St. Louis ranked eighth in the Nation for syphilis cases. In 2001, the city dropped to 51st in the number of identified syphilis cases. St. Louis ranks third for gonorrhea, with cases remaining at

approximately 1,000 per year, and second for chlamydia. Risk-reduction activities have traditionally had limited effects on the recidivism rates with STD cases, leading to the evaluation of harm-reduction models. Recent research has also focused on the attributes of the risk taker rather than the method of risk reduction delivery. The increase in heterosexual transmission is a concern for public health officials. Further research is needed on ways to effect sustained behavior change.

##### **HIV Research**

Saint Louis University has continued research on HIV prevention vaccines. Most of the prevention vaccine trials have been Phase I trials with low-risk individuals. Two Phase II trials using a number of HIV risk groups and one Phase III trial have been undertaken to date. Plans for another Phase III trial were canceled after poor laboratory assay results made progression with the current vaccine unfeasible.

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**Exhibit 1a. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2001**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine
Deaths (M)				
1996	93	51	NA	9
1997	43	67	NA	11
1998	47	56	NA	9
1999	51	44	NA	4
2000	66	55	NA	4
DAWN ED Data				
Number of mentions (2000)	2,403	1,084	1,763	162
Percent change (1999–2000)	+3 <sup>1</sup>	+27 <sup>1</sup>	+7 <sup>1</sup>	+175 <sup>1</sup>
Rate per 100,000 pop. (2000)	98	44	72	7
6-year trend (1994–2000)	Stable	Significantly up	Significantly up; generally up in younger groups	Significantly up
Ethnicity (2000)				
White	40	55	56	91
Black	54	41	0	0
Other	-	4	0	0
Unknown	6	0	44	9
Gender of mentions (%) (2000)				
• male	60.0	62.5	62.6	65.0
• female	40.0	37.5	37.4	35.0
Age (%) (2000)				
• 12–17	1.4	2.8	11.6	24.0
• 18–34	41.7	49.5	54.2	56.0
• 35 and older	56.9	47.7	33.8	22.0
Route of Administration (%) (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 <sup>2</sup>				
Percent of illicit drug admissions (2000)	44.1	16.4	32.3	3.0
Percent of illicit drug admissions (2001)	44.3	15.0	33.5	4.5
Gender of admissions (%) (2001)				
• male	55.6	70.2	77.1	52.6
• female	44.4	29.8	22.9	47.4
Age (%) (2001)				
• 12–17	0.4	0.7	23.0	1.3
• 18–25	6.3	35.9	43.2	29.5
• 26–34	31.4	21.3	21.0	33.5
• 35 and older	61.9	42.1	12.8	35.7

<sup>1</sup> Not significant.

<sup>2</sup> Treatment admissions data exclude alcohol-only and alcohol-in-combination.

SOURCES: SAMHSA Web site, TEDS database, DEA, client ethnographic information

**Exhibit 1b. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 2001–June 2002**

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine and Other Drugs
Treatment Admissions Data <sup>1</sup> (2001)				
Race/ethnicity (%)				
• White	20.7	35.3	40.3	89.1
• African-American	78.2	64.1	58.4	0.9
• Hispanic	1.7	2.1	1.4	0.0
Route of administration (%)				
• Smoking	87.5	2.5	92.8	28.7
• Intranasal	6.6	39.8	.8	25.2
• Injection	1.0	51.7	.4	40.0
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 (1H2002)	Powder \$100–\$125/gram, 77% pure; Crack \$20/rock, 50–90% pure	\$10/cap, \$40/bundle, \$3.53/milligram (mg.), \$250–\$600/gram, 16% pure, Mexican heroin	Sinsemilla \$500–\$1,200/ pound, 20% THC; Imported \$2,000–\$4,000/ pound	Meth \$37–\$100/gram, Mexican (20–30%) and local (70–80% purity); OxyContin \$40/80 mg.; LSD blotters \$2–\$4 per 35-microgram dose; PCP resurgence
Qualitative Data	Readily available, urban choice	Younger users, 1/3 <25	Readily available, 2/3 of those in treatment < age 25	Club drugs gaining presence; rural/suburban users of amphetamines
Other Data of Note	–	–	–	Methamphetamine lab seizures plateaued

<sup>1</sup> Represents only admissions for abuse of illicit drugs.

SOURCES: SAMHSA Web site, TEDS database, DEA, client ethnographic information

**Exhibit 2. HIV-Positive Test Results in the St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through November 2001**

Category	January 2001–November 2001		Cumulative Through November 2001	
	Number	(Percent)	Number	(Percent)
Exposure Category				
Men/sex/men (MSM)	56	(30)	1,272	(63)
Injection drug users (IDUs)	6	(3)	137	(7)
IDUs and MSM	1	(1)	74	(4)
Hemophiliac	0	(0)	11	(1)
Heterosexual	28	(15)	320	(16)
Blood transfusion	1	(1)	5	(<.01)
Perinatal	0	(0)	12	(1)
Unknown	96	(51)	197	(10)
Gender and Race/Ethnicity				
Male				
• White	55	(29)	756	(37)
• African-American	77	(41)	880	(43)
• Hispanic	2	(1)	17	(1)
• Other	0	(0)	19	(1)
• Unknown	7	(4)	13	(1)
Female				
• White	7	(4)	65	(3)
• African-American	37	(20)	271	(13)
• Hispanic	0	(0)	2	(<.01)
• Other	3	(2)	5	(<.01)
Age Group				
13 and younger	1	(1)	14	(1)
14–19	2	(1)	108	(5)
20–29	14	(7)	676	(33)
30–39	20	(11)	733	(36)
40–49	14	(7)	277	(14)
50 and older	2	(1)	71	(4)
Unknown	135	(72)	149	(7)
<b>Total</b>	<b>188</b>		<b>2,028</b>	

SOURCE: St. Louis Metropolitan AIDS Program

**Exhibit 3. AIDS Cases in the St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through November 2001**

Category	January 2001–November 2001		Cumulative Through November 2001	
	Number	(Percent)	Number	(Percent)
Exposure Category				
Men/sex/men (MSM)	65	(38)	1,040	(26)
Injection drug users (IDUs)	12	(7)	85	(2)
IDUs and MSM	4	(2)	61	(2)
Hemophiliac	0	(0)	29	(1)
Heterosexual	27	(16)	151	(4)
Blood transfusion	0	(0)	20	(1)
Perinatal	0	(0)	0	(0)
Unknown	61	(37)	2,588	(65)
Gender and Race/Ethnicity				
Male				
• White	47	(28)	1,984	(50)
• African-American	88	(52)	1,531	(39)
• Hispanic	0	(0)	39	(1)
• Other	2	(1)	12	(<.01)
• Unknown	0	(0)	0	(0)
Female				
• White	7	(4)	95	(2)
• African-American	24	(14)	306	(8)
• Hispanic	0	(0)	4	(<.01)
• Other	1	(1)	3	(<.01)
Age Group				
13 and younger	1	(1)	17	(<.01)
14–19	3	(2)	28	(1)
20–29	26	(15)	539	(14)
30–39	71	(42)	1,220	(31)
40–49	50	(30)	567	(14)
50 and older	17	(9)	200	(5)
Unknown	1	(1)	1,403	(35)
<b>Total</b>	<b>169</b>		<b>3,974</b>	

SOURCE: St. Louis Metropolitan AIDS Program

# Indicators of Drug Abuse in San Diego County

Michael Ann Haight, M.A.<sup>1</sup>

## ABSTRACT

*From 2000 to 2001, total overdose deaths decreased slightly (7 percent), with declines in cocaine, heroin, and methamphetamine overdose deaths contributing to the decrease, while the number of decedents positive for alcohol increased by 12 percent. The number of decedents positive for multiple other drugs also increased. Emergency department (ED) mentions decreased slightly from 1999 to 2000, although preliminary data from the first half of 2001 suggested that ED mentions might rise in 2001. Of the individual drug ED mentions, only those involving marijuana increased in 2001. Total treatment admissions increased 16 percent in 2001 to 16,089 admissions. Treatment admissions for all illicit drugs covered in this report increased as well, with marijuana and methamphetamine showing the largest increases (28 and 27 percent, respectively). In the Arrestee Drug Abuse Monitoring study, methamphetamine-positive tests for adult females increased by 8 percentage points between 2000 and 2001. Among juveniles, only marijuana-positive screens (3 percent) and screens for any drug (5 percent) increased. Local media continued to be interested in club drugs, and both ecstasy and GHB were frequently mentioned as problem drugs, although these drugs continued to be reported at low levels among overdose deaths, EDs, and county-funded treatment.*

## INTRODUCTION

### Area Description

Located in the southwestern corner of California, San Diego County is bordered on the west by the Pacific Ocean and on the north by a major military base. A mountain range and desert are to the east, and Mexico borders the county on the south.

In 2001, an estimated 2.9 million inhabitants resided in the county. The majority, 60 percent, were White, followed by Hispanics (25 percent), African-Americans (6 percent), and Asian/other minority groups (10 percent). The population was closely divided between

men (51 percent) and women (49 percent), showing remarkable stability over time.

### Data Sources

Data compiled for this report are from the sources detailed below. Significant time lags in production of routine reports preclude comparable time periods for all indicators.

- **Accidental overdose death data** were provided by the San Diego County Medical Examiner (ME) for 1997–2001. Marijuana is not included in this data.
- **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 1997 through the first half of 2001. The 2001 data are preliminary. The “total” for 2001 represents the figures from the first half multiplied by 2.
- **Treatment admissions data** were provided by the San Diego County Alcohol and Drug Data System (SDCADDS) for 1997–2001. The system is an admission-based data set; individuals can account for multiple admissions. Local methadone programs under private administration are not included, thus deflating total opiate admissions.
- **Arrestee drug testing data** were derived from the Arrestee Drug Abuse Monitoring (ADAM) program, Criminal Justice Research Unit, San Diego Association of Governments (SANDAG), for 1997–2001. Alcohol is not included; fourth quarter 2001 data are preliminary.
- **Drug price and purity data** were provided by the Narcotics Information Network (NIN), March 2002. Data on price and purity of heroin in the first half of 2001 are from the Domestic Monitor Program (DMP), Drug Enforcement Administration (DEA).

<sup>1</sup> The author is affiliated with the Health and Human Services Agency, Alcohol and Drug Services, San Diego, California.

- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the San Diego County Health and Human Services Agency, Definitive and Presumptive AIDS Cases Surveillance Survey, December 31, 2001.

#### DRUG ABUSE PATTERNS AND TRENDS

##### **Cocaine/Crack**

Cocaine trends were mixed in 2001; overdose deaths, ED mentions, and positive tests among adult arrestees showed declines, while treatment admissions increased 13 percent (exhibit 1).

In 2001, cocaine was detected in 28 of the 220 accidental overdose deaths. This number represented 13 percent of total accidental overdoses and a 53-percent decrease from 1997. Typically, cocaine was only one of several drugs detected in the decedent, and common combinations were heroin and/or alcohol. The typical cocaine overdose death involved a White (71 percent), male (86 percent) decedent, who was age 36 or older (82 percent). Although more Whites than African-Americans died with detectable levels of cocaine, African-Americans, at 18 percent, were overrepresented in cocaine overdoses, while Hispanics (7 percent) and others (4 percent) were underrepresented.

Preliminary data for the first half of 2001 show 431 cocaine ED mentions, or an estimated 862 mentions for the entire year, compared with 1,002 in 2000 and 1,063 in 1999. Cocaine ED mentions declined 11 percent between the first halves of 2000 and 2001, following a 50-percent increase between 1994 and 2000. When viewed as a percent of total mentions, the data are quite consistent, with cocaine accounting for 7–9 percent of total mentions from 1997 to 2001. In the first half of 2001, males accounted for the majority of cocaine ED mentions (62 percent), consistent with previous years. Cocaine ED mentions among females declined 11 percent from the first half of 2000. Significant declines were also reported for African-Americans (13 percent), Hispanics (60 percent), and persons of other racial/ethnic groups (50 percent). Compared with their representation in the total population, African-Americans, at 35 percent, were overrepresented among ED cocaine mentions, while Whites (58 percent), Hispanics (6 percent), and other groups (1 percent) did not reach general population level representation. The majority of the 2001 cocaine mentions represented multiple use cases (70 percent), a decline of nearly 14 percent from the first half of 2000. Forty-five percent involved dependence as the motive for using cocaine, a decline of 26 percent from the first half of 2000. Another 45 percent involved chronic effects as the

reason for visiting the ED, a decline of 24 percent from the first half of 2000. The majority (53 percent) were treated and released, a decline of 16.5 percent from the first half of 2000.

Within the treatment population, individuals reporting cocaine as the primary drug increased from 1,300 in 2000 to 1,467 in 2001, a 13-percent increase. The number of admissions in 2001 reflects a 16-percent increase over admissions in 1997 (1,266). As a proportion of total admissions, cocaine accounted for 9 percent in both 2000 and 2001. A typical cocaine admission in 2001 was African-American (62 percent), male (60 percent), and age 35 or older (66 percent). Eighty-five percent of cocaine admissions reported that they smoked the drug. Sixty-six percent used drugs other than cocaine, and among the polydrug users, almost half (49 percent) reported alcohol as the drug of choice.

From 2000 to 2001, the percentage of adult male arrestees who tested positive for cocaine in the ADAM study declined from 15 to 13 percent. For the unweighted female sample, 17 percent tested cocaine-positive, a 34-percent decline from 2000. Positive tests among juveniles continued to be quite low, with 1 percent testing positive for cocaine in 2001. While data prior to 2000 are not comparable with data from previous years, the figures in exhibit 1 suggest smaller proportions of adult males may be testing positive for cocaine.

Street price and purity data reported by the local NIN in March 2002 showed more variability in the price range for cocaine, particularly at smaller quantity levels, compared with 2001. At the gram level, cocaine ranged from \$40 to \$80, compared with \$75 to \$100 in 2001. At the ounce level, cocaine that had reportedly cost \$800 in 2001 ranged from \$500 to \$800 in March 2002. Purity levels were reported to average 68–72 percent pure at the gram level. Ounce purity levels were higher, ranging from 70 to 90 percent pure. Cocaine continued to be widely available. Crack use continued to be prevalent in the inner cities of San Diego and East San Diego County.

##### **Heroin**

Heroin treatment admissions and heroin-positive tests among arrestees increased from 2000 to 2001, while accidental overdose deaths and ED mentions decreased (exhibit 2).

In 2001, for the first time in the 5-year series presented here, the presence of heroin in accidental overdose deaths fell below 50 percent, to 104 accidental

overdoses, representing 47 percent of total cases. From 1997 to 2001, there was a 25-percent decrease in heroin's presence in accidental overdose deaths. The typical heroin overdose was a White (63 percent) male (83 percent), age 35 or older (77 percent). Hispanics, at 30 percent, were overrepresented, while African-Americans (3 percent) and other groups (5 percent) were represented at less than their representation in the general population of San Diego.

When heroin's presence in the ED mentions is considered as a percent of total ED mentions in San Diego, the pattern is remarkably similar to that for cocaine, with proportions ranging from 7 percent in the first half of 2001, to 8 percent in 1997 and 1998, and to 9 percent in 1999 and 2000. In the first half of 2001, there were significant decreases in heroin ED mentions by gender, race/ethnicity, and most age categories. The typical visitor to the ED who reported heroin use in the first half of 2001 was a White (59 percent) male (68 percent) age 35 or older (68 percent). Episode data show that this visitor was apt to have been involved in a single drug episode (76 percent), used heroin because of dependence (83 percent), came to the ED because of chronic effects of use (62 percent), and was treated and released (71 percent). There were significant decreases in these episode characteristics between the first halves of 2000 and 2001.

In 2001, there were 1,490 treatment admissions for heroin, a 3-percent increase from 2000. Heroin accounted for 9 percent of total admissions in 2001, 2 percent less than in 2000. The typical heroin admission was a White (54 percent) or Hispanic (33 percent) male (66 percent) age 35 or older (51 percent). Another 26 percent of heroin admissions were between the ages of 18 and 25. Injection as the primary means of use increased in 2001, with 88 percent of all heroin admissions reporting that mode of administration. Eight percent reported smoking the drug, and 2 percent reported sniffing heroin. Over two-thirds of primary heroin users reported polydrug use, with 38 percent reporting cocaine as the preferred secondary drug.

Heroin use detected among male adult arrestees in the ADAM study increased from 2000 to 2001, although this group continued to represent only around 8 percent of the male sample in San Diego. Nearly 9 percent of adult females tested heroin-positive in 2001, up from 7 percent in 2000. There is almost no use of heroin among San Diego County juveniles included in ADAM. Only 1 percent of juveniles tested positive for heroin in 2000–2001. In 1997, 2 percent of juveniles had tested positive for heroin.

Preliminary data from the DMP showed that, in the first half of 2001, the price of heroin in San Diego was 32

cents per milligram pure, with the average purity per sample at 42.1 percent. Of the 23 cities included in the report, 9 had higher purity than San Diego. Only one city, Newark, had a lower price.

The NIN reported that black tar heroin was readily available in San Diego, with purity levels ranging from 12 to 60 percent in gram quantities and up to 70 percent in larger quantities. One "quarter" (.02 to .05 grams) can be purchased from \$5 to \$16.

## Marijuana

Two marijuana indicators (ED mentions and treatment admissions) increased from 2000 to 2001, while marijuana-positive screens among adult male arrestees decreased slightly. Marijuana-positive tests for adult females were relatively stable, while those for juveniles in the ADAM study increased slightly (exhibit 3).

In 2000, there were 1,031 marijuana ED mentions, an increase of 86.5 percent from 1994. From 1998 to 2000, however, marijuana mentions decreased 15 percent, only to increase 7 percent from the last half of 2000 to the first half of 2001. Viewed as a percent of total mentions, however, marijuana has represented 8 percent of total mentions in 3 of the past 4 years shown in exhibit 3. The typical marijuana ED visitor in 2001 was a White (64 percent) male (68 percent) who was between the ages of 12 and 25 (42 percent). Marijuana ED mentions involving African-Americans decreased 34 percent between the first and second halves of 2000 and 2001, while significant increases were reported for Hispanics and persons of other ethnic groups, and for those age 26–34. The majority of marijuana ED mentions involved use of multiple drugs (73 percent). More than one-third (39.0 percent) of the episodes reflected the fact that psychic effects were the motive for use, a 30.5-percent increase from the first half of 2000. One-third involved unexpected reaction as the reason for coming to the ED, and nearly 31 percent involved chronic effects.

The numbers of primary marijuana users continued to increase in county-funded treatment, rising from 2,447 admissions in 2000 to 3,128 in 2001, a 28-percent increase. From 1997 to 2001, there was a 281-percent increase, underscoring the county's commitment to the treatment-on-demand initiative for adolescents. The majority of marijuana admissions were male (76 percent), with Whites representing 43 percent of total admissions, followed by African-Americans at 16 percent, and Hispanics at 32 percent. About two-thirds were younger than 18 at admission. Another 16 percent were between the ages of 18 and 25. Just over two-thirds (68 percent) of these clients reported secondary



drug use, with 63 percent reporting secondary alcohol use and another 24 percent reporting that they used methamphetamine.

Within the arrestee population, the proportion of adult males testing marijuana-positive decreased from 38 percent in 2000 to 36 percent in 2001. Twenty-eight percent of the female arrestees tested marijuana-positive in 2001, up 1 percentage point from 2000. From 1997 to 1999, the proportion of juvenile arrestees testing positive for marijuana ranged from 49 to 52 percent. In 2000, the proportion fell to 42 percent, but it rose to 45 percent in 2001. Marijuana continued to be the drug most often detected among San Diego juveniles.

Marijuana was widely available in early 2002, and the price was relatively stable. One-quarter ounce (7 grams) could be purchased for \$40–\$50. An ounce cost \$60–\$100. The price of a pound of marijuana “buds” was stable from 2001 to 2002, ranging from \$1,000 to \$4,000, with a tetrahydrocannabinol (THC) content of 13 percent. “BC bud,” with a THC content of up to 30 percent, costs \$3,000–\$5,000.

### **Stimulants**

Methamphetamine is the most prevalent stimulant in San Diego County. With wide availability and a long history of use in the county, it continued to be a very popular drug in 2001. Primary treatment admissions for methamphetamine increased, as did methamphetamine-positive tests among adult male arrestees. While the proportion of female arrestees testing positive for methamphetamine increased as well, ED mentions and accidental overdose deaths declined (exhibit 4).

Overdose deaths in which methamphetamine was detected fell from 61 in 2000 to 48 in 2001, a 21-percent decline. From 1997, when there were 62 methamphetamine-related overdoses, to 2001, there was a 23-percent decrease. The typical 2001 methamphetamine overdose death was a White (73 percent) male (88 percent) age 35 and older (71 percent).

Between 1994 and 2000, there was no significant change in the number of methamphetamine ED mentions. However, there was a significant increase (28 percent) from 1999 to 2000, with a subsequent decline of 17 percent between the first two halves of 2000 and 2001. In 2001, the typical methamphetamine ED visitor was a White (50 percent) male (63 percent) age 35 or older (43 percent). However, mentions involving these groups declined significantly between the first and second halves of 2000 and 2001. Slightly more than one-half (54 percent) of the episodes involved multiple

drugs. The motive for methamphetamine use involved dependence in 42 percent of the episodes, and 32 percent involved chronic effects as the reason for visiting the ED. Two-thirds were treated and released. Episodes involving chronic effects as a reason for the ED visit decreased 46 percent between the first halves of 2000 and 2001.

Treatment admissions for methamphetamine increased from 4,507 in 2000 to 5,714 in 2001, a 27-percent increase. Methamphetamine was the most frequently reported primary drug in treatment, followed by marijuana and alcohol. Implementation of the Substance Abuse Crime Prevention Act (SACPA), also known as Proposition 36, was responsible for much of the increase. The typical primary methamphetamine admission was White (61 percent), although both Hispanic and African-American use of methamphetamine has increased over the past 5 years. Just over 50 percent of methamphetamine clients were male (51 percent), and 40 percent were 35 or older. The majority of users (62 percent) smoked the drug, while 19 percent snorted, and 17 percent injected the drug. Sixty-one percent reported secondary drug use and, for 46 percent of these clients, alcohol was the preferred second drug, followed by marijuana (33 percent).

Among adult arrestees in the ADAM study in 2001, 32 percent of adult males tested positive for methamphetamine, a 4 percentage-point increase. Among adult females, 37 percent tested methamphetamine-positive in 2001, up from 29 percent in 2000. During 2001, methamphetamine was the most frequently detected drug among both male and female adults. Eleven percent of ADAM juveniles were positive for methamphetamine, unchanged from 2000.

Methamphetamine prices increased at the “eightball” (one-eighth ounce), one-quarter ounce, and pound levels in 2002. An eightball sold for \$110 to \$130, one-quarter ounce cost \$150–\$400, and a pound ranged from \$3,500 to \$11,500. Gram purity levels averaged 30 to 40 percent. At the pound level, high-grade methamphetamine purity levels averaged 80 to 90 percent, while low-grade methamphetamine ranged from 18 to 40 percent pure.

### **Alcohol and Other Drugs**

#### *Alcohol*

Alcohol indicators were mixed in 2001, with accidental overdose deaths and treatment admissions up and ED mentions for alcohol in combination with other drugs down (exhibit 5).

In 2001, there were 96 alcohol-related overdose deaths, representing a 12-percent increase from 2000 and a 45-percent increase from 1997. Alcohol was seldom the only substance found in the deceased, and its presence in polydrug cases appeared to be increasing. Demographics for the typical alcohol overdose death were consistent with prior years: a White (70 percent) male (79 percent) older than 34 (83 percent).

The number of ED mentions for alcohol combined with other drugs remained relatively stable from 1994 to 2000, when there were 1,622, and from 2000 to 2001. In 2000, the ED episodes involving alcohol combinations were more likely to be White (69 percent), male (60 percent), and older than 34 (55 percent).

In 2001, there were 4,007 primary alcohol admissions, accounting for 25 percent of the total treatment population. These numbers are second only to the methamphetamine admissions. The typical primary alcohol admission was a White (65 percent) male (68 percent), older than 34 (62 percent). While African-Americans, at 12 percent, were overrepresented in relation to their proportion in the county population, Hispanics, at 16 percent, were underrepresented. Almost one-half (45 percent) of the primary alcohol admissions reported no secondary drug use; for those who did report polydrug use, it was usually marijuana or methamphetamine (20 percent each).

#### *Other Drugs*

Although media continued to publish reports about widespread use of the rave drugs gamma hydroxybutyrate (GHB), methylenedioxymethamphetamine (MDMA or “ecstasy”), and ketamine (“K,” “Special K”) in San Diego County, there was little hard evidence to support the attention. Although there were increases for MDMA and GHB in overdose deaths and ED mentions, the numbers were very small. However, the number of MDMA ED mentions did increase nearly 236 percent from 1998 (14 mentions) to 2000 (47

mentions). A local prevention coalition has responded to the stories and data by forming a Club Drug Strike Force and is developing plans to prevent the spread of these drugs to vulnerable populations, particularly adolescents.

The local expert focus group shared this concern. Members reported that ecstasy is very popular and continues to be the number one drug trend in San Diego County for youth. For many of these youth, ecstasy is a special event drug, such as the prom, particularly since it is not considered a drug by most teens. They also reported that youth often use GHB because it is inexpensive: a typical dose is a water bottle capful that sells for \$5 to \$10 per dose. They see GHB as resulting in an “easier drunk”—it does not cost as much as alcohol and does not produce a hangover.

#### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

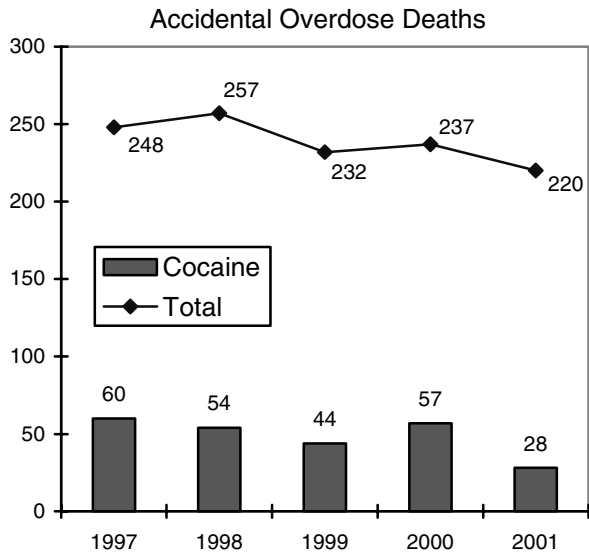
There were 11,069 cumulative adult/adolescent, and pediatric AIDS cases reported through December 31, 2001, in San Diego County. Of these, 55 were pediatric cases. Of the 11,014 adult/adolescent cases, the majority (76 percent) occurred among men having sex with men (MSM). Injecting drug users (IDUs) accounted for 9 percent of cumulative cases, and the dual risk category, MSM and IDU, constituted another 9 percent. Heterosexual contact has remained steady at 4 percent, and all other transmission modes comprised 2 percent.

The majority of cases occurred among Whites (65 percent). African Americans, at 12 percent, were overrepresented. Hispanics constituted 20 percent, and all other race/ethnicities accounted for another 3 percent. Transmission modes among women differed significantly from men, with 40 percent of the cases occurring among IDUs, 50 percent acquiring the disease through heterosexual contact, and 11 percent through other means.

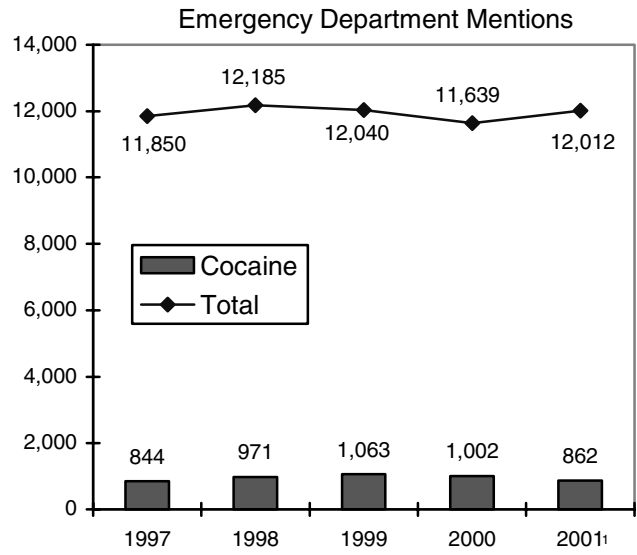
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*For inquiries concerning this report, please contact Michael Ann Haight, San Diego County Health and Human Services Agency, Alcohol and Drug Services, P.O. Box 85222, San Diego, California 92186-5222, Phone: (619) 692-5755, Fax: (619) 692-5604, E-mail: <Michael.Haight@sdcounty.ca.gov>.*

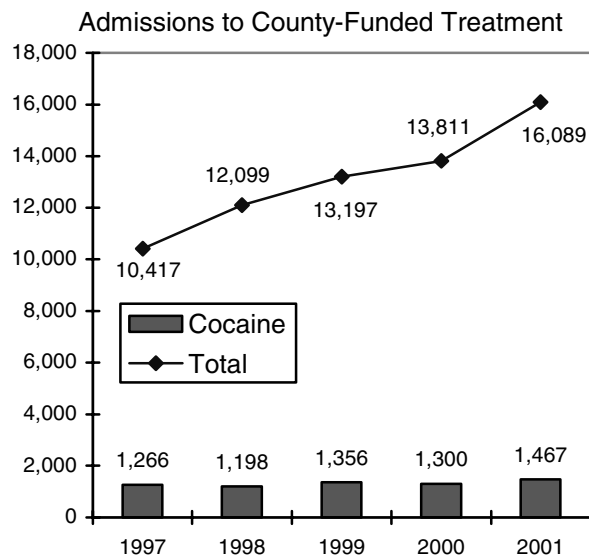
**Exhibit 1. Cocaine Indicators for San Diego County: 1997–2001**



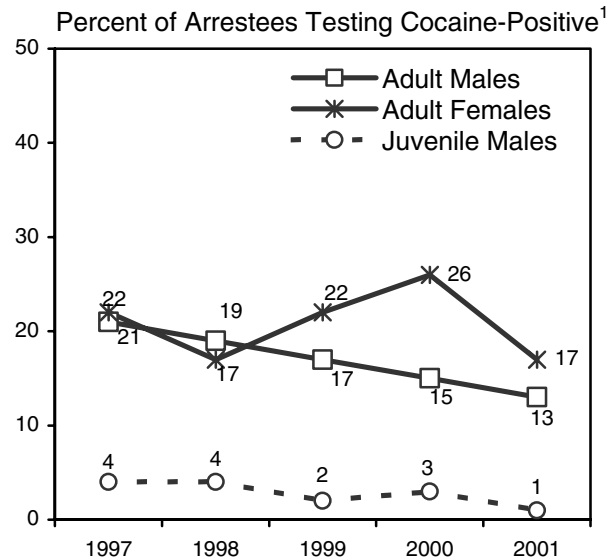
SOURCE: San Diego County Medical Examiner reports



<sup>1</sup> Estimates for 2001 are preliminary.  
SOURCE: DAWN, Office of Applied Studies, SAMHSA

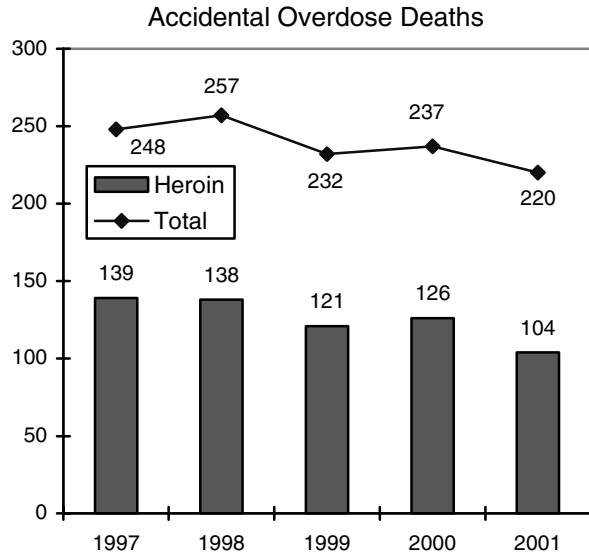


SOURCE: San Diego County Alcohol and Drug Data System

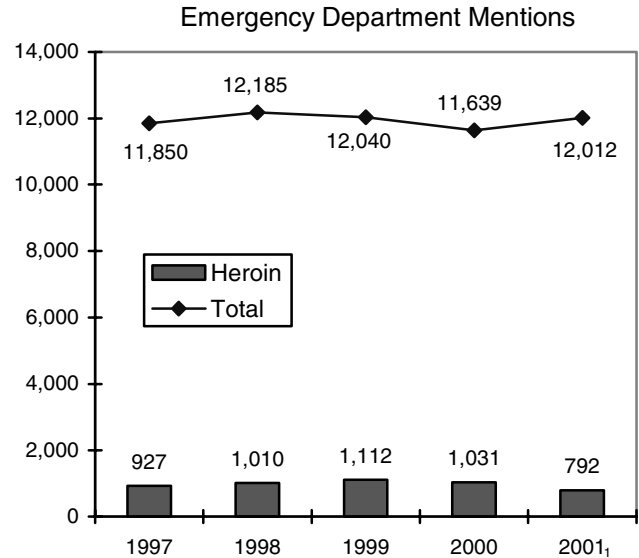


<sup>1</sup> Data prior to 2000 are not comparable to data collected after 2000.  
SOURCE: San Diego Association of Governments, Criminal Justice Unit

**Exhibit 2. Heroin Indicators for San Diego County: 1997–2001**

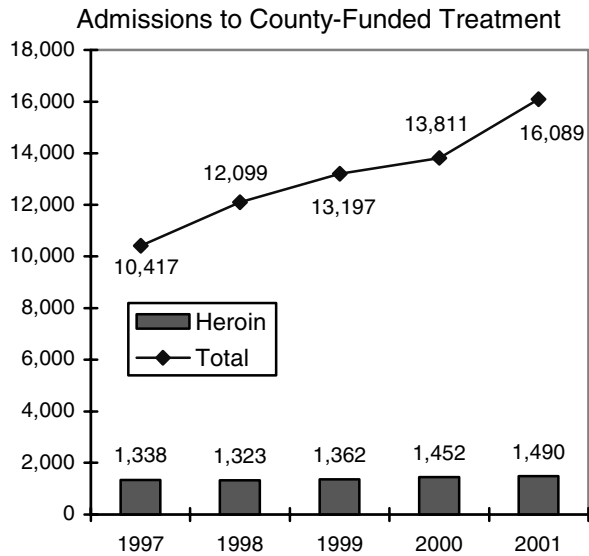


SOURCE: San Diego County Medical Examiner reports

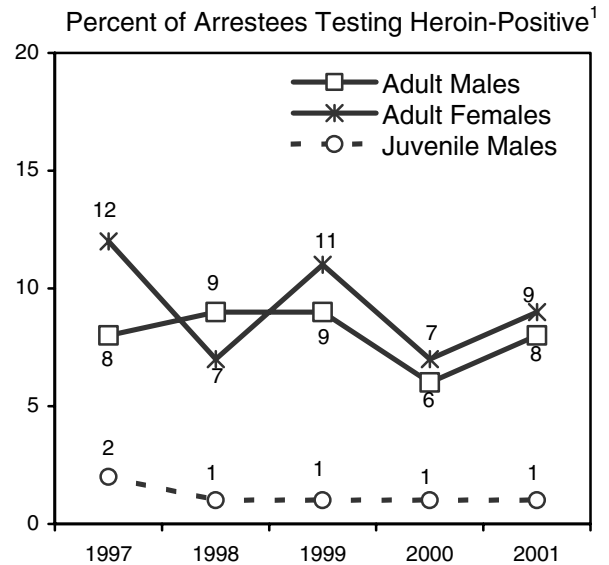


<sup>1</sup> Estimates for 2001 are preliminary.

SOURCE: DAWN, Office of Applied Studies, SAMHSA

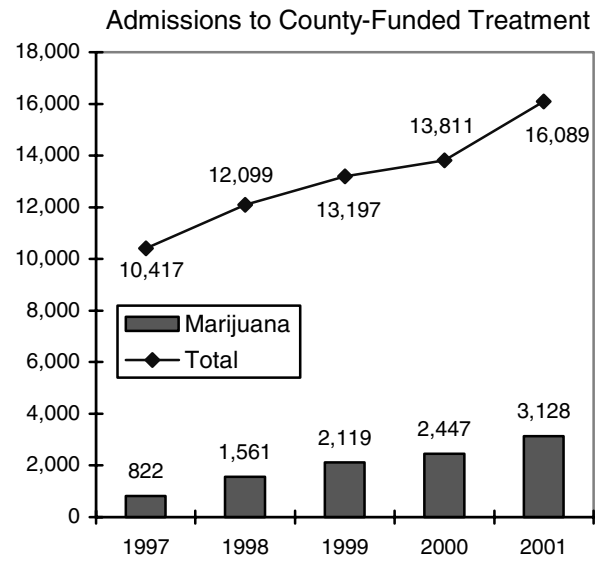
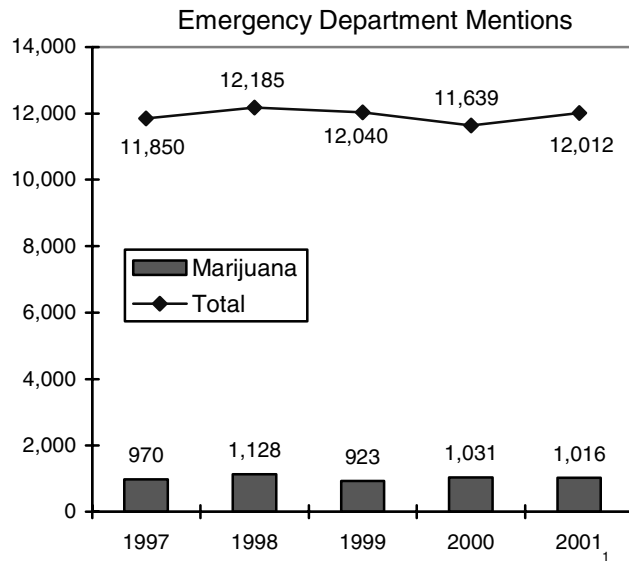


SOURCE: San Diego County Alcohol and Drug Data System



<sup>1</sup> Data prior to 2000 are not comparable to data collected after 2000.  
SOURCE: San Diego Association of Governments, Criminal Justice Unit

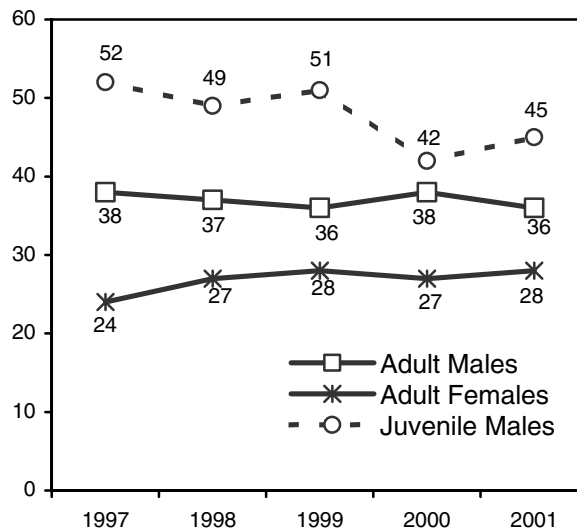
**Exhibit 3. Marijuana Indicators for San Diego County: 1997–2001**



<sup>1</sup> Estimates for 2001 are preliminary.  
SOURCE: DAWN, Office of Applied Studies, SAMHSA

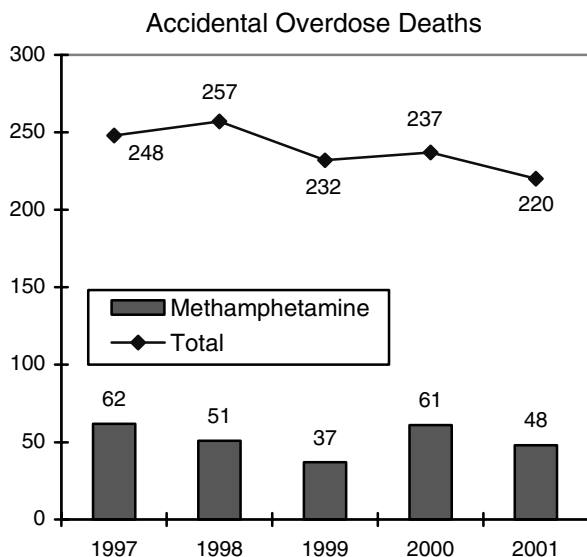
SOURCE: San Diego County Alcohol and Drug Data System

**Percent of Arrestees Testing Marijuana-Positive<sup>1</sup>**

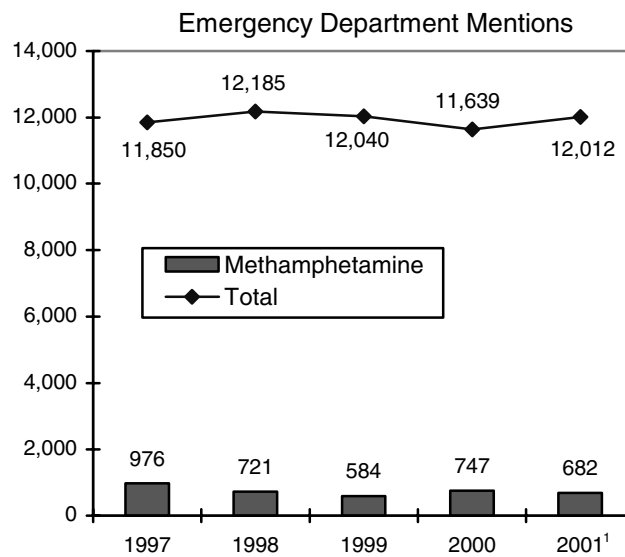


<sup>1</sup> Data prior to 2000 are not comparable to data collected after 2000.  
SOURCE: San Diego Association of Governments, Criminal Justice Unit

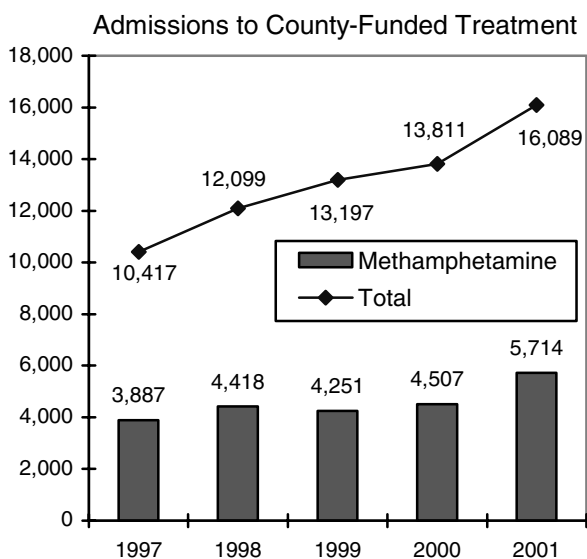
**Exhibit 4. Methamphetamine Indicators for San Diego County: 1997–2001**



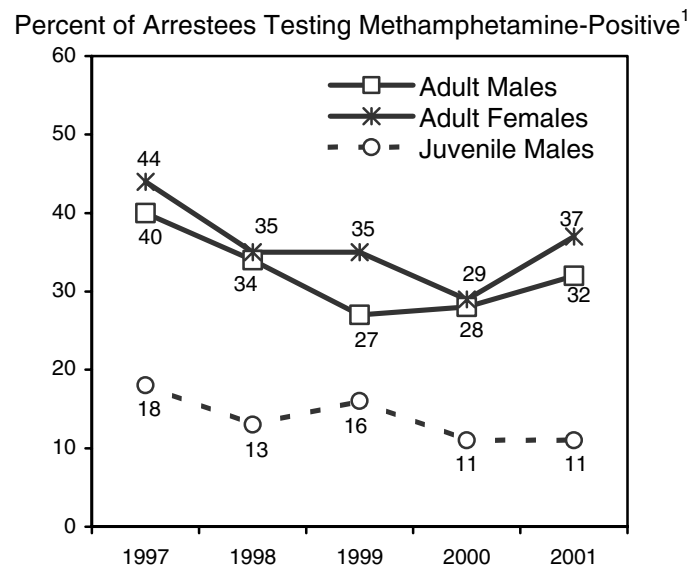
SOURCE: San Diego County Medical Examiner reports



<sup>1</sup> Estimates for 2001 are preliminary.  
SOURCE: DAWN, Office of Applied Studies, SAMHSA

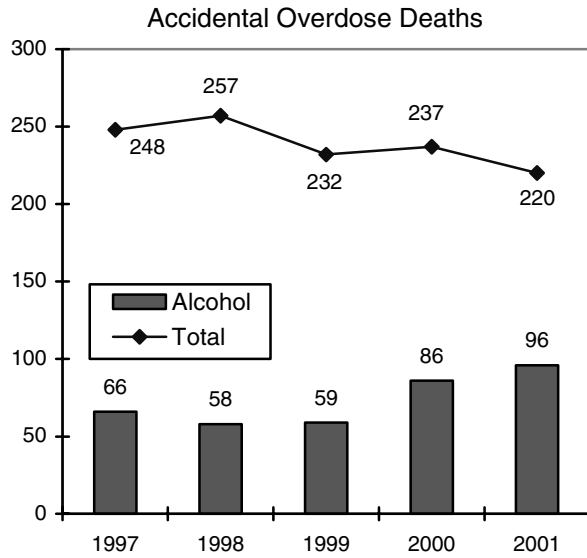


SOURCE: San Diego County Alcohol and Drug Data System

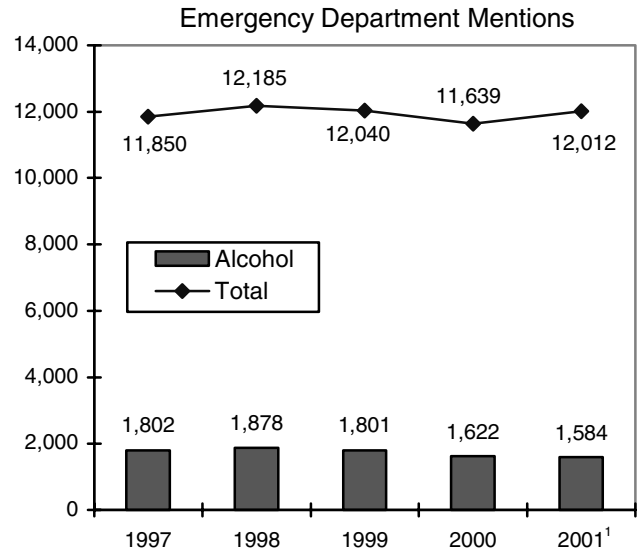


<sup>1</sup> Data prior to 2000 are not comparable to data collected after 2000.  
SOURCE: San Diego Association of Governments, Criminal Justice Unit

**Exhibit 5. Alcohol Indicators for San Diego County: 1997–2001**

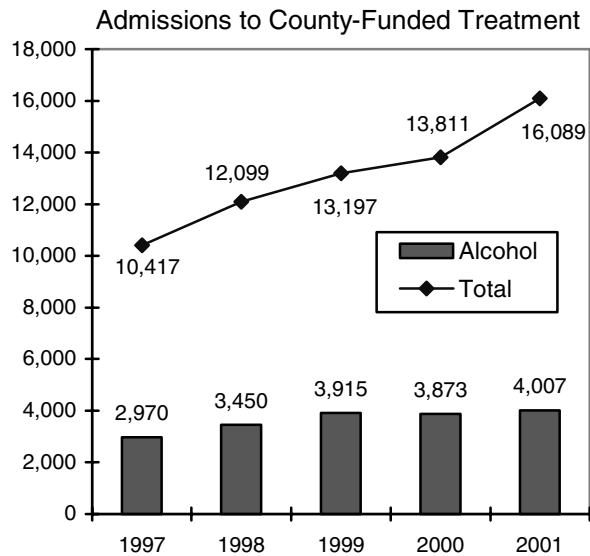


SOURCE: San Diego County Medical Examiner reports



<sup>1</sup> Estimates for 2001 are preliminary.

SOURCE: DAWN, Office of Applied Studies, SAMHSA



SOURCE: San Diego County Alcohol and Drug Data System

# Patterns and Trends of Drug Use in the San Francisco Bay Area

John A. Newmeyer, Ph.D.<sup>1</sup>

## ABSTRACT

*Recent indicators for cocaine were mixed: overdoses were up, deaths were level, and treatment admissions were down. The shift away from smoking crack and toward intranasal use of powder cocaine continued. The erstwhile predominance of Blacks among users continued to ebb. Indicators consistently suggest that heroin use peaked in 1999 and has declined significantly since then. Heroin users' average age continued to rise, although there were signs of new usage among young Whites. Local prices of street heroin increased substantially during the past year. The overdose and treatment admissions data point to a continued increase in marijuana prevalence. Arrests were down, but this may be because of more tolerance for medical marijuana use. All methamphetamine indicators were down, sustaining a decline that began around 1997. The incidence of new HIV infection declined between 1997 and 2001 for heterosexual drug injectors, but increased for gay male and transsexual injectors. Risky "speed" injection practices among homosexually active men remain a major factor in HIV incidence.*

## 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 4,123,000 as of the 2000 census.

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 industries such as software and biotechnology have led to further expansion and to a highly diversified economy. 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 origins. 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.

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. However, partly as a result of reverses in high-technology industries, San Francisco County suffered an increase in its unemployment rate from 2 to 6 percent in the last year.

### Data Sources

The sources of data for the drug abuse indicators are described below:

- **Emergency department (ED) drug mentions data** were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA), for three counties of the San Francisco Bay area (San Francisco, Marin, and San Mateo) from 1996 through the first half of 2001. Data for the first half of 2001 are preliminary.
- **Treatment admissions data** were available for all five bay area counties for calendar year (CY) 1999 and fiscal year (FY) 2001 (July 2000–June 2001). These data were compiled by the California Department of Alcohol and Drug Programs (DADP) and included corrections for earlier overreporting for FY 2001. Data were also available for San Francisco County for all fiscal years from 1992 through 2001. The State reporting source shifted from calendar year reporting to fiscal year reporting as of FY 2001.
- **Medical examiner (ME) data on drug mentions** in decedents in three counties (San Francisco, Marin, and San Mateo) were provided by the DAWN mortality system for CY 2000, along with comparable data for 1996–99. Demographic data on decedents were available for San Francisco County for FY 2000. The DAWN system covered 100 percent of the

<sup>1</sup> The author is affiliated with Haight-Ashbury Free Clinics, Inc., San Francisco, California.



metropolitan statistical area (MSA) jurisdictions and 100 percent of the MSA population in 2000.

- **Reports of arrests for drug-law violations and counts of reported burglaries** were provided by the San Francisco Police Department (SFPD) for 2001 and (for reported burglaries) for the first 3 months of 2002. A comparison was made with similar data from 1993–2000.
- **Arrestee drug testing data** are from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ) for San Jose and Sacramento for the first three quarters of 2001 for adult males.
- **Price and purity data** came from the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), and referenced heroin “buys,” mostly made in San Francisco County. Data for 2001 were compared with those for 1994–2000. Data on trafficking in other drugs were available from the National Drug Intelligence Center’s report, “California, Northern and Eastern Districts: Drug Threat Assessment.” Those data pertained to periods through the fourth quarter of 1999.
- **Ethnographic information** was obtained through interviews with treatment program staff and outreach workers in May 2002. Their observations were compared with those they made in May and November 2001 and pertained mostly to San Francisco County.
- **The Party and Play Study data** were derived from a study conducted in autumn 2000 and winter 2001 by the San Francisco Department of Public Health (SFDPH) Acquired Immunodeficiency Syndrome (AIDS) Office. The sample consisted of 356 gay/bisexual men at “late night” venues.
- **AIDS surveillance data** through March 2002 were furnished by the SFDPH AIDS Office; a comparison was made with similar data for March 2001. The Urban Health Study has conducted human immunodeficiency syndrome (HIV) serotesting among injection drug users (IDUs) in several bay area cities on a regular basis, from 1986 to the beginning of 2002.
- **Hepatitis B data** for San Francisco County were available for 1996 through 2001 and for the first 16 weeks of 2002.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine and Crack

Ethnographic observers concur that past changes in cocaine route of use continued: fewer users reported smoking crack and more reported intranasal use of powder cocaine.

The number of ED mentions for cocaine declined between 1996 and 1998, but has risen slowly since then (exhibit 1). The preliminary rate of cocaine/crack ED mentions in the first half of 2001 was 63 per 100,000 population, significantly higher than the rate of 59 in the second half of 2000.

The number of cocaine treatment admissions in the five-county bay area increased significantly from CYs 1994 through 1999, then decreased somewhat in FY 2001 (exhibit 2). As a proportion of total admissions (alcohol excluded), cocaine fell from 24 to 23 percent between CY 1999 and FY 2001.

In San Francisco County during FY 2001, 2,096 persons were in treatment for primary cocaine problems. This was 23 percent lower than the number for FY 1999.

According to the DAWN data, ME death mentions involving cocaine in three bay area counties fluctuated within a narrow range, with no particular trend, between 1996 and 2000 (exhibit 3). Of the cocaine-related death mentions in 2000 in San Francisco County, males accounted for 81 percent; the median age was just over 40.

A nearby metropolis, which is an ADAM site, may give some indication of the cocaine situation in San Francisco. In San Jose, 12 percent of adult male arrestees tested positive for cocaine in January–September 2001. This was the third-lowest figure for cocaine among all 31 ADAM sites; the median cocaine-positive proportions for those sites was 30 percent.

According to the DEA, local kilogram prices for cocaine ranged from \$14,000 to \$22,000 in late 1999, with a purity range of 60 to 90 percent.

Overall, recent indicators for cocaine were mixed: overdoses were up, deaths were level, and treatment admissions were down. The shift away from smoking crack and toward using powder cocaine intranasally continued. The erstwhile predominance of Blacks among users continued to ebb.

## Heroin

According to ethnographic observers, there has been an increase of heroin use among younger Whites, most of whom smoke it or use it intranasally. Older users still preferred to inject. Prices have increased again: half-grams of “street” heroin were quoted at \$20, which is twice last year’s low price.

The number of heroin ED mentions in San Francisco dropped significantly from 1994 (3,654 mentions) to 2000 (2,756). The preliminary rate of heroin ED mentions in the first half of 2001 was 73 per 100,000 population, a significant decrease from the rate of 92 in the first half of 2000. The rate for males in the first half of 2001 was 97 per 100,000, down significantly from the rate of 125 in the first half of 2000.

The number of treatment admissions for primary heroin problems in the entire bay area fluctuated narrowly between 1994 and 1999, but it dropped significantly from CY 1999 to FY 2001 (exhibit 2). Excluding alcohol, heroin constituted 64 percent of primary drug admissions in 1994, but only 52 percent in FY 2001.

In San Francisco County, 5,181 persons were in public treatment for primary heroin abuse in FY 2001. This is down slightly (5 percent) from the total in FY 1999.

In the three-county bay area reporting to DAWN, ME death mentions involving heroin in 2000 were at their lowest level in 5 years (exhibit 3). The count for 2000 was 19 percent lower than the average for 1996–99. Of the heroin-related death mentions in San Francisco County in 2000, males accounted for 87 percent and the median age was 40.

Arrests for heroin-related offenses numbered 5,311 in 2001, a decline of 11 percent from the 5,981 recorded in 2000.

Many heroin users support their habits through property crimes. In San Francisco, the number of reported burglaries decreased by 49 percent from 1993 to 1999 (11,164 to 5,704). Between 1999 and 2001 the number rose by 18 percent. In the first 3 months of 2002, however, the rate of reported burglaries was back down to its 1999 level. 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 San Francisco during the first half of 2001. Of the 15 buys, 14 were of Mexican origin. The 2001 samples averaged 15 percent pure and \$2.11 per pure milligram, compared with 16 percent and \$0.71 in

2000, 20 percent and \$0.47 in 1999, 26 percent and \$0.33 in 1998, 26 percent and \$0.63 in 1997, 24 percent and \$0.83 in 1996, 35.0 percent and \$0.83 in 1995, and 29 percent and \$0.95 in 1994. Local samples of heroin were thus generally “Mexican” and experienced a very sharp increase in average price between 1998 and 2001.

Prices for kilograms of heroin ranged from \$18,000 to \$80,000 in the San Francisco area, according to the DEA. Purity ranged from 20 to 60 percent.

According to the Party and Play Study, 14 percent of a “late night” sample of gay/bisexual men reported injecting heroin during the prior 3 months; 8 percent of this sample reported noninjection use of heroin in that time period.

The indicators were consistent in showing a peak of heroin use in 1999, followed by a significant decline. The average age of users continued to increase, although there were signs of new use among young Whites. Local prices of street heroin have increased considerably in the past year.

## Other Opiates/Narcotics

Ethnographic observers note that there was “lots of Vicodin [hydrocodone] in various strengths, almost as much as codeine used to be.” ME death mentions in the overall “narcotic analgesics” category fluctuated within a narrow range in 1996–2000, with no noteworthy trend (exhibit 3).

## Marijuana

Ethnographic observers reported an increase in marijuana use among young people. The number of ED marijuana mentions rose significantly between 1998 and 2000 (exhibit 1), and showed a significant increase from the last half of 2000 to the first half of 2001. While males accounted for approximately two-thirds of the marijuana ED mentions in the first half of 2001, the proportion of females increased significantly from the last half of 2000 to the first half of 2001.

Primary marijuana admissions for FY 2001 totaled 839. This was 5.8 percent of all admissions, more than twice the percentage noted in FY 1997.

Arrests for marijuana-related offenses in San Francisco County numbered 1,364 in 2001, a decline of more than one-fifth from the 1,736 recorded in 2000.

The San Francisco DEA Office notes that pound prices for marijuana were approximately \$2,500, with the tetrahydrocannabinol (THC) content ranging from 3 to 20 percent.

The overdose and admissions data suggest a continued increase in marijuana prevalence. Arrests were down, but this may be attributed to a greater tolerance for medical marijuana use.

### **Stimulants**

According to ethnographic observers, the speed scene in San Francisco remained active in 2002, but less than during the years of peak activity around 1997. Gay men no longer predominate the user population.

The number of methamphetamine/speed ED mentions decreased significantly from the first half of 2000 to the first half of 2001, when they totaled 243. Males accounted for 79 percent of the methamphetamine ED mentions.

Treatment admissions for primary amphetamine problems in the five-county bay area increased by 100 percent between CYs 1994 and 1999, but held steady between CY 1999 and FY 2001 (exhibit 2). In San Francisco, the number in treatment for primary speed problems in FY 2001 was 873. This count was down by 23 percent from FY 1998, the peak year after a sharp rise beginning in FY 1992.

In the three-county bay area, ME death mentions involving methamphetamine/speed rose from 44 in 1996 to 58 in 1999, then fell back to 45 in 2000 (exhibit 3). In San Francisco County during the 1990s, the highest annual count of deaths ascribed to amphetamines (alone or in combination) was 40 in 1995. The count in 2000 was down by 65 percent, to 14. 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 situation in San Francisco. In Sacramento and San Jose, respectively, 29 percent and 28 percent of male adult arrestees tested positive for methamphetamine in January–September 2001. These were two of the three highest figures for methamphetamine-positive findings among male adults in all the 31 ADAM sites. Methamphetamine-positive results among males were 20 percent or higher in only eight sites, all in Pacific or Mountain States.

The DEA San Francisco Office reports that pounds of methamphetamine sold in a broad range of prices: \$3,500–\$10,000. Ounce prices ranged from \$500 to \$1,000.

Gay/bisexual men in the Party and Play Study sample reported a high rate of methamphetamine abuse. Fully 64 percent of these men cited noninjection use in the prior 3 months, and 33 percent cited injection

use. Fifteen percent of the men reported having “used a needle after someone else” during the prior 3 months. This represents a high rate of HIV-risky parenteral behavior, albeit among a “fast lane” subset of homosexually active men.

In summary, all methamphetamine indicators were down. However, risky injection practices among gay and bisexual men continued to be a major factor for HIV incidence.

### **Depressants**

The annual rate of ED mentions for the overall category of benzodiazepines fluctuated in a narrow range between 1996 and early 2001 (exhibit 1). Ethnographic observers concur that usage seems unchanged over the past several years. However, ME death mentions involving benzodiazepines decreased by more than 22 percent between 1997 and 2000, from 71 to 55 (exhibit 3).

### **Hallucinogens**

Lysergic acid diethylamide (LSD) ED mentions increased significantly from 1998 to 2000, and totaled 30 in the first half of 2001. PCP mentions declined significantly from the first half of 2000 to the first half of 2001 (exhibit 1).

### **Club Drugs**

“There’s plenty of ‘X’ around,” according to ethnographic observers. Street prices in San Francisco were \$20, sometimes \$15, per pill. The annual rate of ED mentions of methylenedioxymethamphetamine (MDMA, ecstasy, or “X”) totaled 107 in 2000, compared with 38 in 1998 (exhibit 1); this difference was statistically significant, as was the change between 1999 and 2000. The preliminary figure for 2001 was 78. Two other club drugs, gamma hydroxybutyrate (GHB) and ketamine, each had the highest-ever ED mentions in 2000, and the changes from 1998 to 2000 were significant for both drugs; preliminary estimates for the first half of 2001 suggest little change (exhibit 1). Males accounted for approximately three-quarters of GHB mentions in 2000 and Whites for three-quarters; the median age was about 29. Among the Party and Play Study sample, 36 percent reported MDMA use in the prior 3 months, while 18 percent reported GHB use and 17 percent reported ketamine use. The actual number of club drug mentions remained small, however, compared with mentions for cocaine or methamphetamine.

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

### **AIDS and HIV Infection**

San Francisco County had a cumulative total of 27,921 AIDS cases through March 31, 2002, an increase of 498 (1.8 percent) from the total reported through March 31, 2001. Of these cases, 1,918 (6.9 percent) were heterosexual IDUs, an increase of 46 (2.5 percent) in a year. Another 3,504 AIDS cases (12.5 percent) were men who had sex with other men (MSM) and also injected drugs; this number increased by 4.1 percent in one year. The rate of case reporting has been decelerating for some time among heterosexual IDUs, but accelerating among MSM/IDUs. AIDS data on transgender San Franciscans have been collected only since 1996, but the cumulative total of cases—273—is a surprisingly large proportion of an overall male-to-female transgender population estimated at 3,000.

Among San Franciscans diagnosed in 2000 through 2002, heterosexual IDUs accounted for 16 percent, up from 9 percent among those diagnosed in 1992 through 1995, and 14 percent in 1996 through 1999. However, the overall case numbers in 2000–2002 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 10 years. This caseload is 70 percent male, 50 percent Black, 35 percent White, 12 percent Hispanic, and 2 percent Asian/Pacific Islander. By contrast, the gay/bisexual male IDU caseload is 72 percent White, 16 percent Black, 9 percent Hispanic, and 2 percent Asian/Pacific Islander. The heterosexual IDU demography is like that of heroin users except for overrepresentation of Blacks, while the gay male IDU demography is similar to that for male speed users.

Semiannual surveys by the Urban Health Study (UHS) point to a decline in the HIV-positive prev-

alence of heterosexual IDUs not in treatment. The prevalence for San Francisco IDUs was 13 percent in the fall 2001–winter 2002 sampling. Prevalence figures were generally in the 9 to 10 percent range between 1997 and 2001, and in the 11 to 16 percent range in the early and middle 1990s. Prevalence for IDUs in Richmond (Contra Costa County) ranged between 20 and 25 percent in the early 1990s, then between 15 and 18 percent in 1997–99; prevalence was only 10 percent in 2001. Prevalence in West Oakland samples ranged around 15 or 16 percent in the middle 1990s, then hovered around 10 percent in 1997–99; prevalence was only 6 percent in 2001.

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 reflects a fairly low HIV annual incidence among heterosexuals (0.6 percent for men, 1.1 percent for women), a high incidence among men who have sex with men (4.6 percent), and an extremely high incidence among transsexuals (13.2 percent).

### **Hepatitis B and C**

From 1996 through 2002, reported cases of hepatitis B in San Francisco County rarely deviated from a pace of about one per week. Only in 2001 was the pace slightly higher, about four cases every 3 weeks. Heterosexual IDUs accounted for barely 1 in 10 of these cases. San Francisco's public health department noted a "huge influx of hepatitis B among adults and children immigrating from China and Vietnam." The result has been a new policy to vaccinate sixth grade public school children against the disease.

Hepatitis C is emerging as a far greater health concern for IDUs than hepatitis B; preliminary serosurveillance results of bay area IDUs suggest an infection rate in the 50–60-percent range. Though this rate is ominously high, it appears to be significantly lower than that for IDUs from other metropolitan areas in the Nation.

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**Exhibit 1. Number of Emergency Department Mentions in San Francisco for Selected Drugs: 1996–2000 and January–June 2001**

<b>Drug</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>1H 2001<sup>1</sup></b>
Cocaine/Crack	2,310	1,979	1,843	1,935	2,054	1,066
Heroin	3,132	2,719	2,360	3,050	2,756	1,227
Marijuana/Hashish	424	388	391	469	627	328
Methamphetamine/Speed	934	1,012	616	554	591	243
PCP/PCP Combinations	158	122	67	62	70	32
LSD	104	73	43	55	67	30
MDMA	32	35	38	47	107	78
GHB	78	83	101	138	151	77
Ketamine	4	1	2	3	14	7
Benzodiazepines	730	727	619	665	664	369
<b>Total Mentions</b>	<b>14,213</b>	<b>13,492</b>	<b>12,525</b>	<b>12,702</b>	<b>12,170</b>	<b>5,910</b>

<sup>1</sup> Data for the first half of 2001 are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Admissions to Drug Treatment Programs in the San Francisco Bay Area by Primary Drug of Abuse: CY 1999 and FY 2001**

<b>Drug</b>	<b>CY 1999</b>	<b>FY 2001</b>
Cocaine	8,727	7,380
Heroin	19,763	16,402
Amphetamine	4,595	4,513
All Drugs (Excluding Alcohol)	36,069	31,676

SOURCE: California Department of Alcohol and Drug Programs (DADP)

**Exhibit 3. Medical Examiner Drug Mentions in Three Counties (Including San Francisco): 1996–2000**

<b>Drug</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
Cocaine	155	127	158	158	146
Heroin/Morphine	212	159	164	192	148
Methamphetamine	44	49	45	58	45
Narcotic Analgesics	175	156	185	198	164
Benzodiazepines	66	71	62	50	55

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

# Recent Drug Abuse Trends in the Seattle-King County Area

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## ABSTRACT

*Cocaine and heroin indicators point to a decreased, but still substantial, impact on the local population. Use of other opiates continues to increase. The overall level of marijuana use remains high; indicator data are mixed, but are generally flat. Stimulant data are also generally mixed, but point to a continued rise in impact. Recent data indicate a decline in medical examiner mentions of depressants but an increase in ED mentions. Low levels of club drug use continue, with higher levels of use among certain subpopulations. Injection drug users (IDUs) constitute 12 percent of newly diagnosed King County HIV infections over recent years. Hepatitis C may infect up to 85 percent of IDUs in King County.*

## INTRODUCTION

### Area Description

Located on Puget Sound in western Washington, King County spans 2,130 square miles, including the city of Seattle, which 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. Interstate 5 runs from Tijuana, Mexico, through King County, and 95 miles 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, an increase of 15.2 percent

since 1990. King County is the 12th largest county 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 the population in the city of Seattle.

The county's population is 75.7 percent White, 10.8 percent Asian/Pacific Islander, 5.5 percent Hispanic, 5.4 percent African-American, 0.5 percent Native Hawaiian and Other Pacific Islander, 2.6 "some other race," and 0.9 percent Native American or Alaska Native. 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 live below the Federal poverty level, which is lower than the State averages of 10.2 percent and 15.2 percent, respectively.

### Data Sources

Sources of information for this paper are presented below.

- **Drug-related emergency department (ED) data** were derived from the Drug Abuse Warning Network (DAWN), Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). DAWN estimated rates per 100,000 population for ED mentions for selected drugs from 1994 through June 2001. Data for the first half of 2001 are preliminary. Drug "mentions" indicate that the patient identified the substance as something they had recently taken; it may or may not have been the reason for the ED visit. Available data are for King and Snohomish Counties combined.

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- **Drug-related mortality data** were derived from the King County Medical Examiner (ME) database. Automated information about drug-caused deaths in King County is presented by calendar quarter for January 1, 1998, through December 31, 2001. The data include deaths directly caused by licit or illicit drug overdose and exclude deaths caused by poisons. Therefore, totals may differ slightly from drug death reports published by the King County ME's office, which include fatal poisonings. Testing is not done for marijuana. Note that more than one drug may be identified per individual drug overdose death; as a result, the total number of drugs identified exceeds the number of actual deaths.
- **Treatment admissions data** were provided by the Washington State Department of Social and Health Services' Treatment and Assessment Report Generation Tool (TARGET), the department's statewide alcohol/drug treatment activity database system and report-generating software. Data are compiled for King County for January 1, 1999, through December 31, 2001. Data for all substance abuse-related treatment admissions are included; this contrasts with previous CEWG reports, in which admissions for alcohol-only were excluded. Only data on the primary drug at the time of treatment admission are available. Admissions to detoxification were excluded, as were treatment stays paid for privately or by the Department of Corrections.
- **Drug-related helpline call data** were provided by the Washington State Alcohol/Drug Help Line (ADHL). ADHL provides confidential, 24-hour, telephone-based treatment referral and assistance for Washington State. Data are presented for the second half of 2001 for calls originating within King County. Data presented are for drugs mentioned. Since a caller may refer to multiple drugs, there are more mentions than there are calls. The data exclude information on alcohol and nicotine, which account for 55 percent of the 12,947 calls received in 2001 (and for 35 percent of teen calls).
- **Arrestee drug testing data** were provided by the Arrestee Drug Abuse Monitoring (ADAM) program. As part of the National Institute of Justice's ADAM program, King County's urinalysis results for January through September 2001 are included in the narratives for cocaine, heroin, marijuana, stimulants (methamphetamine), and club drugs (phencyclidine [PCP]). Data are for male arrestees only.
- **Drug price and seizure data** are from three sources. One source is the Northwest High Intensity Drug Trafficking Area (NW HIDTA). Pursuant to its designation by the Office of National Drug Control Policy, the NW HIDTA produces a Threat Assessment for the region on an annual basis. Data for 1998–2001 are from all Federal, State, and local law enforcement agencies and narcotics task forces in the region, as well as the Western States Information System (WSIN). Data on heroin price and purity for the United States and Seattle come from the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP); the data presented are for the first half of 2001. Drug seizure data are obtained from the U.S. Customs Service. Data relating to seizures for all illegal drugs are for July 1, 2001, through December 31, 2001. The majority of U.S. Customs Service seizures are made at the Blaine, Washington, border crossing, where Interstate 5 crosses the northern border of the State into Canada near Vancouver. This is the third busiest Canadian border crossing for passengers and the fourth busiest for commercial traffic nationally.
- **Acquired immunodeficiency syndrome (AIDS) data** (including exposure related to injection drug use) in Seattle-King County, other Washington counties, Washington State (January 1999 through December 2001), and the United States (July 1998 through June 2001), are from the Public Health – Seattle & King County (PHSKC); Washington State Department of Health; and the U.S. Centers for Disease Control and Prevention (CDC)'s "HIV/AIDS Epidemiology Report." Human immunodeficiency virus (HIV) cases were reported to PHSKC or the Washington Department of Health between September 1999 and December 2001. Because HIV infection reporting was first implemented in Washington in September 1999, many cases reported during this period were actually diagnosed years before.
- **Methamphetamine lab data** were provided by the Washington State Department of Ecology (DOE). The DOE has maintained information about environmental and response costs of methamphetamine labs and increases in incidents (by county) since 1990 and is responsible for handling and disposing of hazardous substances found at illegal drug labs and dump sites.
- **Injection drug use data** are from two longitudinal cohort studies of Seattle-area drug injectors funded through the National Institute on

Drug Abuse. The studies were conducted by the PHSKC Epidemiology Research Unit. The studies began in 1994 and continue through 2002.

- **Key informant interview data** are from discussions with a variety of drug users and other key informants from treatment centers; street outreach workers also provided data for this report.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine and Crack

Short-term indicators of cocaine use and abuse have declined. The rate of 70 ED cocaine mentions per 100,000 population in the first half of 2001 shows a statistically nonsignificant decline from the higher level of 88 mentions in the second half of 2000 (exhibit 1). In the first half of 2001, males accounted for 61 percent of the 1,612 cocaine mentions. Whites accounted for 51 percent, Blacks for 31 percent, and Hispanics for nearly 5 percent, proportions that are consistent with previous years. A few (4 percent) belonged to other ethnic groups, and the race/ethnicity of 9 percent was unknown. The majority ranged in age from 26 to 44.

The number of adult admissions to drug treatment for primary cocaine abuse declined during 2001, from 649 in the first half of the year to 501 in the second half (exhibit 2). While the proportion of admissions related to cocaine has remained fairly stable (at approximately 13 percent for the past 3 years), the number of admissions in 2001 represented a decline of 18 percent (from 1,397 in 2000).

Route of administration of cocaine is included in treatment admissions data. For the second half of 2001, smoking was the most common method of administering cocaine (55 percent), followed by injection (23 percent), and intranasal use (17 percent). Data are consistent for the past 3 years.

There were 20 cocaine-involved drug deaths in the second half of 2001 (exhibit 3), which represented 30 percent of all drug-related deaths. This is a decline from the first half of 2001 ( $n=29$ ), when cocaine was involved in 33.7 percent of all drug-related deaths, and from 2000, when cocaine was involved in 40.6 percent of all drug-related deaths. Four of the deaths (20 percent) in the second half of 2001 involved cocaine alone; in 2000, cocaine alone was found in 31 (34.8 percent) individuals whose death was cocaine-related. Twelve of the cocaine-related deaths in the last half of 2001 involved opiates in combination (60 percent), and three of these also involved alcohol as a contributing cause of death. In

the second half of 2001, males accounted for 85 percent of cocaine-related deaths. This represented an increase from the first half of 2001, when males accounted for 76 percent of cocaine-related deaths, and from 2000, when they constituted 83 percent of such deaths. Caucasians accounted for 75 percent of the 20 cocaine-related deaths in the second half of 2001. Of the decedents, three (15 percent) were African-American. Both the number and proportion of African-American deaths have declined. In 1999, 17 deaths among African-Americans represented 23 percent of cocaine-related deaths; in 2000, there were again 17 deaths in this group, representing 19 percent; and in 2001, there were 4 such deaths, representing 8 percent of all cocaine deaths. Decedents ranged in age from 11 to 48 years, with a median age of 36.5; this was the lowest median age for cocaine deaths in the past 3 years.

ADAM data for 2001, as noted earlier, are available for the first 3 quarters and only for males. During this period, 30.7 percent of male arrestees tested positive for cocaine. This average is unchanged from 2000.

Crack cocaine sells for \$100 per gram of 40–85 percent pure product. The unit of sale is generally \$2, \$5, or \$10 “rocks.” Homeless and street drug users are the primary consumers of crack. Powder cocaine prices range from \$500 to \$1,000 per ounce for 57–68 percent pure product. Informants report that flake/powder cocaine sells for between \$35 and \$50 per gram (the lower price if purchased by the gram, the higher price for smaller amounts).

In the second half of 2001, the U.S. Customs Service reported 16 cocaine seizures, totaling 153 pounds. In the first half of 2001, there were 18 cocaine seizures weighing a total of 223 pounds (1,016 kilograms); one other seizure weighed 5,154 pounds (2,338 kilograms). In terms of weight, this is a significant increase over 2000, when 31 seizures totaled 149 pounds (68 kilograms).

In 2001, cocaine was the second most frequently cited illicit drug among those calling the ADHL. The 1,179 calls represented 20.3 percent of all drug-related calls made to the helpline. Teens called about cocaine less often than adults, with only 8 percent of teen calls referring to cocaine.

### Heroin

Heroin mortality trends for July–December 2001 are similar to those for the first half of the year. A sustained decline in heroin-related deaths was evident in King County in 2001 ( $n=61$ ) and contrasts markedly with the high number of heroin-related



deaths in 1998 (143) (exhibit 3). Rates of heroin-involved deaths have similarly declined, from a high of 8.8 per 100,000 population in 1998 to 3.5 in 2001 (exhibit 4). Among the 27 deaths during the second half of 2001, 81 percent were Caucasian, similar to the proportion for all drug-related deaths. Seven of these deaths involved heroin alone. The number and proportion of heroin-only deaths declined from 1999 to 2001, with 49 decedents in 1999 (representing 42 percent of heroin-related deaths), 41 (40 percent) in 2000, and 16 (26 percent) in 2001.

Preliminary rates of DAWN heroin ED mentions per 100,000 population were statistically significantly lower for the first half of 2001 (exhibit 1), compared with the first half of 2000. The estimated rate of heroin-related mentions per 100,000 was 38 in the first half of 2001, compared with 72 and 55 for the first and second halves of 2000, respectively. Alcohol-in-combination with other drugs and cocaine are the two most commonly cited drugs in the ED data for Seattle, followed by heroin.

The majority of those visiting the ED for heroin use reported using no other drugs recently. In 2000, 62 percent of ED visits for heroin were for heroin used alone; the lowest proportion was 57 percent in 1994, with a consistent 66 percent for the intervening years.

The rate of heroin ED mentions per 100,000 population was 45 for men and 30 for women for the period between January and June 2001, compared with 91 for men and 52 for women for the first half of 2000. These declines were significant. During the first half of 2001, rates of heroin mentions varied by age, with a rate of 78 per 100,000 for 26–34-year-olds, followed by a rate of 74 for 35–44-year-olds, a rate of 63 for those age 45–54, a rate of 35 for 18–25-year-olds, a rate of 5 for those older than 55, and a rate of 2 for those under 18. Rates for all these age groups, except the 6–17-year-olds, represented significant decreases from the first half of 2000.

The primary form of heroin found on the streets is Mexican black tar. China white, which is common in Vancouver, British Columbia, and on the east coast, is nonexistent in the local area, according to the regional HIDTA and DEA.

New treatment admissions for heroin remained at a low level in the second half of 2001, with 606 admissions (14.4 percent of all treatment admissions). This was similar to the 636 admissions (13.4 percent) in the first half of the year (exhibit 2). This lower level contrasts with 2000, when there were a total of 1,961 admissions (18.7 percent) for the entire year, and with 1999, when there were 1,688

admissions (17.4 percent). Funding for treatment in King County increased from 1999 to 2000 and remained stable into 2001. Injection remains the most common route of administration for primary heroin treatment admissions (96 percent).

ADAM data for the first three quarters of 2001 showed that 10 percent of adult male arrestees tested positive for heroin. This is unchanged from the prior year.

Calls to the ADHL for heroin represented 9.5 percent of all drug-related calls in 2001. The proportion of heroin-related calls was consistent from the first to the second half of the year. Teens were less likely to call about heroin; only 1.9 percent ( $n=22$ ) of calls by teens in 2001 were related to heroin.

Heroin seizures by customs officials are infrequent, and the total volume of seizures is small compared to the levels of use, with five seizures totaling 5 pounds in the second half of 2001. There were seven seizures totaling 1.75 pounds during the first half of 2001. The major trafficking route is believed to involve the interstate highway system from the Southern United States after the product has crossed the Mexican border. There is not believed to be much heroin trafficking across the Washington-Canadian border.

According to the DEA's DMP, the average price per milligram pure was \$2.69 during the first half of 2001, compared with \$1.15 in 2000. The general pattern in the Western United States, where virtually all heroin is Mexican in origin, is that the closer to the Mexican border, the cheaper and purer the heroin. The average purity of 14 samples collected by the DMP in Seattle was 10.3 percent during January–June 2001; this is similar to the 12.7 percent purity for the 23 samples collected during all of 2000. This relative consistency in purity is supported by anecdotal information from HIDTA, though there are occasional reports of high quality heroin at local needle exchanges. Consistent purity may be one of the reasons that heroin-related mortality has declined. Of the samples tested, 11 were identified as Mexican; the origins of 2 samples were unidentifiable, and 1 sample was insufficient to test. Local informants noted that the DMP reported higher prices and lower purity than what the informants were seeing.

The Seattle DEA reported 1 gram of black tar heroin sells for \$50–\$100, and one-tenth gram sells for \$20–\$50. Local informants report that heroin sells for \$20 for one-fifth gram in the downtown core. In the Capitol Hill neighborhood, a densely populated neighborhood adjacent to downtown, 1 gram sells for \$50. Buying larger quantities has become less expensive over the past several years. In 1998 an

“eightball” (equivalent to one-eighth of an ounce or approximately 3.5 grams) sold for \$175, whereas it now sells for between \$100 and \$125.

### Other Opiates/Narcotics

For the purposes of this report, other opiates/narcotics include codeine, dihydrocodeine, fentanyl, hydrocodone, methadone, oxycodone, and propoxyphene.

Deaths involving other opiates are at their highest level in at least the past 9 years. A total of 55 mentions of other opiates were associated with 49 deaths in 2001 (exhibit 3), indicating that some individuals had multiple other opiates detected at the time of death. In 41 of these 49 deaths, more than 1 drug was detected, with the number of all types of drugs identified averaging 2.7 for other opiate users during 2001. The number of other-opiate-related deaths has tended to fluctuate much more than the number of heroin and cocaine-related deaths. Oxycodone and methadone were the two most commonly identified drugs in deaths over the last 3 years, accounting for 75 percent of other opiates identified. Oxycodone mentions increased from 4 in 1999 to 18 in 2001. There were 12 methadone-involved deaths from July to December 2001, the same number as in the first half of the year. This number has remained fairly stable over the past 3 years. There were three methadone-only deaths; efforts are underway to learn more about these decedents, including whether they were in methadone treatment prior to their deaths. Informants report that most methadone sold on the street is in tablet form, at a cost of \$0.50 per milligram.

Preliminary DAWN ED data for the first half of 2001 show a significant increase in the rate of narcotic analgesics mentions from the first half of 2000 (44 versus 39 per 100,000 population). For the year 2000, there was a gradual, statistically significant decline in DAWN ED mentions for propoxyphene (Darvocet) and codeine and statistically significant increases in mentions of methadone, oxycodone (e.g., OxyContin and Percodan), and hydrocodone in combination with acetaminophen (Vicodin). The data showed a decline in the rate of mentions for codeine, from a high of 10 per 100,000 to a new, more stable rate of 2.5 per 100,000 population per year from 1998 to 2000. Hydrocodone levels were steady at a rate of around 5–7 mentions per 100,000 from 1994 to 1999 and increased to 10 in 2000. Methadone mentions fluctuated from 5 to 7 mentions per 100,000 from 1994 to 1998; the rate increased in 1999 to 9 mentions and increased again in 2000 to 16 mentions. The majority (75 percent) of those who mentioned

methadone also identified other substances. Dating back to 1994, the rate of oxycodone mentions per 100,000 population ranged from 4 to 5; the rate increased to 8 mentions per 100,000 in 2000. The rate of propoxyphene mentions per 100,000 declined from 3 in 1994 to 1 in 2000. (Data note: DAWN includes what is considered for this report to be “other opiates” as well as other substances within their “narcotic analgesics” category; however, the ‘narcotic analgesic *not otherwise specified*’ subcategory includes well over one-half of the mentions, limiting the accuracy of this data.)

The ADHL reported 100 calls related to methadone for all of 2001, representing less than 2 percent of calls. The proportion of calls was the same in both halves of the year. Only six teenagers mentioned methadone in their conversations with ADHL staff, and these mentions were made during the first half of the year.

Treatment data point to low levels of treatment demand for other opiates. These admissions represented approximately 1 percent of all treatment admissions in 2001, according to reports on the primary drug of admission (exhibit 2). The number of clients admitted to treatment for other opiates in 2001 increased from 41 in the first half of the year to 54 in the second half. The total number for 2001 ( $n=95$ ) is slightly higher than the number of admissions for the prior 2 years: 76 admissions in 2000 and 83 in 1999.

According to the local DEA, hydrocodone is the most commonly diverted narcotic. This is related in large part to its status as a Schedule III drug under the Controlled Substances Act, as opposed to oxycodone, which is more tightly restricted as a Schedule II narcotic. It is important to note that hydrocodone, in its pure form, is a Schedule II drug, but in combination with other medications (e.g., when combined with acetaminophen such as in Vicodin), it is classified as Schedule III.

### Marijuana

Marijuana continues to be one of the most widely used illicit substances in the area. It is the drug most commonly identified among arrestees in King County. ADAM data show that 34.4 percent of arrestees tested positive for marijuana from January to September of 2001; this is a slight decline from the 37.7 percent reported for 2000.

DAWN ED data indicate that marijuana remains the fifth most common substance mentioned in Seattle (exhibit 1). Approximately three-quarters of those who mentioned marijuana were also using other drugs at the

time of the ED visit; this proportion has remained relatively constant over the past 7 years. The surge in the rate of marijuana mentions that was evident since the first half of 2000 continued through the first half of 2001, when a rate of 36 per 100,000 was reported. The change was statistically significant.

The demographics of marijuana users presenting in Seattle EDs have shifted. Females constituted 38 percent of mentions in 2000, compared with 21 percent in 1994, a statistically significant increase of 180 percent. Young adults are the most likely to mention marijuana use, with those age 18–25 accounting for approximately one-third of the marijuana mentions over the past several years. Teenagers accounted for between 12 and 17 percent of ED mentions, with fluctuations year to year. Those age 26–34 consistently accounted for approximately one-quarter of marijuana mentions, and those age 35–44 constituted approximately 20 percent. ED mentions in the older adult age groups decreased dramatically with increasing age. The overall trend between 1999 and 2000 was a significant increase for all age groups except those younger than 12 and older than 55.

Treatment admissions for marijuana dropped in the second half of 2001 compared with the first half, from 986 (20.8 percent) to 819 (19.5 percent). Overall, marijuana was the second most common reason for drug treatment (at 20 percent in 2001), with alcohol representing 41 percent of admissions. For those younger than 18, marijuana was the most commonly used drug, with 68 percent reporting it as their primary drug. Between 1999 and 2001, the number and proportion of admissions for primary marijuana treatment increased slightly (exhibit 2).

In 2001, marijuana was the drug most commonly cited among those who called the ADHL, representing one-quarter of calls. A substantial difference between adults and teens was evident, with more than twice as many teens (49 percent) as adults (21 percent) calling about marijuana. Although the total number of calls to ADHL, including those for marijuana, declined in the second half of the year, the proportion of calls related to marijuana increased from 23.6 to 27.3 percent.

HIDTA data collected from local, State, and Federal law enforcement sources show the following prices for various forms and sources of marijuana: 1 pound of Mexican cost \$500–\$700; 1 pound of domestic cost \$2,400–\$3,200; 1 pound of “BC bud” from British Columbia, Canada, cost \$2,800–\$3,000; and 100 starter plants cost \$1,500 (according to local police). Cultivation seizures reported to HIDTA for

Washington State totaled 317 in 2000 and 401 in 2001. In King County, there were 24 seizures of marijuana in 2000 and 12 in 2001.

The U.S. Customs Service reports a large increase in marijuana seizures, principally at the U.S.-Canadian border crossing at Blaine, where Interstate 5 crosses into Canada near Vancouver. Comparing the first half of 2001 with the second half, there was a slight increase in the number of marijuana seizures—from 268 to 301—and more than a doubling in the number of pounds of marijuana seized (from 3,342 to 7,519 pounds). There was a noticeable drop in marijuana seizures following the terrorist attacks on September 11, 2001, followed by a surge in seizures between September 22 and October 15, when 2,300 pounds were seized. A similar amount was seized in 1 day, December 22, all from commercial trucks.

### Stimulants

The rate of DAWN ED methamphetamine mentions per 100,000 population in Seattle decreased in January–June 2001, reversing the upward trend that was first noted in 1999 and that continued through 2000 (exhibit 1). The rate for methamphetamine was 7 per 100,000 in the first half of 2001, which was a significant decrease from the 16 reported in the first half of 2000. The reported rate for amphetamine mentions in the first half of 2001 was 15 per 100,000, the same as during the first half of 2000. Overall, amphetamine and methamphetamine continued to rank fifth and sixth, respectively, in ED mentions behind cocaine, alcohol-in-combination, heroin, and marijuana; these rankings were fairly consistent over the previous 5 years.

The number of King County treatment admissions for persons reporting amphetamine or methamphetamine as their primary substance remained relatively stable during 2001 (exhibit 2). Primary (meth)amphetamine admissions during 2001 accounted for 9.5 percent of total King County treatment admissions for the period and continued to be surpassed by those for persons reporting alcohol, cocaine, heroin, and marijuana as their primary substance. This, however, represents an increase from 2000, when methamphetamine admissions constituted 7.6 percent of all admissions, and from 1999, when they constituted 5.6 percent.

In 2001, the number of calls to the ADHL from King County regarding amphetamine and methamphetamine increased, totaling 1,040 (18 percent of drug-related calls). Stimulants were the second most commonly cited drug by teenagers (17 percent). Calls by those concerned about their own use of stimulants

represented 15.5 percent of all calls about personal use, ranking third. Calls by those concerned about another person's stimulant use constituted 21.2 percent of such calls, ranking second.

The percentage of male arrestees in Seattle-King County who tested positive for methamphetamine in the first three quarters of 2001 was 11.0 percent ( $n=63$ ), compared with 9.2 percent for all of 2000.

A total of five drug-related deaths involving amphetamine and methamphetamine were recorded in King County during 2001, representing a decrease from preceding years (14 such deaths in 1999 and 11 in 2000) (exhibit 3). Each death in 2001 was considered accidental, and four of the five deaths involved substances in combination with methamphetamine. Two of the decedents were female Caucasians, two were male Caucasians, and one was a male Asian; their ages ranged from 27 to 50, and the average age was 36.

Local methamphetamine prices in Seattle-King County and throughout the State of Washington have remained stable despite increasing availability: \$20–\$60 per gram, \$350–\$650 per ounce, and \$4,250–\$6,000 per pound.

Smoking remains the most prevalent route of administration, accounting for 45 percent of persons admitted for methamphetamine treatment during the second half of 2001 (exhibit 2). Intranasal use and injection were each reported by 22 percent of methamphetamine admissions. From 1999 to 2001, the proportion of those who smoked the drug increased from 31 percent to 42 percent, while the proportion of those who injected it decreased from 30 percent to 23 percent.

It is estimated that 65–75 percent of the methamphetamine in Washington State is transported from Oregon, California, and Mexico. The U.S. Customs Service reported the seizure of 2.66 pounds of methamphetamine at five land route, maritime, and commercial air ports of entry during 2001. However, ease of access to precursors; the availability of equipment, recipes, and manufacturing locations; and the purity of methamphetamine produced by local clandestine labs contribute to their continuing proliferation. Nearly one-half (47.5 percent) of the labs seized in 2001 were of the “Nazi” type; 32 percent were located in single-family housing, and 21 percent were located in vehicles. The red phosphorus method of production was used in 28.4 percent of labs seized, with ephedrine extraction, hydriodic acid, and other methods accounting for the balance of the lab types. The NW HIDTA reported that 114

kilograms of methamphetamine were seized from lab locations in 2001.

Documented lab seizures throughout Washington State numbered 939 in 2001 (ranking the State third in the Nation), surpassing the total of 831 seized throughout 2000, which reflected a 60-percent increase from 1999. From 1996 to 2001, the number of labs seized increased fourfold across the State, with a fivefold increase in King County. In 2000, there were 120 lab seizures in King County. Local law enforcement personnel believe that the decrease to 82 lab seizures in 2001 (also seen in Pierce County, which has the largest number of sites in the State) is because manufacturers are moving into more rural areas.

In 2001, an additional 552 places statewide were identified by the DOE as dump sites, bringing the total number of locations associated with the manufacture of methamphetamine to 1,460. The documented lab seizures in King County numbered 82 in 2001 (9 percent of the statewide total). In addition, 74 places were identified as dump sites, for an overall total of 156 locations associated with the manufacture of methamphetamine identified in 2001.

### Depressants

Barbiturates, benzodiazepines, and other sedative/depressant drugs in this analysis include alprazolam (Xanax), butalbital (Fioricet), chlordiazepoxide (Librium), the antidepressant cyclobenzaprine (Flexeril), diazepam (Valium), hydroxyzine pamoate (Vistaril), lorazepam (Ativan), meprobamate (Equanil), oxazepam (Serax), phenobarbital, promethazine (Phenergan), secobarbital (Seconal), temazepam (Restoril), triazolam (Halcion), and zolpidem (Ambien).

Depressant mentions in ME data show one-half as many related deaths ( $n=16$ ) in the second half of 2001 as in the first half of that year ( $n=32$ ) (exhibit 3). This compares with annual totals of 37 in 2000 and 30 in 1999. The actual number of deaths associated with depressants was 35, 29, and 25 for 2001, 2000, and 1999, respectively. On average, over the past 3 years, 2 or more depressants were identified in 22 percent of depressant-related deaths. From 1999 to 2001, the most common other types of drugs identified among depressant-related deaths were heroin and/or morphine, which were identified in 29 percent of deaths, and other opiates, which were identified in 47 percent of deaths.

DAWN ED data for mentions of “anxiolytics, sedatives, and hypnotics” have fluctuated over the past 7 years but show a small, significant increase

between the first half of 2000 and the first half of 2001, when there were 840 mentions. From July 1998 through December 1999, these mentions ranged from 520 to 552. In the first half of 2001, the preliminary rate of mentions of anxiolytics, sedatives, and hypnotics was 37 per 100,000 population, similar to the rate for marijuana (36 mentions per 100,000). Benzodiazepines were the most commonly mentioned depressant in the first half of 2001, representing about three-quarters of mentions.

Adult ADHL calls related to benzodiazepines, barbiturates, and tranquilizers combined represented less than 1 percent of drugs mentioned by callers.

Treatment data point to limited admissions for tranquilizers. There were 37 admissions in 2001, 12 in 2000, and 24 in 1999; tranquilizer admissions accounted for 0.5 percent or fewer of all treatment admissions in 1999–2001.

### Hallucinogens and Club Drugs

Hallucinogens include lysergic acid diethylamide (LSD), mescaline, peyote, psilocybin (mushrooms), and PCP. “Club drugs,” the general term used for drugs that are popular at nightclubs and raves, include hallucinogens, methylenedioxymethamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), gamma butyrolactone (GBL), ketamine, and nitrous oxide.

MDMA ED mentions during 2000 increased significantly (a 300-percent change) from 1999, and from 1994. The rate for MDMA in 2000 was 6 per 100,000 population, a significant increase over the rate of 2 in 1999. GHB mentions increased significantly from 1999 to 2000, when they totaled 57. PCP mentions also increased significantly, from 47 in 1999 to 116 in 2000. However, it is important to note that MDMA, GHB, and PCP mentions combined accounted for less than 1.0 percent of total ED mentions in Seattle in 1999 and approximately 2.5 percent of all ED mentions in 2000. LSD ED mentions per 100,000 population declined significantly between the first half of 2000 and the first half of 2001 and were at their lowest level since 1996. For the first time since 1998, there were no ED mentions of ketamine in the first half of 2001.

During the second half of 2001, the King County ME reported no deaths involving ketamine, GHB, PCP, or LSD. There was one death from MDMA in isolation, a 15-year-old-female. These statistics mirror those reported for the first half of 2001, when there was one death with only MDMA present. From 1999 to 2001, there were a total of five MDMA-

related deaths. All decedents were Caucasian and between the ages of 15 and 28. In three of the decedents, only MDMA was present, while methamphetamine was also detected in one of the other decedents and cocaine was also detected in the fifth decedent.

ADAM data for drugs in this category are limited to PCP. During the first three quarters of 2001, only 1.3 percent of adult male arrestees ( $n=7$ ) tested positive for PCP, the same proportion as during the previous year.

TARGET data point to low treatment admissions, with 12 admissions for hallucinogens and PCP in the last half of 2001, roughly average for the past 3 years. Anecdotal reports from treatment agencies indicate no significant change in youth or adult admissions for hallucinogen abuse. Calls to the local ADHL concerning these substances ( $n=126$ ) remained relatively low during the last half of 2001, with hallucinogens and club drugs constituting 5.6 percent of all drug-related calls and 12.9 percent of calls by teens.

Other information concerning patterns of use remains exclusively anecdotal. According to both adult and youth users, prices for ecstasy, GHB, PCP, and ketamine have remained stable over the past year (e.g., a 150–250 milligram tablet of MDMA sells for \$20–\$30). Quality and consistency of MDMA, however, remains unpredictable. GHB use among gay men in bathhouses, bars, and sex clubs is reportedly increasing, particularly among men younger than 30.

### INFECTIOUS DISEASES RELATED TO DRUG ABUSE

There are an estimated 12,000–15,000 injection drug users (IDUs) who live in Seattle and King County. Based on back calculation from year of AIDS diagnosis and the average length of time between HIV infection and diagnosis of AIDS, PHSKC estimates that HIV entered the drug-injecting population in King County in the early to mid-1980s. Like other metropolitan areas in the western United States, the number of cases of HIV/AIDS among drug injectors is far less than the number among gay and bisexual men (exhibits 5 and 6). As a proportion of total HIV cases diagnosed and reported in King County, those attributable to injection drug use among persons who are not males with same sex partners have increased from 3 percent of diagnoses in 1982–1986 to 6 percent in King County in 1999–2001. This increase in proportion does not appear to translate into an actual increase in the rate of infection among IDUs but is related, rather, to a

relative decline in the number of cases diagnosed among non-injecting men who have sex with men (MSMs). While there are distinct differences among races, the overall prevalence of HIV among non-MSM/IDUs in King County appears to have remained low and stable over the past 14 years. Various sero-surveys conducted in drug treatment centers, correctional facilities, and through street and community-targeted sampling strategies over this period yield an HIV prevalence estimate of 1–2 percent in King County’s non-MSM/IDU population.

In contrast, the prevalence of HIV infection among male IDUs who have the dual risk of same-sex encounters is estimated at 47 percent for MSM/IDUs who primarily inject methamphetamine and 14 percent for MSM/IDUs who primarily inject other drugs. This latter proportion is comparable to the HIV prevalence estimate among all MSMs in the Seattle area.

Injection drug use is a relatively more common route of HIV transmission for persons of color, excluding Asians, in King County compared with Whites and Asian/Pacific Islanders. Injection drug use (including MSM/IDUs) accounts for 41 percent of reported AIDS cases among American Indians/Alaska Natives, 25 percent among Blacks, 17 percent among Hispanics, 14 percent among Whites, and 7 percent among Asians/Pacific Islanders. Blinded, unlinked HIV prevalence surveys conducted among drug users entering methadone treatment between 1988 and 1999 revealed the rate of infection among African-

Americans and Hispanics was 2–3 times higher than the rate for Whites. The HIV infection rate for American Indian and Alaska Native IDUs was 5–6 times higher than that observed among Whites. No positive cases were found among Asian or Pacific Islander IDUs who entered treatment during this period.

Although HIV prevalence among IDUs in King County is relatively low, a high proportion of this population shows evidence of previous exposure to other blood-borne viruses. 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). Recent incidence studies further indicate that 21 percent of noninfected Seattle-area IDUs acquire HCV each year, and 10 percent of IDUs who have not had hepatitis B acquire HBV. HIV incidence among IDUs in these studies was estimated to be less than 0.5 percent per year. High prevalence and alarming transmission rates for HBV and HCV suggest that injection risk behaviors persist, creating potential for future spread of HIV among IDUs in King County.

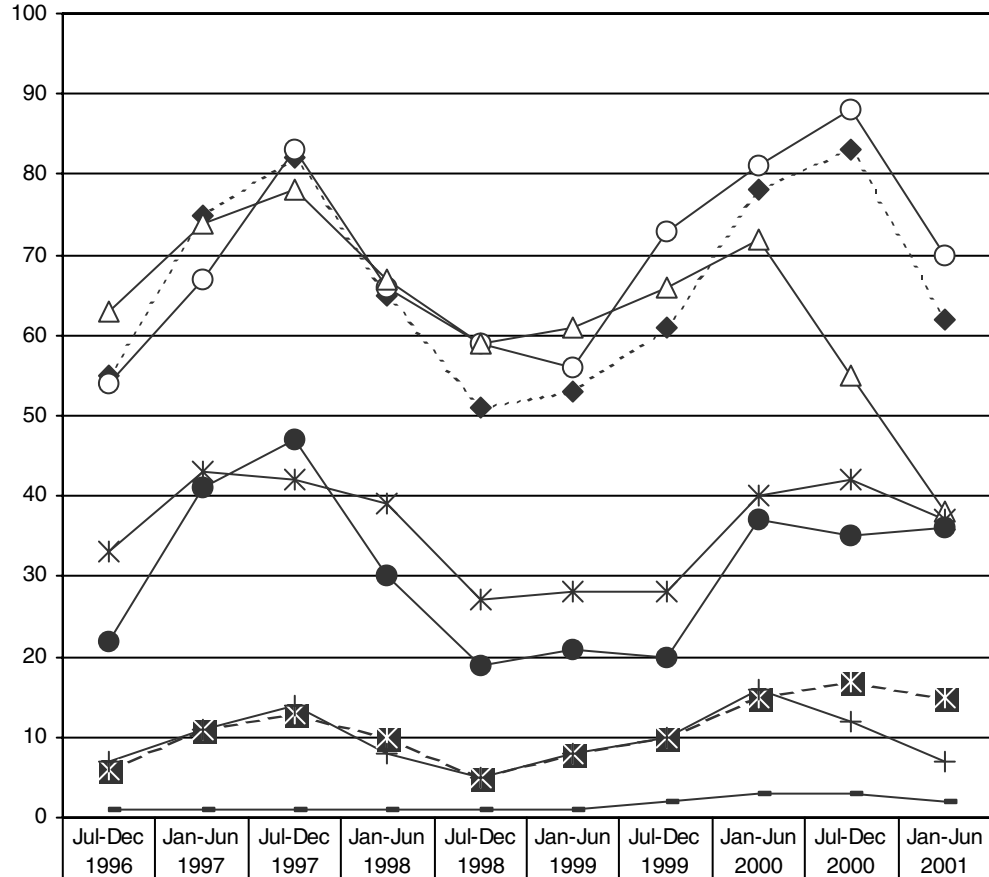
#### ACKNOWLEDGEMENTS

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**Exhibit 1. Estimated Rates of ED Mentions Per 100,000 Population by Drug, in King and Snohomish Counties: July 1996–June 2001<sup>1</sup>**



---◆--- Alcohol-in-combination	55	75	82	65	51	53	61	78	83	62
—○— Cocaine	54	67	83	66	59	56	73	81	88	70
—△— Heroin	63	74	78	67	59	61	66	72	55	38
—●— Marijuana	22	41	47	30	19	21	20	37	35	36
—*— Depressants <sup>2</sup>	33	43	42	39	27	28	28	40	42	37
—⊠— Amphetamines	6	11	13	10	5	8	10	15	17	15
—+— Methamphetamine	7	11	14	8	5	8	10	16	12	7
—■— PCP	1	1	1	1	1	1	2	3	3	2

<sup>1</sup> Estimates for 2001 are preliminary.

<sup>2</sup> Barbiturates, benzodiazepines, misc. anxiolytics, sedatives, and hypnotics.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Half-Yearly Trends in Alcohol/Drug Treatment Admissions in Seattle-King County: January 1999–December 2001**

	Jan–Jun 1999		Jul–Dec 1999		Jan–Jun 2000		Jul–Dec 2000		Jan–Jun 2001		Jul–Dec 2001 <sup>1</sup>	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Admissions	4,326	100.0	5,382	100.0	5,475	100.0	4,986	100.0	4,738	100.0	4,208	100.0
Primary Substance <sup>2</sup>												
Alcohol <sup>3</sup>	1,910	44.2	2,331	43.3	2,130	38.9	1,935	38.8	1,951	41.2	1,745	41.5
(Meth)amphetamine	240	5.6	299	5.6	369	6.7	422	8.5	425	9.0	422	10.0
Cocaine	583	13.5	752	14.0	731	13.4	666	13.4	649	13.7	501	11.9
Hallucinogens	8	0.2	9	0.2	18	0.3	13	0.3	14	0.3	9	0.2
Heroin	732	16.9	956	17.8	1,032	18.9	929	18.6	636	13.4	606	14.4
Marijuana	763	17.6	958	17.8	1,119	20.4	948	19.0	986	20.8	819	19.5
Other Opiates & Synthetics	43	1.0	40	0.7	36	0.7	40	0.8	41	0.9	54	1.3
Other	47	1.1	37	0.7	40	0.8	33	0.7	36	0.7	52	1.2
Route of Administration <sup>4</sup>	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Heroin												
Inhalation	2	0.7	5	1.3	3	0.7	0	0	4	1.2	1	0.3
Injection	247	89.8	332	89.3	418	91.1	462	93.7	323	92.6	392	96.1
Intranasal	15	5.5	13	3.5	20	4.4	10	2.0	14	4.0	7	1.7
Oral	3	1.1	5	1.3	4	0.9	3	0.6	1	0.3	1	0.3
Smoking	8	2.9	17	4.6	14	3.1	17	3.5	6	1.7	6	1.5
Other/not collected	0	0.0	0	0.0	0	0.0	1	0.2	1	0.3	1	0.3
Totals	275	100.0	372	100.0	459	100.0	493	100.0	349	100.0	408	100.0
Cocaine												
Inhalation	18	3.1	13	1.9	23	2.8	12	1.5	9	1.2	16	2.2
Injection	129	21.9	181	26.1	193	23.8	206	25.2	184	23.5	173	23.2
Intranasal	90	15.3	87	12.5	143	17.6	126	15.4	136	17.4	124	16.6
Oral	4	0.7	9	1.3	8	1.0	2	0.3	3	0.4	10	1.3
Smoking	347	58.8	403	58.1	442	54.4	470	57.5	450	57.6	413	55.4
Other/not collected	2	0.3	1	0.1	3	0.4	1	0.1	0	0.0	9	1.2
Totals	590	100.0	694	100.0	812	100.0	817	100.0	782	100.0	745	100.0
Methamphetamine												
Inhalation	2	1.1	4	1.8	8	3.0	2	0.6	4	1.2	11	3.6
Injection	59	31.9	64	29.0	67	25.5	81	24.7	86	25.1	66	21.6
Intranasal	49	26.5	61	27.6	79	30.0	70	21.3	91	26.5	66	21.6
Oral	17	9.2	24	10.9	32	12.2	53	16.2	31	9.0	21	6.9
Smoking	57	30.8	68	30.8	76	28.9	120	36.6	131	38.2	138	45.3
Other/not collected	1	0.5	0	0.0	1	0.4	2	0.6	0	0.0	3	1.0
Totals	185	100.0	221	100.0	263	100.0	328	100.0	343	100.0	305	100.0

<sup>1</sup> Counts for the first half of 2001 are preliminary because of delays in data entry.

<sup>2</sup> Primary substance includes duplicated admissions to treatment.

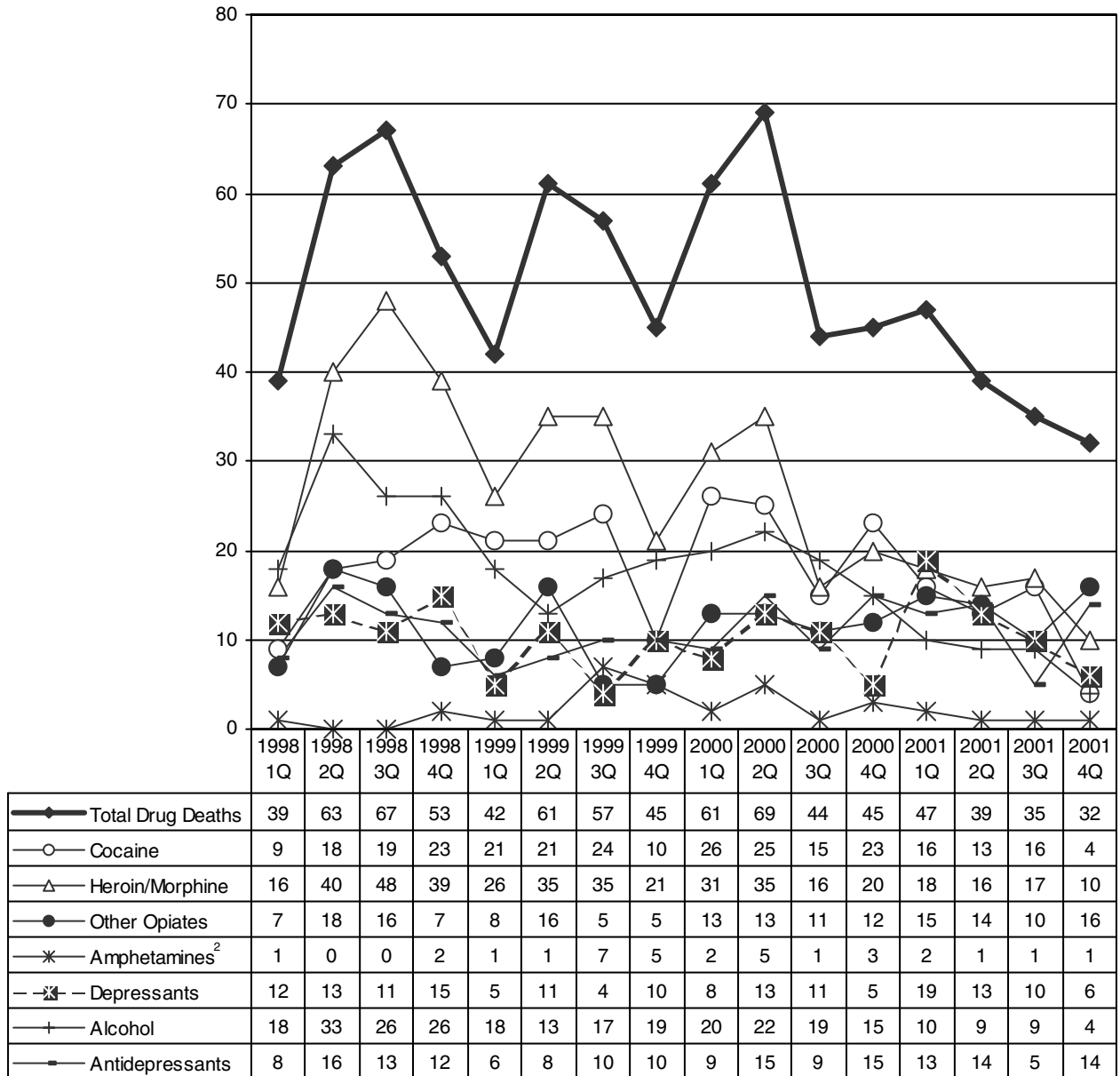
<sup>3</sup> Alcohol includes alcohol alone and in combination with other drugs.

<sup>4</sup> Route of administration is for primary and secondary drugs and is not duplicated.

SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System



**Exhibit 3. Quarterly Number of Identified Drugs in Drug-Caused Deaths<sup>1</sup> in Seattle-King County: January 1, 1998–December 31, 2001**



<sup>1</sup> More than one drug may be identified per individual drug overdose death. The table excludes poison-related deaths.

<sup>2</sup> The amphetamines identification category includes methamphetamine.

SOURCE: King County Medical Examiner

**Exhibit 4. Rate of Heroin-Involved Deaths Per 100,000 Population in Seattle-King County: 1989–2001<sup>1</sup>**

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
3.6	3.3	2.7	3.7	5.3	5.7	8.2	8.2	6.7	8.8	7.0	5.7	3.5

<sup>1</sup>Note that rates from 2000 onward are calculated using the 2000 census population; previous years are calculated using the 1990 census, except for 1989.

SOURCE: King County Medical Examiner

**Exhibit 5. Demographic Characteristics of Reported AIDS Cases in Seattle-King County, Other Washington Counties, WA State, and the U.S: Cumulative Through December 31, 2001<sup>1</sup>**

Case Numbers and Deaths	King County		Other WA Counties		Washington State		United States <sup>2</sup>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Cumulative AIDS Cases	6,407		3,518		9,925		793,026	
Cumulative Deaths	3,671		1,854		5,525		457,667	
Currently living with AIDS (N)	2,736		1,664		4,400		335,359	
<b>Case Demographics (reported 1/1999–12/2001)</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Gender								
Male	642	89	469	84	1,111	87	96,484	76
Female	83	11	89	16	172	13	31,185	24
Age								
12 and younger	0	0	1	0	1	0	714	1
13–19	2	0	5	1	7	1	917	1
20–29	104	14	74	13	178	14	16,338	13
30–39	330	46	223	40	553	43	52,630	41
40–49	220	30	164	29	384	30	39,452	31
50–59	58	8	66	12	124	10	13,140	10
60 and older	11	2	25	4	36	3	4,478	4
Race/Ethnicity								
White	475	66	385	69	860	67	40,522	32
Black	144	20	70	13	214	17	60,740	48
Hispanic	81	11	65	12	146	11	24,689	19
Asian	13	2	12	2	25	2	1,134	1
Native American	12	2	18	3	30	2	584	0
Unknown	0	0	8	1	8	1	0	0
Exposure Category								
Male-male sex	465	64	261	47	726	57	44,005	34
Injection drug user	50	7	99	18	149	12	29,083	23
IDU & male-male sex	59	8	38	7	97	8	7,973	6
Heterosexual contact	76	10	62	11	138	11	23,139	18
Hemophilia	3	0	3	1	6	0	456	0
Transfusion	3	0	4	1	7	1	590	0
Mother at risk/has AIDS	0	0	1	0	1	0	695	1
Undetermined/other	69	10	90	16	159	12	21,728	17
<b>Total Cases</b>	<b>725</b>	<b>100</b>	<b>558</b>	<b>100</b>	<b>1,283</b>	<b>100</b>	<b>127,669</b>	<b>100</b>

<sup>1</sup> These cases were reported to Public Health - Seattle & King County or the Washington Department of Health between January 1999 and December 2001. Because of delays in reporting, these cases are not identical with all cases diagnosed during that time period.

<sup>2</sup> Cases were reported to CDC between 7/1/98 and 6/30/2001.

SOURCES: Washington State Department of Health and CDC

**Exhibit 6. HIV (Not AIDS) Case Reports Reported 9/1/1999 through 12/31/2001<sup>1</sup>**

<b>Case Numbers and Deaths</b>	<b>King County</b>		<b>Other WA Counties</b>		<b>Washington State</b>	
Number currently living with HIV	1,930		929		2,859	
<b>Case Demographics</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Gender						
Male	1,404	88	503	64	1,907	80
Female	192	12	185	23	377	16
Age						
12 and younger	9	1	7	1	16	1
13–19	44	3	32	4	76	3
20–29	528	33	283	36	811	34
30–39	699	44	277	35	976	41
40–49	246	15	147	19	393	16
50–59	65	4	37	5	102	4
60 and older	5	0	5	1	10	0
Race/Ethnicity						
White	1,158	73	584	74	1,742	73
Black	253	16	90	11	343	14
Hispanic	115	7	66	8	181	8
Asian	37	2	20	3	57	2
Native American	24	2	14	2	38	2
Unknown	9	1	14	2	23	1
Exposure Category						
Male–male sex	1,126	71	342	43	1,468	62
Injecting drug user	103	6	137	17	240	10
IDU & male–male sex	103	6	73	9	176	7
Heterosexual contact	103	6	122	15	225	9
Hemophilia	6	0	1	0	7	0
Transfusion	6	0	5	1	11	0
Mother at risk/has AIDS	7	0	7	1	14	1
Undetermined/other	142	9	101	13	243	10
<b>Total Cases (last 28 months)</b>	<b>1,596</b>	<b>100</b>	<b>788</b>	<b>100</b>	<b>2,384</b>	<b>100</b>

<sup>1</sup> These cases were reported to Public Health - Seattle & King County or the Washington Department of Health between September 1999 and December 2001. Because HIV infection reporting was first implemented in Washington in September 1999, many cases reported during this period were actually diagnosed years before. U.S. HIV data is not currently available in a format consistent with AIDS data.

SOURCES: Washington State Department of Health and CDC

# Substance Abuse Trends in Texas

Jane Carlisle Maxwell, Ph.D.<sup>1</sup>

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## ABSTRACT

*Crack cocaine is the illicit drug for which 21 percent of adult clients enter treatment. The proportion of White and Hispanic treatment admissions for crack now totals 50 percent as African-American crack admissions decline. Nearly half of the powder cocaine inhalers are Hispanic and injectors are predominantly White. Cocaine is the drug, after marijuana, for which arrestees are most likely to test positive. The rate of emergency department (ED) mentions of cocaine in Dallas is decreasing. Cocaine is a significant problem on the border. Alcohol is the primary drug of abuse in Texas in terms of dependence, deaths, treatment admissions, and arrests. Use among Texas secondary school students, particularly younger ones, declined between 1998 and 2000, but binge drinking and driving while under the influence remain problematic. Sixteen percent of adults reported past-year problems with alcohol in 2000. Heroin addicts entering treatment are primarily injectors, and more than half are Hispanic. Heroin ED mentions in Dallas have dropped, and the percentages of arrestees testing positive for heroin remain mixed. The price and purity of Mexican heroin varies around the State. Hydrocodone is a much larger problem than oxycodone in Texas. Codeine cough syrup continues to be abused. Seventy-four percent of youths entering treatment report marijuana as their primary problem drug. Dallas ED mentions of marijuana are decreasing. Availability of the drug is high, and calls to poison control centers about intentional abuse and misuse are increasing. Methamphetamine and amphetamine are widely available and are a problem, particularly in the northern part of the State. Texas Poison Control Center cases and treatment admissions are rising, but levels in Texas are much lower than in other Western States. Alprazolam (Xanax) mentions are increasing in ED and Department of Public Safety (DPS) lab reports. Club drug use continues to spread, with those who began using them several years ago now appearing in treatment. Ecstasy cases reported to Poison Control Centers, treatment admissions, and DPS lab cases continue to rise. GHB, GBL, and similar precursor drugs remain a problem, particularly in the Metroplex area, with a high rate of ED mentions. Rohypnol remains a problem along the*

*border, and the number of youths entering treatment for abuse of this drug is rising. Ketamine remains a problem, with the Dallas ED rate above the national level. Use of marijuana joints dipped in embalming fluid that can contain PCP (“fry”) continues, as seen in the number of PCP cases in EDs, Poison Control Centers, and treatment facilities. The proportions of AIDS cases due to injecting drug use and to heterosexual route of transmission are level, but the proportions of females and persons of color are increasing. The proportion of needle users entering treatment continues to decrease.*

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## INTRODUCTION

### Area Description

The population of Texas in 2001 was 20,698,441, with 54 percent White, 11 percent African-American, and 32 percent Hispanic. 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. The drugs then move north for distribution through Dallas/Fort Worth and Houston. In addition, drugs move east from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth. A major problem is that Mexican pharmacies sell many controlled substances to U.S. citizens who can legally bring up to 50 dosage units into the United States. The use of private and express mail companies to traffic narcotics and smuggle money continues to increase. 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

“Substance Abuse Trends in Texas” is an ongoing series that is published every 6 months as a report to the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse. To compare June 2002 data with earlier periods, please refer to previous editions that are available in hard copy from the Texas Commission on Alcohol and Drug Abuse (TCADA) or on the TCADA Web page at <http://www.tcada.state.tx.us/research/sub>

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<sup>1</sup> The author is a research scientist at the Center for Social Work Research, The University of Texas at Austin.

abusetrends.html> and on the Web page of the Gulf Coast Addiction Technology Transfer Center at <<http://www.utattc.net>>.

Data were obtained from the following sources:

- **Drug price, purity, trafficking, distribution, and supply data** were provided by first quarter 2002 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the Drug Enforcement Administration (DEA).
- **Treatment data** were provided by TCADA's Client Oriented Data Acquisition Process (CODAP) on clients at admission to treatment in TCADA-funded facilities from first quarter 1983 through December 31, 2001; however, only partial data have been available for the Dallas area since July 1999. For most drugs, the characteristics of clients entering with a primary problem with the drug are discussed, but in the case of emerging club drugs, information is provided on any client with a primary, secondary, or tertiary problem with that drug.
- **Overdose death data** for the State through 2000 came from death certificates from the Bureau of Vital Statistics of the Texas Department of Health; 2001 data were not available for this report. Data on the Dallas and San Antonio metropolitan areas came from *Mortality Data from the Drug Abuse Warning Network, 2000*, published by the Substance Abuse and Mental Health Services Administration (SAMHSA). The Drug Abuse Warning Network (DAWN) covered 75 percent of the jurisdictions and 96 percent of the population in the Dallas metropolitan statistical area (MSA), and 25 percent of the jurisdictions and 87 percent of the population in the San Antonio MSA.
- **Analysis of inhalant deaths** is from "Deaths Related to the Inhalation of Volatile Substances—Texas, 1988–1998" by Jane Maxwell in *American Journal of Drug and Alcohol Abuse*, Vol. 27, No. 4, 2001.
- **Emergency department (ED) drug mentions** in Dallas-area emergency departments through the first half of 2001 came from DAWN. See *Emergency Department Trends from the Drug Abuse Warning Network Preliminary Estimates January–June 2001 with Revised Estimates 1994–2000* for detailed tables of drug categories, demographic characteristics, and episode characteristics as well as rates per 100,000

population for the coterminous United States and the 21 metropolitan areas covered by DAWN. Data for 2001 are preliminary.

- **Arrestee drug testing data** came from the Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice, for Dallas, Houston, Laredo, and San Antonio for 1991 through 2001. The sampling strategies for ADAM are being revised, and 2001 data were available only for males in Dallas for 1 quarter and San Antonio for 3 quarters, and for males and females in Laredo for 3 quarters. Due to the changes in sampling, data for years prior to 2001 cannot be compared with later years, but the earlier years are included to show trends up to 2001.
- **Student substance use data** came from TCADA's *2000 Texas School Survey of Substance Abuse: Grades 7–12* by Liang Liu and Jane Maxwell, available at <<http://www.tcada.state.tx.us/research/schoolsurveys.html>>.
- **Adult substance use data** came from TCADA's *2000 Texas Survey of Substance Use Among Adults* by Lynn Wallisch, available at <<http://www.tcada.state.tx.us/research/adultsurveys.html>>.
- **Poison Control Center data** came from the Texas Poison Control Network for 1998–2001.
- **Data on drugs identified by laboratory tests** came from the National Forensic Laboratory Information System. Included are data collected by all of the Texas Department of Public Safety (DPS) labs for 1998 through 2001.
- **Acquired immunodeficiency syndrome (AIDS) data** came from the Texas Department of Health. Included are annual and year-to-date AIDS data for the period ending March 31, 2002.

## DRUG ABUSE PATTERNS AND TRENDS

### Cocaine and Crack

The TCADA *2000 Texas School Survey of Substance Abuse: Grades 7–12* found that 8.6 percent of students in nonborder counties had ever used powder cocaine and 2.9 percent had used it in the past month. In comparison, students in schools on the Texas border reported higher levels of powder cocaine use: 13.4 percent lifetime and 5.4 percent past-month use. Use of crack was lower, with nonborder students reporting 2.6 percent lifetime and 0.7 percent past-month use; border students reported 3.6 percent lifetime and 1.3 percent past-month use. The levels of use in 2000 for both border and nonborder students decreased very slightly from the 1998 survey results.

TCADA's 2000 *Texas Survey of Substance Use Among Adults* reported 12 percent of Texas adults had ever used powder cocaine and 1 percent had used it in the past month, up from 10 percent lifetime and 0.4 percent past-month use in 1996. The increase in past-year use (1.4 percent to 1.9 percent) was statistically significant. The levels of crack cocaine use did not change between 1996 and 2000 (2 percent lifetime and 0.1 percent past month).

Texas Poison Control Centers reported 357 misuse or abuse cases involving cocaine in 1999, 1,252 in 2000, and 1,111 in 2001.

Exhibit 1 shows that the rate of cocaine ED mentions per 100,000 population in the Dallas DAWN data continues to decrease from the peak period in 1998. Patients who were treated in EDs for cocaine in 2000 were more likely to be African-American or White and were older than most other patients (exhibit 2).

Cocaine (crack and powder) accounted for 28 percent of all adult admissions to TCADA-funded treatment programs in 2001 (exhibit 3). Crack cocaine is the primary illicit drug abused by adult clients admitted to publicly funded treatment programs throughout Texas, although it has dropped from 28 percent of all adult admissions in 1993 to 21 percent in 2001.

Abusers of powder cocaine account for 7 percent of all adult admissions to treatment. They are younger than crack abusers and more likely to be male and Hispanic or White. Those who inhale are the youngest, the most likely to be Hispanic, and the most likely to be involved in the criminal justice or legal systems (exhibit 4).

The term "lag" refers to the period from first consistent or regular use of a drug to date of admission to treatment. Powder cocaine inhalers average 9 years between first regular use and entrance to treatment, while injectors average 13 years of use before they enter treatment.

Between 1987 and 2001, the percentage of powder cocaine admissions increased from 23 to 42 percent for Hispanics, remained at about 48 percent for Whites, and declined from 28 to 9 percent for African-Americans. The proportion of crack cocaine admissions who are African-American dropped from 75 percent in 1993 to 50 percent in 2001, while the proportion of Whites increased from 20 to 36 percent in 2001 and the percentage of Hispanics from 5 to 13 percent in the same time period.

Powder cocaine was the primary drug of abuse for 7 percent of youths entering treatment during 2001 (exhibit 5). Crack cocaine accounted for fewer than 1 percent of youth admissions. Of the powder cocaine admissions, 75 percent were Hispanic and 24 percent

were White; of the crack cocaine admissions, 65 percent were Hispanic and 13 percent were White.

The number of deaths in which cocaine was mentioned increased to a high of 424 in 2000. The average age of the decedents continued to increase to 38.3 years in the same year. Of these decedents, 46 percent were White, 23 percent were Hispanic, and 30 percent were African-American; 75 percent were male.

The DAWN medical examiner system reported that the number of deaths in the Dallas area involving a mention of cocaine increased from 134 in 1996 to 157 in 2000, while in San Antonio, the number of such deaths increased from 63 to 126 over the same time period.

The proportion of arrestees testing positive for cocaine has decreased from the peak periods in the early 1990s (exhibit 6a). While the percentage of males testing positive for cocaine in Laredo was lower in 2001 than in previous years, the percentage of females testing positive increased; these data help document the extent of the cocaine problem on the border.

The proportion of substances identified as cocaine by the DPS labs decreased from 41 percent in 1998 to 35 percent in 2001.

In the first quarter of 2002, the DEA reported powder cocaine as readily available. A gram costs \$50–\$100 in Dallas, \$60–\$100 in Houston, and \$100 in Alpine, Amarillo, and Lubbock. An ounce costs \$400–\$550 in Laredo, \$400–\$800 in Houston, \$500–\$1,200 in Dallas, \$600 in Alpine, \$500–\$750 in McAllen, \$400–\$600 in San Antonio, \$650–\$850 in Amarillo and Lubbock, \$700–\$1,000 in Tyler, and \$750 in Fort Worth. A kilogram sells for \$10,000–\$23,000.

The DEA reports that crack cocaine is also readily available except in Laredo. A rock of crack costs \$10–\$100, with \$10 being the most common price, although a rock sells for as little as \$5 in Austin. An ounce of crack cocaine costs \$375–\$900 in Houston, \$500–\$2,800 in Dallas, \$600–\$800 in Athens, \$500–\$800 in Beaumont, \$600–\$850 in Amarillo, \$650–\$850 in Lubbock, and \$600–\$750 in Fort Worth.

Street outreach workers in Austin report that crack is being cut with carburetor cleaner, dishwashing liquid, or vitamin B<sub>12</sub>.

### 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, and past-month use dropped from 0.7 percent to 0.5 percent. The 2000

Texas adult survey found that 1.2 percent of adults reported lifetime use of heroin and 0.1 percent reported past-month use.

Calls to Texas Poison Control Centers involving confirmed exposures to heroin have risen. Calls involving heroin abuse or misuse exposure numbered 168 in 1998, 231 in 1999, 265 in 2000, and 241 in 2001.

Heroin ED mentions per 100,000 population have dropped since 1997 (exhibit 1). In the first half of 2001, there were 237 mentions of heroin or morphine in Dallas EDs. Patients who mentioned heroin tended to be White, older, and suffering from an overdose or withdrawal (exhibit 2).

Heroin ranks third after alcohol and cocaine as the primary drug for which adult clients are admitted to treatment (exhibit 3). It accounted for 12 percent of admissions in 2001, compared with 9 percent in 1993. The characteristics of these addicts vary depending on the route of administration (exhibit 7).

Most heroin addicts entering treatment inject heroin. While the number of individuals who inhale heroin is small, it is significant to note that the lag period from first use to seeking treatment is 7 years, compared with 15 years for injectors. This shorter lag period means that contrary to street rumors that “sniffing or inhaling is not addictive,” inhalers will enter treatment much more quickly than needle users. First admissions were less likely to inject heroin (87 percent) than readmissions (91 percent).

Only 2 percent of all adolescents admitted to TCADA-funded treatment programs reported a primary problem with heroin. Of these youths, 93 percent were Hispanic.

The number of deaths with a mention of heroin or narcotics statewide decreased from a high of 374 in 1998 to 318 in 2000. Of the 2000 decedents, 58 percent were White, 33 percent were Hispanic, and 8 percent were African-American; 79 percent were male; and the average age was 37.6 years.

The DAWN ME reporting system, which collects more detailed reports from medical examiners in the Dallas and San Antonio areas, said that the number of deaths involving a mention of heroin or morphine in Dallas increased from 66 in 1996 to 94 in 2000, while in the San Antonio area, the number of such deaths increased from 51 to 90 over the same time period.

The percentages of arrestees testing positive for opiates between 1991 and 2001 have remained mixed (exhibit 6a).

The proportion of items identified as heroin by DPS labs has remained consistent at 1–2 percent over the years.

In the Dallas area, according to the DEA, black tar heroin is reportedly more expensive and street-level “deals” take longer to transact. Heroin is reported as readily available in El Paso, and availability is stable in the Houston area.

The predominant form of heroin in Texas is black tar. The cost of an ounce of black tar heroin has narrowed. Depending on the location, black tar heroin sells on the street for \$10–\$20 a capsule (also called balloon, pill, or paper in different Texas locations), \$100–\$350 per gram, \$800–\$4,800 per ounce, and \$35,000–\$60,000 per kilogram.

Mexican brown heroin costs \$10 per capsule, \$110–\$300 per gram, and \$800–\$3,000 per ounce. Colombian heroin sells for \$2,000 per ounce and \$75,000–\$80,000 per kilogram in the Dallas area. Southwest and Southeast Asian heroin were not reported as available.

Street outreach workers in Austin report that heroin is being cut with citric acid and table sugar.

The Domestic Monitor Program of the DEA is a heroin purchase program that provides data on the purity, price, and origin of retail-level heroin available in the major metropolitan areas of the Nation. As Exhibit 8 shows, heroin purity and price varies, although it is purer and cheaper in El Paso, compared with locations farther from the border.

### Other Opiates

Other opiates exclude heroin but include methadone, codeine, hydrocodone (Vicodin, Tussionex), carisoprodol (Soma), oxycodone (OxyContin, Percodan, Percocet-5, Tylox), *d*-propoxyphene (Darvon), hydromorphone (Dilaudid), morphine, meperidine (Demerol), and opium.

The 2000 Texas adult survey found that in 2000, lifetime use of other opiates was 4.4 percent and past-month use was 0.5 percent; by comparison, in 1996, lifetime use was 3 percent and past-month use was 0.2 percent. The increase in past-year use (0.6 percent to 1.5 percent) was statistically significant. 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 bigger problem than oxycodone in Texas. The Texas Poison Control Centers reported there were 1,866 calls concerning the misuse or abuse of hydrocodone in 2000 and 1,239 in 2001. In comparison, 62 calls about misuse or abuse of OxyContin or other forms of oxycodone were reported in 2000, and 105 calls were reported in 2001. Of the hydrocodone cases that required medical care, 90 were classified as “major,” or life-threatening events resulting in hospitalization, and 5 resulted in death. Of the oxycodone cases, 11 were classified as major events and 2 resulted in death. There were also 24 cases involving methadone in 1999, 64 in 2000, and 91 in 2001.

Dallas-area ED mentions of hydrocodone have increased over the years (exhibit 9). The increase between 1994 and 2000 for hydrocodone singly and in combination was statistically significant, as was the increase for oxycodone and oxycodone in combination between 1999 and 2000. The rate per 100,000 population for mentions of hydrocodone was higher in Dallas than in the United States as a whole, while the rate of mentions of oxycodone was lower in Dallas.

Four percent of all adults who entered treatment during 2001 used opiates other than heroin (exhibit 3). Of these, 47 used illegal methadone and 1,321 used other opiates. Those who reported a primary problem with illicit methadone were female (53 percent); 35 years old; White (81 percent), African-American (4 percent), and Hispanic (9 percent). Nine percent were homeless, annual income was \$5,391, 17 percent were employed, 36 percent were referred by the criminal justice system, and 43 percent had never been in treatment before. Of those who reported problems with opiates other than heroin or illicit methadone, 58 percent were female, average age was 36, 84 percent were White, 35 percent had never been in treatment, and 7 percent were homeless. The average income was \$5,502, 16 percent were employed, and 33 percent were referred by the criminal justice system.

Between 1999 and 2000, deaths with a mention of oxycodone rose from 8 to 20, those involving hydrocodone from 25 to 52, and those involving methadone from 36 to 62.

According to DEA reports, hydrocodone, promethazine with codeine and other codeine cough syrups, as well as benzodiazepines such as alprazolam (Xanax), are the most commonly diverted drugs in the Houston area. Hydrocodone products, benzodiazepines, and Ritalin and its generic form,

methlyphenidate, are the most commonly diverted controlled substances in the Dallas area.

In the Dallas Field Division, hydromorphone sells for \$20–\$80 per tablet (depending on its strength), carisoprodol for \$2–\$5 per tablet, hydrocodone for \$4–\$10 per tablet, OxyContin for \$15–\$40 per tablet, and methadone for \$10 per tablet. In Houston, promethazine or phenergan with codeine sells for \$50 for 4 ounces, \$100–\$125 for 8 ounces, and \$1,600 for a gallon; hydrocodone sells for \$3–\$5 per pill.

Abuse of codeine cough syrup continues with rap songs such as “Sippin’ on Syrup,” “Sippin’ Codeine,” “Syrup and Soda,” and “Syrup Sippers.” Austin street outreach workers report that young adults are now using “lean,” a term for codeine cough syrup, and promethazine cough syrup is reported as popular among young adults in Fort Worth.

DPS labs reported examining 479 hydrocodone exhibits in 1999, 629 in 2000, and 771 in 2001. In comparison, the number of exhibits involving oxycodone was 36 in 1999, 72 in 2000, and 115 in 2001.

## Marijuana

In 2000, 32 percent of Texas secondary students had ever tried marijuana and 14 percent had used it in the past month. This is a decline from 1998, when 35 percent had ever used marijuana and 15 percent had used it in the past month. The greatest declines in use in 2000 were among youths in grades seven and eight.

In the 2000 Texas adult survey, 37 percent of adults reported lifetime and 4 percent past-month marijuana use in 2000, compared with 34 percent lifetime and 3 percent past-month use in 1996. Prevalence was much higher among younger adults. Thirteen percent of those age 18–24 in 2000 reported past-month use, compared with 6 percent of those age 25–34 and 2 percent of those 35 and older. The increase in past-year use between 1996 and 2000 (from 6 to 7 percent) was statistically significant.

Some 285 cases of intentional misuse or abuse of marijuana were reported to the Texas Poison Control Centers in 2000; in 2001, 345 such cases were reported. There were another 121 cases in 2000 and 155 cases in 2001 of misuse or abuse of marijuana in which terms such as “formaldehyde,” “fry,” “amp,” or “PCP” were also mentioned.

Marijuana ED mentions per 100,000 population in Dallas have declined since the peak levels in 1998 (exhibit 1). There were 544 mentions of marijuana in the first half of 2001. Of the mentions in 2000, 20 also mentioned formaldehyde and 3 mentioned



formaldehyde and PCP. Patients mentioning marijuana were more likely to be White or African-American, and the distribution across the four DAWN age groups was more even than for any other drug mention (exhibit 2).

Marijuana was the primary problem for 10 percent of adult admissions to treatment programs in 2001 (exhibit 3). The average age of adult marijuana clients continues to increase: in 1985, the average age was 24; in 2001, it was 27.

The proportion of adolescents admitted for a primary problem with marijuana was 74 percent of all admissions in 2001 (exhibit 5), compared with 35 percent in 1987. In 2001, 53 percent of these adolescents were Hispanic, 26 percent were White, and 21 percent were African-American (in 1987, 7 percent were African-American).

The percentages of arrestees testing positive for marijuana remain varied (exhibit 6a).

Cannabis was identified in 35–36 percent of all the exhibits analyzed by DPS labs in 1999 and 2000, but the proportion dropped to 31 percent in 2001.

The Dallas, El Paso, and Houston DEA Field Divisions report that marijuana is readily available. Indoor-grown sinsemilla sells for \$750–\$1,200 per pound in the Dallas-Fort Worth area. The average price for a pound of commercial grade marijuana was \$200–\$250 in Laredo, \$155–\$400 in McAllen, \$250–\$500 in El Paso, \$300–\$600 in Houston, \$500–\$700 north of the Border Patrol checkpoints in the Alpine area, and \$400–\$800 in the Dallas area.

### Stimulants

Stimulants include amphetamines, methamphetamines, over-the-counter medicines containing ephedrine, and prescription drugs such as methylphenidate when taken for nonmedical reasons.

In the Texas adult survey in 2000, 12 percent reported lifetime use and 1 percent reported past-month use of stimulants in 2000. By comparison, in 1996, lifetime use was 10 percent and past-month use was 1 percent. The difference in past-year use from 1996 to 2000 (from 1.1 percent to 1.9 percent) was statistically significant.

In 2000, 272 cases of abuse or misuse of stimulants (amphetamines, methamphetamines) were reported to Texas Poison Control Centers. In 2001, 342 such cases were reported. In addition, 110 cases involving the intentional misuse or abuse of methylphenidate were reported in 2000, and 105 such cases were reported in 2001. The average age of the methylphenidate cases in 2001 was 22.

The rate of mentions for amphetamines in Dallas EDs in 2000 was higher than the national rate (14.0 per 100,000 in Dallas vs. 6.9 per 100,000 nationally), while the rate for methamphetamines was 5.4 per 100,000 in Dallas and 5.5 per 100,000 in the Nation. The trends over time are shown in exhibit 9; the peak number of mentions for amphetamines was in the first half of 2000, while the peak for methamphetamines was in the first half of 1998.

Exhibit 2 shows the difference in characteristics of DAWN patients reporting use of amphetamines compared with those using methamphetamines. Methamphetamine (speed) patients are more likely to be male, White, and older.

Methamphetamines and amphetamines accounted for 7 percent of adult treatment admissions in 2001 (exhibit 3), an increase from 5 percent in 2000. The average client admitted for a primary problem with stimulants is aging. In 1985, average age was 26; in 2001, it was 31. The proportion of White clients rose from 80 percent in 1985 to 92 percent in 2001, while the percentage dropped from 11 to 5 percent for Hispanics and from 9 percent to 2 percent for African-Americans. Unlike clients in the other drug categories, more than half of these clients entering treatment are women. Most stimulant users are injectors, with differences seen among the clients based on route of administration (exhibit 10). Only 2 percent of adolescent admissions were for these stimulants (exhibit 5).

Clients who have been in treatment before are more likely to inject methamphetamines or amphetamines (68 percent) than are first-time admissions (53 percent).

Amphetamines or methamphetamines were mentioned in 17 deaths in 1997, 20 in 1998, 21 in 1999, and 39 in 2000. Of the decedents in 2000, 87 percent were White, 8 percent were Hispanic, and 5 percent were African-American; 51 percent were male; and the average age was 36.8.

The proportion of arrestees testing positive for amphetamines in ADAM remains low (exhibit 6b).

Methamphetamine and amphetamine constituted 12–18 percent of all items examined by DPS laboratories between 1998 and 2001, and they continue to increase. DPS labs in 1999 reported identifying 4,801 substances that were methamphetamine, compared with 6,594 in 2000 and 8,153 in 2001. They also

identified 890 amphetamine items in 1999, compared with 575 in 2000 and 435 in 2001.

These stimulants are more of a problem in the northern half of the State (exhibit 11). Methamphetamines or amphetamines accounted for 42 percent of all the drug items examined by the DPS lab in Amarillo, while they accounted for none in McAllen. Labs in the northern part of the State are also more likely to report analyzing substances that turned out to be pseudoephedrine, ephedrine, ammonia gas, phosphorus, and iodine, chemicals used in the manufacture of methamphetamine.

According to the DEA, methamphetamine availability is high, and the number of local labs is growing. In the Houston Field Division, domestically produced methamphetamine is manufactured by motorcycle gangs and independent producers, but the primary type of methamphetamine in the division is from Mexico. Crystallized methamphetamine (“ice”) is sold in local clubs in Houston. In north Texas, precursor chemicals are reportedly difficult to obtain locally, so they are purchased in Oklahoma. In addition, there is an increase in Mexican methamphetamine in the Fort Worth area because of the difficulty in obtaining precursor chemicals. The price for a pound of methamphetamine in the Houston area is \$6,000–\$11,000, and an ounce sells for \$500–\$800. A pound costs \$4,500–\$5,500 in Laredo, and an ounce sells for \$500 in McAllen. In the north Texas region, a pound of domestic methamphetamine sells for \$5,000–\$10,000 and an ounce for \$400–\$1,200. A pound of Mexican methamphetamine sells for \$5,800–\$9,000 in Dallas. In El Paso, a pound sells for \$10,600 and an ounce for \$960. In Midland, a pound sells for \$8,000–\$10,000 and an ounce for \$600–\$1,200.

Street outreach workers in Austin report that some users are mixing speed and cocaine. The *Narcotics Digest Weekly* of the National Drug Intelligence Center reports that methamphetamine lab operators in Oklahoma are stealing electronic flowmeters from gas and oil wells to obtain a higher quantity of lithium than is available in other batteries. A treatment counselor in Fort Worth reports that clients who have taken methamphetamine made from these batteries have serious skin problems similar to “a bad case of acne,” although the problems may be due to the use of too much caustic soda.

### Depressants

This 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, flunitrazepam

(Rohypnol), clonazepam (Klonopin or Rivotril), flurazepam (Dalmane), lorazepam (Ativan), and chlor-diazepoxide (Librium and Librax). Flunitrazepam is discussed separately in the Club Drugs section below.

The 2000 Texas adult survey reported lifetime use 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 (from 1 percent to 1.8 percent) was statistically significant.

The number of mentions of alprazolam in Dallas EDs rose from 199 in 1994 to 230 in 2000, while mentions of clonazepam rose from 99 to 184 over the same time period. The number of mentions of diazepam decreased from 173 in 1994 to 122 in 2000.

About 1 percent (484 clients) of the adults entering treatment in 2001 had a primary problem with barbiturates, sedatives, or tranquilizers. The average age was 35; 65 percent were female; 89 percent were White, 8 percent were Hispanic, and 3 percent were African-American. Thirty-nine percent were referred by the criminal justice system, 13 percent were employed, and the average annual income was \$5,211.

Alprazolam, clonazepam, and diazepam are among the most commonly identified substances according to DPS lab reports, although none constituted more than 2 percent of all items examined in a year. In 2001, alprazolam accounted for 925 items, diazepam for 509, and clonazepam for 415 out of a total of 16,534 items analyzed by DPS labs.

Both the Houston and Dallas DEA Field Divisions report that alprazolam is one of the most commonly abused diverted drugs. It sells for \$3–\$10 per tablet.

### Club Drugs and Hallucinogens

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

The 2000 Texas Secondary School Survey reported that ecstasy use was unchanged from 1998. In 2000, 4.5 percent had ever used ecstasy and 1.9 percent had used it in the past month, compared with 4.5 percent lifetime and 1.4 percent past-month use in 1998.

The 2000 adult survey reported that 3.1 percent had ever used ecstasy and 1.0 percent had used it in the past year.

The number of ecstasy cases reported to the Texas Poison Control Centers is increasing. There were 35 cases in 1999, 96 in 2000, and 156 in 2001. The average age was 21 years.

The rate of ecstasy ED mentions per 100,000 population in Dallas in 2000 was 1.0; the national rate was 0.8. Exhibit 9 shows the number of mentions by 6-month periods, and exhibit 2 shows the demographic characteristics of these patients. Those mentioning ecstasy were the most likely to report having taken multiple drugs and they were less likely than other club drug patients to be male.

Adult admissions to treatment for a primary, secondary, or tertiary problem with ecstasy increased from 45 in 1998 to 97 in 1999 to 141 in 2000 to 252 in 2001. Of the 2001 admissions, the average age was 25; 80 percent were White, 11 percent were African-American, and 6 percent were Hispanic; 63 percent were male; 50 percent were referred by the criminal justice or legal system; and 17 percent were employed. Exhibit 12 shows the primary drug of abuse for adult treatment admissions who were admitted with a primary, secondary, or tertiary problem with ecstasy. While 20 percent of these clients in 2001 listed ecstasy as their primary drug of abuse, another 21 percent reported marijuana as their primary drug and ecstasy as a secondary or tertiary problem.

Among adolescents, there were 18 treatment admissions in 1998, 17 in 1999, 58 in 2000, and 97 in 2001 who had a primary, secondary, or tertiary problem with ecstasy. The average age of the 2001 admissions was 15.9, 81 percent were male, 79 percent were referred from the juvenile justice system, 61 percent were White, and 23 percent were Hispanic. Of these 2001 admissions, 60 percent reported a primary problem with marijuana and 19 percent reported a primary problem with ecstasy.

Ecstasy was involved in two deaths in Texas in 1999 and one in 2000.

Exhibit 13 shows the increases in substances identified by DPS labs. The labs identified MDMA as the substance in 102 exhibits in 1999, 373 in 2000, and 675 in 2001. Methylenedioxyamphetamine (MDA) was identified in 31 exhibits in 1999, 27 in 2000, and 48 in 2001.

According to the DEA, ecstasy is becoming even more available, with single-dose prices decreasing. Single dosage units of ecstasy sell for \$10–\$25 in Dallas, \$10–\$30 in Houston, and \$13–\$25 in McAllen. A tablet in Laredo sells for 50 cents.

#### *Gamma Hydroxybutrate (GHB), Gamma Butyrolactone (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 it in the past year.

Texas Poison Control Centers reported 100 confirmed exposures to GHB, GBL, and 1,4 BD in 1998, compared with 166 in 1999, 154 in 2000, and 118 in 2001. In 2001, the average age was 25 years. Sixty-three percent of the cases in 2001 were from the Dallas-Fort Worth Metroplex.

Exhibit 9 shows the overall increases in the mentions of GHB in Dallas-area EDs. In 2000, the rate of mentions per 100,000 population for GHB was 3.0; only San Francisco had a higher rate, at 5.0 per 100,000. As shown in exhibit 2, patients mentioning GHB were more likely to be White and were older than patients mentioning other club drugs.

Clients with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 BD are now being seen in treatment. Seventeen adults were admitted in 1999, 12 in 2000, and 19 in 2001. In 2001, the average age was 27, 63 percent were female, and 84 percent were White. Twenty-one percent were employed, and 37 percent were involved with the criminal justice or legal system. No adolescents were admitted to treatment in 2001 for a problem with GHB. Interestingly, 12 of the 19 adult clients (63 percent) entered treatment with a primary problem with amphetamines or methamphetamines but with a secondary or tertiary problem with GHB (exhibit 12).

GHB was involved in three deaths in 1999 and five in 2000. Eighty percent of the decedents in 2000 were White, 80 percent were female, and the average age was 29. Four of the deaths in 2000 were in the Dallas metropolitan area, as were two of the deaths in 1999.

In 1999, 116 items were identified by DPS labs as being GHB or GBL and 4 were 1,4 BD; in 2000, 52 were GHB or GBL and 4 were 1,4 BD; and in 2001, 34 were GHB or GBL and 17 were 1,4 BD. Sixty-one percent of the GHB, GBL, and 1,4 BD items were identified in the DPS lab in the Dallas area, which shows, along with the overdose deaths and Texas Poison Control Center calls, the prevalence of GHB in this area compared with the rest of the State.

A dose of GHB costs \$5–\$10 in Houston, \$5 in Lubbock, and \$20 in Dallas. A gallon costs \$1,600 in Dallas and \$725–\$1,000 in Houston.

*Ketamine*

The 2000 adult survey reported that 0.3 percent had ever used ketamine and 0.1 percent had used it in the last year.

Seven cases of ketamine misuse were reported to Texas Poison Control Centers in 1999, 18 in 2000, and 15 in 2001. The average age in 2001 was 20.

In 2000, the rate of ketamine ED mentions per 100,000 population in Dallas was 0.2, above the national average of 0.0. There were 10 mentions in 2000 and 6 in the first half of 2001 (exhibit 9).

There were also two deaths in 1999 that involved use of ketamine. Both decedents were White males, ages 19 and 38. No deaths were reported in 2000.

DPS labs identified 25 substances as ketamine in 1999, 48 in 2000, and 99 in 2001.

The Houston DEA Field Division reports that ketamine is widely available.

*Lysergic Acid Diethylamide (LSD)*

The 2000 Texas Secondary School Survey found that 5.4 percent had ever used hallucinogens (defined as LSD, PCP, etc.) and 1.8 percent had used them in the past month. This is a decrease from 1998, when 7.3 percent had ever used hallucinogens and 2.5 percent had used them in the past month.

The 2000 adult survey reported that 8.8 percent of Texas adults had ever used LSD and 0.9 percent had used it in the past year.

Texas Poison Control Centers reported 77 mentions of LSD in 1998, 95 in 1999, 87 in 2000, and 62 in 2001. The average age in 2001 was 18.5 years. In 2000, 197 cases of intentional misuse or abuse of hallucinogenic mushrooms were also reported, compared with 81 in 2001. The average age in 2001 was 22 years.

There were 35 mentions of LSD in Dallas DAWN EDs in the first half of 2001 (exhibit 9). The rate of mentions per 100,000 population in Dallas in 2000 was 1.5, which was above the national average of 0.9. As exhibit 2 shows, patients mentioning LSD tended to be younger than users of any other drug.

In 2000, 316 adults had a primary, secondary, or tertiary problem with hallucinogens, compared with 303 in 2001. The average age of these individuals was 27; 65 percent were male; 60 percent were White, 26 percent were African-American, and 13 percent were Hispanic. Twenty-two percent were employed and 55 percent had criminal justice or legal

system problems. Twenty-three percent of these adult clients had a primary problem with a hallucinogen; another 26 percent had a primary problem with marijuana and a secondary problem with a hallucinogen.

In 2000, 320 youths with a primary, secondary or tertiary problem with hallucinogens were admitted to treatment, compared with 183 in 2001. The average age was 15.9 years; 81 percent were male; 60 percent were White, 31 percent were Hispanic, and 8 percent were African-American. Eighty-three percent were involved in the juvenile justice system, and marijuana was the primary drug used by 65 percent, followed by hallucinogens for 13 percent.

There were two deaths in 1999 that involved LSD. Both decedents were White males, ages 15 and 25. No LSD deaths were reported in 2000.

DPS labs identified 405 substances as LSD in 1999, 234 in 2000, and 119 in 2001. Exhibit 13 shows that the percentage of LSD exhibits decreased over the last 4 years.

LSD sells for \$0.60–\$10 in Dallas, \$5–\$10 in Tyler, \$6–\$10 in Fort Worth, and \$7 in Lubbock. Two grams in a “Sweet Breath” bottle sells for \$160–\$180 in Houston.

*Phencyclidine (PCP)*

The 2000 Texas adult survey reported that 0.9 percent of adults had ever used PCP (“angel dust”), and 0.1 percent had used it in the past year.

In 2000, 121 confirmed PCP cases in which terms such as “formaldehyde,” “fry,” “amp,” or “PCP” were mentioned were reported to the Texas Poison Control Centers; 155 such cases were reported in 2001.

The rate of PCP ED mentions in Dallas EDs rose to 4.8 per 100,000 population in 2000, above the national rate of 2.2 per 100,000. As exhibit 9 shows, there were 65 PCP ED mentions in the last half of 2000 and 46 in the first half of 2001. Dallas patients mentioning PCP were more likely to be male and African-American (exhibit 2).

Adult admissions to treatment with a primary, secondary, or tertiary problem with PCP are increasing. Some 102 were admitted in 1998, 125 in 1999, 174 in 2000, and 178 in 2001. Of the clients in 2001, 85 percent were African-American, 64 percent were male, the average age was 24, and 60 percent were involved in the criminal justice system. Twenty-one percent were employed, 13 percent were homeless, and the average income was \$2,777. While 51 percent reported a primary problem with PCP,

another 26 percent reported a primary problem with marijuana, which demonstrates the link between these two drugs and the use of fry, a marijuana joint or cigar dipped in embalming fluid that can contain PCP (exhibit 12).

Among adolescent clients, there were 62 admissions for a primary, secondary, or tertiary problem with PCP in 1998, 118 in 1999, 76 in 2000, and 67 in 2001. Of the 2001 admissions, 88 percent were male; 49 percent were African-American, 36 percent were Hispanic, and 13 percent were White; and the average age was 15.8 years. Ninety-six percent had been referred to treatment by, or were involved in, the juvenile justice system. Marijuana was the primary drug of abuse for 75 percent of the clients and PCP was the primary drug for 21 percent.

Three deaths in 1999 and three in 2000 involved PCP in Texas. In 2000, two of the decedents were male, and all were African-American. Ages ranged between 20 and 36.

PCP use among ADAM arrestees in past years was most likely to be reported by Dallas and Houston male arrestees (exhibit 6b).

DPS labs identified 77 substances as PCP in 1999, 100 in 2000, and 144 in 2001.

The DEA reports that PCP has become more available in the Dallas area. A “sherm stick” sells for \$10, a PCP cigarette sells for \$25, an ounce of PCP sells for \$350–\$500 in Dallas, and a gallon sells for \$26,000–\$28,000 in Fort Worth.

*Flunitrazepam (Rohypnol)*

Rohypnol use in Texas first began along the Texas-Mexico border and then spread northward. The 2000 Texas Secondary School Survey found that students from the border area were 3–4 times more likely to report Rohypnol use than those living elsewhere in the State (13 percent vs. 3 percent lifetime, and 4 percent vs. 1.4 percent current).

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 was 100 in 1998, 105 in 1999, 124 in 2000, and 91 in 2001. Of the 2001 cases, the average age was 19; 73

percent of the cases were reported in counties that bordered Mexico.

In 2000, the rate of Rohypnol ED mentions in Dallas was 0.1 per 100,000 population, which was identical to the national average. As exhibit 9 shows, mentions of Rohypnol have dropped since 1998.

The number of adults admitted into treatment with a primary, secondary, or tertiary problem with Rohypnol was 87 in 1998, 130 in 1999, 74 in 2000, and 78 in 2001. Of the adult clients in 2001, 83 percent were Hispanic, 13 percent were White; 81 percent were male, and the average age was 25, much younger than most adult clients entering treatment (overall average age is nearly 35 years). Only 26 percent were employed, 63 percent were involved with the criminal justice or legal system, and the average annual income at admission was \$3,935.

Exhibit 12 shows that of the clients who reported a problem with Rohypnol, 26 percent had a primary problem with heroin, 23 percent with marijuana, 18 percent with alcohol, and 14 percent with powder cocaine or Rohypnol.

Youths admitted to treatment with a primary, secondary, or tertiary problem with Rohypnol numbered 160 in 1998, 234 in 1999, 250 in 2000, and 319 in 2001. Of the 2001 admissions, 71 percent were male, the average age was 15.4 years, and 98 percent were Hispanic. Some 72 percent were involved in the juvenile justice system.

DPS lab exhibits for Rohypnol numbered 54 in 1999, 32 in 2000, and 31 in 2001.

Perpetrators seeking to commit sexual assault are reported to be serving blue drinks and blue punch so that the blue dye in Rohypnol will not be seen by the victims.

*Dextromethorphan (DXM)*

School personnel in Texas are reporting problems with the abuse of dextromethorphan, especially the use of Robitussin-DM, Tussin, and Coricidin Cough and Cold Tablets HBP. These substances can be purchased over-the-counter and can produce hallucinogenic effects if taken in large quantities.

Texas Poison Control Centers reported 433 confirmed exposures to Coricidin in 2000 and 251 in 2001. The average age of the cases in 2001 was 16 years.

DPS labs examined 12 substances in 1999 that were dextromethorphan, 35 in 2000, and 12 in 2001.

## Inhalants

The characteristics of inhalant abusers vary by the data source. TCADA's 2000 Secondary School Survey found that 20 percent of males had ever used inhalants, compared with 18 percent of females. Twenty-four percent of Hispanic, 18 percent of White, and 12 percent of African-American students had ever used inhalants.

Inhalant use exhibits a peculiar age pattern not observed with any other substance. The prevalence of lifetime and past-month inhalant use was higher in the lower grades and lower in the upper grades. The percentage of students reporting lifetime use of inhalants in 2000 dropped from 23 percent in 8th grade to 15 percent in 12th grade. This decrease in inhalant use as students age may be partially due to the fact that inhalant users drop out of school early, and are not present in later grades to respond to school-based surveys.

Texas Poison Control Centers in 2001 reported 11 cases of intentional misuse or abuse of Freon; the average age was 20 years. There were three cases of misuse of products like White-Out. Automobile-related products are also misused, with 31 cases of intentional gasoline misuse or abuse (average age of 21) and 23 cases of misuse of carburetor cleaner, starter, or transmission fluid, etc. (average age of 24). There were 27 cases of intentional misuse or abuse of paint (average age of 27) and 15 cases of intentional misuse or abuse of aerosols (average age of 24).

Exhibit 14 summarizes the Dallas DAWN ED mentions for the major inhalant categories for 1994–2000. The embalming fluid mentions may well be related to the use of embalming fluid (with or without dissolved PCP) as a dip for marijuana cigarettes.

Inhalant abusers constituted 1 percent of the admissions to adolescent treatment programs in 2001. The youths entering treatment tended to be male (74 percent) and Hispanic (77 percent). The overrepresentation of Hispanic youths reflects TCADA's development and funding of programs targeted spec-

ifically to this group. Only 0.2 percent of adult admissions were for a primary problem with inhalants.

Texas death data also indicate that inhalant use is a problem among adult White males. Analysis of death certifications involving misuse or abuse of inhalants from 1988 to 1998 found that the mean age of decedents was 25.6 years and ages ranged from 8 to 62 years. Ninety-two percent were male, 81 percent were White, and 17 percent were Hispanic. Thirty-five percent of the death certificates mentioned Freon, 25 percent mentioned chlorinated hydrocarbons (e.g., fabric protector, products such as Liquid Paper, or carburetor cleaner), and 17 percent mentioned alkyl benzenes (toluene or rubber cement).

In 2000, 12 deaths involved the misuse of inhalants. Ninety percent of the decedents were male, 83 percent were White, and the average age was 27. Three deaths involved Freon, three involved nitrous oxide, and three involved air freshener.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The proportion of adult and adolescent AIDS cases related to injection drug use rose from 16 percent in 1987 to 24 percent in 2002 through March. In 1987, 4 percent of the cases were injecting drug users (IDUs), and 12 percent were men who have sex with men (MSM) and are also IDUs. In 2002, of the cases whose mode of exposure is known, 20 percent were IDUs, and 4 percent were MSM and IDUs (exhibit 15). The proportion of cases resulting from heterosexual contact rose from 1 percent in 1987 to 19 percent in 2002 through March.

In 1987, 3 percent of the AIDS cases were females older than 12; in 2002, 21 percent were female. In 1987, 12 percent of the adult and adolescent cases were African-American; in 2002, 39 percent were African-American. As exhibit 16 shows, the proportion of White males has dropped, while the proportions of African-Americans and Hispanics have increased.

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**Exhibit 1. Semiannual Rates of Dallas DAWN ED Mentions Per 100,000 Population by Drug: July 1996–June 2001**

Drug	2H96	1H97	2H97	1H98	2H98	1H99	2H99	1H00	2H00	1H01 <sup>1</sup>
Cocaine	29.3	34.0	39.6	51.9	54.1	41.2	44.4	44.6	42.7	28.1
Heroin	7.3	10.4	10.6	10.7	9.8	8.2	9.2	10.6	8.5	7.1
Marijuana	10.8	18.1	19.9	31.2	30.7	25.0	22.6	27.1	22.0	16.4

<sup>1</sup>2001 data are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Characteristics of Dallas ED Mentions by Drug and Percentage: 2000**

Characteristic	Cocaine	Heroin	Marijuana	Amphet-amine	Metham-phetamine	MDMA (Ecstasy)	GHB	LSD	PCP
Total Mentions (N)	(2,180)	(478)	(1,225)	(351)	(135)	(71)	(169)	(64)	(120)
Gender									
Male	64	69	65	55	62	66	70	70	73
Race/Ethnicity									
White	38	59	47	69	90	68	88	70	12
African-American	41	26	36	12	3	-	-	11	78
Hispanic	17	13	11	12	4	-	-	16	0
Age Group									
12–17	4	3	23	13	5	23	-	42	13
18–25	18	31	32	26	19	49	47	55	54
26–34	34	21	23	33	40	25	41	5	26
35 and older	44	45	22	28	36	-	11	0	5
Episode Characteristics									
Multidrug episode	64	55	80	75	73	90	82	70	81
Unexpected reaction	22	6	23	15	16	24	-	28	30
Overdose	39	48	38	62	36	44	79	27	58
Chronic effects	12	8	8	6	11	-	0	2	-
Withdrawal	1	15	2	-	-	1	-	0	-

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 3. Characteristics of Adult Clients at Admissions to TCADA-Funded Treatment Programs by Primary Drug: 2001**

Primary Drug	Total Admissions	% of Admissions	Average Age	Average Age 1st Use	Average Lag <sup>1</sup> 1st Use/ Admission	% 1st Treatment	% Married	% Male	% Using Needles
All Drugs (N)	(36,434)	100.0	(34.8)	(20.4)	(15.0)	40.3	18.9	62.5	22.6
Heroin	(4,318)	11.9	(35.7)	(22.2)	(14.0)	23.8	18.3	68.2	89.5
Other Opiates	(1,368)	3.7	(36.0)	(27.6)	(9.0)	35.0	24.7	42.3	19.4
Alcohol	(13,402)	36.8	(37.7)	(16.6)	(22.0)	39.7	18.5	70.3	7.3
Depressants	(495)	1.4	(34.4)	(26.3)	(9.0)	44.4	21.8	36.0	6.9
Stimulants	(2,629)	6.9	(30.7)	(20.4)	(11.0)	49.5	19.9	47.4	59.9
Cocaine (Powder)	(2,682)	7.4	(31.5)	(21.9)	(10.0)	45.3	22.8	62.3	33.5
Marijuana/Hashish	(3,716)	10.2	(27.0)	(15.8)	(12.0)	61.8	19.6	65.7	6.2
Hallucinogens	(160)	0.4	(24.6)	(19.6)	(5.0)	50.6	7.5	68.1	3.1
Inhalants	(191)	0.5	(28.8)	(20.4)	(9.0)	43.5	14.1	51.3	3.1
Crack Cocaine	(7,573)	20.8	(33.7)	(26.1)	(10.0)	35.6	16.8	54.5	5.9

Primary Drug	% African-American	% White	% Hispanic	% Employed	Average Months Employed Over Last 12	% Involved with CJ or Legal System	Average Education (Years)	% Homeless	Average Income at Admission
All Drugs (N)	20.9	53.8	24.0	22.9	(4.8)	43.6	(11.5)	13.6	\$5,646
Heroin	7.6	38.0	53.9	14.2	(3.4)	31.3	(11.1)	13.9	\$3,954
Other Opiates	7.2	83.6	7.6	16.4	(4.2)	32.7	(12.0)	7.4	\$5,498
Alcohol	14.8	61.1	22.8	26.9	(5.5)	43.6	(11.6)	17.4	\$6,628
Depressants	3.0	87.3	8.9	13.9	(4.0)	39.4	(11.6)	7.7	\$5,207
Stimulants	1.6	91.7	5.3	21.3	(4.4)	49.6	(11.5)	9.1	\$5,064
Cocaine (Powder)	8.6	48.1	41.9	26.7	(5.3)	47.5	(11.2)	7.2	\$6,839
Marijuana/Hashish	27.3	47.5	24.0	38.5	(5.7)	67.2	(11.1)	4.0	\$5,874
Hallucinogens	68.1	18.1	13.8	22.5	(3.8)	61.3	(10.8)	14.4	\$3,545
Inhalants	10.5	55.0	24.6	15.7	(3.4)	39.8	(10.1)	10.5	\$3,765
Crack Cocaine	50.0	35.8	13.0	14.6	(4.0)	37.5	(11.5)	17.0	\$4,668

<sup>1</sup> "Lag" refers to the years between first use of a drug and the date of treatment admission.

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)



**Exhibit 4. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment With a Primary Cocaine Problem by Route of Administration: 2001**

<b>Characteristic</b>	<b>Crack Cocaine Smoke</b>	<b>Powder Cocaine Inject</b>	<b>Powder Cocaine Inhale</b>	<b>Cocaine All<sup>1</sup></b>
Number of Admissions	7,573	948	1,782	10,303
Percent of Cocaine Admissions	74	9	17	100
Lag—First Use to Treatment (Years)	10	13	9	10
Average Age	36	34	31	35
Percent Male	55	62	62	57
Percent African-American	50	6	12	39
Percent White	36	71	38	39
Percent Hispanic	13	22	49	21
Percent Criminal Justice Involved	37	44	49	40
Percent Employed	14	18	30	18
Percent Homeless	17	13	5	15
Average Income	\$4,668	\$6,349	\$6,910	\$5,242

<sup>1</sup> Total includes clients with “other” routes of administration.

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

**Exhibit 5. Characteristics of Youth Clients at Admission to TCADA-Funded Treatment Programs: 2001**

Primary Drug	Total Admissions	% of Admissions	Average Age	Average Age 1st Use	Average Lag <sup>1</sup> 1st Use/ Admission	% 1st Treatment	% Using Needles	% Male	% Have Supportive Adult
All Drugs (N)	(4,586)	100.0	(15.5)	(12.9)	(3.0)	66.6	2.0	79.4	95.1
Opiates	(124)	2.7	(15.8)	(14.1)	(2.0)	36.3	47.6	80.6	95.2
Alcohol	(346)	7.5	(15.6)	(13.0)	(3.0)	71.4	0.3	73.1	95.7
Depressants	(127)	2.8	(15.2)	(13.8)	(2.0)	57.5	0.8	59.1	94.5
Stimulants	(68)	1.5	(15.7)	(13.8)	(2.0)	63.2	14.7	45.6	94.1
Powder Cocaine	(337)	7.3	(15.8)	(14.0)	(2.0)	58.2	4.2	69.4	96.4
Marijuana	(3,405)	74.2	(15.5)	(12.7)	(3.0)	69.1	0.2	82.5	95.2
Hallucinogens	(37)	0.8	(15.9)	(14.2)	(2.0)	43.2	0.0	81.1	94.6
Other Drugs	(111)	2.4	(15.5)	(13.7)	(2.0)	54.1	0.0	77.5	92.8
Crack Cocaine	(31)	0.7	(16.9)	(14.8)	(3.0)	61.3	0.0	77.4	74.2

Primary Drug	% African-American	% White	% Hispanic	% Involved CJ or Legal System	% Gang History	Average Education (Years)	% Homeless	% Live with Parents	% with Parent Who Abuses Substances
All Drugs (N)	17.4	26.1	55.7	82.5	24.5	(8.3)	0.8	73.9	24.2
Opiates	8.9	19.4	71.8	66.1	37.1	(8.3)	2.4	79.0	24.2
Alcohol	8.4	27.7	63.3	76.9	21.7	(8.5)	0.6	74.6	26.9
Depressants	5.5	12.6	81.9	70.1	24.4	(8.2)	0.0	85.8	22.8
Stimulants	1.5	88.2	7.4	72.1	7.4	(8.4)	0.0	57.4	47.1
Powder Cocaine	0.0	24.3	74.8	71.2	24.0	(8.7)	0.9	73.9	19.0
Marijuana	21.2	25.6	52.5	85.4	24.3	(8.3)	0.8	73.8	23.8
Hallucinogens	24.3	40.5	29.7	91.9	24.3	(8.3)	0.0	94.6	35.1
Other Drugs	12.6	27.0	58.6	82.0	33.3	(8.0)	0.9	92.8	24.3
Crack Cocaine	22.6	12.9	64.5	83.9	29.0	(7.1)	6.5	74.2	32.3

<sup>1</sup> "Lag" refers to the years between first use of a drug and the date of treatment admission.

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

**Exhibit 6a. Percentage of Arrestees Testing Positive for Selected Drugs by City, Gender, and Age Group: 1991–2001**

Drug City/Gender	1991 %	1992 %	1993 %	1994 %	1995 %	1996 %	1997 %	1998 %	1999 %	2000 %	2001 %
<b>Cocaine</b>											
Dallas Males	43	41	45	35	31	32	32	29	34	28	30
Houston Males	56	41	41	28	40	39	39	36	36	32	NR
Laredo Males	NR <sup>1</sup>	NR	NR	NR	NR	NR	NR	37	42	45	33
San Antonio Males	29	31	31	31	24	28	26	27	23	20	31
Dallas Females	46	48	43	46	44	36	34	30	40	24	NR
Houston Females	51	44	43	36	32	34	29	37	23	32	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	33	21	22	24
San Antonio Females	24	25	24	23	23	23	18	20	19	NR	NR
<b>Opiates</b>											
Dallas Males	4	4	5	3	5	5	4	2	5	3	5
Houston Males	3	3	2	3	5	8	10	8	6	7	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	11	11	10	11
San Antonio Males	15	14	14	13	10	10	10	10	10	10	9
Dallas Females	9	9	11	8	5	10	4	5	7	5	NR
Houston Females	4	4	5	6	3	4	5	7	7	3	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0	2	7	13
San Antonio Females	20	13	15	14	13	13	9	9	10	NR	NR
<b>Marijuana</b>											
Dallas Males	19	28	27	33	39	43	44	43	39	36	33
Houston Males	17	24	24	23	30	28	23	36	38	36	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	39	33	29	27
San Antonio Males	19	28	32	30	34	38	34	41	36	41	42
Dallas Females	11	24	20	23	23	26	27	24	27	21	NR
Houston Females	8	12	15	13	20	24	17	20	23	27	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	13	9	17	11
San Antonio Females	8	16	17	15	16	18	17	18	16	NR	NR

<sup>1</sup> NR=Not reported.

SOURCE: ADAM, National Institute of Justice

Exhibit 6b. Percentage of Arrestees Testing Positive for Selected Drugs by City, Gender, and Age Group: 1991–2001

Drug City/Gender	1991 %	1992 %	1993 %	1994 %	1995 %	1996 %	1997 %	1998 %	1999 %	2000 %	2001 %
<b>Amphetamines</b>											
Dallas Males	1	1	4	2	2	1	4	3	3	2	2
Houston Males	0	0	0	0	0	0	0	0	0	1	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	0	0	0	0
San Antonio Males	1	0	0	0	1	1	2	0	0	0	3
Dallas Females	3	3	6	4	4	2	4	4	4	3	NR
Houston Females	0	0	1	0	1	1	2	0	0	2	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0	0	0	0
San Antonio Females	2	1	2	0	3	2	4	2	2	NR	NR
<b>PCP</b>											
Dallas Males	0	3	3	5	8	4	3	4	5	4	2
Houston Males	0	0	1	3	4	3	3	6	7	5	NR
Laredo Males	NR	NR	NR	NR	NR	NR	NR	0	0	0	0
San Antonio Males	0	0	0	0	0	0	0	0	0	0	0
Dallas Females	0	0	1	2	2	1	1	0	1	2	NR
Houston Females	0	0	0	1	2	1	1	2	1	2	NR
Laredo Females	NR	NR	NR	NR	NR	NR	NR	0	0	0	0
San Antonio Females	0	0	0	0	0	0	0	0	0	NR	NR

SOURCE: ADAM, NJ

**Exhibit 7. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment With a Primary Heroin Problem by Route of Administration: 2001**

<b>Characteristic</b>	<b>Inject</b>	<b>Inhale</b>	<b>All<sup>1</sup></b>
Number of Admissions	3,791	265	4,318
Percent of Cocaine Admissions	88	6	100
Lag—First Use to Treatment (Years)	15	7	14
Average Age	36	30	36
Percent Male	69	59	68
Percent African-American	6	30	8
Percent White	38	26	38
Percent Hispanic	56	43	54
Percent Criminal Justice Involved	32	27	31
Percent Employed	14	16	14
Percent Homeless	15	7	14
Average Income	\$3,824	\$4,912	\$3,957

<sup>1</sup> Total includes clients with “other” routes of administration.

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

**Exhibit 8. Price and Purity of Heroin Purchased in Dallas, El Paso, and Houston: 1995–2001**

Purity/Price	1995	1996	1997	1998	1999	2000	2001
Dallas							
Percent Purity	6.8	3.5	7.0	11.8	14.0	16.0	14.2
Price/Milligram Pure	\$2.34	\$6.66	\$4.16	\$1.06	\$1.01	\$0.69	\$1.21
Houston							
Percent Purity	16.0	26.1	16.3	34.8	17.4	18.2	14.2
Price/Milligram Pure	\$1.36	\$2.15	\$2.20	\$2.43	\$1.24	\$1.14	\$1.30
El Paso <sup>1</sup>							
Percent Purity	—	—	—	—	56.7	50.8	34.9
Price/Milligram Pure	—	—	—	—	\$0.49	\$0.34	\$0.65

<sup>1</sup> El Paso began reporting in mid-1999.

SOURCE: DEA

**Exhibit 9. Dallas DAWN ED Mentions of Selected Drugs: July 1996–June 2001**

Drug	2H96	1H97	2H97	1H98	2H98	1H99	2H99	1H00	2H00	1H01 <sup>1</sup>
Hydrocodone Singly & in Combination	105	150	160	130	146	125	120	146	158	173
Oxycodone Singly & in Combination	6	3	2	5	8	7	1	23	5	8
Amphetamines	57	81	182	163	173	138	169	185	166	173
Methamphetamines	62	77	82	119	67	58	42	75	60	53
GHB	22	21	51	75	86	61	95	81	87	74
Ketamine	0	1	...	0	0	1	2	6	4	6
LSD	27	62	15	40	53	57	48	42	23	35
Ecstasy	11	8	9	6	9	7	18	29	41	36
PCP	11	21	15	27	34	52	43	55	65	46
Rohypnol	...	11	2	7	0	2	3	2	2	...

<sup>1</sup> Data for the first half of 2001 are preliminary.

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 10. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment With a Primary Amphetamine or Methamphetamine Problem by Route of Administration**

Characteristic	Smoke	Inject	Inhale	Oral	All <sup>1</sup>
Number of Admissions	503	1,480	313	186	2,629
Percent of Cocaine Admissions	19	56	12	7	100
Lag—First Use to Treatment (Years)	8	12	9	11	11
Average Age	29	31	29	33	31
Percent Male	46	47	51	49	47
Percent African-American	1	1	1	4	2
Percent White	90	95	89	80	92
Percent Hispanic	7	3	9	15	5
Percent Criminal Justice Involved	45	52	49	44	50
Percent Employed	23	18	37	15	21
Percent Homeless	11	10	6	3	9
Average Income	\$6,119	\$4,363	\$6,341	\$5,415	\$5,064

<sup>1</sup> Total includes clients with “other” routes of administration.

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

**Exhibit 11. Percentage of Items Analyzed by DPS Labs That Were Methamphetamines or Amphetamines: 2001**

Lab Location	Percentage
McAllen	0
Laredo	1
El Paso	4
Corpus Christi	10
Houston	6
Austin	18
Waco	20
Tyler	17
Dallas	34
Midland	12
Abilene	42
Lubbock	23
Amarillo	42

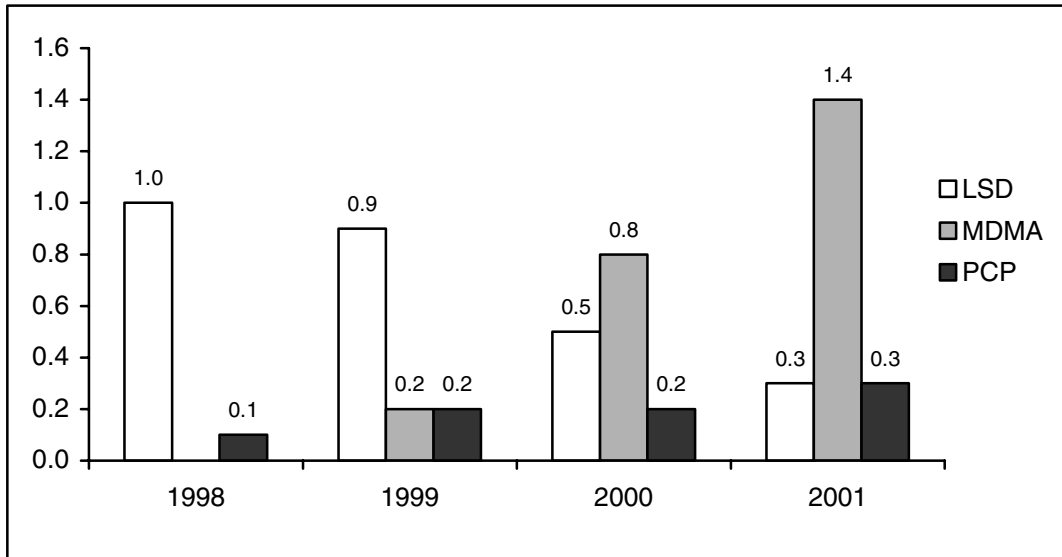
SOURCE: The National Forensic Laboratory Information System (NFLIS), Texas Department of Public Safety (DPS)

**Exhibit 12. Percentage of Adult Treatment Admissions to TCADA-Funded Treatment With a Secondary or Tertiary Mention of a Problem With a Club Drug by Primary Drug of Abuse: 2001**

Primary Drug at Admissions	Second or Third Problem With a Club Drug			
	MDMA	GHB	PCP	Rohypnol
Marijuana	21	5	26	23
Alcohol	16	5	7	18
Powder Cocaine	14			14
Crack Cocaine	12	11	9	3
Amphetamine/Methamphetamine	10	63		3
MDMA	20			
GHB		16		
PCP			51	
Heroin				26
Rohypnol				14

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

**Exhibit 13. Club Drugs Identified by DPS Labs by Percentage: 1998–2001**



SOURCE: The National Forensic Laboratory Information System (NFLIS), Texas Department of Public Safety (DPS)

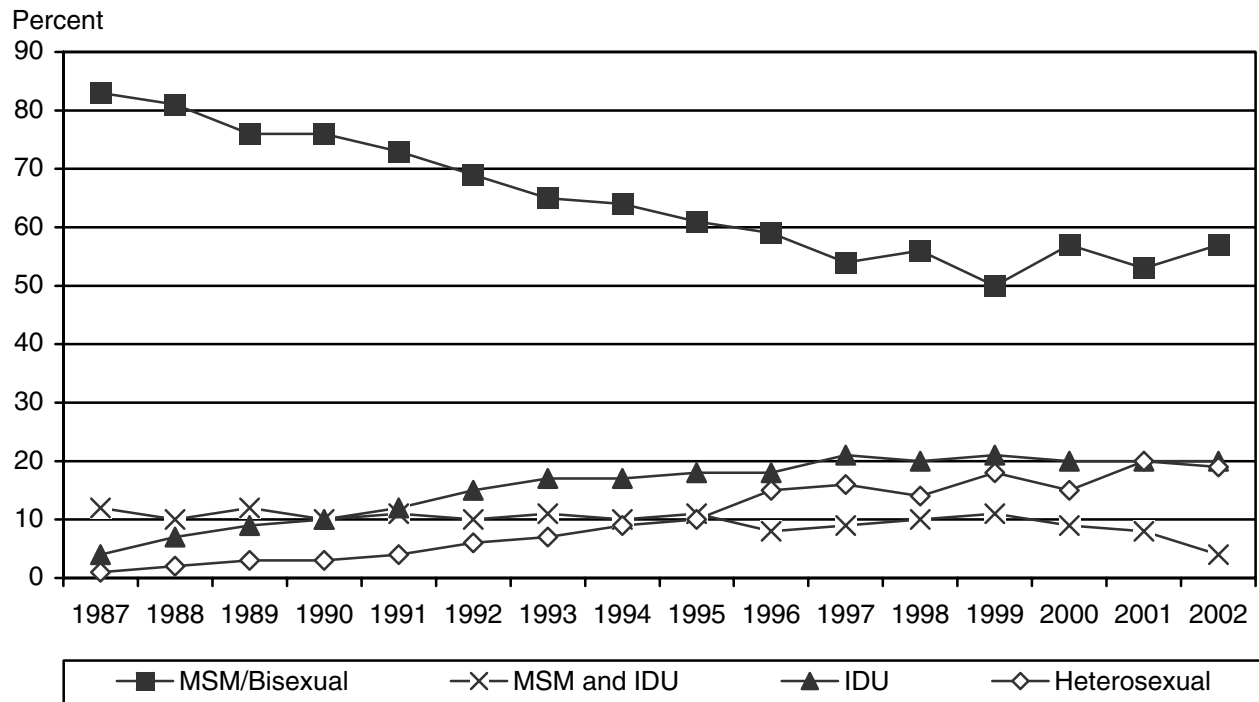


**Exhibit 14. Dallas DAWN ED Mentions of Various Inhalants: 1994–2000**

Inhalant	1994	1995	1996	1997	1998	1999	2000
Volatile Agent	65	29	52	59	41	51	44
Embalming fluid	0	1	1	0	4	8	10
Paint	7		3	1	3	13	8
Toluene glue	28	4	17	19	10	5	13
Other volatile agents	30	24	31	39	24	25	13
Nitrates	0	0	0	0	0	0	1
Chlorofluorohydrocarbons	1	8	0		3		1
General Anesthetics	0	1		0	1	0	

SOURCE: DAWN, Office of Applied Studies, SAMHSA

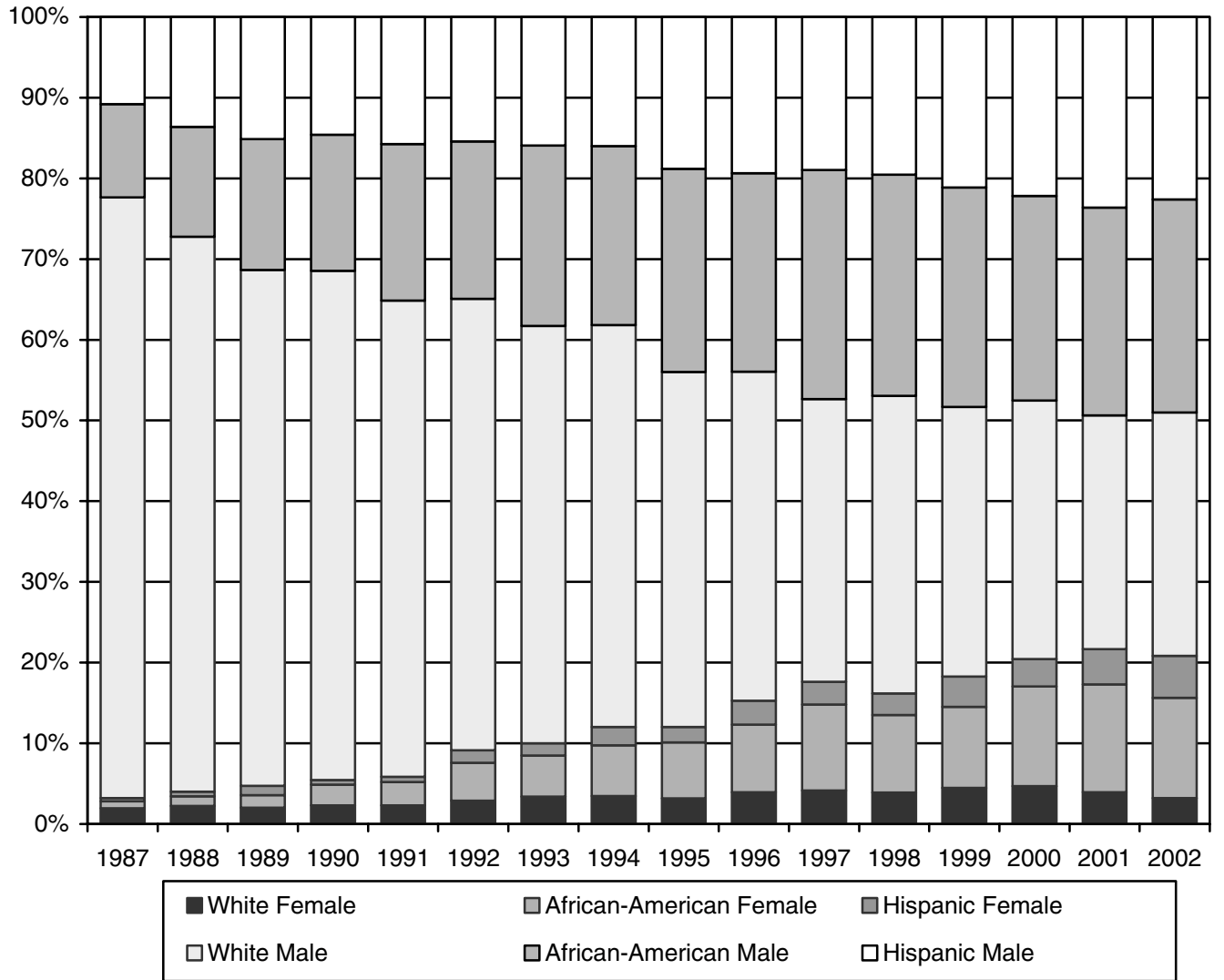
**Exhibit 15. AIDS Cases<sup>1</sup> in Texas by Route of Transmission: 1987–March 2002**



<sup>1</sup>Cases with risk not reported are excluded.

SOURCE: Texas Department of Health

**Exhibit 16. Male and Female AIDS Cases by Race/Ethnicity: 1987–March 2002**



SOURCE: Texas Department of Health

# Patterns and Trends of Drug Abuse in Washington, DC

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## ABSTRACT

*This report documents drug abuse patterns and trends for Washington, DC. Cocaine indicators were mostly steady, while a number of marijuana indicators showed signs of decline. Heroin ED mentions and treatment admissions increased, with purity levels remaining steady, prices decreasing, and ethnographic sources reporting that the drug is readily available throughout the city. Cocaine and heroin continue to account for the greatest proportion of treatment admissions. OxyContin has become available in the District and is a popular illicit drug in surrounding areas, especially Virginia. Indicators of PCP use among adults and juveniles show increases, along with continued growth in MDMA use. Although most methamphetamine indicators are low, emergency department mentions and treatment admissions increased. The proportion of HIV/AIDS cases attributable to injection drug use continues to increase. The AIDS-related mortality rate has decreased in Washington, DC, but increases in the incidence of hepatitis B and C complicate treatment of HIV-positive injection drug users. Immediately following the terrorist attacks of September 11, 2001, heroin and cocaine, as well as marijuana and MDMA became less available in certain markets in the District. However, the diversion of police to other areas for surveillance in the initial weeks following the attacks led to heightened activity in drug markets, while some drug trafficking processes were disrupted.*

## INTRODUCTION

### Area Description

The Nation's capital is divided into eight wards that are distinguishable by race and economic status. A majority of Washington's White and wealthier res-

idents live in the northwest part of the city, while most of the poorer African-American populations reside in the eastern quadrants of the city. The District retained its majority African-American population in 2002. African-American residents accounted for 60 percent of the total population and Whites for 31 percent; 8 percent were Hispanic and 3 percent were Asian/Pacific Islander (U.S. Bureau of the Census 2002). In the first half of 2001, the District remained a city divided by race and geography. However, data from the 2000 census indicate significant demographic changes in the last decade. The District's population fell by 5.7 percent during the 1990s, to 572,059 in 2000. The number of African-Americans decreased by 14.1 percent. Conversely, 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 modest 2 percent during this time period.

The population of the District continues to reflect an older demographic profile than the general U.S. population. In 2000, of the eight age categories reported by the DC Office of Planning, residents age 65 and older represented the fifth largest segment of the population, at 12.2 percent.

Despite a nationwide economic recession, wealth distributions 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 increased in the DC metropolitan region, while the percentage of persons in poverty increased in many localities in and around Washington.

Mostly fueled by decreasing incidents of theft, overall index crimes declined by 1.2 percent between 2000 and 2001 in the District. While the aggregate of index crimes declined, the number of homicides

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jumped from 76 in the first half of 2001 to nearly 91 in the first half of 2002, garnering high profile attention in local media.

Washington, DC, plays an important role in the drug transportation network along the eastern seaboard of the United States. Information from the Department of Justice's National Drug Intelligence Center (NDIC) suggests that the District has a wide variety of drug transportation options, including an extensive highway system, three major airports, and rail and bus systems. While both NDIC and ethnographic information suggest that traffickers extensively utilize all of these options, Washington appears to be a secondary drug distribution center, with most drugs intended for distribution in DC being distributed first to larger cities such as New York and Miami.

Although this overall pattern has remained consistent in recent months, ethnographic data and news reports suggest that higher security at airports has shifted smuggling activities to rail, bus, and commercial package delivery networks. Information from the Washington/Baltimore High Intensity Drug Trafficking Area (HIDTA) suggests that Dominican drug trafficking organizations continue to play a major role supplying opiates and cocaine to traffickers in the District. In addition, increasing involvement among Hispanic gangs and Asian traffickers has been noted, as has decreasing violence by Jamaican organized criminal groups.

#### Data Sources

A number of sources were used to obtain comprehensive information regarding the drug use patterns and trends in Washington, DC. Data for this report were obtained from the sources shown below.

- **Emergency department (ED) drug mentions data** were derived through the first half of 2001 from the Drug Abuse Warning Network (DAWN), Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Data for the first half of 2001 are preliminary.
- **Drug-related death data** were derived from the DAWN annual medical examiner (ME) data for 2002. The DAWN system covered 56 percent of the jurisdictions in the metropolitan statistical area (MSA) and 92 percent of the MSA population in 2000.
- **Drug treatment data** were obtained through 2001 on characteristics of admissions to publicly funded treatment programs in Washington, DC.
- **Arrest, crime, and law enforcement action data** were derived from the Metropolitan Police Department (MPD) crime statistics and press releases pertaining to law enforcement action through June 2001, <[www.mpdc.dc.gov](http://www.mpdc.dc.gov)>, and from the MPD Central Crime Analysis Unit, tables on Arrests by Sex for Adults and Juveniles through 2001.
- **Arrestee urinalysis data** were provided by the District of Columbia Pretrial Services Agency and included data on adult and juvenile arrestee urinalysis results through April 2002.
- **Drug prices and trafficking trends data** were obtained from the Drug Enforcement Administration (DEA), Washington Field Division, and the DEA's Domestic Monitor Program (DMP) "Quarterly Trends in the Traffic Washington Division, FY 2001"; "Quarterly Price List, Fourth Quarter Fiscal Year 2001"; drug seizure data through August 2001; and DMP data through the first quarter of 2002. Other information was provided by the Federal Bureau of Investigation (FBI) and District narcotics officers. Other trafficking data were derived from the Washington-Baltimore HIDTA "District of Columbia Threat Assessment," available at <<http://www.whitehousedrugpolicy.gov>>; "Washington, DC Threat Assessment," January 2002; and also from the NDIC.
- **General information on drug use** was derived from the Office of National Drug Control Policy (ONDCP) reports "Pulse Check: Trends in Drug Abuse Mid-Year 2001," and "Washington, D.C., Profile of Drug Indicators," <<http://www.whitehousedrugpolicy.gov>>; the District of Columbia, Department of Health, Addiction, Prevention and Recovery Administration (APRA), "A 2000 Household Survey on Substance Abuse: Summary of Findings," September 2001; and the Center for Substance Abuse Research, University of Maryland, Drug Early Warning System, "Ecstasy in Maryland," August 2001.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the District of Columbia Department of Health, Administration for HIV/AIDS, "District of Columbia AIDS Surveillance Report," Volume 21, No. 1, September 30, 2001.
- **Census data** for the District of Columbia were derived from the "Council of the District of Columbia; Subcommittee on Labor, Voting Rights and Redistricting; Testimony of the Office

of Planning/State Data Center on Bill 14-137, The Ward Redistricting Amendment Act of 2002,” <[http://www.planning.dc.gov/documents/single\\_race.shtm](http://www.planning.dc.gov/documents/single_race.shtm)>.

- **Ethnographic research** provided qualitative data on price, purity, and social aspects of drug use through interviews with law enforcement officers, DC city administration officials, and local experts.
- **Media reports** included those from the *Washington Post*, <<http://www.washingtonpost.com>>, and press releases from the District of Columbia Mayor’s Office News Web site <<http://dc.gov/mayor/index.shtm>>.

#### DRUG ABUSE PATTERNS AND TRENDS

This section presents data from drug related incidents, such as ED episodes, arrests, etc.

For the first halves of 2000 and 2001, the number of DAWN ED episodes and mentions combined for the major substances of abuse decreased slightly in the District. The number of combined drug episodes dipped slightly, from 5,067 to 4,962. ED mentions per 100,000 population decreased insignificantly, from 206 to 186.

The rates of DAWN ED mentions per 100,000 population for the first half of 2001 in the District are as follows: 31 for cocaine, 22 for heroin, and 23 for marijuana. Other metropolitan areas in the north-eastern, southeastern, and mid-Atlantic States had higher ED rates of cocaine and heroin mentions than the District. Among the 19 CEWG cities reporting DAWN ED rates in the first half of 2001, DC ranked 13th for cocaine, 11th for heroin and 9th for marijuana.

Between 2000 and 2001, the number of admissions to publicly funded drug treatment providers in the District of Columbia increased slightly, from 6,025 to 6,112. There were slight increases in admissions for the primary abuse of heroin, cocaine intranasal use and injection, amphetamines, and phencyclidine (PCP). The number of primary marijuana admissions declined from 484 in 2000 to 362 in 2001, accounting for 6 percent of the 6,112 admissions in 2001. Primary cocaine admissions for smoking or crack also declined, from 1,626 to 1,444 (11 percent); nevertheless, crack still accounted for 24 percent of all admissions in 2001. Heroin admissions, on the other hand, increased slightly, from 2,121 to 2,128, accounting for 35 percent of all 2001 admissions.

Primary admissions for intranasal use and/or injection of cocaine rose from 448 to 474, a 6-percent increase. Likewise, admissions for amphetamines increased from 14 to 32, and PCP admissions increased from 43 to 105, or 144 percent.

According to DAWN ME data, total drug abuse-related deaths in the Washington, DC, MSA rose from 215 to 235 between 1996 and 2000, a 9-percent increase. Within the District in 2000, there were 100 drug-related deaths. The number of cocaine-related death mentions in the MSA increased slightly, from 101 in 1996 to 107 in 2000. However, during this same time period, the number of heroin-related death mentions decreased 8 percent, from 91 to 84. In 2000, 69 percent of the cocaine mentions involved more than one drug, as did 75 percent of the heroin mentions. Nearly 69 percent of the decedents in 2000 were male, 53 percent were African-American, and 77 percent were age 35 and older. However, as the demographic makeup of the District continues to change, the number of White deaths associated with drug abuse is beginning to show a slight increase.

Threat assessment data gleaned from ethnographers and law enforcement agencies show stability in prices for illicit drugs and an increase in drug purity.

District of Columbia arrest data indicate a 16-percent increase in the number of drug-related arrests among adults between the first halves of 2000 and 2001. However, the District of Columbia Pretrial Services Agency, which tests adult arrestees for cocaine, opiates, and PCP, reported little fluctuation through these reporting periods and the first quarter of 2002, when the proportion of adult arrestees testing positive for any drug typically fell between 43 and 46 percent.

The following sections will present data on specific drugs of abuse in the District.

#### Cocaine

Cocaine remains the most prominently abused drug in the District of Columbia, based on a number of indicators. ME data from DAWN suggest that the number of deaths associated with cocaine in the DC metropolitan area remained steady between 1996 and 2000. In 1996, a total of 57 cocaine-related deaths were reported; in 2000, the figure remained nearly level, at 54.

Although ME numbers remained relatively stable throughout the 1990s and 2000, DAWN ED mentions for cocaine for the first half of 2001 were at a 5-year low. ED mentions peaked at 1,892 in the first half of

1998. The number dropped to 1,362 in the first half of 2001, an insignificant decrease from the first half of 2000 ( $n=1,373$ ). Between the first halves of 1998 and 2001, rates per 100,000 population declined from 50 to 31 (exhibit 1). Tests on annual ED cocaine rates per 100,000 from 1998 (97) to 2000 (72) do show a significant decrease (a 23.9- percent change).

Treatment admissions data suggest that abuse of powder cocaine remained at high levels between 2000 and 2001. The number of persons entering treatment for smoked cocaine (i.e., crack) decreased by 11 percent, from 1,626 in 2000 to 1,444 in 2001. Crack admissions accounted for 78.4 percent of all cocaine admissions in 2001. Reports of intranasal cocaine use remained at similarly high levels between 2000 and 2001. For intranasal cocaine administration, District treatment facilities reported 448 admissions in 2000 and 474 in 2001. Excluding alcohol, primary cocaine admissions accounted for nearly 42 percent of admissions for abuse of an illicit drug in 2001 (exhibit 2).

Information from the District of Columbia Pretrial Services Agency shows that cocaine-positive urinalysis results among juvenile arrestees remained steady between the first quarters of 2001 and 2002, at less than 10 percent (exhibit 3). The percentage of adult arrestees testing cocaine-positive also remained stable between April 2001 and March 2002, at approximately 34 percent.

Prices for crack cocaine begin at a low of \$10–\$20 for a “bag” or loose “rock” of crack cocaine. In the second quarter of 2002, grams of crack sold for \$80–\$100. An ounce of crack sold for \$900–\$1,750, and a “31” (grams) and a “62” (grams) sold for \$1,000–\$1,300 and \$1,500–\$2,600, respectively. Kilograms of crack sold for \$30,000 during this reporting period.

Prices for powder cocaine varied greatly according to the level of purity. Grams of powder cocaine during the second quarter of 2002 sold for \$50–\$100, which was the same price as in fiscal year (FY) 2001; this price was cheaper than for grams of crack. An ounce of powder cocaine sold for \$600–\$2,000, depending on purity. A “31” and a “62” sold for \$1,100–\$1,200 and \$1,450–\$3,500, respectively. Kilograms of powder cocaine likewise ranged widely in price, from \$17,500 to \$35,000.

Trafficking patterns remained steady between 2001 and 2002. Often, a courier will travel to the source city, obtain a quantity of cocaine, and then return to Washington. Alternatively, a supplier will travel to Washington and set up a temporary shop for distrib-

ution. Traffickers utilize a variety of methods to transport powder cocaine, including rail, bus, and commercial package delivery. A prominent method of transporting drugs is the use of motor vehicles equipped with sophisticated secret compartments. At least two major seizures of multikilogram amounts of powder cocaine were made in 2001. In each of the two seizures, more than 30 kilograms of powder cocaine were found in a private motor vehicle equipped with false compartments. Law enforcement sources report that members of Dominican criminal groups are the most prominent distributors of wholesale powder cocaine in the District of Columbia. Mexican criminal organizations have also begun to distribute wholesale quantities of powder cocaine.

Trafficking patterns of powder cocaine and crack differ in the DC area, because sentencing disparities are greater for the possession and distribution of large amounts of crack. Thus, the bulk of crack cocaine consumed in the metropolitan area is brought in from Philadelphia or New York City as powder cocaine and is converted into crack. In DC, crack cocaine is most commonly distributed by “crews,” or loosely affiliated individuals from particular neighborhoods who organize themselves for the purposes of selling cocaine or other drugs. Crews are often known by the neighborhood in which they operate (e.g., “Hobart Stars” or “6200 Crew”), and they tend to control small areas of the District and sell crack on street corners and in various neighborhoods and public housing projects. The crews are also known for their violence.

Law enforcement sources suggest that involvement of senior citizens in the cocaine trade is increasing in the District. Individuals age 60 and older are reportedly being recruited as cocaine couriers and a small minority began selling crack cocaine from their residences in public housing projects.

## Heroin

Preliminary DAWN data show 988 heroin ED mentions in Washington, DC, in the first half of 2001. This represents an insignificant increase from the first half of 2000 ( $n=957$ ). Annual rates per 100,000 population were steady between 1999 (46 mentions) and 2000 (49). In the first half of 2001, men continued to outnumber women by nearly twofold in the rate of ED heroin mentions per 100,000 population for the District. The increase in the rate of heroin ED mentions among those age 18–25 from the first half of 2000 (10 per 100,000) to the first half of 2001 (24) was statistically significant, a 179.5-percent change. The 35–44 age group continues to have the highest rate of heroin ED mentions,

at 46 in the first half of 2001, compared with 53 in the first half of 2000 (a nonsignificant change).

The District reported 2,128 primary heroin admissions to publicly funded treatment programs during 2001, up from 2,121 for 2000. Heroin admissions for 2001 represented 34.8 percent of all treatment admissions and, as shown in exhibit 2, 46.6 percent of all admissions for illicit drug abuse. As in 2000, heroin treatment admissions continued to outnumber those for cocaine. The vast majority of these heroin admissions were African-American, male, and age 35 or older.

As noted earlier, DAWN ME data for the Washington, DC, MSA showed a decrease in heroin-related mentions (from 91 in 1996 to 84 in 2000).

Urinalysis results from the District of Columbia Pretrial Services Agency indicate that the percentage of adult arrestees testing positive for opiates through 2001 has remained relatively steady since 1992. In the first halves of 2000 and 2001, respectively, 13 and 15 percent of adult arrestees tested opiate-positive (exhibit 4). However, in the first quarter of 2002, opiate-positive tests hovered at 11 percent of all adult arrestees testing positive for any drug. Possession with intent to distribute was the most commonly reported charge.

Data from the DMP indicate that the average purity level of heroin in the city remained steady at around 23 percent in the first halves of 2000 and 2001. This is substantially lower than the national average of 35 percent. The national DMP price per milligram of pure heroin during the first half of 2001 averaged \$1.05, which represents a slight increase over the \$0.92 per milligram of pure heroin sold in Washington, DC. Across the District, street-level heroin is packaged in small, plastic, zip-lock bags; paper packets; or capsules (a recent trend) and sold for \$8, \$10, or \$20 per bag. The price of heroin depends on its purity, the number of bags purchased, and the amount of heroin in each bag. Also available are grams at \$120–\$150 (40–90 percent purity). Heroin that is reputedly unaltered with quinine and called “bone,” typically favored by intranasal users, can be purchased for \$30–\$70 per bag; purity levels of these bags fluctuate from 40 to 70 percent. Finally, there were 771 heroin seizures (totaling 1,227 grams) in the first 11 months of 2000.

Data from the Washington/Baltimore HIDTA and ethnographic sources continue to suggest that overall use of heroin in the region has increased in the past several years. Alarming trends have developed among younger addicts, especially the use of heroin

in combination with other drugs (polydrug use). A growing heroin addict population has led to a massive increase in methylenedioxymethamphetamine (MDMA or ecstasy) use.

Heroin remains readily available throughout the city, even as purity fluctuates from week to week. As in 2000, the scope and characteristics of individual users continue to broaden. Health educators and outreach workers report an increase in use among suburban and inner-city adults between the age of 22 and 27. Among these young users, inhaling remains the primary route of administration.

Despite the booming real estate market and gentrification currently impacting the whole city, street-level heroin continues to be marketed and distributed in open-air drug markets. According to District narcotics police officers, the traditional heroin markets still operate in the city, but recently younger persons (age 16–18) have begun selling the drug and establishing new locations throughout the city. An estimated 25 to 30 of these markets exist in the District, with some located along the Maryland/DC border to make heroin more accessible to suburban users. However, the great majority of the city’s heroin distribution groups are crews of young men ranging in age from their early twenties to midthirties. Because of competition for buyers, dealers continue to label their packages in order to distinguish their products (e.g., “Bin Laden,” “Holy Terror,” “No Limit”). According to the DEA, most of the heroin sold in the District originates in South America. Also, HIDTA reports a relatively new and significant phenomenon in the District of Columbia—the emergence of Asian groups operating in the heroin market.

### Other Opiates/Narcotics

Opiates such as oxycodone (Percocet, Percodan), Tylenol with codeine, and occasionally hydro-morphone (Dilaudid) can be purchased near methadone clinics throughout the city. Addicts misuse these and other pharmaceuticals to ease the symptoms of opiate withdrawal and to heighten the effects of heroin. There were no arrests related to Dilaudid in the first half of 2001; in the first half of 2000, two arrests for possession with intent to distribute this drug were reported.

The illegal use of OxyContin, the time-release version of the painkiller oxycodone, has emerged as a substantial threat to the residents of the Washington/Baltimore region. According to the HIDTA 2001 OxyContin Report, the illegal use of this drug is both a “substantial threat” to Washington, DC, residents

and a “major concern to law enforcement and health care professionals.” An official of the DEA’s regional drug diversion program notes that OxyContin abuse has increased dramatically and the drug continues to be very accessible. According to HIDTA, OxyContin has no common user demographics. DC and Maryland authorities reported users being as young as 15. In the District, police officials have observed OxyContin (“OC”) sales conducted outside heroin addiction treatment facilities in the northeast area of the District. It can also be found where heroin is sold or where heroin addicts congregate, especially at the street level. Since 1998, this synthetic opiate has been linked to at least 43 deaths in southwest Virginia. Within the Baltimore/DC region, two confirmed deaths have been related to OxyContin since 2000.

According to HIDTA, after the OxyContin pill is crushed, the powder can be snorted, chewed, or dissolved and injected. The drug has also been reported to mix well in alcohol. The Prince William County, Virginia, Police Department reported addicts using a rare liquid form of the drug called Oxyfast.

HIDTA reports indicate that the majority of dealers distributing OxyContin in the region are independent, street-level pushers. The FBI has identified the District as the only area where many of the distributors are older African-American males in their fifties. According to District narcotics officers, 40-milligram tablets of OxyContin sell for \$20, and 20-milligram tablets cost \$10. While 80- and 160-milligram tablets are available, they are much harder to obtain in the District. Current OxyContin prices represent a 50-percent reduction from the previous price of \$1 per milligram. The 40-milligram tablet, which is affordable at \$20, is considered the most popular dosage unit sold in the region.

The rate of narcotic analgesic ED mentions per 100,000 population remained relatively stable from the first half of 2000 (at 6) to the first half of 2001 (at 7), as did the rate for narcotic analgesic combinations (3 and 4 in the respective time periods).

### **Marijuana**

In the first half of 2001, marijuana ED mentions in the District totaled 1,019, compared with 1,284 in the first half of 2001; this decrease was not significant. The rate of ED marijuana mentions per 100,000 population for the first half of 2001 was 23 (exhibit 1). As in previous years, African-Americans continued to predominate among marijuana ED mentions. Rates of ED marijuana mentions per 100,000 population by age group

were highest for persons age 18–19 in the first halves of 2000 (110) and 2001 (121).

According to DAWN ME data, one marijuana-related drug abuse death occurred in 2000. In 2001, there was no ME report of marijuana-related deaths.

Between 2000 and 2001, the total number of marijuana admissions to publicly funded treatment facilities declined 25 percent, from 484 to 362. For this time period, primary marijuana as a percentage of admissions for illicit drug abuse decreased, from 10.2 to 7.9 percent (exhibit 2). A growing concern in the District is the increasing number of Hispanic residents who cite marijuana as their drug of choice. In 2000, Hispanics accounted for only 6 percent of the admissions for marijuana abuse; this figure rose to 13 percent by the first half of 2001. Cocaine remains the most frequently mentioned secondary drug among primary marijuana treatment admissions. One-fifth of the marijuana admissions reported cocaine/crack as their secondary drug in the first half of 2001, up from 11 percent in 2000.

Data from the District of Columbia Pretrial Services Agency Urinalysis Division show a 16.4-percent decrease in marijuana-positive tests among juvenile arrestees from the first quarter of 2001 to the first quarter of 2002, when 51 percent of the juveniles tested marijuana-positive (exhibit 3). The data indicate that marijuana is the most common drug for which juvenile arrestees test positive; rarely is the presence of cocaine or PCP found without a positive result for tetrahydrocannabinol (THC).

According to ethnographic data, HIDTA, District of Columbia police officials, and DEA sources, marijuana continues to be abundant and easily obtained throughout the Washington, DC, metropolitan region. There are reports that hydroponic marijuana is now prevalent in the District and is “extremely potent.” According to District narcotics officers, “blunts (marijuana rolled in cigar paper) are not as common” in the District as they once were. Flavored cigar papers are now the favorite for younger marijuana smokers in their early teens through midtwenties. Since 1992, adolescents and young adults in the District have been lacing marijuana cigarettes with PCP and small rocks of crack cocaine. Law enforcement sources report that clubgoers favor the more potent types of marijuana for use along with drugs such as MDMA, lysergic acid diethylamide (LSD), and methamphetamine. Preventive efforts to reduce marijuana abuse among youth have been particularly difficult, principally because the drug is celebrated in a manner far less



frequently demonstrated in the adult world. In fact, data from a number of Federal law enforcement agencies indicate that on any given day, T-shirts, hats and even bumper stickers adorned with marijuana leaves, and/or words such as “blunt” or “chronic” (popular street slang across the country for high-grade marijuana) can be purchased at a variety of locations in the District.

District law enforcement sources indicate that marijuana users tend to be young, African-American, male, and from lower socioeconomic groups. Of note, the District’s local child welfare and juvenile justice agencies report an increase in young female marijuana users over the past 7 years. As is the case in most metropolitan areas, marijuana use among young females is often underrepresented and/or underdiagnosed, primarily because youth courts, lockup facilities, detention centers, and the like are often ill equipped to address the needs of adolescent females. National data show that many of these females are not accorded an opportunity to participate in age-appropriate drug treatment interventions until well into their late twenties and thirties.

According to the Washington DEA Field Division, the pound price of commercial grade marijuana started at \$700 and topped out at \$1,400 in the first and second quarters of 2001; these prices were higher than the \$600–\$1,300 per pound reported in the third quarter of 2000. Currently, a pound of “hydro” or “kind bud” (the most potent) sells for \$1,200–\$6,000. Smaller bags, called “dimes,” of kind bud and hydro sell for \$10–\$20 per gram, and commercial grade marijuana sells for \$5–\$10 per bag. An ounce of commercial grade sells for \$100, and an ounce of hydro or kind bud sells for approximately \$480. Marijuana prices in the District are generally thought to be the highest in the metropolitan region. This may reflect the fact that about 12 or more branches of Federal and local law enforcement agencies patrol the District independently and in tandem.

Marijuana appears to pose a lower threat of violent crimes than other illicit drugs (e.g., cocaine and heroin). However, as local traditional dealers of cocaine and heroin continue to augment their distribution stock and pile of illicit drugs, the association of marijuana with violent crimes is increasing.

Reports indicate that much of the marijuana in Washington, DC, is grown locally (e.g., on Maryland’s Eastern Shore). However, the majority of marijuana found in the District results from commercial and Postal Service trafficking. Commonly referred to as “drip trafficking,” Postal Service conveying involves mass mailing of small amounts of

marijuana in numerous packages. “Drip trafficking” offers the distinct benefit of avoiding stiff penalties and significantly reducing financial liability in the wake of aggressive legislation passed in 2000 and 2001 in the District that made distribution, intent to distribute, and possession of more than one-half pound of marijuana a felony carrying a 5-year sentence. DEA data show that Jamaican drug trafficking groups represent one of the largest subgroups involved in the importation and distribution of marijuana to the area. The two most common types of indoor-grown marijuana are hydro, which refers to plants grown in water (hydroponically), and kind bud (“bud,” or “KB”), which is grown with enhanced soil and lighting. Both hydro and kind bud are considered high-potency types of marijuana. Although they are not new types of marijuana, they have only recently become visible in the District. These types of marijuana are frequently grown in, and imported from, Canada and transported to the District via New York for wholesale distribution.

Marijuana seizure data from FY 1999 to FY 2000 show a substantial decline in the amount of the drug seized. According to the Washington Field Division of the DEA, preliminary data for December 2000 through March 2001 indicate that 19.516 kilograms of marijuana and 4.5 grams of hashish were seized during these months.

### Stimulants

The use of amphetamine-type substances, such as methamphetamine, does not appear to be a serious problem in Washington, DC, according to most data sources. However, institutional and surveillance reports from 1999 to 2002 suggest the growing use and availability of these substances. Ethnographic reports indicate that methamphetamine is used alone or in combination with alcohol, marijuana, powder cocaine, and MDMA. User groups include homosexual men, club attendees, white-collar professionals, business owners, teenagers, and young adults. Ethnographic reports indicate that methamphetamine is used at dance and music venues that are part of the rave/club subculture. There are a few users among some lower socioeconomic groups and outlaw motorcycle groups, although most motorcycle groups in the region have been disbanded. An ethnographic respondent observed that greater numbers of users in the club scene are injecting methamphetamine, a phenomenon known locally as “pointing.” Indicator data support this claim.

For a number of years, most methamphetamine indicators have shown few problems associated with this drug in the District. ED methamphetamine men-

tions are so low as to often lack standard precision. For instance, there were 9 ED methamphetamine mentions in the first half of 2001, compared with none in the first half of 2000 and 18 in the second half of 2000. The ME data show five methamphetamine-related deaths in 1999, an increase from 1998 and 1997, and one in 2000.

There were 32 primary methamphetamine treatment admissions during 2001, compared with only 14 in 2000, more than a twofold increase over the 1-year period. In 2000, 79 percent of methamphetamine admissions were White, 14 percent were Hispanic, and 7 percent were African-American, suggesting an expanding ethnographic context of users. Nearly three-quarters (71 percent) were male. One-half of the methamphetamine admissions were age 35 and older. Another 28 percent were age 25–34, an increase in treatment cases for this age group. While it is too early to tell whether this shift is an artifact of small numbers, the ethnographic data suggest an increase in methamphetamine use in the younger rave/club subculture. Nevertheless, those entering treatment are still dominated by an older cohort of users. Corroborating ethnographic reports, more than one-quarter (28.6 percent) of methamphetamine treatment admissions reported injecting as their main route of administration, although intranasal use remained the main mode of ingesting methamphetamine.

DEA reports for the second quarter of 2002 indicate that prices for methamphetamine have varied over the last few years. During the recent reporting period, methamphetamine continued to be sold for \$100 per gram, which is similar to gram prices in 2001, but lower than the gram price in 2000 (\$150). Ounce prices in the second quarter of 2002 in the District ranged from \$1,100 to \$2,900, which is a much wider range and is potentially less expensive than the ounce prices of \$2,700 in 2001 and \$2,400–\$2,800 in 2000. Pounds of methamphetamine were sold for \$13,000 in the District. In Virginia, pounds sold for \$10,000–\$12,500 in Richmond and \$11,500–\$17,000 in Roanoke, approximately one-half of the cost (i.e., \$25,000–\$28,000) in these areas during 2001. This may be a troublesome development. However, most methamphetamine is sold in DC in smaller quantities and at higher retail prices for users: one-half gram may cost \$60–\$140, and one-half ounce may cost \$1,000.

There are a number of gradations in the quality of methamphetamine, largely related to the substances and techniques used in the manufacturing process. The DEA reports that most methamphetamine available in DC is of 70 percent purity and is produced through the hydriodic acid/red phosphorus method

that yields high-quality methamphetamine. This type of methamphetamine is sent from the Southwest and California through Mexican drug trafficking organizations. Methamphetamine of lower quality produced by the phenyl-2-propanone (p2p) method can be found, though in lesser quantities, and it is associated with distribution by motorcycle gangs.

The DEA reports that Washington, DC, is a transshipment center for trafficking methamphetamine by Mexican drug trafficking organizations. It arrives by automobile; with couriers who body-carry the drug on planes, trains, and buses; and through express mail services. During the first quarter of 2001, police seized 70 grams in a package mailed from California, and couriers have been identified by the DEA as carrying several pounds on commercial airlines from California to the DC metropolitan area.

### Hallucinogens

LSD continues to be used in the District of Columbia, although its use appears to be decreasing. Ethnographic reports suggest that its popularity has not waned as much as its availability. According to the DEA, LSD is sold in the form of blotter sheets of paper soaked in the drug, as a liquid placed on sugar cubes or candy, or dropped directly on the tongue from breath-drop and eye-drop bottles, and in larger multigram quantities as crystal LSD. When diluted or dissolved, 1 gram of crystal LSD yields 10,000 dosage units. Blotter sheets, which are perforated into ¼-inch-square individual doses, are the most common form of LSD available. They are sold by the tab, in “sheets” (100 tabs), and in “cubes” (10 sheets).

LSD is used largely by high school- and college-age individuals at area raves, concerts, and nightclubs. LSD is commonly sold and used alongside various club drugs. DEA investigations also cite accounts of young adults and clubgoers practicing “candy flipping,” or mixing ecstasy and LSD.

The total number of LSD-related ED mentions in the District remained stable between the first half of 2001 (20 mentions) and the first half of 2000 (23). However, these rates represent a drop in ED mentions since 1994.

The DEA quotes LSD prices during the second quarter of FY 2002 at approximately \$2–\$5 per dose, which is \$2–\$3 less than the cost of individual doses in FY 2000. A sheet of 100 blotter doses sold for \$200–\$300, as opposed to \$800 in 2001. A book of LSD, which is 1,000 dosage units, sold for \$1,300–\$1,750. Three LSD seizures were reported in the District during 1999, and four were reported during

the first 10 months of 2000. The DEA has identified California-based suppliers of the drug who ship it to the DC area in private automobiles and through express mail services.

PCP ED mentions increased significantly from the first half of 2000 to the first half of 2001, when there were 199 mentions. In 2000, the annual rate increased significantly, rising from 4.5 to 8.1 mentions per 100,000 population between 1999 and 2000. Much of this increase is associated with an increase in younger users age 18–25.

Treatment admissions to publicly funded programs for primary abuse of PCP increased from 43 admissions in 2000 to 105 in 2001, a 144-percent increase. The proportion of PCP admissions to total admissions also increased, from 0.7 percent in 2000 to 1.8 percent in 2001. These admissions showed a strong demographic pattern: the majority were male (84 percent), age 25–34 (91 percent), and African-American (100 percent). PCP and PCP-combination ME mentions declined from nine to four between 1996 and 1998 in the metropolitan area, but remained stable between 1998 and 1999.

According to the District of Columbia Pretrial Services urinalysis data, the percentage of adult arrestees testing PCP-positive increased markedly during the first half of the 1990s, peaking at 14 percent in 1995. The percentage then declined until 1998, dipping to only 2 percent (exhibit 4). More recently, the percentage of adult arrestees testing PCP-positive has been steadily increasing. During 2000, the percentage of adult arrestees testing PCP-positive (9 percent) was nearly back to the 1994 level. For more recent time periods, the percentage of positive arrestees increased from 9 percent in the first half of 2000 to 13 percent in the first quarter of 2002.

The District of Columbia Pretrial Services data for juveniles reveal PCP trends similar to those for adults. Between 1998 and 2000, PCP-positive tests increased from 3 to 10 percent, a decrease from 18 percent in 1995 (exhibit 3). However, the data by quarter for 2001 may reveal an alarming trend. During the first quarter of 2001, 11 percent of juveniles tested PCP-positive, nearly double the 6 percent level in the first quarter of 2000. During the second and third quarters of 2001, 15 percent of juveniles tested PCP-positive. From February to April 2002, the rate of juveniles testing positive was more volatile, fluctuating from 12 to 9 to 15 percent.

DEA investigations corroborated ethnographic reports that users generally combine PCP with marijuana. Within the District, PCP is used primarily

by young African-American males and lower income to lower middle-income Whites, some of whom have ties to motorcycle gangs. However, recent DEA intelligence indicates an expanding interest in the drug among participants in the city's club/rave scene. Club/rave attendees have shown a growing interest in PCP because its effects are similar to, though stronger than, those of ketamine, which is also a popular drug in the club/rave scene. It should be noted, however, that many manufacturers of ecstasy will use PCP as a cheap adulterant or even substitute in their tablets, which the user unknowingly ingests.

According to the DEA, PCP prices dropped markedly to \$300–\$600 per ounce during the second quarter of 2002, compared with \$700–\$950 per ounce during the second and third quarters of FY 2001. These current prices are a return to the prices of the past few years: during 1998, 1999, and the fourth quarter of FY 2000, PCP was available for approximately \$350 per ounce. Government reports indicate that PCP is being sold in gallons for \$18,000–\$22,000. Ethnographic data indicate that PCP is often marketed on the street as a marijuana-PCP combination, which is sold in aluminum foil packages for \$15–\$25. “Dippers,” or tobacco cigarettes dipped in liquid PCP, sell on the street for \$25 each. Dippers are so potent that more than one person can get high from one cigarette. They are used primarily by persons in their late teens and early twenties and are most prevalent in the southeast quadrant of the District. The MPD Narcotics Unit reports that some dealers are putting ether on marijuana to make it smell like PCP.

DEA data indicate that the number of PCP seizures rose from 39 in 1999 to 74 in the first 10 months of 2000. PCP is imported to the District from surrounding suburbs, as well as from Cleveland, Newark, Philadelphia, and New York. Sources of supply differ somewhat by user group; young African-American males continue to have connections to southern California-based manufacturers, while other user groups (motorcycle gangs, rave/club attendees) tend to have more local sources of supply.

### Club Drugs

MDMA (ecstasy) continues to be the most prominently abused club drug in the Washington, DC, metropolitan area. Although MDMA indicators are very low, ED mentions have been increasing. There were 45 mentions in the first half of 2001, down slightly from 54 mentions in the first half of 2000.

Ethnographic reports suggest that MDMA remained prevalent in the District's gay and nightclub scenes in 2002. Law enforcement reports show that MDMA

trafficking increased dangerously in 2002. Interview and official information from the NDIC suggests that wholesale trafficking in MDMA increased among organized criminal groups, Asian groups in particular. At the same time, retail trafficking remained steady among middle- and upper middle-class college-age Whites who are not part of an organized criminal group. However, law enforcement officials have noted that crews who sell drugs in street drug markets have started distributing MDMA and have introduced a new level of violence associated with it. Involvement of military personnel in shipping MDMA from overseas and from bases in the United States became apparent in 2002.

Law enforcement data also suggest that in 2002 use of MDMA has spread beyond the rave scene into more established drug markets and has been adopted by users of other drugs such as powder cocaine. MDMA-related crimes are increasing at festive nightclub and rave venues as drug trafficking organizations become increasingly involved in the MDMA trade. In 2000 and 2001, a number of large MDMA seizures occurred in the DC area. In one instance a suburban ring that had sold 200,000 tablets of MDMA was dismantled.

Often, what is sold as MDMA or ecstasy is adulterated with PCP, methamphetamine, and other drugs, or it may contain only these other drugs. The price remains at \$25–\$30 per tablet, and the tablets often contain one of nearly 100 different logos (e.g., smiley faces, the Mitsubishi label, four-leaf clover, and others).

While not as common as use of MDMA, use of the surgical anesthetic ketamine remained common in the nightclub and dance scenes in DC during 2002. Ketamine ED mentions remained low, but increased from one in 1995 to seven in 2000. Law enforcement officials claim that ketamine is smuggled into the District from Miami by Israeli and Russian distributors, or it may be obtained from break-ins at veterinary clinics. It is sold at nightclubs and dances. The price of a bottle of liquid ketamine declined from \$100 in FY 2000 to \$60–\$89 in FY 2001.

Gamma hydroxybutyrate (GHB) remains a drug of abuse in the District in 2002, although its use appears limited. GHB ED mentions steadily increased from 1998 to 2000. However, ED mentions of GHB decreased significantly from the first half of 2000 to the first half of 2001 (from 17 to 9 mentions). At least one fatality in the DC metropolitan area directly involved GHB in 2001. GHB retailed at \$10–\$25 per dosage unit (a capful) in 2002.

## INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Washington, DC, remains a major AIDS epicenter. The metropolitan area has the fifth highest number of AIDS cases in the United States. From 1981, when the first AIDS case was reported, through September 30, 2001, 24,436 AIDS cases were diagnosed in the Washington, DC, MSA. Forty-nine percent (12,087) of these cases have died, leaving 12,349 living through the third quarter of 2001. The AIDS epidemic has had a clearly disproportionate impact on the residents of the District. For example, the District had the highest rate of AIDS prevalence in the DC/MD/VA metropolitan area, with 1,287 cases per 100,000 population as of September 30, 2001. AIDS remains the leading cause of death among the city's African-American women and White men age 25–44. Second only to homicides, it is also a leading cause of death for African-American men.

Of the adult and adolescent AIDS cases in the District as of September 30, 2001, males accounted for 81 percent. The majority—76 percent—were African-American, followed by Whites (21 percent), Latinos/Hispanics (3 percent), and Asian/Pacific Islanders and Native Americans (0.5 percent).

Among male adult/adolescent AIDS cases reported between 1996 and 2000, the predominant exposure category was men who have sex with men (MSM) (50 percent). As of September 30, 2001, 42.4 percent of AIDS cases were MSM, a decreasing trend in the prevalence of cases among MSM over time. However, the proportion of cases attributable to injection drug use continues to grow. Among cases reported as of September 30, 2001, 32.7 percent were attributed to injection drug use. Cumulative data for 1996–2000 indicate that while only 2 percent of White males with AIDS reported injection drug use as their primary exposure mode, nearly 30 percent of African-American males reported this mode of exposure. Diagnosed AIDS cases among African-American injection drug users (IDUs) have also been increasing faster among men than among women.

Between 1998 and 2000, injection drug use among males and females accounted for 23 percent and 9 percent, respectively, of total AIDS cases in the District of Columbia. This represents an almost twofold increase for males and females since 1987. The shift in the epidemic toward people of color and IDUs is reflected in cases from 1998 through 2000, in which African-Americans constituted 97 percent of male and 99 percent of female cases involving injection drug use.

Mirroring trends across the United States, there has been a decrease in AIDS-related deaths in the District because of the widespread use of highly active antiretroviral therapy (HAART). Between 1993 and 1997, AIDS-related deaths decreased by 56 percent in the District and 57 percent in the United States. Nevertheless, for 1997–98, the rate of deaths from AIDS in the District was seven times higher than the national rate; this high rate of deaths in DC may be related to a comparatively lower use of HAART among a major proportion of IDUs with HIV/AIDS. In a 1999 community-based epidemiologic and ethnographic longitudinal study among IDUs in the District, it was found that 70 percent of HIV-positive IDUs were not taking antiretroviral medication or regularly using HIV services.

As the classic opportunistic infections that were the hallmark of HIV/AIDS in the first decade of the epidemic have become more infrequent in the era of HAART, attention has turned to viral copathogens that increasingly complicate the treatment of HIV for IDUs—notably, the hepatitis B and hepatitis C viruses (HBV and HCV). Because of similar transmission routes, the incidence of co-infection with HCV is increasing among IDUs who are HIV-positive. During hepatitis screening in February through May 2001 at APRA, 343 chronic HCV cases were reported. According to APRA, the highest number of HCV cases

occurred among IDUs. Officials at APRA also note that HIV and HCV co-infection is high among IDUs.

As more worldwide studies have been completed, the direct linkages of sexually transmitted diseases (STDs) to the transmission of HIV have become increasingly recognized. Both “ulcerative” STDs, such as chancroid, syphilis, and genital herpes, and “inflammatory” STDs, such as gonorrhea, chlamydia, and trichomoniasis, increase the risk of HIV infection. In the District, STD rates are high. For example, the national ranking for the District per 100,000 population is 3rd for gonorrhea, 8th for syphilis (primary and secondary), and 12th for chlamydia. From 1997 to 2000, 289 primary and secondary syphilis cases were reported among District residents. Males accounted for 55 percent of the cases. The rate of syphilis and gonorrhea among females, especially those in the 10–19 age group, remains of particular concern to District health officials. African-Americans accounted for 96 percent of both the male and female reported cases during 1997–2000. Overall, those most affected were age 25 or older, accounting for 85 percent of the reported District syphilis cases. These additional sources of infection may increase the likelihood of transmission among both IDUs and crack smokers who engage in unprotected sexual encounters and are susceptible to these co-infections.

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**Exhibit 1. Rate of DAWN ED Mentions Per 100,000 Population for Selected Drugs in Washington, DC: 1st Half of 1997–1st Half of 2001**

Drug	1H 1997	1H 1998	1H 1999	1H 2000	1H 2001
Cocaine/Crack	42	50	38	35	31
Heroin	22	27	22	25	22
Marijuana/Hashish	31	29	31	33	23
PCP/PCP Combinations	3	2	3	4	4

SOURCE: Adapted from DAWN, Office of Applied Studies, SAMHSA

**Exhibit 2. Percentage of Primary Treatment Admissions for Major Illicit Drugs in Washington, DC: 1997–2001**

Drug	1997	1998	1999	2000	2001
Cocaine/Crack	37.0	46.0	47.0	43.6	42.0
Heroin	32.0	35.0	37.0	44.6	46.6
Marijuana	12.0	18.0	16.0	10.2	7.9
Stimulants	0.0	0.0	0.0	0.3	0.7

SOURCE: Publicly-funded treatment centers

**Exhibit 3. Percentage of Juvenile Arrestees Testing Positive for Selected Drugs in Washington, DC: 1995–1st Quarter 2002**

Drug	1995	1996	1997	1998	1999	2000	1st Quarter 2001	1st Quarter 2002
Marijuana	58	62	63	63	64	61	61	51
PCP	18	7	7	3	7	10	11	12
Cocaine	4	6	6	8	7	6	4	7

SOURCE: District of Columbia Pretrial Services Agency

**Exhibit 4: Percentage of Adult Arrestees Testing Positive for Selected Drugs in Washington, DC: 1996–1st Quarter 2002**

Drug	1996	1997	1998	1999	2000	1st Half 2001	1st Quarter 2002
Cocaine	41	39	43	39	34	34	33
Opiates	11	11	11	12	10	15	11
PCP	5	4	2	6	9	13	13

SOURCE: District of Columbia Pretrial Services Agency

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Epidemiology of Drug Abuse:

International Papers

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# Canadian Community Epidemiology Network on Drug Use Halifax, Nova Scotia Report

Shaun Black, M.Sc., M.B.A.<sup>1</sup>

## ABSTRACT

*The 1999 Canadian National Population Health Survey data on alcohol use among the 15-and-older population show that 76 percent were past-year drinkers—81 percent of men and 72 percent of women. Among youth age 15–19, 74 percent had consumed alcohol in the past 12 months. Only 9 percent of the 15-and-older population were considered abstainers. Data from various sources showed a strong association between use of alcohol and illicit drugs and incidence of criminal activity. Among individuals accessing treatment in the Halifax area, alcohol continues to be the most commonly abused drug; however, an increasing number of polydrug users who have concurrent mental health problems are accessing services. In the Atlantic Provinces, prescription opiates are the major drugs involved in narcotic addiction, with the main supply of injectable opiates being hydromorphone and morphine.*

## INTRODUCTION

The Canadian Community Epidemiology Network on Drug Use (CCENDU) was created in response to an identified need for a surveillance system spanning Canada, bringing together locally relevant information on drug use, health, and legal consequences of use, treatment, and law enforcement. Fourteen cities are currently involved with CCENDU. The Canadian Centre on Substance Abuse provides national coordination, while a Steering Committee provides ongoing guidance to the initiative and funds various CCENDU components.

Beyond coordinating and facilitating the collection, organization, and dissemination of surveillance information, CCENDU was conceived to foster networking among key multi-sectoral partners, to improve the quality of data currently being gathered, and to ultimately serve as an early warning network on emerging drug trends. Data and information are collected for nine major categories: alcohol, cocaine, cannabis, heroin, sedative-hypnotics and tranquilizers, hallucinogens other than cannabis, stimulants other than cocaine, the human immunodeficiency virus (HIV) and the acquired immunodeficiency

syndrome (AIDS), and needle exchange. The data are collected in areas of prevalence, treatment, law enforcement, morbidity, mortality, HIV/AIDS and Hepatitis C, and licit drugs. The definitions of these indicators are currently under review.

## DRUG ABUSE PATTERNS AND TRENDS: CANADIAN UPDATE

### National Population Health Survey, 1999

The National Population Health Survey, conducted every 2 years, provides information on alcohol use in Canada among persons age 15 and older. The key findings are summarized below:

- Canadians (age 15 and older)
  - 76 percent past-year drinkers
  - 15 percent former drinkers
  - 9 percent abstainers
- Youth (age 15–19)
  - 74 percent past-year drinkers
- Women
  - 72 percent past-year drinkers
  - 16 percent former drinkers
  - 12 percent abstainers
- Men
  - 81 percent past-year drinkers
  - 14 percent former drinkers
  - 6 percent abstainers
- Canadian alcohol consumption rates
  - Once a month: 29 percent
  - More than once a week: 19 percent
  - Once a week: 7 percent
  - 2–3 times a month: 16 percent
  - Once a month: 12 percent
  - Daily: 7 percent

### Drugs and Crime

Data from a variety of sources illustrate a strong association between the use of alcohol and illicit drugs and criminal activity.

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- Slightly more than one-half (53 percent in one study and 52 percent in another study) of Federal inmates reported using illicit drugs during the 6 months prior to their arrest.
- Nearly one-quarter (23 percent) of Federal inmates reported committing their most serious offenses in order to obtain alcohol or other drugs.
- More than one-half (54 percent) of Federal inmates reported being under the influence of at least one psychoactive drug when they committed their most serious crime.

### Cost Estimates of Substance Abuse

The estimated cost of substance abuse attributable to nicotine, alcohol, and illicit drugs was estimated at \$18.45 billion in 1992; the portions attributable to each were as follows:

- Nicotine—\$9.6 billion (51.8 percent)
- Alcohol—\$7.5 billion (40.8 percent)
- Illicit drugs—\$1.46 billion (7.4 percent)

Alcohol and illicit drugs accounted for \$4.9 billion in lost productivity (0.8 percent of the gross domestic product [GDP]) in 1992. Substance abuse was responsible for one in five deaths and nearly 10 percent of hospital admissions in Canada in 1995–96. Fifty percent of the new HIV cases and 80 percent of the hepatitis C cases are attributable to injection drug use.

HALIFAX, NOVA SCOTIA SITE

### Drug Use Frequency Reports

In the Halifax area, alcohol continues to be the most commonly reported drug of abuse among individuals accessing Drug Dependency Services (DDS). Nicotine represents the second most commonly reported drug. DDS is currently examining staff educational needs and the continuum of treatment services that would best address the needs of tobacco users. Prescription opiates and benzodiazepines constitute the majority of prescription problems in the Halifax area. An increasing number of polydrug users who have concurrent mental health issues are accessing services.

### Drugs Used To Facilitate Sexual Assault

A number of initiatives are currently underway to address the problems associated with flunitrazepam (Rohypnol) and gamma hydroxybutyrate (GHB).

Although Rohypnol is neither prescribed nor dispensed in North America and GHB is illegally manufactured, there are now more reports of use and abuse of these drugs. In response to this, a Sexual Assault Nurse Examiners (SANE) Program has been established to address the myriad problems that an individual faces if sexually assaulted under the influence of one of these drugs. DDS has also been involved in the training of police officers to address this issue and in the development of a “Resource Binder for Community Agencies.”

### Population Health and Substance Abuse

Population Health is an approach designed to improve the health of an entire population and to reduce the health inequities among population groups. The approach examines and acts upon the broad range of factors and conditions that have a strong influence on health; these factors are known as the “determinants of health.”

Using this approach, DDS has used information from the Population Health Research Unit at Dalhousie University to divide the population in the Capital Health District into seven geographic regions. In addition, the educational level and mean family incomes for individuals in these areas have been identified. By using a Population Health approach and the determinants of health, DDS is endeavoring to align its financial and personnel resources to maximize efforts to reduce the negative consequences of drug use. Using the cost estimates for alcohol, DDS is able to clearly show the cost of alcohol abuse in the district.

### Opiate Dependency and Methadone

In the Atlantic Provinces (Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland), prescription opiates represent the major source of narcotic addiction. There is little or no heroin in the area. However, hydromorphone (Dilaudid) and morphine (MS Contin) represent the main supply of injectable opiates. Methadone maintenance services have been offered in the Halifax area since 1990. Other areas are examining the feasibility of offering such services.

### FUTURE DIRECTIONS OF CCENDU

Future initiatives of the CCENDU include the following:

- Establishing an online community for individual sites to obtain the latest information

- Adding new sites, with the possibility of an on-reserve site
- Establishing new sites through the Federation of Canadian Municipalities
- Presenting the National CCENDU Report at the national meeting in September 2002

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# Update of the Epidemiologic Surveillance System of Addictions (SISVEA) of Mexico: 2001

Roberto Tapia-Conyer, Patricia Cravioto, Pablo Kuri, Fernando Galvan, and Blanca de la Rosa<sup>1</sup>

## ABSTRACT

*Data for this report were gathered through Mexico's Epidemiologic Surveillance System of Addictions from treatment centers, juvenile detention centers, and medical examiners in 2001. Among 9,474 patients in government treatment centers (GTCs) and 17,262 patients in nongovernment treatment centers (NGCs), cocaine was the drug most likely to be used currently (35.3 percent of GTC and 23.8 percent of NGC patients). Marijuana was the second most frequently reported current drug of abuse among GTC patients (20.4 percent), and it ranked fourth among NGC patients (11.5 percent). Heroin was reported as a current drug of abuse by 23.6 percent of NGC patients, but by only 2.8 percent of GTC patients. Approximately 90 percent of GTC and NGC patients were male, and the majority used more than one drug. Marijuana (39.6 percent) and cocaine (22.3 percent) were the most frequently used drugs among 6,688 juvenile arrestees. Medical examiners reported that alcohol was associated with 74.2 percent of drug-related deaths.*

## INTRODUCTION

The Epidemiologic Surveillance System of Addictions (SISVEA) of Mexico, created in 1990, is the product of collaboration among different government and nongovernment agencies and provides periodic and timely information on tobacco, alcohol, and medical and illegal drug use. SISVEA information permits identification of risk groups, new drugs, changes in consumption patterns, and risk factors associated with the use and abuse of alcohol, tobacco, marijuana, cocaine, heroin, and other drugs.

When SISVEA was initiated 12 years ago, only eight cities participated, and they were located mainly at the northern border of Mexico. Currently, SISVEA gathers information from 25 cities; one-half are located at the border and the rest are in metropolitan and recreational areas. The system has evolved and now collects information on five indicators from different sources.

## Data Sources

The sources of data used to determine different indicators for 2001 are described below.

- **Drug treatment data** cover the characteristics and consumption patterns related to the first drug of use and current primary drug of use. The data are collected from Centers of Juvenile Integration, which are government treatment centers (GTCs), and from nongovernment treatment centers (NGCs) in the participating SISVEA cities.
- **Drug consumption data** are gathered for the general population and specific target groups, such as juvenile arrestees.
- **Medical examiner (ME) data** cover drug-related deaths, including accidental or violent deaths (homicides or suicides) in which drug abuse may be the direct cause of death or a contributing factor.

## DRUG ABUSE PATTERNS AND TRENDS

### Marijuana

According to GTC data for 2001, marijuana users were mostly male (92.1 percent); 30.9 percent were age 15–19, 48.1 percent had only a middle school education, 61.9 percent were single, and 54.5 percent came from a middle-low socioeconomic background (exhibit 1). The age of first drug use for 91.6 percent of marijuana users was between 10 and 19; 56.8 percent reported daily use. Among GTC patients in 2001, marijuana was the second most common drug of first use (18.7 percent) and the second most common current primary drug (20.4 percent) (exhibit 2).

Based on natural history data gathered from GTCs during 2001, 10.8 percent of the marijuana patients were monodrug users at treatment entry; 89.2 percent used a second drug, primarily cocaine (29.8 percent) and alcohol (26.6 percent) (exhibit 3). Of multiple

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drug users, 77.9 percent advanced to a third drug, usually cocaine (27.7 percent), alcohol (18.4 percent), or inhalants (14.6 percent).

According to 2001 data gathered from NGCs, marijuana-abusing patients were mostly male (94.4 percent); 24.1 percent were age 20–24, 40.6 percent had an elementary school education, and 55.3 percent were single (exhibit 4). The age of onset for marijuana use among nearly 52.0 percent of these patients was between 10 and 14, and 81.2 percent reported daily use. Marijuana was the first drug of use for 30.2 percent of NGC treatment admissions in 2001; as a current primary drug, it ranked fourth (11.5 percent) (exhibit 5).

The natural history of marijuana use reported by NGCs during 2001 shows that 6.8 percent of marijuana users were monodrug users upon treatment entry; 93.2 percent had progressed to using a second drug, mainly cocaine (23.6 percent) and inhalants (17.1 percent) (exhibit 3). Of this group, 69.3 percent were already using a third drug, mainly cocaine (25.0 percent), heroin (24.6 percent), and alcohol (9.8 percent).

Information from the Juvenile Detention Centers shows that 2,651, or 39.6 percent, of the 6,688 drug-using juveniles arrested during 2001 used marijuana (exhibit 6). Most were male (97.5 percent); 55.8 percent had an elementary school education, 46.4 percent were underemployed, 39.1 percent had a tattoo, and 32.1 percent were gang members. Nearly 35 percent of the offenses were committed under intoxication; 47.0 percent of the offenses were robberies.

Medical examiner data indicated that 9.5 percent of deaths reported were associated with marijuana. Most of these decedents were male (91.6 percent); 16.6 percent were between the ages of 25 and 29 and 35.0 percent were 40 or older (exhibit 7). The main causes of death in these cases were firearm injuries (26.9 percent) and asphyxia (13.5 percent). Most of these deaths occurred on the street (47.4 percent) or at home (25.0 percent).

### **Inhalants**

Inhalant users attending GTCs in 2001 were mostly male (86.3 percent), and 56.4 percent were younger than 20 (exhibit 1). Nearly 57.0 percent had only a middle school education, 74.0 percent were single, and 55.3 percent were from a middle-low socioeconomic background. A majority (62.8 percent) began using inhalants between the ages of 10

and 14; 42.7 percent used them weekly, and 35.1 percent used them daily. Among GTC clients, inhalants ranked third as both the most frequently reported drug of onset (12.2 percent) and the current primary drug (11.6 percent) (exhibit 2).

GTC data on the natural history of inhalant use show that 23.7 percent of these patients in 2001 were monodrug users when entering treatment and that 76.3 percent were already using a second drug, mainly marijuana (38.4 percent), alcohol (24.0 percent), and other inhalants (12.9 percent). Of the multiple drug users, 79.4 percent used a third drug, primarily marijuana (23.5 percent), cocaine (23.0 percent), or alcohol (19.7 percent) (exhibit 8).

NGCs report that, of the 2,142 patients who used inhalants in 2001, most were male (92.4 percent); 27.5 percent were age 15–19, 57.9 percent had an elementary school education, and 69.1 percent were single (exhibit 4). More than one-half began using inhalants between the ages of 10 and 14 (59.1 percent), and 84.1 percent reported daily use. Inhalants ranked third (12.4 percent) as a drug of onset and fifth (8.3 percent) as a current primary drug among NGC clients in 2001 (exhibit 5).

NGC data on the natural history of inhalant users in 2001 show that 67.2 percent of the patients had progressed to a second drug, primarily marijuana (51.0 percent), alcohol (16.1 percent), and cocaine (8.0 percent). Of these multiple drug users, 74.1 percent used a third drug, usually cocaine (25.3 percent), marijuana (18.4 percent), heroin (15.0 percent), or tranquilizers (13.9 percent) (exhibit 8).

According to Juvenile Detention Centers, 18.9 percent of juvenile arrestees in 2001 used inhalants (exhibit 6). Most were male (94.9 percent), had an elementary school education (62.8 percent), and were underemployed (50.3 percent). Also, 43.7 percent had tattoos and 40.0 percent belonged to a gang. Nearly 44 percent committed the offense while intoxicated; robbery was the most common offense (46 percent).

### **Alcohol**

Of the 9,474 patients receiving treatment in GTCs during 2001, 3,191 (33.7 percent) abused alcohol. Most (89.0 percent) were male; 26.9 percent were age 15–19, and 23.3 percent were 20–24. Nearly one-half (45.9 percent) had a middle school education, 57.7 percent were single, and 57.5 percent were from a middle-low socioeconomic background (exhibit 1). One-half of these patients began using alcohol between the ages of 15 and 19; 54.0 percent reported

weekly use, and 28.5 percent reported using alcohol 1–3 times per month. Alcohol was the most commonly reported drug of first use (33.8 percent), but ranked fourth (9.9 percent) as a current primary drug among GTC patients in 2001 (exhibit 2).

GTC data on the natural history of alcohol users in 2001 show that 95.7 percent had progressed to use of a second drug, usually marijuana (28.6 percent), cocaine (28.3 percent), and tobacco (24.9 percent). Of this multiple drug-using group, 73.1 percent reported using a third drug, usually cocaine (35.1 percent), marijuana (27.5 percent), and inhalants (11.0 percent) (exhibit 9).

The NGCs in 2001 reported that most of the 4,792 patients admitted for alcohol abuse were male (90.8 percent) (exhibit 4). Slightly more than 37 percent were age 35 or older, nearly 32 percent had only an elementary school education, and approximately 45 percent were single. Nearly one-half (47.4 percent) began using alcohol between the ages of 15 and 19; 44.9 percent reported drinking daily, and 40.0 percent drank alcohol once a week. Alcohol ranked second as the drug of first use (27.8 percent) and third as a current primary drug (14.3 percent) among GTC patients in 2001 (exhibit 5).

NGC data on the natural history of alcohol abuse for 2001 show that 24.9 percent were monodrug users at treatment entry, while the remaining 75.1 percent had progressed to a second drug, typically marijuana (41.5 percent), cocaine (26.3 percent), and tobacco (12.3 percent). Nearly 64.0 percent of the multiple drug users had progressed to using a third drug, usually cocaine (35.5 percent), marijuana (19.3 percent), or inhalants (8.9 percent) (exhibit 9).

Among juvenile arrestees in 2001, 16.4 percent reported use of alcohol (exhibit 6). This group was mostly male (94.4 percent); 47.0 percent had an elementary school education, 43.7 percent were underemployed, 24.7 percent had tattoos, and 24.3 percent were gang members. Thirty-four percent of the juveniles committed the offense while intoxicated. Robbery (43.7 percent) was the most common offense.

According to MEs in 2001, the abuse of alcohol was associated with 74.2 percent of the drug-related deaths reported. Most decedents were male (94.0 percent) and 42.4 percent were age 40 or older (exhibit 7). The main cause of death was asphyxia (15.6 percent), followed by being run over (13.7 percent) or a traffic accident (13.3 percent). The most

common place where these deaths occurred was at home (32.0 percent) or on the street (30.3 percent).

## Cocaine

Cocaine users treated at GTCs during 2001 were mostly male (87.9 percent); more than one-third (33.7 percent) were age 15–19, 51.9 percent were middle school graduates, and 58.8 percent were single (exhibit 1). Slightly more than 55 percent came from a middle-low socioeconomic background. Nearly one-half (48.4 percent) initiated cocaine use between the ages of 15 and 19. More than 81.0 percent used cocaine once a week (48.6 percent) or daily (32.6 percent). Among GTC patients in 2001, cocaine ranked fourth as the first drug of use (11.8 percent) and first as the current primary drug (35.3 percent) (exhibit 2).

GTC data on the natural history of cocaine use show that 48.9 percent were monodrug users when entering treatment; the others were already using a second drug, usually alcohol (31.1 percent) or marijuana (30.4 percent) (exhibit 10). Of the multiple drug users in this group, 51.9 percent had started to use a third drug, primarily marijuana (22.3 percent), alcohol (21.6 percent), or tobacco (13.2 percent).

Of the 1,356 cocaine-abusing patients at NGCs in 2001, 88.3 percent were male; 26.5 percent were age 20–24, 40.5 percent had a middle school education, and 48.5 percent were single (exhibit 4). Nearly 42.0 percent started using cocaine between the ages of 15 and 19; 60.3 percent reported daily use, and 31.3 percent reported weekly use. In 2001, cocaine ranked fourth as the drug of onset among 7.9 percent of the NGC patients and first as the current primary drug (23.8 percent) (exhibit 5).

NGC data on the natural history of cocaine abuse among patients in 2001 show that 44.5 percent were monodrug users upon treatment entry; 55.5 percent were using a second drug, usually marijuana (30.0 percent), alcohol (20.2 percent), heroin (15.8 percent), or crystal methamphetamine (10.2 percent). Of these multiple drug users, 43.3 percent were using a third drug, mainly marijuana (19.6 percent), alcohol (17.2 percent), or inhalants (12.3 percent) (exhibit 10).

Juvenile Detention Centers reported that 1,489 young arrestees (22.3 percent) used cocaine (exhibit 6). This group was mostly male (95.9 percent); more than one-half had an elementary school education (55.2 percent), 47.3 percent were underemployed, 38.2 percent had tattoos, and 32.3 percent were gang members. Nearly 34 percent of these arrestees

committed the offense under intoxication. Robbery was the most common offense (49.4 percent).

### Heroin

According to GTCs, 13 of the 14 heroin users treated during 2001 were male; 28.6 percent were age 15–19, and 28.6 percent were 30–34. More than 71 percent had either an elementary or middle school education, 57.1 percent were single, and 50.0 percent belonged to a middle-low socioeconomic group (exhibit 1). The age of onset for one-half of the heroin abusers was between 15 and 19. Ten (72.7 percent) reported daily heroin use. Of the 9,474 patients attending treatment at GTCs during 2001, only 0.2 percent reported heroin as their drug of onset; as the primary drug, heroin ranked fifth (at 2.8 percent) (exhibit 2).

The 495 heroin-abusing patients at NGCs were mostly male (87.7 percent); 39.6 percent were 35 or older, 50.7 percent had only an elementary school education, and 51.9 percent were single (exhibit 4). The age of first heroin use among 35.5 percent of these patients was between 15 and 19; 97.1 percent reported daily heroin use.

Heroin as the drug of onset increased among NGC patients from 1994 to 1997, declined during the subsequent 2 years, rose slightly in 2000 and remained stable in 2001 at 2.9 percent (exhibit 5). As the current primary drug, heroin ranked second in 2001 (23.6 percent), a substantial decrease from 2000 (27.3 percent).

Information from the Juvenile Detention Centers in 2001 showed that only 0.6 percent of the 6,688 juveniles arrested used heroin (exhibit 6). Of this group, 83.3 percent were male; 47.6 percent had a middle school education, and 31.0 percent were unemployed (31.0 percent). Sixty percent had tattoos,

and 35 percent were gang members. In 38.5 percent of these cases, the offense was committed under intoxication. Robbery was the most common offense (69.0 percent).

### CONCLUSIONS

In terms of information needs, one conclusion is clear: the SISVEA system must be strengthened and expanded to include the rest of Mexico.

Conclusions from SISVEA data show that the type of drug mention has varied according to the different information sources, as indicated in the following highlights from 2001:

- Marijuana and alcohol abuse have increased among the Juvenile Detention Centers population.
- Alcohol involvement is most likely to be reported by medical examiners.
- GTC data showed that marijuana and inhalants have decreased among patients as the drug of onset, while alcohol as the drug of onset continues to increase. While the most prevalent current drug among GTC patients in 2001 was cocaine, there was a decrease from the previous year.
- NGC data showed cocaine increased slightly as the drug of onset in 2001 and it ranked first as the current drug among patients seeking treatment. There was no real change from 2000 in the proportion of NGC patients reporting heroin as the drug of first use, but its use as a current drug decreased slightly.

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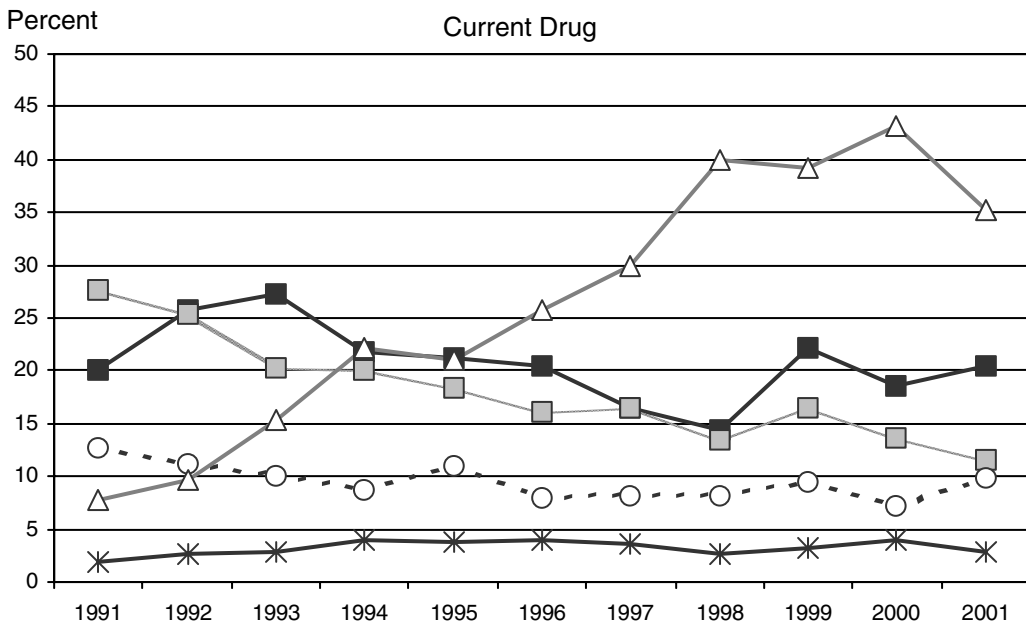
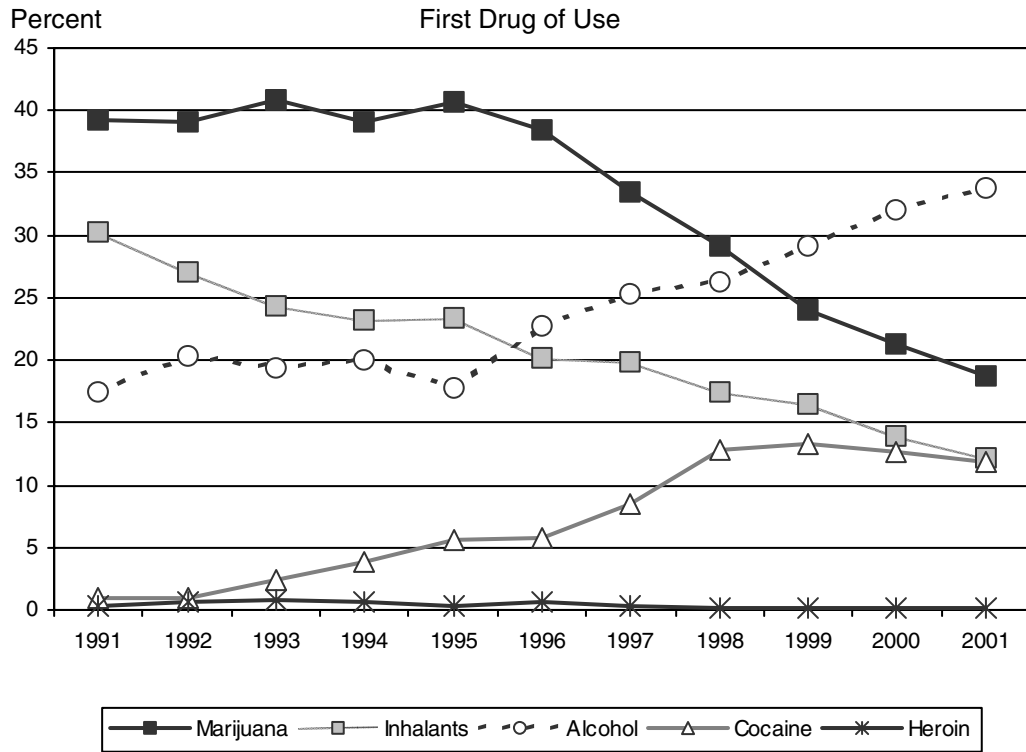
**Exhibit 1. Demographic Characteristics of GTC Patients in Mexico by First Drug of Use and Percent: 2001**

Characteristic	Total	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
(Number)	(9,474)	(1,762)	(1,151)	(3,191)	(1,115)	(14)
Percent	100.0	18.7	12.2	33.8	11.8	0.2
Gender						
Male	87.5	92.1	86.3	89.0	87.9	92.9
Female	12.5	7.9	13.7	11.0	12.1	7.1
Age						
5–14	8.2	5.0	21.4	5.1	4.9	7.1
15–19	30.7	30.9	35.0	26.9	33.7	28.6
20–24	22.1	20.9	17.4	23.3	27.0	14.3
25–29	17.2	18.3	11.6	19.9	18.9	21.4
30–34	10.8	12.7	7.7	12.4	9.2	28.6
35 and older	11.0	12.3	6.9	12.4	6.5	0.0
Education						
Elementary school	19.2	22.1	30.8	15.8	12.0	35.7
Middle school	48.7	48.1	56.7	45.9	51.9	35.7
High school	21.6	21.8	8.0	25.6	26.0	21.9
College studies	5.0	4.1	1.1	6.3	3.9	0.0
No formal education	0.2	0.2	0.4	0.2	0.4	0.0
Other	5.1	3.8	3.1	6.2	5.3	7.1
Marital Status						
Single	62.2	61.9	74.0	57.7	58.8	57.1
Married	22.9	22.8	13.2	26.3	27.2	7.1
Living together	9.5	10.1	8.9	9.3	9.7	28.6
Divorced	1.3	1.5	0.5	1.8	1.3	0.0
Widowed	0.1	0.1	0.2	0.1	0.1	0.0
Other	3.8	3.6	3.2	4.7	2.9	7.1
Socioeconomic Level						
High, middle-high	16.8	15.1	7.7	18.6	17.1	0.0
Middle-low	56.4	54.5	55.3	57.5	55.1	50.0
Low	5.5	5.3	2.7	5.1	7.6	10.0
Middle	21.8	25.1	34.3	18.8	20.3	40.0
Age of Onset						
9 and younger	3.5	2.1	5.7	2.8	0.2	7.1
10–14	44.7	43.5	62.8	41.0	18.2	21.4
15–19	43.2	48.1	29.1	50.0	48.4	50.0
20–24	5.3	4.7	1.5	5.0	16.9	7.1
25–29	1.8	0.9	0.6	0.8	9.4	14.3
30–34	0.8	0.5	0.2	0.3	4.2	0.0
35 and older	0.6	0.2	0.1	0.1	2.4	0.0
Frequency						
Daily	45.0	56.8	35.1	16.4	32.6	72.7
Once a week	40.2	27.3	42.7	54.0	48.6	18.2
1–3 times per month	13.9	14.4	20.4	28.5	16.7	9.1
1–11 times per year	0.9	1.6	2.7	1.1	2.1	0.0

SOURCE: SISVEA—Governmental treatment centers



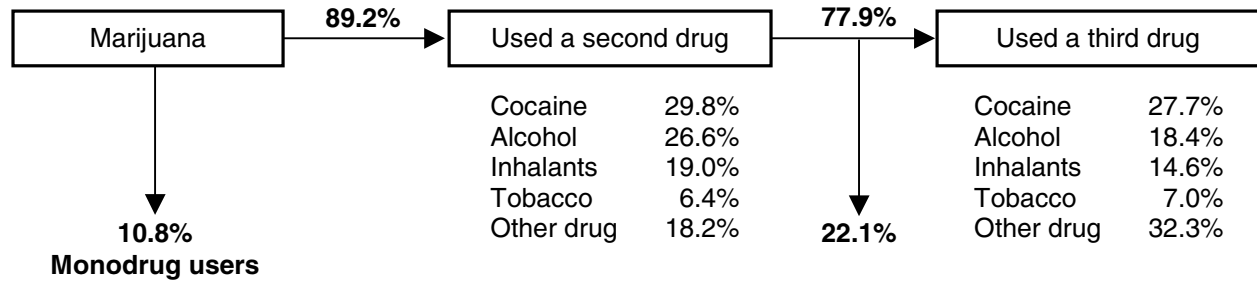
**Exhibit 2. Comparison Between Drug of First Use and Current Drug of Use Among GTC Patients in Mexico by Percent: 1991–2001**



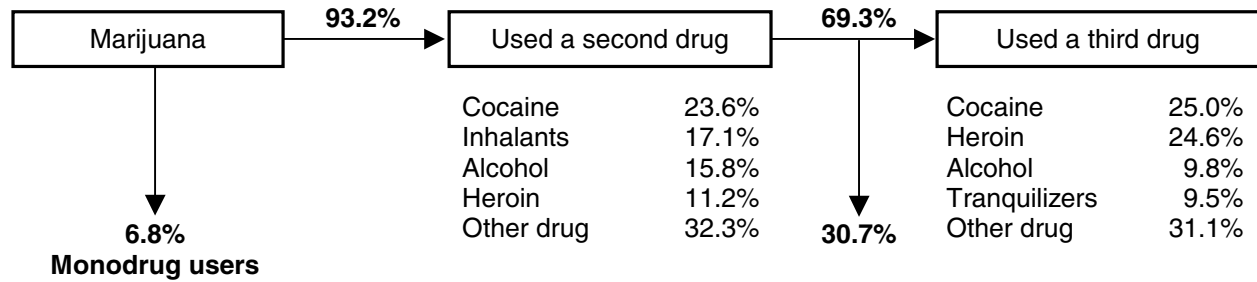
SOURCE: SISVEA—Government treatment centers

**Exhibit 3. Natural History of Marijuana Use Among Treatment Patients in Mexico: 2001**

**Government Treatment Centers**



**Nongovernment Treatment Centers**



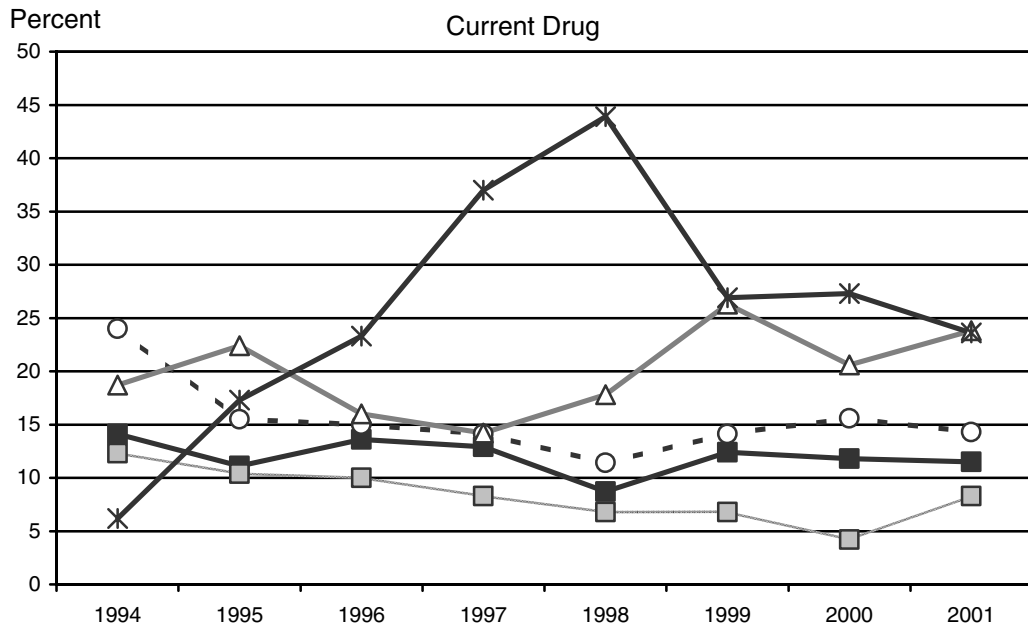
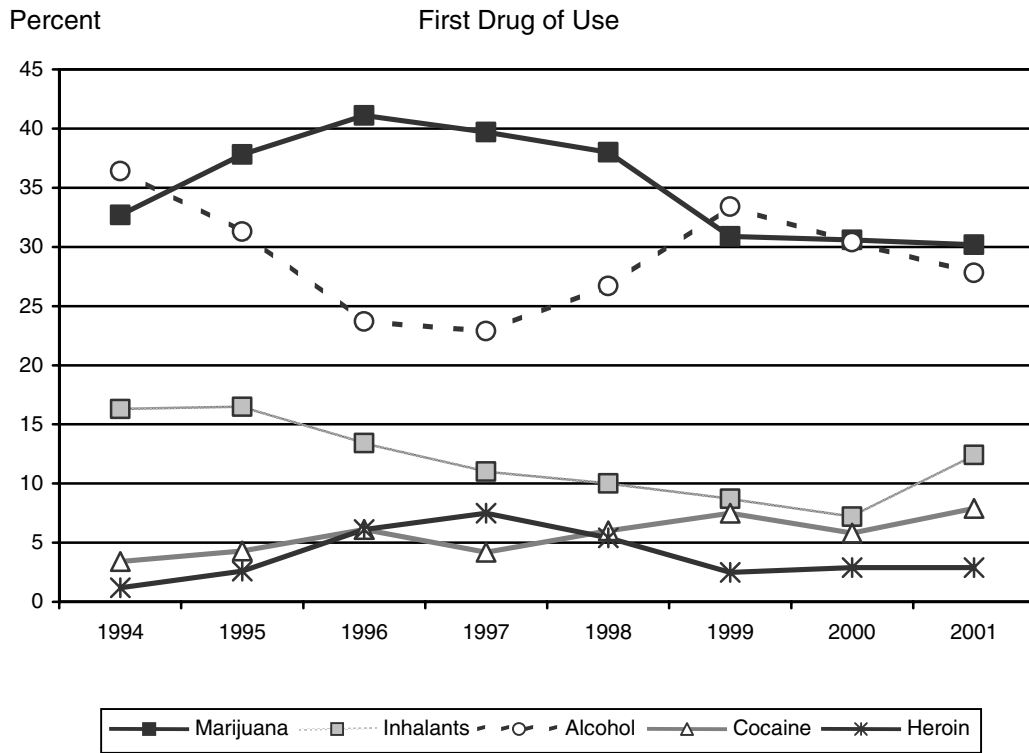
SOURCE: SISVEA—Government and nongovernment treatment centers

**Exhibit 4. Demographic Characteristics of NGC Patients in Mexico by First Drug of Use and Percent: 2001**

Characteristic	Total	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
(Number)	(17,262)	(5,207)	(2,142)	(4,792)	(1,356)	(495)
Percent	100.0	30.2	12.4	27.8	7.9	2.9
Gender						
Male	91.0	94.4	92.4	90.8	88.3	87.7
Female	9.0	5.6	7.6	9.2	11.7	12.3
Age						
5–14	2.3	1.8	6.4	1.1	2.4	0.0
15–19	16.3	15.4	27.5	11.4	20.1	5.5
20–24	21.9	24.1	25.3	16.6	26.5	17.4
25–29	18.8	20.5	17.6	16.9	21.6	19.6
30–34	15.1	15.9	10.7	16.6	15.0	18.0
35 and older	25.5	22.2	12.5	37.2	14.5	39.6
Education						
Elementary school	39.5	40.6	57.9	31.9	26.4	50.7
Middle school	35.0	38.5	29.3	31.0	40.5	28.6
High school	14.5	13.2	5.9	19.9	21.4	11.6
College studies	4.6	2.5	0.7	9.7	5.3	2.0
No formal education	3.1	2.5	4.3	3.2	1.8	5.7
Other	3.3	2.8	1.9	4.3	4.6	1.4
Marital Status						
Single	52.7	55.3	69.1	45.3	48.5	51.9
Married	23.8	19.1	12.8	31.6	29.6	19.2
Living together	12.2	14.2	10.1	9.7	11.8	14.7
Divorced	4.1	3.8	1.9	0.6	3.9	5.6
Widowed	0.8	0.8	0.4	0.9	0.7	1.2
Other	6.4	6.8	5.8	6.4	5.5	7.4
Age of Onset						
9 and younger	5.3	5.2	9.3	4.2	0.7	0.8
10–14	42.9	51.6	59.1	35.6	17.4	13.0
15–19	39.3	37.3	28.4	47.4	41.7	35.5
20–24	7.4	4.2	2.4	8.5	20.0	21.6
25–29	2.6	1.1	0.4	2.0	11.0	11.3
30–34	1.4	0.4	0.2	1.1	5.5	9.7
35 and older	1.1	0.2	0.1	1.1	3.7	8.0
Frequency						
Daily	71.0	81.2	84.1	44.9	60.3	97.1
Once a week	21.4	13.8	11.7	40.0	31.3	2.6
1–3 times per month	5.5	3.1	2.4	12.0	5.9	0.2
1–11 times per year	2.1	1.8	1.9	3.1	2.5	0.0

SOURCE: SISVEA—Nongovernment treatment centers

**Exhibit 5. Comparison Between First Drug of Use and Current Drug of Use Among NGC Patients in Mexico by Percent: 1994–2001**



SOURCE: SISVEA—Nongovernment treatment centers



**Exhibit 7. Type of Death Under Intoxication of Drugs in Mexico by Percent: 2001<sup>1</sup>**

Characteristic	Total	Alcohol	Marijuana	Opioids <sup>2</sup>
(Number)	(1,650)	(1,225)	(157)	(123)
Gender				
Male	91.8	94.0	91.6	87.5
Female	8.2	6.0	8.4	12.5
Age				
10–14	1.0	0.9	0.6	1.7
15–19	7.3	6.2	10.2	3.3
20–24	13.7	12.4	14.6	6.6
25–29	15.4	13.1	16.6	19.8
30–34	13.1	13.4	10.8	19.0
35–39	11.7	11.6	12.1	22.3
40 and older	37.9	42.4	35.0	27.3
Cause of Death				
Run over	11.0	13.7	4.5	1.7
Traffic accident	10.9	13.3	1.3	1.7
Fall	3.9	4.6	2.6	3.3
Electrocuted	0.3	0.2	0.6	0.8
Burned	0.6	0.4	0.6	0.8
Beaten	3.4	3.3	4.5	1.7
Asphyxia	15.3	15.6	13.5	9.9
Crushed	0.4	0.4	0.6	0.0
Firearm injury	14.2	11.4	26.9	10.7
Steel knife injury	3.9	3.8	5.8	2.5
Intoxicated	10.5	8.4	12.8	35.5
Other	26.1	24.7	26.2	31.4
Place of Death				
Traffic	16.1	20.1	3.2	0.8
Home	30.6	32.0	25.0	19.8
Street	33.8	30.3	47.4	56.2
Public baths	0.4	0.3	0.6	1.7
Recreational areas	1.4	1.8	0.0	0.0
At work	0.8	0.8	0.6	1.7
Service areas	1.9	1.8	1.3	0.8
Other	15.1	12.9	21.8	19.0

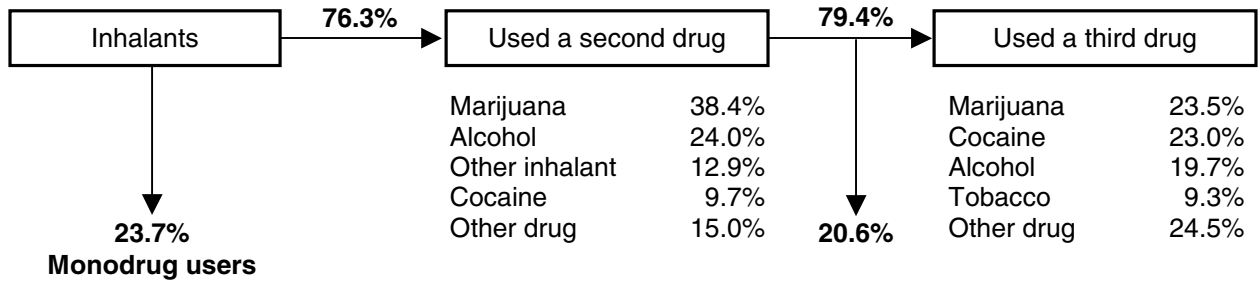
<sup>1</sup> ME cases totaled 7,178 in 2001.

<sup>2</sup> Opium, morphine, and heroin.

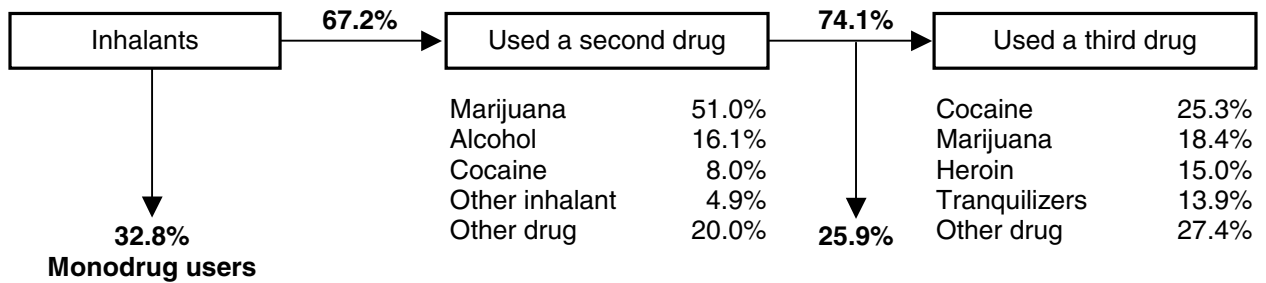
SOURCE: Medical Examiners

**Exhibit 8. Natural History of Inhalant Use Among Treatment Patients in Mexico: 2001**

**Government Treatment Centers**



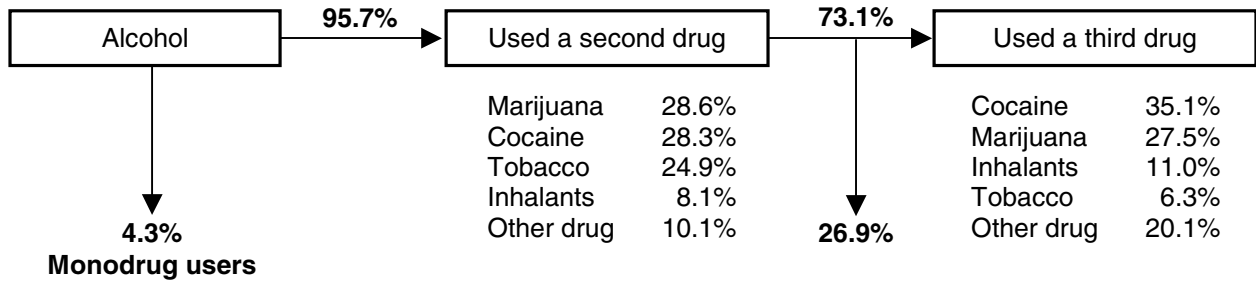
**Nongovernment Treatment Centers**



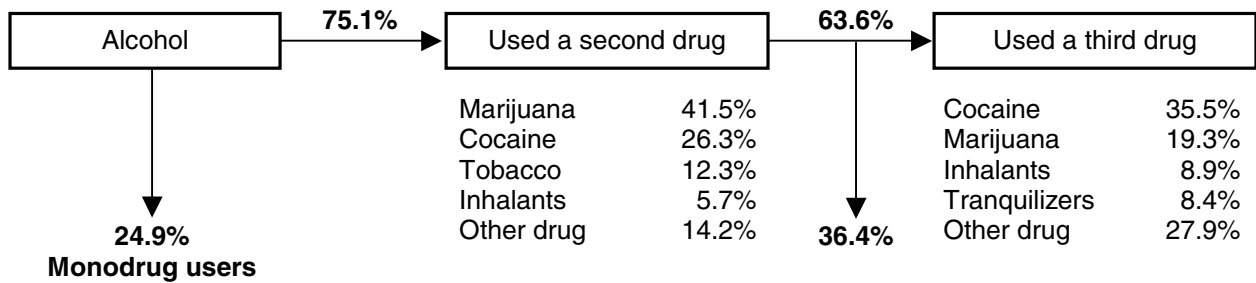
SOURCE: SISVEA—Government and nongovernment treatment centers

**Exhibit 9. Natural History of Alcohol Use Among Treatment Patients in Mexico: 2001**

**Government Treatment Centers**



**Nongovernment Treatment Centers**

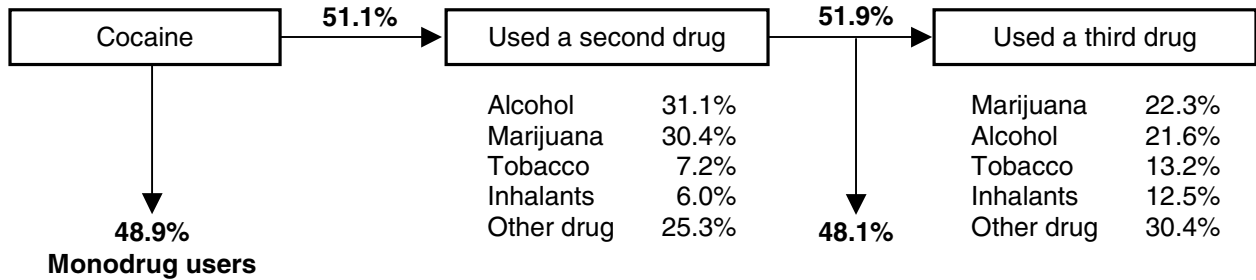


SOURCE: SISVEA—Government and nongovernment treatment centers

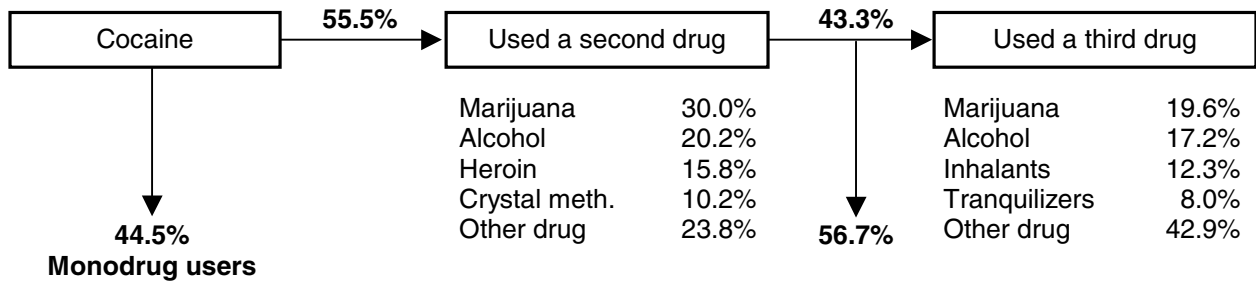


**Exhibit 10. Natural History of Cocaine Use Among Treatment Patients in Mexico: 2001**

**Government Treatment Centers**



**Nongovernment Treatment Centers**



SOURCE: SISVEA—Government and nongovernment treatment centers

# Southern African Development Community Epidemiology Network on Drug Use (SENDU)

Andreas Plüddemann, M.A., Charles D.H. Parry, Ph.D.,<sup>1</sup> and Arvin Bhana, Ph.D.<sup>2</sup>

## ABSTRACT

*The Southern African Development Community (SADC) Regional Drug Control Programme provides for the establishment of a regional drug surveillance network (SADC Epidemiology Network on Drug Use—SENDU) in the 14 SADC member states. Between July 2001 and June 2002, three countries in addition to South Africa, namely Lesotho, Mauritius, and the Seychelles, completed their first phase of data collection. Botswana and Namibia began data collection in January 2002. This report focuses on the findings of Phase 11 of the South African Community Epidemiology Network on Drug Use (SACENDU), and brief highlights on the three countries that collected data during July–December 2001 are also presented. In summary, a much greater range of substances of abuse and a greater degree of abuse of harder drugs (such as heroin) have been observed in Mauritius and South Africa. Based on treatment and police data, substance abuse appears to be confined to alcohol and cannabis in Lesotho and the Seychelles.*

## INTRODUCTION

The South African Community Epidemiology Network on Drug Use (SACENDU) is an alcohol and other drug (AOD) sentinel surveillance system comprising a network of researchers, practitioners, and policymakers from five sites in South Africa. The network, managed by the Medical Research Council (MRC) of South Africa, has been operational since July 1996. In 2000, with funding from the SADC via the European Commission, the MRC was contracted to establish sentinel or country surveillance systems in the 13 other SADC member states. The project forms part of the 5-year SADC Drug Control Programme. The broader (regional) network has been named the SADC Epidemiology Network on Drug Use (SENDU).

This initiative has been driven by the following:

- The view that the burden of harm from AOD use in Southern Africa is likely to increase with development.
- The realization that various global, regional, and local factors have highlighted the need for monitoring substance use in Southern Africa at this time. At the global level, these factors include changes in drug use and production patterns, country-specific changes in supply reduction strategies, and armed conflicts and economic stability in certain SADC member states or countries neighboring the SADC region.
- The SADC Drug Protocol, signed in 1996, which highlights the importance of information and research to inform interdiction and demand reduction activities.

The overall goal of SENDU is to improve the information base for policymakers in SADC member states in order to address the health and socioeconomic burden caused by misuse of AODs. SENDU's immediate purpose is to develop, establish, and evaluate a substance abuse sentinel surveillance system in each of the SADC member states, building on the SACENDU model operational in three cities and two provinces in South Africa. The initiative is supported logistically by the SADC Drug Control Officer, and technically by the U.N. Office for Drug Control and Crime Prevention (Global Assessment Programme on Drug Abuse) and the U.S. National Institute on Drug Abuse (Division of Epidemiology, Services and Prevention Research).

The SENDU initiative has the following core components:

- Ongoing training and technical support.
- Establishment of site- or country-specific networks and the implementation of a “basic” surveillance system in each site and, if possible, in some sites. The “basic” system comprises treatment demand data from specialist substance

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abuse treatment facilities (if available) and psychiatric hospitals, as well as information from the police on arrests, seizures, and drug prices. Additional components might include school studies, mortuary or trauma unit studies, etc.

- Validation and collation of data during/after 6-month country and regional report-back meetings.
- Dissemination of findings via newsletters/reports, press briefings, and a Web site.
- External evaluation.

A budget of \$390,000 over 5 years has been provided to “kick-start” the process. The funds are being used for training/consultation meetings, technical support visits, and transportation for country representatives to semiannual regional meetings, and to facilitate report writing and information dissemination.

A regional consultation/training meeting held in Pretoria for 4 days during October 2000 was attended by representatives from all 14 SADC member States. The following objectives were accomplished at this meeting:

- Country reports were delivered, based on information provided using a standardized audit form.
- Agreement was reached on the initiative, broad indicators, and the way forward. In particular, it was agreed that approximately two countries would be added to the network every 6 months.
- Training was provided via lectures and participation in, and observation of, a national meeting of the SACENDU project.
- Teambuilding and networking exercises took place.

During 2001 and the first half of 2002, technical support visits were undertaken to Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, and the Seychelles. The focus of these visits was to learn more about patterns of AOD use in the country, inform government officials about the SENDU initiative, assist countries in developing instruments to collect and collate secondary data on AOD use/associated consequences, provide technical support in other areas related to establishing and maintaining an AOD surveillance system, support country coordinators in running an initial meeting of potential members of an AOD surveillance network,

conduct visits to agencies where data are to be collected, and identify other areas requiring technical or other forms of support.

The focus of this report is on the findings of Phase 11 (July–December 2000) of the SACENDU Project and brief findings relating to Mauritius, Lesotho, and the Seychelles based on data collected during July–December 2001. Of these four countries, South Africa is the largest, with a population of about 45 million persons. Lesotho has a population of 2.1 million, and the island States of Mauritius and the Seychelles have populations of 1.2 million and 78,000, respectively. SACENDU comprises five sentinel sites, three of which are large port cities (Cape Town, Durban, and Port Elizabeth [PE]) and the other two are provinces: Gauteng, a largely urban province that includes the cities of Pretoria and Johannesburg; and Mpumalanga, a largely rural province bordered by Swaziland and Mozambique. The South African sites include about 36 percent of the country’s population.

#### DRUG ABUSE PATTERNS AND TRENDS

##### South Africa

The findings presented refer to the period July–December 2001 unless stated otherwise.

##### *Alcohol*

Alcohol remains the dominant substance of abuse across sites. For 46 percent (Cape Town) to 69 percent (Mpumalanga) of patients, alcohol was the primary substance of abuse (exhibit 1). In PE in 2001, 57 percent of trauma patients had breath-alcohol concentrations greater than or equal to 0.05 grams/100 milliliters, compared with 36 percent in Cape Town and 22 percent in Durban. Up to 73 percent of violence-related trauma patients were alcohol-positive (PE), and up to 46 percent (Cape Town) of persons injured as a result of transportation accidents were alcohol-positive. Alcohol-positive patients were more likely to have had prior trauma unit visits.

##### *Cannabis and Mandrax*

Use of cannabis (“dagga”) and Mandrax (methaqualone) alone or in combination (“white-pipes”) remains high. Across sites, between 18 percent (Mpumalanga) and 37 percent (Cape Town) of patients attending specialist treatment centers reported cannabis and/or Mandrax as their primary drug(s) of abuse (exhibit 1). There has been a steady increase in treatment demand for cannabis-related

problems over time in Cape Town, Durban, and Gauteng, and for Mandrax-related problems in Cape Town. There has also been a steady increase in the percentage of trauma patients in Cape Town and Durban testing positive for tetrahydrocannabinol (THC), the active ingredient in cannabis (from 33 percent in 1999 to 44 percent in 2001 in Cape Town, and from 31 percent to 44 percent in Durban). The percentage of trauma patients testing positive for methaqualone, the active ingredient in Mandrax, has remained constant at 22 percent in Cape Town and 11 percent in PE, but has increased to 19 percent in Durban. The proportion of arrests for dealing in cannabis has decreased over time in all sites (exhibit 2). With regard to Mandrax, the major change has been an increase in the proportion of arrests for dealing in Durban (to 40 percent of all arrests). Increased seizures of Mandrax were reported in most sites (exhibit 3). The price of Mandrax in South African rands remains fairly stable, at about ZAR30–ZAR45 (1U.S.\$=10ZAR).

#### *Cocaine*

The increases in treatment demand for cocaine over time that were reported earlier for Cape Town, Durban, and Gauteng, have not continued; the demand has leveled off (exhibit 1). Treatment demand for cocaine remains low in PE and Mpumalanga. In Gauteng, however, increases were noted in the proportion of females reporting cocaine/crack as their primary drug of abuse. Nine percent of trauma patients in Cape Town tested positive for cocaine in 2001 (up from 3 percent in 1999 and 2000). In 2001, 3 percent of trauma patients in Durban and 0 percent in PE tested positive for cocaine. Increases in arrests for dealing in cocaine were reported in three of the four sites for which data were available (exhibit 2), and large seizures were reported by the Forensic Science Laboratory (FSL) in the Western Cape/Cape Town (166 kilograms). The price of cocaine has remained at ZAR250–ZAR300 per gram.

#### *Heroin*

Over time, there has been a dramatic increase in treatment demand for heroin as a primary drug of abuse in Cape Town and Gauteng (exhibit 1). In Cape Town, this is particularly evident among females younger than 20, of whom one-quarter used heroin as their primary substance of abuse. Most heroin is smoked (“chasing the dragon”), but an increasing proportion of patients abusing primarily heroin report some injection use (36 percent of patients in Gauteng and 51 percent in Cape Town). Police seizures, however, decreased in all sites

(exhibit 3). The gram price of heroin varies from about ZAR120–ZAR200 in Cape Town to about ZAR300 in Gauteng.

#### *Club Drugs*

Treatment demand for 3,4 methylenedioxyamphetamine (MDMA or ecstasy) or lysergic acid diethylamide (LSD) as primary drugs of abuse is low (exhibit 1). These drugs more often appear as secondary drugs of abuse. Based on South Africa Narcotics Bureau (SANAB) data, three sites reported an increase in arrests for dealing in ecstasy (exhibit 2), and large seizures of amphetamine-type stimulants (ATS) were reported in Durban and Gauteng (exhibit 3). More than 100,000 ATS tablets were processed by the FSL in Pretoria alone. An increase in seizures of LSD was reported by the FSL in Pretoria and Cape Town and by SANAB/Organized Crime Unit (OCU) in PE (exhibit 3). Arrest and seizure indicators for speed are stable or showed a decline across sites. The price of ecstasy often depends on the location of the purchase and other factors but ranges from about ZAR40 to ZAR100 per tablet.

#### *Over-the-Counter (OTC) and Prescription Medicines*

The abuse of OTC and prescription medicines such as weight reduction tablets, analgesics (especially products containing codeine), and benzodiazepines (e.g., Valium) remains an issue across sites, but treatment demand indicators are stable except in Mpumalanga, where an increase was reported (exhibit 1). In both Cape Town and Mpumalanga, increases in the percentage of abuse by males was noted.

#### *Other Substances*

There were isolated reports from certain treatment providers regarding the use of phencyclidine (PCP) in Cape Town and Gauteng, and the use of khat in Gauteng.

Polysubstance abuse remains high (but stable), with 31 percent of patients in specialist treatment centers in Gauteng reporting more than one primary substance of abuse (19, 7, and 6 percent, respectively, reporting two, three, and four substances of abuse). The corresponding percentages for Cape Town were 40 percent reporting more than one substance of abuse, with 21, 11, and 7 percent, respectively, reporting two, three and four substances of abuse. Various drug combinations were reported, including Red Bull (an energy drink) with alcohol and ecstasy,

cocaine with heroin, cannabis with Mandrax, and LSD with ecstasy.

In comparing the five sites, the following were among regional differences that were noted:

- The level of drug use, as well as the range of drugs used, is higher in Cape Town and Gauteng than in PE, Durban, and Mpumalanga.
- The percentage of trauma patients with alcohol levels greater than or equal to 0.05 grams/100 milliliters is higher in PE than in Cape Town and Durban.
- The use of Mandrax is more common in Cape Town and PE than in the other three sites.

During the Phase 11 (July–December 2001) regional report-back meetings of SACENDU, a number of recommendations were made with regard to specific interventions needed to address substance abuse and substance abuse policy in general. Some of these recommendations focused on young people, for example, the need to investigate educational strategies to address intravenous drug use, while others sought to address the harm caused by alcohol in terms of injuries and fetal alcohol syndrome. Phase 11 of the SACENDU Project also highlighted several conditions/factors that need to be carefully monitored over time, such as changes in patterns of referral to treatment centers or the spread of heroin and other hard drugs into traditionally Black/African residential areas. Various topics for further research were identified, including the role of cannabis in traffic- and violence-related injuries, reasons behind the increase in drug use by youth, drug-using practices among heroin users, and the role of alcohol in violence-related injuries and pedestrian traffic injuries.

### **Mauritius**

The main substances of abuse in Mauritius reported by patients attending a total of eight treatment centers during July–December 2001 were heroin (57 percent), alcohol (21 percent), and cannabis (14 percent). A total of 479 patients were treated during this period. Most arrests and seizures made by police related to heroin and cannabis. Between July and December 2001, 83 arrests were for dealing in heroin and 73 for dealing in cannabis. These were the only arrests made for drug dealing in this period.

Furthermore, 381 arrests for possession of heroin and 188 for possession of cannabis were made between July and December 2001. About 22 kilograms of heroin and 30 kilograms of cannabis were seized during this period. This constitutes more heroin than has ever been seized in the whole of South Africa in a single 6-month period. Gram prices are estimated at about US\$300 for heroin and US\$8 for cannabis. About 50 percent of almost 3,000 admissions to the psychiatric hospital were alcohol-related.

### **Lesotho**

The main substances of abuse in Lesotho reported by 53 patients at five psychiatric and one specialist substance abuse treatment center during July–December 2001 were alcohol (52 percent) and cannabis (44 percent). Police arrests and seizures related almost exclusively to cannabis, with more than 19 tons seized and 120 arrests during July–December 2001. However, 4 parcels containing more than 10,000 ecstasy tablets were also seized, although no related arrests were made.

### **The Seychelles**

In the Seychelles, 70 percent of patients reporting to the single treatment center during July–December 2001 were treated for alcohol abuse, and the remainder were treated for cannabis abuse. At the psychiatric hospital, 48 percent of patients admitted during July–December 2001 had substance abuse-related diagnoses, most of which related to alcohol. Arrests and seizures related exclusively to cannabis, with 32 arrests (50 percent each for dealing and possession) and 10.2 kilograms of cannabis seized.

### **NEXT STEPS**

Next steps include:

- Visiting Tanzania, during August 2002.
- Planning for the second regional report-back meeting in Angola (November 2002).
- Continued support to and communication with member states.
- Ongoing advocacy for the project and dissemination of existing data.

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**Exhibit 1. Primary Substance of Abuse Among Treatment Clients in Cape Town, Durban, Port Elizabeth, Gauteng, and Mpumalanga by Percentage<sup>1</sup>: July 1996–December 2001**

Area	Year/ Period <sup>2</sup>	Alcohol	Cannabis	Cannabis/ Mandrax	Cocaine/ Crack	Heroin	Ecstasy	OTC/ Prescription Medicine	Other
Cape Town	1996b	81	4	9	2	1	0	2	2
	1997a	82	5	7	4	1	<1	2	<1
	1997b	78	6	9	4	1	1	1	<1
	1998a	74	5	10	6	2	<1	2	<1
	1998b	64	9	14	8	2	<1	2	<1
	1999a	56	9	20	8	4	1	2	<1
	1999b	50	15	20	9	3	<1	2	1
	2000a	48	12	23	8	4	2	4	1
	2000b	51	13	19	7	5	1	3	<1
	2001a	46	12	21	9	7	2	4	2
	2001b	46	12	25	6	6	1	2	2
	Durban	1996b	73	10	10	1	<1	<1	1
1997a		69	9	7	1	<1	<1	1	11
1997b		62	21	6	3	1	1	3	2
1998a		61	16	11	9	1	3	2	0
1998b <sup>3</sup>		69	20	6	1	0	0	<1	3
1999a		57	30	<1	6	1	1	1	3
1999b		65	23	<1	9	<1	0	1	1
2000a		57	25	6	8	1	1	2	1
2000b		60	20	<1	12	<1	1	4	2
2001a		59	21	1	10	<1	3	3	4
2001b		58	26	7	8	<1	1	<1	<1
PE		1997a	58	23		<1	<1	<1	5
	1997b	66	20		<1	<1	<1	3	9
	1998a	74	22		0	0	<1	3	<1
	1998b	68	23		1	0	0	8	1
	1999a	55	30		2	1	0	11	1
	1999b	63	29		1	0	0	7	0
	2000a	55	36		1	0	<1	8	0
	2000b	65	26		1	0	<1	4	4

**Exhibit 1. (Cont'd)**

Area	Year/ Period <sup>2</sup>	Alcohol	Cannabis	Cannabis/ Mandrax	Cocaine/ Crack	Heroin	Ecstasy	OTC/ Prescription Medicine	Other
PE (Cont'd)	2001a	48	45		3	0	1	3	<1
	2001b	58	36		1	0	1	4	<1
Gauteng	1998a	69	11	5	8	<1	<1	4	3
	1998b	68	12	4	9	2	<1	4	2
	1999a	67	10	4	10	3	<1	4	1
	1999b	63	14	5	11	3	<1	3	2
	2000a	60	19	2	11	4	<1	3	1
	2000b	60	21	1	8	4	1	4	2
	2001a	54	21	6	7	6	<1	4	2
	2001b	52	24	5	6	7	<1	4	2
Mpumalanga	1999a	76	13	1	3	<1	<1	3	2
	1999b	76	15	2	2	<1	<1	1	1
	2000a	71	12	2	5	1	1	5	3
	2000b	77	14	0	4	1	1	2	0
	2001a	70	20	1	2	2	2	2	2
	2001b	69	15	3	2	2	1	2	5

<sup>1</sup> Row percentages total 100.

<sup>2</sup> a = first 6 months of each year; b = second 6 months.

<sup>3</sup> Data for the Newlands Treatment Centre only.

SOURCE: SACENDU Project

**Exhibit 2. South African Narcotics Bureau (SANAB) Drug-Related Arrests<sup>1</sup> by Percentage<sup>2</sup>  
July 1996–December 2001**

Area	Year/ Period <sup>3</sup>	Cannabis	Mandrax	Cocaine/ Crack	Ecstasy	Heroin	LSD	Speed	Other	Total (N)
Cape Town	1996b	40	40	19	2	<1	0	0	0	(200)
	1997a	54	27	10	4	<1	3	1	0	(236)
	1997b	49	30	7	6	4	2	1	<1	(231)
	1998a	42	15	22	8	8	3	1	1	(158)
	1998b	29	28	25	11	5	2	<1	0	(168)
	1999a	39	24	25	3	6	3	0	0	(174)
	1999b	33	29	29	6	4	<1	0	0	(311)
	2000a	25	37	25	7	<1	2	<1	3	(296)
	2000b	25	26	26	14	4	4	1	1	(214)
	2001a	24	15	27	22	<1	5	<1	6	(162)
	2001b	29	26	26	15	1	2	1	0	(255)
Durban	1997a*	66	9	11	9	0	0	5	<1	(227)
	1997b*	52	14	22	3	2	4	2	2	(187)
	1998a	0	7	21	14	0	36	7	4	(123)
	1998b	6	10	81	2	0	0	0	0	(96)
	1999a	15	26	38	19	0	2	0	0	(53)
	1999b	3	73	18	4	<1	1	<1	0	(1,634)
	2000a	27	18	42	4	1	0	0	8	(90)
	2000b	20	34	22	7	3	1	1	13	(77)
	2001a	24	52	20	2	0	1	0	2	(116)
	2001b	27	40	23	4	0	0	0	5	(162)
PE	1997b	37	55	2	2	0	2	0	3	(160)
	1998a ⊥	48	25	10	4	0	<1	<1	<1	(180)
	1998b ⊥	54	24	14	4	0	0	0	2	(91)
	1999a ⊥	43	22	30	3	0	<1	0	2	(156)
	1999b ⊥	42	21	7	22	0	4	0	3	(94)
	2000a ⊥	34	23	25	11	0	6	0	1	(73)
	2000b ⊥	41	42	12	3	0	1	0	1	(298)
	2001a ⊥	52	32	6	7	0	0	0	3	(126)
	2001b ⊥	21	29	11	38	0	2	0	0	(243)



**Exhibit 2. (Cont'd)**

Area	Year/ Period <sup>3</sup>	Cannabis	Mandrax	Cocaine/ Crack	Ecstasy	Heroin	LSD	Speed	Other	Total (M)
Gauteng	1997b	70	12	14	2	<1	1	<1	0	(417)
	1998a	40	20	15	10	3	5	6	0	(423)
	1998b	35	28	14	18	2	4	0	0	(363)
	1999a	43	24	13	13	2	4	1	0	(461)
	1999b	55	19	13	9	1	2	1	0	(578)
	2000a	40	13	23	16	4	4	<1	0	(626)
	2000b	46	7	22	11	6	7	0	0	(567)
	2001a	29	16	33	11	2	8	1	0	(291)
	2001b	31	7	34	17	9	3	<1	0	(277)
Mpumalanga <sup>4</sup>	1999a	92	5	1	1	0	<1	0	<1	(168)
	1999b	90	2	1	4	0	3	0	0	(159)
	2000a	91	3	2	1	0	1	0	2	(123)
	2000b	85	6	5	2	0	1	0	0	(212)

<sup>1</sup> Unless specified, arrests were for drug dealing; \* = dealing and possession; ⊥ represents SANAB and Organized Crime Unit (OCU) data.

<sup>2</sup> Row percentages total 100 percent.

<sup>3</sup> a = first 6 months of each year; b = second 6 months.

<sup>4</sup> Data for Mpumalanga was not available for 2001 because of closure of the local SANAB office.

SOURCE: South African Narcotics Bureau

**Exhibit 3. Number of Drug Seizures by South African Narcotics Bureau (SANAB): July 1996–December 2001**

Area	Year/ Period <sup>1</sup>	Cannabis (kilograms)	Mandrax (tablets)	Cocaine (grams)*	Crack (rocks)	Ecstasy (tablets)	Heroin (grams)	LSD (units)	Speed (tablets)
Cape Town	1996b	5,816	11,067	5,366	206	420	253	44	8
	1997a	2,882	154,373	146,598	69	779	6	171	110
	1997b	5,018	68,322	7,890	20	3,260	660	224	23
	1998a	3,325	12,646	19,543	1,110	3,393	334	2,045	50
	1998b	1,892	44,480	12,369	2,566	24,207	52	108	74
	1999a	474	30,156	7,860	1,338	716	1,120	161	7
	1999b	5,432	15,093	2,527	3,376	1,610	365	71	0
	2000a	1,848	30,087	4,461	2,245	22,686	44	83	5 g
	2000b	3,286	75,979	8,793	1,325	7,614	13	181	114 g
	2001a	1,211	19,414	58,650	834	5,983	279	170	51g
	2001b	27,059	24,516	4,197	788	11,494	27	5,016	8 g
Durban	1996b	123	403	37	–	46	0	10	0
	1997a	36,088	1,597	267	–	216	0	180	90
	1997b	3,821	870	241	–	72	10	105	28
	1998a	10,592	4,295	833	–	712	0	4,026	1
	1998b	716	102,130	1,442	–	139	0	0	0
	1999a	30,339	1,600,000	250	318	729	3	274	6
	1999b	2,141	460 kg <sup>2</sup>	23	53 kg	1,223	4	492	31
	2000a	1,210	3,278	89	262	559	8	13	0
	2000b	12,381 <sup>3</sup>	915	2,066	661	459	15	92	64
	2001a	2,516	1,074,009	109	385	254	0	2	0
	2001b	1,473	20,181	737	638	18,988	0	6	0
PE	1997a	12,638	386	11	11	28	0	0	0
	1997b	3,289	5,291	54	21	179	0	135	0
	1998a <sub>L</sub>	2,904	21,093	648	59	376	0	130	2
	1998b <sub>L</sub>	2,243	16,369	91	45	299	0	0	0
	1999a <sub>L</sub>	2,412	1,513	28.5	120	296	0	36	0
	1999b <sub>L</sub>	2,639	1,296	69	78	421	0	336	0
	2000a <sub>L</sub>	772	657	58	32	835	0	273	0
	2000b <sub>L</sub>	2,380	1,971	299	1	1,324	0	285	1 gm
	2001a <sub>L</sub>	20,570	11,128	181	34	2,914	0	0	0
	2001b <sub>L</sub>	1,360	7,940 <sup>4</sup>	30	39	1,923	0	106	0

**Exhibit 3. (Cont'd)**

Area	Year/ Period <sup>1</sup>	Cannabis (kilograms)	Mandrax (tablets)	Cocaine grams)*	Crack (rocks)	Ecstasy (tablets)	Heroin (grams)	LSD (units)	Speed (tablets)
Gauteng <sup>5</sup>	1997a	2,910	2,493	52,125	–	92	2	22	125
	1997b	5,682	15,365	84,165	–	15,437	5	392	157
	1998a	11,074	548,325	150,543	–	14,037	1,015	94	115
	1998b	1,311	52,301	433,976	–	19,903	1,229	1,115	0
	1999a	654	57,640	74,362	2,206	7,555	2,100	275	125
	1999b	1,029	23,105	116,192	4,840	3,425	1,410	176	87
	2000a	3,080	499,238	47,516	1,538	116,856	642	477	200 gm
	2000b	3,090	32,929	65,379	1,357	49,217	12,333	1,250	0
	2001a	2,562	31,115	57,681	619	11,119	3,131	1,090	272
	2001b	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mpumalanga <sup>6</sup>	1999a	310,537	17,362	32.5	68	30	0	1	0
	1999b	8,344,400	1,479	3.5	0	249	0	123	0
	2000a	65,295	36,048	260	5	127	10	110	0
	2000b	3,673	51,229	580	136	227	2	172	0

\* Excluding crystals/rocks.

† SANAB and Organized Crime Unit (OCU) data.

<sup>1</sup> a = first 6 months of each year; b = second 6 months.

<sup>2</sup> Approximately equal to 920,000 tablets.

<sup>3</sup> 11.5 tons of hashish seized.

<sup>4</sup> Two containers of Mandrax weighing 5.5 tons were also seized.

<sup>5</sup> Data for Gauteng for the second half of 2001 was not available at press time.

<sup>6</sup> Data for Mpumalanga was not available for 2001 because of closure of the local SANAB office.

SOURCE: South African Narcotics Bureau



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Epidemiology of Drug Abuse:

Special Reports

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# The DEA Heroin Signature and Domestic Monitor Programs

Carolyn G. Travers

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## ABSTRACT

*The Intelligence Division of the Drug Enforcement Administration (DEA) has two programs that rely on the heroin signature analysis performed at the DEA Special Testing and Research Laboratory: the Heroin Signature Program (HSP) and the Domestic Monitor Program (DMP). Heroin signature analysis is the only scientifically based source of information currently available on the origins of heroin encountered in the U.S. drug market. DEA uses information derived from these two heroin trafficking indicator programs—along with investigative and intelligence information—to detect trends in the supply of heroin to the United States. This presentation provides an overview and recent findings from these DEA programs.*

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## THE DOMESTIC MONITOR PROGRAM

The DMP is a heroin purchase program designed to provide data on the purity, price, and origin of retail-level heroin available in the open-air drug markets in the major metropolitan areas of the United States. Each quarter, the DEA Intelligence Division's Special Field Intelligence Program provides funding for the undercover purchase of retail-level heroin in 23 metropolitan areas. Each heroin purchase subsequently undergoes chemical analysis to determine the purity and, if possible, the geographic source area of the heroin. Particular attention is paid to the DMP results for New York City because it is the Nation's largest heroin market, and also because much of the heroin available in other east coast cities is obtained in New York.

The DMP was initiated in DEA's New York Field Division in 1979. From that time until 1991, the number of DEA offices that participated in the program fluctuated from 6 to 12. Because of a manpower shortage in the DEA Special Testing and Research Laboratory, operation of the DMP was temporarily suspended from 1985 to 1987. In 1991, the DMP was expanded to include one city in every DEA field division. Baltimore was included as a DMP participant in early 1995, Orlando in late 1996, and El Paso in mid-1999.

Since its inception in 1979, the DMP has proven to be a valuable indicator for detecting trends in retail-level heroin trafficking. For example, in the early- to mid-1980s, the DMP documented the increasing availability of Southeast Asian heroin at the retail level in a number of the Nation's cities. More recently, data from the DMP have revealed significant increases in the amount of South American heroin available at the retail level, particularly in the metropolitan areas of the northeastern United States.

DMP data for 2000 show that the average price of retail heroin per milligram pure in the United States was \$0.77, and the average purity was 37.2 percent. Heroin prices have continued to drop since the early 1990s, while purity has increased. The price and purity in 2000 is in stark contrast to 1980, when heroin per milligram pure sold for \$3.90 and the purity level was only 3.6 percent.

It was noted that there is concern that Mexican traffickers may be attempting to produce white powder heroin.

## THE HEROIN SIGNATURE PROGRAM

The HSP examines the wholesale side of the domestic heroin trafficking situation. Included in the program are samples drawn from virtually all seizures at ports-of-entry. These provide insight into the routes and methods used to smuggle heroin into the country. Randomly selected seizures and purchases throughout the United States are also sampled. They provide a glimpse into wholesale distribution patterns within the country.

Each year, through the HSP, an indepth chemical analysis is performed on an average of 600–900 samples taken from heroin seizures and purchases made in the United States. As a result of the chemical analyses, DEA chemists are able to associate the heroin samples with a heroin production process, or signature, which is indicative of a particular geographic source area. The resultant proportion of heroin associated with each geographic source area is measured in terms of the net weight of heroin seized and analyzed in the program from each area that year.

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## Coordinating Office for Drug and Alcohol Abuse Programs Criminal Justice Treatment Initiatives

Barry C. Savitz and Kathleen A. Kemp

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### ABSTRACT

*The Philadelphia Behavioral Health and Criminal Justice Systems staffs have collaborated to develop six criminal justice treatment initiatives. The mission is to enhance community safety by reducing criminal recidivism related to substance abuse and mental illness through the provision of behavioral health treatment and other services to persons under criminal justice supervision as an alternative to incarceration. In response to a Federal consent decree, the city of Philadelphia was required to develop 250 treatment slots for offenders diverted to substance abuse treatment. As of April 30, 2002, 1,196 offenders who would otherwise be incarcerated were active in substance abuse treatment in the community.*

*Since 1993, the Coordinating Office for Drug and Alcohol Abuse Programs (CODAAP) of the city of Philadelphia Behavioral Health System has been responsible for the development, implementation, direction, funding, and evaluation of these initiatives. In addition to substance abuse treatment, CODAAP has integrated supportive services to meet the holistic needs of clients, including Forensic*

*Family Therapy, recovery housing, vocational training and placement, case management, domestic violence counseling for both perpetrators and victims, sexual abuse counseling, life skills, and parenting skills.*

*CODAAP has also developed a comprehensive database that has collected information on the more than 12,000 clients who have been clinically assessed since 1993. Two criminal justice treatment initiatives have the most extensive data available to compare data trends from 1999 to 2001. One is the Forensic Intensive Recovery Program, which assists with early paroles of clients to substance abuse treatment from the Philadelphia Prison System. The second is the Intermediate Punishment Program, which directly sentences clients to substance abuse treatment in lieu of incarceration, in accordance with Pennsylvania Commission on Sentencing guidelines. Data from these two programs were compared and contrasted for 1999–2001 for such indicators as level of care upon admission; age; race/ethnicity; gender; primary, secondary, and tertiary drugs of choice; mental health diagnoses; urine drug screen results; and types of discharge by level of care.*

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## Research to Reality: Creating Comprehensive HIV Care Systems in a Managed Care Environment

Marla J. Gold, M.D. and David F. Rubenstein, Psy.D.

### ABSTRACT

*The collaboration and integration of substance abuse and mental health services into a comprehensive primary care practice serving HIV/AIDS patients significantly enhances overall care. Such an enhanced model of care was developed within the Partnership Comprehensive Care Practice Clinic (PCCP), a primary medical care facility for patients with HIV/AIDS in Philadelphia, Pennsylvania. Patients newly diagnosed with HIV often display symptoms of shock, numbness, anxiety, anger, rage, guilt, betrayal, and shame. Over the course of time, other emotional and psychological issues often emerge, including feelings of depression, relationship difficulties, isolation, rejection, and abandonment. Relapse or increase in drug or alcohol use is also common. This clinic initiated and integrated behavioral health services to already existing services of medicine, pharmacy, nutrition, case management, women's services, family planning, care outreach, treatment adherence, childcare, and research. Substance abuse and mental health services such as emergency psychiatric evaluations and medication management; psychological evaluations; and individual, couple, and family therapy, as well as addressing areas of risk reduction and adherence to treatment were envisioned. Obstacles to developing this program quickly emerged, and strategies for overcoming these obstacles were identified. A division of services was developed, including substance abuse*

*services offered one floor above the primary care medical clinic and mental health services offered within the clinic. In the 20 months since the inception of services, 118 patients have been seen for just under 1,000 evaluation/treatment sessions. Fifty-five percent are men and 45 percent are women, predominantly African-American. The most common psychiatric diagnosis has been major depression (49–80 percent across clinics), and the most common substances of abuse have been cocaine (49–80 percent across clinics) and alcohol (21–22 percent across clinics). Fifty-two percent of the patients are on psychiatric medication. There is no reported injection drug use or sharing of drug paraphernalia among currently active patients across mental health and substance abuse clinics. Nine percent of the patients report episodes of unprotected sex (PCCP MH Clinic). Collaboration between case management and behavioral health services are necessary for the enhancement of overall patient care. The clinic has been able to integrate these services and establish protocols which increase patient access to these services. This appears to increase the ability of patients to address important needs which can impact their overall level of functioning and ability to adhere to the treatment plan. Reciprocal awareness and communication between patient and provider (case management, behavioral health, physician, and ancillary providers) of important patient issues, symptoms, and concerns which inform treatment decisions enhance overall care.*

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# Knowledge of Hepatitis C Among Drug Injectors in Philadelphia

Judith Porter, Ph.D.<sup>1</sup>

## ABSTRACT

*Semistructured interviews were conducted with 60 long-term injection drug users (IDUs) in Philadelphia to understand which populations of IDUs were likely to have misinformation about hepatitis C virus (HCV) infection, a blood-borne disease for which they are at high risk. Respondents had a general knowledge of HCV and its consequences, and some knew that it could be spread by contaminated syringes. However, there was confusion about the different types of hepatitis and their transmission, symptoms, and treatment. One-quarter of the sample had essentially no knowledge beyond being able to identify hepatitis C as a disease, although those who were HCV-infected were more likely to have medically correct information.*

## INTRODUCTION

Hepatitis C virus (HCV) infection is the most common blood-borne illness in the United States, affecting between 3 and 4 million Americans (1.8 percent of the population). The virus causes chronic infection in 85 percent of those with the disease. Cirrhosis may develop in as many as 20 percent of those with chronic infections, and liver cancer may develop in 1–5 percent, although it may take 20–30 years to develop end-stage HCV disease<sup>a</sup>. Injection drug use has been the greatest risk factor for HCV since the early 1980s. Drug injection currently accounts for 60 percent of newly acquired cases of HCV and 20–50 percent of cases of chronic HCV infection<sup>b</sup>. Among drug injectors who share needles or other equipment, the rate of infection is extremely high. HCV prevalence of 65–90 percent among drug injectors has been reported, even when human immunodeficiency virus (HIV) prevalence is low.<sup>c</sup> HCV infection rates among injection drug users (IDUs) with less than 2 years of injection experience may be as high as 60 percent in some cities.<sup>d</sup> There is an association between HCV infection and contaminated syringes, as well as an association between HCV and sharing of drug preparation

equipment. Shared cookers and cotton account for 54 percent of HCV infection in drug injectors who do not share syringes; overall, the sharing of cookers and cotton accounts for 13 percent of HCV infection for all IDUs.<sup>e</sup> A few studies of groups at high risk for infection indicate that there is limited knowledge of infectivity and routes of transmission of HCV.<sup>f g</sup> Although knowledge does not invariably lead to health behavior change, it is a precondition for such change to occur. Thus, in order to target education to IDUs, it is important to understand what drug injectors know about HCV, the common misperceptions that exist, and which populations of drug injectors are particularly likely to have misinformation.

## METHODS

The information presented is based on semistructured interviews, lasting approximately 2 hours each, with 60 IDUs. The interviews were designed to elicit knowledge of and experiences with receiving a wide range of medical and social services from needle exchange programs and other sources. The aim of the portion of the study reported here was to gather indepth qualitative information on drug injectors' perceptions of HCV and to let them speak for themselves, rather than to do a structured, quantitative survey.

The data for this study were primarily collected in 1999 from three subgroups of injectors: (1) exchangers: injectors who are regular users of needle exchange programs ( $n=26$ ); (2) nonexchangers: injectors who live or spend most of their time within a 1-mile radius of a needle exchange site but do not use the exchange ( $n=20$ ); and (3) a group of injectors who lived in an area where there was no easily accessible needle exchange site ( $n=14$ ). For this qualitative study, the group of exchangers was randomly chosen from a sample of regular clients of needle exchange programs selected for a separate large, quantitative study of the role of such programs in preventing HIV risk behavior. Everyone who exchanges syringes at a syringe exchange

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site in Philadelphia is registered with a unique, anonymous identifier. The larger quantitative study drew a simple random sample from all registered regular users of the exchange. A stratified random sample of exchangers was selected from this larger sample for the qualitative interviews in the study. Computer-generated random numbers were used to select approximately equal proportions of respondents from each racial and gender category in the larger study to gain an indepth understanding of patterns of information.

The sample of 20 nonexchangers was recruited by street outreach workers and drug-user networks and was matched to have approximately the same proportion of respondents by area, race, and gender as the exchanger sample. A sample of 14 injectors was recruited in West Philadelphia, where there was no needle exchange site at the inception of the study. Many of these respondents had participated in a previous study on an unrelated topic. They were selected for this study because a syringe exchange site was scheduled to open in this area during the course of this study, and for the purpose of eventual followup, it was desirable to obtain prior information on this subsample. Although an exchange site in this area opened toward the end of the interviews reported here, the respondents had not used it, and knowledge of its presence had not yet penetrated the street network.

As shown in exhibit 1, most of the respondents were long-term drug injectors who started injecting drugs in adolescence; most were primary heroin injectors (though polydrug use is common among them). Only 19 (31.7 percent) were in drug treatment at the time of the study (almost all in methadone maintenance), and approximately 14 percent reported that they were HIV-positive.

Comparison of the three subsamples indicates similar distribution by gender and similar median age (exhibit 2). The West Philadelphia sample was almost entirely African-American, because the area of heavy drug use and sales in West Philadelphia is in a primarily African-American community. In the other two subsamples, race was more evenly distributed. Although approximately two-thirds of both exchangers and nonexchangers had previous experience with drug treatment, the nonexchanger sample had more individuals in treatment when the interviews were conducted (11, compared with 8 in the exchanger sample). None of the West Philadelphia group was in drug treatment at the time of the study, and few had previous drug treatment.

As part of this qualitative study, respondents were asked to identify the most important health issues facing drug injectors. The discussion of HCV evolved from this question. If HCV was mentioned, respondents were asked what they knew about it. If they did not mention HCV, they were asked if they had heard about it and, if so, what they had heard. Interviewers asked the respondents to elaborate on these comments by guiding the discussion to specific aspects of HCV.

Respondents were paid \$20 for the interview, and none refused to participate. All interviews were tape recorded and transcribed.

## RESULTS

A number of topics concerning HCV emerged from these discussions. Though not all respondents discussed each issue, and knowledge varied on any given topic, information is presented on patterns of knowledge. Possible sources of variation in these comments were investigated.

### HCV General Knowledge

Approximately one-third of the sample spontaneously mentioned hepatitis as one of the biggest health issues facing drug injectors, with most specifying hepatitis C. People who had not spontaneously mentioned hepatitis as a key health issue were asked whether they had heard of hepatitis. Most of them said they had, and about one-half of these had specifically heard of hepatitis C. However, although the majority of the sample knew that hepatitis and hepatitis C were diseases affecting drug injectors, some people had little knowledge of the disease. Typical responses included, "I know the name, but I don't know much about it," or "since I haven't had to deal with it, it's of no concern to me."

Further discussion of hepatitis C confirmed this perception. There was general confusion about differences among various types of hepatitis. About two-thirds of those responding did not know the difference between hepatitis A, B, and C, as the following three comments indicate: "I got a letter saying I got C or B or something, but I forget what it was"; "I don't think they know the difference because there's really not much"; and "A lot of people talk about it, but I was wondering what the difference is."

There was also confusion about what organ hepatitis C affected. Although the majority of those respond-

ing knew it was a disease that affected the liver, several incorrectly identified hepatitis C as a disease affecting other organs, such as the lungs, penis, brain, kidneys, or “your bowel movement.”

### HCV Transmission

There was also confusion about the transmission of hepatitis C. A minority of those who responded was completely correct about the transmission of hepatitis in general or hepatitis C in particular. Those who knew the modes of transmission of hepatitis C were aware that it was spread by blood-to-blood contact, particularly by unsterile needles. For instance, one woman said she became infected either from sharing works or from a blood transfusion, but she was not clear which was responsible for her infection. It is important to note that among people who correctly identified sharing infected drug needles as a mode of transmission, only one person spontaneously mentioned sharing injection preparation equipment, such as cookers or water, which have proved to be major routes of infection.

People who were confused about the causes of hepatitis C mentioned a number of incorrect causes of transmission. Some of them knew that sharing needles could result in hepatitis C, but they also attributed infection to other possible sources. For instance, some confused the transmission of hepatitis C with hepatitis A: “I know you can get it from dirty needles and also from food.”

Contact through the mouth or air as a means of transmission of hepatitis C was mentioned by several respondents, as the following two comments indicate:

You get it from drinking behind them.... Some people say they got it and they ain't shared nothing but a wine bottle.

You get it through smoking a cigarette after the person got it, or that person coughs next to you, or if it's a female, by kissing.

Some individuals incorrectly identified dirt as a transmission source, as these two respondents suggest:

You can get it from sitting on the toilet, if it's really dirty.

I was with a guy in a shooting gallery a few days ago and he was running it down to me and he had caught it and the only place he could figure that it came from was the shooting gallery

because there's no water running and it's not sanitary at all in these places....

Although there is a small chance of transmitting hepatitis C through sex, a few respondents saw sexual transmission as the major source of infection: “it's down in the herpes, ain't it.”

When people were not sure about how transmission occurred, they sometimes spun elaborate narratives to explain the origin of the disease, as did this respondent, who attributed transmission to the government, a notion that has also been seen with attribution of the cause of AIDS:

They finally find it came over from Desert Storm. When they blew up those bombs, they had to take those survival gear and break that needle over it and pluck it and hit yourself in the leg with a needle. The majority of them soldiers got hepatitis C with that and it was in the purifying tablets and that's how they got the bacteria. And they got it from the government.

### HCV Symptoms and Prevention

When respondents were asked about the symptoms of hepatitis C, the most common symptom mentioned was jaundice. A few knew that swollen livers, dark urine, fatigue, and vomiting were symptoms, but people who already had the disease more frequently volunteered this information. A few people mentioned incorrect symptoms, such as blue lips or skin bumps.

The most common effect mentioned was that hepatitis C could lead to death, although some realized that “they've had it for years and don't get sick.” Some mentioned specific effects like liver failure: “Your liver goes and all that, it turns into cirrhosis.”

The practice of not sharing needles was the most common prevention technique mentioned: “I'm not worried about getting it because I'm clean. I take care. I don't share. That's part of my ritual, being clean about things.” However, no one mentioned not sharing cookers as a preventive measure. The practice of not sharing sharp, blood-contaminated equipment other than needles was rarely mentioned as a preventive measure. Only one person who had the disease mentioned it in detail:

I've got my own toothbrush, my own razors, everything. I keep like anything that somebody could get a risk getting the hepatitis. I would never want them to go through this, never.

Several study participants had inaccurate knowledge about how to prevent HCV:

I don't eat meat. I eat a lot of celery because celery is good for you. I take every day a ginseng to keep myself cleaned out.

Among the study participants, there was little specific knowledge about treatment, and it was limited to those already infected. There were, however, some notions about treatment that were incorrect; for instance, "when meth[amphetamine] was out, you could be able to [use it to] shoot hepatitis out of your system."

### HCV Status

Twenty-one people knew that they had been tested for hepatitis prior to the study, and eight of them knew that they had been tested for HCV: "Last week they took blood from me and they seen I had it. They're testing all us vets [in the VA hospital]."

A few had been informed of the test and were planning to be tested: "I've had the test for B, now they tell me I have to get the test for C. And like I said, right now I have no place where they can get blood from me."

The most common test sites were methadone programs, doctors' offices, hospitals, and prisons. It was also common for respondents to report being tested for hepatitis as participants in other studies, though some were unsure about the type of hepatitis for which they were tested. Some people said they had been tested, but described a tuberculosis test: "Yes, they give you that injection, that little bubble."

Fifteen people knew they had hepatitis, and of these, eight knew they had HCV. This is a far lower percentage than one would expect based on national figures, but of those who knew that they had been tested for HCV, all of them said they had the disease.

I started going to nursing school and that's when I found out I had the hepatitis [C]. They took a hepatitis test, and they kicked me out of school.

Some people who had not been tested assumed they did not have HCV because they were asymptomatic. Some had been tested and knew they had hepatitis, but did not know which type they had: "I don't know if I have B or C. I have one of them." Part of this lack of knowledge was due to lack of

counseling. People were told the results of the test, but some did not know what they were tested for or may not have had the results explained to them in language they could understand. Some of the respondents were tested and received no counseling or explanation: "I heard of it [my HCV infection] from a doctor.... He didn't tell me nothing about this."

People who are HCV antibody-positive and hepatitis B antibody-negative are advised to get vaccinated to protect them from hepatitis B. Only one-quarter of the sample knew there was a vaccine for hepatitis B. The people who knew about the shots were those with school-age children, for whom vaccination is required for school attendance.

My son...is in some series of getting these shots right now. He got his first one 2 weeks ago. I'm getting more educated about this.

Others either did not know about the vaccinations for hepatitis B, confused them with flu shots, or thought they had already been vaccinated for hepatitis C: "I got three shots for hepatitis C." Only one person, a cook in a nursing home, was sure he had gotten hepatitis B shots. Respondents were asked whether drug injectors would seek out hepatitis B shots if they knew they were available. Some had doubts that people would go out of the neighborhood to get them if they were heavily involved in the street drug culture:

A lot of people just don't care about it. I mean, people are just out getting high and basically that's what they are worried about doing, just getting high. The people I meet that want to get into treatment or are on treatment or have been in treatment or would like to stay clean, they say they're interested in it.

### Information Sources

Drug treatment programs were a major source of information about hepatitis C: "A dynamite dude came in there and gave us this lecture and like I found out something about hep C." The needle exchange program was also a source of information: "I came here [to the syringe exchange program] and somebody was talking to me about it. I'd never heard about it before that."

Friends were also frequently mentioned as a source of knowledge; for instance, "I knew he had problems with his liver and stuff like that and it was the hepatitis." However, the information from the

peer culture was general, mainly that someone was infected, and was sometimes inaccurate.

Respondents' comments about hepatitis C indicated that approximately one-quarter of them had either no knowledge or incorrect knowledge of hepatitis C. One-third had a low level of knowledge; that is, fewer than one-half of the comments they made could be considered fully correct according to medical sources. Approximately one-quarter had a medium level of knowledge; that is, between one-half and three-quarters of the comments they made could be considered medically correct. The rest of the respondents (fewer than 20 percent) had a high level of knowledge, with more than three-quarters of the comments they made proving to be medically correct. Responses of individuals who were already infected with HCV were more likely to be correct.

Almost all respondents in drug treatment were currently being treated in methadone maintenance clinics. These individuals were more knowledgeable about hepatitis C than those who were not in drug treatment. Many methadone clinics already test for HCV and provide literature about the disease. Other factors related to willingness to absorb health information may also differentiate those who are in treatment from those who are not. Use of needle exchange programs did not seem to increase the level of knowledge for those already in drug treatment. However, for those not in drug treatment, respondents using needle exchange programs knew more about HCV than those who did not use the syringe exchange. Since the needle exchange program provided literature on HCV at the time the study was being conducted, people who had no information from other sources were able to find this information at the exchange.

Those respondents with the least knowledge, who had either no knowledge or incorrect knowledge of HCV, tended to be from West Philadelphia. At the time of the study a needle exchange site was either not easily available or unknown by these respondents, and none of them were in drug treatment; one-half of these respondents had no correct knowledge of HCV. Although Whites seemed to possess more knowledge of HCV than African-Americans or Latinos, African-Americans from West Philadelphia knew less about HCV than did African-Americans from the other subsamples.

Although most of these respondents did not have a high level of knowledge about HCV, their knowledge of HIV and the acquired immunodeficiency syndrome (AIDS) was considerably higher. Most respondents spontaneously mentioned

HIV as an extremely important health threat to drug injectors. All knew the basic causes of HIV, though there was confusion among some about casual transmission and transmission through oral sex. Most mentioned unprotected sex and sharing both syringes and injection equipment as causes of transmission. Most people knew they had been tested for HIV prior to this study, often several times, and were able to report their HIV status. Though knowledge of HIV was widespread, prevention behavior was less consistent. Most did not consistently use condoms, and about 20 percent continued to share syringes or equipment, mostly with sex partners and friends.

#### CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The respondents in this study, who were all long-term active drug injectors, had general knowledge of the existence of HCV, and some knew that it was a potentially life-threatening disease that affected the liver and could be spread by infected syringes. However, there was confusion about the different types of hepatitis, and much of the sample had little information or was confused about transmission, symptoms, effects, and prevention. One-quarter of the sample had essentially no information beyond being able to identify HCV as a disease. Knowledge of HCV among these respondents lagged far behind their knowledge of AIDS. Although knowledge is not a sufficient condition for behavior change, it is a necessary condition.

The purpose of the study was to illustrate the types of information that exist in different drug user networks. Given the misinformation and lack of knowledge the respondents expressed, it is clear there is a great need to disseminate information on HCV to drug injectors. Although blood-borne prevention of HCV is similar to HIV prevention, it is important to stress to drug injectors that they are a group at risk for HCV and that they should be tested.

In 1997, the Centers for Disease Control and Prevention recommended that persons who use illicit drugs not be offered treatment for HCV until they have stopped drug use for 6 months, but there is now disagreement in the medical community about this recommendation.<sup>h</sup> In June 2002, the National Institutes of Health (NIH) recommended that treatment could be extended to drug users.<sup>i</sup> Regardless of the decision to treat, those who are HCV-positive need to be medically monitored to determine the progression of their disease, especially because of the availability of new treatments.

Also, drug injectors with HCV need to know that alcohol consumption should be curtailed because it potentiates liver damage from HCV. Exposure to HCV-infected blood carries a greater risk of infection than exposure to blood that is HIV-infected. It is particularly important for those who are infected with HCV to know about and practice techniques that prevent the transmission of blood-borne disease.

The interviews suggest several strategies for increasing information about HCV among drug injectors. Educational material that is at a low literacy level and also available in Spanish should be disseminated in health centers, hospitals, physicians' offices, welfare offices, and other venues in which drug injectors seek services. It is important to provide such information in prisons, since the incarcerated population has a high percentage of drug users. Presentations on HCV should also be given to groups congregating in these venues. Injectors who do not utilize services should be targeted through street outreach with information, condoms, and injection safety equipment. These strategies are already in widespread use for HIV education, and HCV can easily be incorporated into the existing network of community-based HIV education initiatives; the HCV prevention strategies for drug injectors, especially as related to blood-borne and possible sexual transmission, are the same. Specific strategies should be designed for those in communities of color. There are 2 decades of experience in reaching such populations with culturally sensitive HIV education, and this wealth of accumulated information can be used to educate drug users about HCV.

Methadone and other drug treatment programs are a natural place to stress HCV education and prevention. Many methadone programs already test clients for HCV and provide literature to them, but mandatory HIV education groups should also include material on HCV. It is crucial for programs to provide counseling as well as testing. Some methadone clinics test clients regularly and send them a letter stating that they are infected with HCV and should see their doctors. However, this does not take the place of individual risk-reduction counseling in the program, which carefully explains to clients what their HCV status is and what it

implies for prevention and treatment. Some of the respondents were not sure what they were tested for in their annual blood work in the methadone program, and some do not participate in a medical followup for various reasons, so individual counseling is important. Although many clients in drug treatment are already HCV-positive, education and testing can identify those infected and provide an incentive for medical care. Those who were or still are injecting drugs can provide a conduit for information to drug user networks. Access to drug treatment is thus a critical component of any HCV prevention and education campaign.

National findings on use of needle exchange programs and HCV seroprevalence are inconclusive. This may be due to different operating characteristics of the particular programs studied.<sup>1</sup> The comments made by the respondents suggest that for those who are not in drug treatment, needle exchange programs are an important source of information. Many of the respondents who use the exchange have been tested there for HIV. These findings suggest that it would be useful for syringe exchanges to provide HCV counseling and testing as well as literature. Distribution of clean injection equipment, either through pharmacy sales or syringe exchanges, is a necessity for prevention of HCV, especially for people who have started injecting only recently.

Although this study is a small qualitative study, it suggests areas for further research with larger, quantitative explorations of HCV knowledge and risk behavior among different groups of drug injectors. HIV/AIDS prevalence has been reduced among drug injectors. HCV infection among IDUs is a continuing public health disaster in the United States. If action is taken now, the incidence and eventual prevalence of HCV may be reduced as well.

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**Exhibit 1. Injection Characteristics Injectors in Philadelphia: Total Sample (N=60)**

Median Years Injecting	22	
Median Age at First Injection	18	
Primary Drug Injected	%	(n)
Heroin	91.7	(55)
Cocaine	5.0	(3)
Methamphetamine	3.3	(2)
Current Drug Treatment	%	(n)
Yes	31.7	(19)
No	68.3	(41)

**Exhibit 2. Demographic Characteristics of Drug Injectors in Philadelphia by Subsample**

Characteristic	Exchanger (n=26)		Nonexchanger (n=20)		No Accessible Needle Exchange Site: West Philadelphia (n=14)	
	%	(n)	%	(n)	%	(n)
Median Age	40		40		39	
Race/Ethnicity	%	(n)	%	(n)	%	(n)
African-American	35	(9)	35	(7)	93	(13)
White	35	(9)	30	(6)	7	(1)
Latino	30	(8)	35	(7)	0	(0)
Gender	%	(n)	%	(n)	%	(n)
Male	54	(14)	55	(11)	50	(7)
Female	46	(12)	45	(9)	50	(7)

# Impact of 9/11 on the Drug Treatment Community: The Philadelphia Story

Judith Porter, Ph.D.<sup>1</sup>

## ABSTRACT

*Semistructured interviews with 5 counselors from an inpatient program, 9 counselors from a methadone program, and 18 methadone treatment clients in Philadelphia 6–7 months after the September 11, 2001, terrorist attacks found that staff and client reactions to the attacks were similar to those of people throughout the United States—stress, sadness, shock, anger, and some sleep disturbance. Heightened anger was more manifest among male clients, while females were likely to experience fear and anxiety. Among clients with existing panic disorders, persistent fear continued to be disabling. Client behaviors did not change substantially after the attacks, and there was no evidence of relapse. However, several clients reported increased use of benzodiazepines to calm down or increased use of other drugs for a brief period of time. Street drug sales did not change. Client behaviors returned to normal, aside from some lingering fears about security. Both counselors and clients agreed there was a need for a specific disaster plan in the event of future crises.*

## INTRODUCTION

The events of September 11, 2001, (9/11) and the tension following the aftermath of the terrorist attacks, including the anthrax scare, might be expected to have a particularly severe impact on individuals who inject drugs. Persons who suffer from past traumas are especially vulnerable emotionally,<sup>a</sup> and stress is the major cause of drug relapse.<sup>b</sup> Because many psychological problems accompany injection drug use, and drug use can be a coping mechanism for handling tensions, it is important to know how the drug treatment system attempted to help clients deal with these issues. Also, it is important to know how clients feel the events of 9/11 impacted them and whether they feel these concerns were adequately addressed by the treatment system.

Studies have indicated the persistence of post-9/11 trauma in New York City.<sup>c,d</sup> Although there are some

data on the responses of drug users in cities directly affected by 9/11,<sup>e</sup> in order to understand the full effects of the attacks one needs also to investigate the response of the drug treatment system in a city that was not directly under attack. Philadelphia is located between New York and Washington, DC, and was perceived by many residents as a potential site of attack because of its location and the presence of national landmarks. Thus, the responses of drug treatment staff and clients in Philadelphia provide useful information on the reactions of clients in an area not directly affected by the attacks.

## METHODS

This small pilot study of the effects of 9/11 was conducted during March and April 2002 in Philadelphia at the request of the Community Epidemiology Work Group. Semistructured exploratory interviews were conducted with staff from two different types of treatment facilities: an inpatient facility and an outpatient methadone program. Semistructured interviews were conducted with some clients of the methadone program. The inpatient facility is a large drug and alcohol program, which is a self-contained hospital located outside the Philadelphia city limits but close to a potential site of terrorist attack. Although the inpatient facility has methadone detoxification, it is not a methadone maintenance program; rather, it stresses individual and group therapy. Many of the patients are from Philadelphia, including clients in the Forensic Intensive Recovery (FIR) program. Five counselors and staff were interviewed at this inpatient facility (exhibit 1). Nine staff members were interviewed at a large methadone program in Philadelphia that is also part of a hospital.

Eighteen clients from the outpatient methadone program were interviewed. All were in treatment for opiate addiction on or shortly after the 9/11 attacks. There were no patients still in residence who had been at the inpatient program during 9/11, and confidentiality issues precluded following up on clients who had been in the facility at that time. Thus, no clients at the inpatient clinic could be interviewed.

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The director of each program provided the names of counselors who had contacts with varied patient populations and who were employed by the program during 9/11. Clients were approached and asked to participate after they had been medicated. After arriving at the program, the interviewers asked the first client leaving the medication window to participate. When the interview was finished, the interviewers approached the next client they saw who had completed medication. The interviewers attempted to minimize the amount of time clients waited at the clinic by recruiting a new interview subject only after the completion of a previous interview. The interviews were conducted by the author, a White female, and a Latino male who has research experience with this population. All clients were paid \$20 for their participation. The counselors were not paid. All clients and counselors who were approached agreed to participate. The interviews lasted approximately 1 hour and were taped and transcribed.

The clients of the methadone clinic who were interviewed were relatively evenly distributed by gender and race (exhibit 2). They had a range of experience with methadone maintenance, with a median of 6 years in methadone treatment, ranging from several months to 29 years, though they had been on this particular program for a shorter period of time. Most clients interviewed were still active drug users; the most frequently used drugs were crack, heroin, and benzodiazepines during 9/11, a pattern that persists at present. Clients who are still using opiates are medicated after 11 a.m. Because rooms for the private interviews were more readily available after 11 a.m., the sample is biased toward active users. People who are in recovery and are working are likely to arrive early in the morning, though some did arrive after 11 a.m. for counselor appointments.

Although there is a problem with the validity of memory, comparing the recollections of counselors and clients obviates the problem to some extent. The interviewers specifically chose to focus on the treatment community, because counselors document interactions with clients and clients dealt with the aftereffects of 9/11 in the formal settings of individual counseling sessions and groups. However, the problem of memory validity cannot be obviated entirely.

## RESULTS

### Emotional Response to 9/11

Counselors in both programs responded that client reactions were the same as those of the general

population, manifesting a combination of stress, sadness, fear, anger, shock, and some sleep disturbance. However, some counselors in both programs felt that the reactions were augmented slightly, especially with regard to anger. For instance, as one staff member in the inpatient program said, "My sense is that there was some heightened level of anger.... The same reactions we had, clients had, but sometimes clients' reactions were a little more pronounced. Our clients are in a vulnerable state, and their emotions are augmented, enhanced."

The methadone client interviews supported these observations. There was, of course, variation, but the most common responses reported by clients in the outpatient methadone clinic were fear, stress, and anger. The anger was, as counselors surmised, diffuse. There was anger at terrorists and at the U.S. Government for not protecting the country, including feelings that the Government knew that the attacks were coming and did nothing to prevent them.

It got me angry, and not the sheer thing that they would come into our backyard and slap us in the face. What got me angry was I felt the government had known about this, had some kind of information about this, but the government did nothing with it. I was angry at them [terrorists] too, but I was just as angry at the government.

These data, incidentally, were collected before the recent revelations of missed evidence relating to the 9/11 attacks.

There was also a great deal of anger directed at foreigners in the United States, both those from the Middle East and Third World countries.

It's sad that...we can't get a small rice and gravy and a hug and all these foreigners are coming in and...opening up stores and all that, government helping them and all that.... It's a crying shame. That's why I never voted.

There was also anger at Government involvement in Third World concerns ("America is always the first to stick their nose in other's people's business...and we have started wars and been in wars we really had no conflict with or in"), as well as at the fact that the Government was spending money on foreign rather than domestic political issues such as poverty.

The government has to respond to this terrorism thing while there's still things that need to be looked at in this

country, like the homelessness.... In a way it gets me mad, because there's so many things that should be taken care of in America. And the president, it seems he gets focused on something else so he can protect his behind.

A substantial minority reported sleep disturbances following 9/11 (a result also reported in national polls<sup>6</sup>). Fears about the anthrax attacks following 9/11 were also common, especially fear of opening mail, though many clients made jokes about it. There was, however, a common fear that heroin might be poisoned because they perceived that it originated in Afghanistan (Philadelphia's heroin comes mostly from Colombia), but this did not prevent those who were using heroin from continuing to purchase and use it. For instance, as one user said, "I wasn't worried enough to stop doing it but I was worried every time I mixed up some dope it was going to be anthrax."

Methadone clients reported prayer as the most common way to handle the fears, and they reported using prayer more than therapy as a strategy for handling anxiety. One-half of the clients still have some level of anxiety, but acute fears usually subsided after 1 month for most clients. About one-half were and still are concerned with personal safety, especially fear of future attacks ("I'm getting ready to go out of town and I'm worried that somebody will plant a bomb on the bus"), but none were afraid of attacks in their neighborhoods, either during 9/11 or currently. Most live in low-income areas, and many felt that their neighborhoods are in such disrepair that there would be no purpose in attacking them ("I live in Kensington, which is a war zone in itself."). Fear of drug sales and violence far outweighed fears of terrorist attacks in their neighborhoods and the area around the methadone clinic. A few methadone clients reported reawakening of past trauma due to 9/11, particularly past experiences of fire, death, or sexual abuse. ("My mother died when I was young and my father abused me when I was young and it just brought all them memories back.")

Counselors in both programs unanimously reported that men were more likely to express anger, and women were more likely to respond to 9/11 with fear and anxiety. This was amply expressed in interviews with the methadone maintenance clients. Women expressed more shock and sadness and were more likely to have fears, especially of future attacks. When they expressed anger, it was often passive, with anger at the fact that so many died and that they felt unprotected by the Government ("I was mad because how could somebody do that. I care about people"). Men not only expressed more anger but did

so aggressively, including wanting to enlist and fight or kill terrorists ("I was thinking of going to Afghanistan and bombing everything"). Men also were more likely to express prejudice toward Middle Easterners and expressed more vocal anger at the Government and more distrust of Government motives and policy. Among African-American men in particular, more anger was directed at Government foreign policy and neglect of domestic issues like poverty than among Latinos and White males. In fact, this anger was often expressed at length, with many minutes of the interview spent discussing their political philosophy. Although counselors did not report this, male methadone maintenance clients said they were more likely to handle their concerns by toughing it out, and women reported more likelihood of handling their concerns therapeutically in the drug treatment program. Although both male and female methadone clients were concerned with national events and followed them, men were more aware of what their peers in the program were thinking and appeared to discuss these events more informally with peers.

Despite these overall trends, there was a range of current reactions among the clients. A few reported acute, persistent fear that is still disabling ("The fear is always sitting there, sitting there waiting"). One-half had moderate fear, manifested by lingering concerns that still make them more cautious ("Whenever I catch a cab, I look and if it's one of those types of people that's driving the cab, I don't get into those cabs"). Approximately one-quarter of the methadone clients had mild concern ("I think it's better not to think about it. Anything could happen anywhere...but I'm busy, I keep my mind occupied, I work.") A few had no current concerns ("I have no concerns. It's kind of abstract because it's not here. It was over there and I'm here, so I'll leave it over there. It didn't dry up the dope.")

The few who still reported being emotionally disabled were women who experienced severe previous traumas or panic disorders that were reinforced by 9/11, including one woman who was hoarding food and water in case of another terrorist attack. Counselors in both programs concurred that there was particular stress among those who had panic disorders or traumas due to deaths. Those few clients in the methadone program who expressed little anxiety, either on 9/11 or at the time of the interview, were those with the heaviest drug habits, who were heavily involved in the street drug culture and concentrating on making their hustle.

Although it was not possible to interview clients at the inpatient drug treatment program, counselors at

the program reported fewer feelings of powerlessness or fears for personal safety among their clients. The counselors felt their clients were less concerned with national events during the period after 9/11 than did counselors of clients at the outpatient methadone maintenance clinic. This is probably due to the fact that clients of the inpatient program were in an enclosed environment rather than out on the street and they had time limits on watching TV, which were not relaxed during the crisis. The daily environment was also heavily structured, so there was little time to follow events.

### Drug Use and Street Sales

Counselors at the methadone clinic did not report a lot of change in drug use. According to the counselors, clients who were in recovery did not relapse, although some clients thought about relapsing because they felt the world was ending. Methadone maintenance counselors also reported that some clients who were still using drugs expressed the desire to stop because 9/11 caused them to think about the need to get their lives together, but none followed through in actually changing their drug-using behavior.

I've had several clients who said as the result of 9/11 they wanted to change their lives; however, as time goes on, the reality is that when people realize the effort that comes with getting their lives together, they get discouraged and decide not to do it.

Methadone counselors also felt that among clients who were still using drugs, some temporarily (for about 1 month) used a bit more of what they were already using, especially benzodiazepines, which ease anxiety and are easy to obtain through legal prescription.

Benzos address anxiety issues, so it's natural for folks going through something already. You add the events of 9/11 on top of that and it's a convenient way to escape.

Methadone maintenance clients' responses were similar. Of those who were in recovery, none reported relapsing. Of those who were using drugs, two-thirds said they changed their drug use after 9/11 to some extent, with several reporting increased use of benzodiazepines because they felt anxious.

Around that time I was taking at least one a day or two and then one or two didn't do anything and that's when I started taking more...but you know at

that time, just to relax, calm down, because I'm a nervous wreck and it calms you down.

Most said they used a bit more of whatever drugs they were using in the days immediately following; however, increased drug use generally didn't last for more than 1 month. Some users said that the events caused them to think about recovery, but no behavior change was reported. Several people did stop use after 9/11, but all of them said that 9/11 did not have anything to do with it.

Inpatient clients did not have access to street drugs, but the counselors at the inpatient programs reported that none of their clients indicated an intention to start using again, and no one left without completing treatment or against medical advice.

Most counselors in both programs did not know about the effects of 9/11 on street drug sales. Most methadone clients, however, reported that street sales of either heroin or crack were not affected at all in terms of availability, hours of dealing, purity, or price. Some reported that there was more open drug use because police were diverted from their neighborhoods and sent to Center City. Others felt there was a heavier police presence in drug coping areas after 9/11, but it is difficult to determine whether they were recalling 9/11 or the resumption of drug crackdowns by police in the late fall. However, several methadone clients reported more favorable attitudes toward police and firemen as a result of the disaster, a trend among clients also observed by some counselors.

I have a better attitude toward firemen and police officers. They actually went in and died for us. I got arrested after that, and I wasn't my cocky self. I was very laid back and respectful. I still feel that way.

### Drug Treatment

Counselors in the methadone program all reported talking about 9/11 in groups or individual sessions, though they varied in how intensively it was handled in groups. Methadone counselors also observed that clients were more supportive, understanding, and considerate of each other in the program after 9/11. Counselors at the methadone program focused on 9/11 much more directly and at greater length than did those at the inpatient program, who were more likely to proceed with regularly scheduled group topics. This was true especially after the first day or two, in part because inpatient counselors reported less anxiety among clients and needed to maintain the

intensive daily institutional structure as a prerequisite for client recovery. Neither program reported an increase in client intake, because both were at or close to capacity and neither monitored treatment inquiries by phone. The counselors in the methadone program were unanimous in expressing that a central concern of their clients was the continuation of methadone in case of another disaster if they could not get to the clinic.

Most clients in the methadone program expressed concerns about drug treatment. Few were worried about getting to the program on 9/11 or afterwards, and almost none reported a change in the time at which they came to the clinic to be medicated, but an overwhelming anxiety on 9/11 was that the clinic would be closed or they would not be able to get methadone. This concern was more acute for methadone clients who had entered treatment recently. Methadone clients who had been on the program for a long time were less anxious about disruption of methadone because they knew there was a medication plan if the computers went down or they had experienced alternate plans for continued medication in blizzards.

One interesting finding, not predicted by counselors, was that although some methadone clients brought their personal concerns about 9/11 to their counselors, some did not, primarily because the counselor did not raise the issue or they thought their personal concerns about 9/11 were less relevant than discussion of the national crisis. For instance, one client talked with his counselor about his sadness at the deaths from the terrorist attacks, but did not discuss the feelings of anxiety 9/11 reawakened in him concerning an earlier rape he had experienced by a relative. The interviewer was the first person with whom he shared this information. A majority of the methadone clients interviewed did not bring their personal concerns to the group, either because they did not trust the group or “a lot of people felt afraid to be stereotyped as a punk, a pussy, a wimp, because they admitted they were scared. A lot of people fear what their peers think of them.” Male clients were the only ones who made this type of comment. Most methadone clients said that 9/11 was discussed in the group as a way of approaching the need for recovery, but the discussion died down after a period of a few days to a month. Methadone clients varied in their feelings about how adequately the program dealt with their concerns and whether group or individual counseling was most helpful. However, few clients noticed any change in behavior toward one another.

Both clients and counselors in the methadone clinic stated that although prejudice toward foreign Mus-

lims was expressed among clients in the program, African-American Muslims were exempted from such prejudice because they were regarded as African-Americans first and different from foreign Muslims. “Our Muslim clients are Black and that’s the different dynamic.” Also, several counselors and some Latino clients in the methadone program mentioned that some Latinos feared being identified as Arabs.

### **Counselor Technique**

The most common therapeutic technique among counselors in both programs was to let clients vent their feelings and use the event as an incentive for recovery; life is fragile and you can cope better in a disaster if you’re clean; i.e., “I said it goes to show you never know what’s going to happen in the world, so you need to be clean. So that when things come up that are unexpected, you can deal with it.” The methadone program also relaxed medication time on 9/11 and some counselors recommended increases in methadone if the clients felt anxious. The counselors at the inpatient program allowed clients to use the phone to call home, providing them with access if they had no money, but TV hours were not expanded in several units because of the belief that it would increase anxiety. “We don’t want to overload people by seeing the Twin Towers fall 4,000 times.” In both programs, some counselors felt concerns could best be handled in individual therapy and others in groups, depending on the preference of client and counselor. At both the inpatient and the methadone programs, most counselors felt prepared in terms of clinical skills to handle client concerns and felt they needed no additional clinical training, but there was some interest in training on what to do concerning procedures in case of disaster. Neither program had extra groups for clients or staff on the special topic of 9/11.

### **Personal Concerns of Counselors**

Staff concerns in both programs were similar: a mixture of sadness, fear, stress, and anger. Family safety was a major worry, and both groups of counselors felt that the program adequately handled staff concerns. The methadone program received a particularly positive response from staff for letting them leave work early on 9/11. Both groups of counselors suggested the need for crisis response information in case of future disasters; however, in both groups, some counselors had only a vague knowledge of existing emergency plans, especially evacuation of the inpatient facility given its closeness to a potential target of attack and the continuation of methadone in the outpatient program.

## Suggestions for the Future

There were, in retrospect, a number of suggestions for what to do in future crises. Unanimously among both staff and clients in the methadone program, the need was expressed for a specific disaster plan to continue dispensing methadone if the clinic area was inaccessible or traveling was impossible. Arranging guest medication at other hospitals or clinics was a frequent suggestion. Another suggestion proposed by some staff and clients was a way of informing clients that the clinic was closed, whether through the radio, telephone, or a phone chain.

The majority of staff at both clinics said that a workshop on logistic procedures for a disaster would be useful, perhaps run by an organization like the Red Cross. Also, the majority of counselors in both programs felt that the entire staff should meet after a disaster to discuss what support the staff and clients might need. There was little interest in specific Federal guidelines for disaster management, but flexible guidelines were suggested that drew from other programs' experiences and could be adapted to the needs of specific clinics.

Clients in the methadone program suggested "take-homes" of methadone doses for a few days if there were safety concerns about public transportation. Also, some methadone clients felt that counselors should raise the issue in groups rather than wait for clients to raise it, which would legitimize the discussion of emotional response. Additionally, many clients said they would have appreciated a one-time voluntary group to process the event, including topics like what to tell their children. Voluntary, crisis-specific groups on grief and anger were a frequent suggestion by clients, and some clients proposed that such groups be ongoing, because grief and anger were things they had to deal with much of the time and their regular group could not be expected to handle all issues in depth.

## CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

Reactions to 9/11 by both staff and clients in these two Philadelphia treatment programs were like responses of people throughout the United States, with perhaps a more diffusely directed anger among some groups of clients and more anxiety among those with existing panic disorders. Clients in the inpatient program did not leave without completing their treatment programs or against medical advice. Behavior concerning drug treatment and drug use did not change substantially in the outpatient methadone program. Those who were in recovery did not

relapse, and those who stopped using drugs after 9/11 were not prompted to do so by the attacks. Some of the clients who were using drugs used a bit more of their substance of choice after the attack, but this did not persist. Street drug sales did not change. Within several days to several weeks after the attack, behavior had mostly returned to normal, aside from lingering concern among some clients about security in public areas that might be potential targets, a concern shared by much of the general population. The experience of 9/11, however, led the staff of both programs and the methadone clients to reflect upon possible strategies for future crises, based on the way the treatment programs had handled the 9/11 attack.

Even though this was a retrospective study, there was general agreement among clients and counselors about the effects of 9/11 on client emotional response, drug use, and drug treatment. Although there were some differences among counselors on appropriate program response and client concerns due to the nature of inpatient versus outpatient programs, counselors at the two programs generally agreed on therapeutic techniques, counselor needs, and the types of clients most affected. Everyone interviewed in this study could recount at length exactly where they were when they heard the news and how they felt (the first question asked). A retrospective study has the danger of inaccurate recollections, but checking the responses of clients and counselors against each other is one way of minimizing, though not totally avoiding, this bias. Investigating general drug treatment program data (for instance, overall data on urinalyses) is not particularly helpful, because only some clients in the methadone program increased their use and others decreased use for different reasons, so it is not clear what the actual overall data means. However, it is useful to pursue interviews with both clients and counselors in other types of programs in cities at different distances from the attacks, especially smaller programs, other types of outpatient programs, and nonhospital programs with a larger, statistically random sample of clients and counselors. This needs to be done rapidly, while these memories are still fresh.

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**Exhibit 1. Counselor Demographics**

Demographic	Inpatient Treatment Program (n=5) <sup>1</sup>	Outpatient Methadone Program (n=9) <sup>1</sup>
Gender		
Male	3	5
Female	2	4
Race/Ethnicity		
African-American	0	4
Latino	1	2
White	4	3
Position		
Director	1	1
Clinical Supervisor	2	2
Counselor	2	5
Medication Nurse	0	1

<sup>1</sup>N=14

**Exhibit 2. Methadone Client Demographics**

Demographic	Number of Clients <sup>1</sup>
Gender	
Male	10
Female	8
Race/Ethnicity	
African-American	7
Latino	5
White	6
Median Age	41 years (range 28–57 years)
Median Years on Methadone	6 years (range 4 months–29 years)
Median Years at This Clinic	2.7 years
Drug Use	
Both on 9/11 and currently	11
On 9/11, but not currently	4
Neither on 9/11 nor currently	3
Type of Drug Used on 9/11	
Crack	11
Heroin	7
Benzodiazepines	4

<sup>1</sup>N=18

## Voices of Drug Users in New York City Post-9/11: Effect and Response

Ruth Finkelstein, Sc.D.

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### ABSTRACT

*This study presents preliminary findings from an ongoing qualitative study focused on the impact of the World Trade Center attacks on New York City residents who are current or former users of heroin, crack, and other forms of cocaine. Data describing their responses to and feelings about the attacks, changes in drug use after the attacks, and factors affecting changes in use are presented. The analysis is based on 57 open-ended interviews conducted between October 2001 and February 2002.*

*The vast majority of study participants reported that the attacks had a significant emotional impact on them, causing anxiety, sadness, and anger. Several described practical impacts as well, including significant reductions in income. On September 11,*

*2001, and the weeks and months that followed, several participants who had been actively using increased their use of heroin, crack, and/or other forms of cocaine. Reductions in use, however, were as common over time as were increases. There was some relapse among former users, but it was limited to those who had stopped using drugs within the 6 months immediately preceding the attacks.*

*A diverse set of factors interacted to control use. For some participants, these factors were internal, relating to their own individual motivations and drug use experiences. Other participants were essentially forced to limit use by marked reductions in income. And for still others, access to health and social service professionals, as well as drug treatment, proved to be key.*

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# Effects of the World Trade Center Disaster on Street Drug Activity in New York City

John A. Galea

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## ABSTRACT

*The September 11th World Trade Center attack created an atmosphere of fear and uneasiness in our Nation, its capital, and especially in New York City and the surrounding metropolitan area. Just as most aspects of daily life in the United States were affected in some way by this event, patterns of substance use were also changed as a result. The aftermath of this event produced new uncertainties related to substance use and abuse in the drug user and treatment*

*communities. The Office of Alcoholism and Substance Abuse Services (OASAS) Street Studies Unit, in conjunction with Applied Studies, was charged with gathering information and assessing changes in substance use patterns resulting from the attacks and the effect they have had on substance users in New York City. Variations in the price, availability, and purity of street drugs, as well as changes in law enforcement activity, are of special concern to OASAS and the substance abuse field.*

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# The Impact of the September 11, 2001, Terrorist Attack on Drug Users in Washington, DC

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## ABSTRACT

*An ethnographic, rapid assessment of the impact of the September 11, 2001, terrorist attacks explored the effects of the attacks on the emotional responses of current drug users and drug treatment clients in Washington, DC; on changes in heroin use; and on the availability, price, and quality of heroin. The 45 interviewees included drug users, treatment clients and counselors; program administrators; outreach workers; and police officers. Findings show that, following the events of September 11, 2001, drug users continued to purchase and use drugs, but some experienced heightened anxiety and uncertainty about further attacks and fear that the availability of heroin might decrease. In the first few weeks following the attacks, the number of people selling heroin reportedly declined, and this, in part, influenced perceptions of its unavailability. During a few weeks after September 11, 2001, the price of heroin rose slightly, with some variation by drug market setting, and users noted that heroin quality decreased. There were also reports that some heroin users may have increased the amount of drugs used. Outpatient treatment clients mentioned that the attacks made them fearful and anxious for their own and their families' safety, while inpatient clients expressed heightened concern over the continued availability of public support for their recovery; increased tensions led to aggressive behavior and violations of rules.*

## INTRODUCTION

This study involved an ethnographic, rapid assessment of the impact of the September 11, 2001, terrorist attacks on drug abuse in Washington, DC. The impact of these events and responses to the attacks affected various aspects of the lives of current and former drug users. This initial qualitative assessment explores psychosocial responses, changes in patterns of drug use and the procurement and availability of drugs, and the effect on treatment for users of heroin. It was hypothesized that the multiple effects of the terrorist

attacks on social and economic life and security efforts in the District would affect the shipment, marketing, and use of drugs; the daily routines of illicit drug users; and their recovery processes.

This study was organized to explore whether effects from the terrorist attacks on drug use could be identified, what the effects might be, and how time-sensitive information could be gathered from drug users, who are a "hard-to-reach" population (Wiebel 1990). It is therefore an exploratory substantive and methodological study of the emergent impact of September 11, 2001 on drug users in Washington, DC.

The following is an overview of the structure of the study and its findings.

## Rationale

Many residents in Washington, DC, were impacted by the terrorist attacks. The attacks affected commerce, law enforcement, transportation, and the psyches of people throughout the District. Many of the District's residents, including drug users, heard the explosion of the plane crashing into the Pentagon and saw the smoke rising from it. Transportation in the metropolitan area was disrupted, with delays in the subways and street traffic, and the airport was closed. Security was heightened in public transportation, and long-haul trucks were stopped and searched in certain parts of the city. Immediately following the attacks, many office buildings, hospitals, and service organizations were closed. During three high alerts in this Federal city and our Nation's capital, police were diverted from their usual routines and, along with other security forces, were sent to guard strategic areas in the District, such as water reservoirs, Federal buildings, airports, and transportation routes. These developments both heightened and diverted the presence of law enforcement in many areas.

Drug users are tied to illicit drug trafficking and sales networks with community, regional, national, and

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international linkages, which, it was suspected, would be vulnerable to changes in local and national security and law enforcement. Furthermore, many drug users are in highly dependent and fragile psychophysiological states and social conditions because of their drug addiction, various comorbidities, and unstable socioeconomic circumstances. Therefore, it was assumed that drug use and treatment would be sensitive to the events of September 11, 2001, and their aftermath.

### Sampling and Methods

The study used a community assessment model of qualitative data collection (Tashima et al. 1996; Clatts et al. 1995), which is designed to study emerging and poorly understood phenomena. It entailed conducting semistructured interviews with individuals who were active or former drug users and service personnel who were knowledgeable about drug use related to their occupational roles. Respondents were sampled from three general categories: 1) participants—individuals who are or recently have been personally involved in drug use (e.g., drug users, dealers, and treatment clients); 2) interactors—personnel who directly provide services to, collect intelligence on, or apprehend drug users (e.g., inpatient and outpatient counselors, community police officers, needle exchange staff, and risk-reduction outreach workers); and 3) systems personnel—administrators and supervisors of service, intelligence, and law enforcement organizations (directors of treatment centers and narcotics detectives). Semistructured interview guides were developed to collect information in both an exploratory and focused manner that would respond to local context and variation.

Individuals from three different drug markets (primarily for heroin and crack cocaine), and personnel from two treatment settings (inpatient client and methadone), needle exchange programs, AIDS outreach organizations, and law enforcement agencies were recruited to explore changes and variations in behavior and circumstances following the attacks. To ensure the timeliness and trustworthiness of the responses, the data were collected by researchers who had established research relations with members of the drug scenes involved in the study. The researchers also used their contacts in the drug treatment and risk-reduction community. The total sample of 45 interviews included 20 drug users, 9 drug treatment clients, 4 outreach workers, 5 drug treatment counselors, 6 organizational administrators, and 2 law enforcement personnel.

The sociodemographic characteristics of the drug users and treatment clients were as follows:

- Drug users ( $n=20$ )—11 females, 9 males; 18 African-Americans, 2 Whites; average age=46.
- Drug treatment clients ( $n=9$ )—6 males, 3 females; all African-Americans; average age=48.

Active drug users were recruited from three drug market areas: 1) Upper Northwest, a heroin market with some crack cocaine sales; 2) Lower Northwest, a heroin market where purer heroin, or “bone,” is sold for intranasal users; and 3) Southeast, where heroin and crack are sold. These areas were chosen to provide comparative data to expand on and validate our findings.

### RESULTS

The reverberating effects of the September 11, 2001, terrorist attacks occurred in a time-sensitive sequence of emotional and drug-use responses, developments in drug procurement and availability, access to resources, and effects on drug treatment processes. There were impacts on many aspects of drug users’ lives in the first 2–3 days following the attacks. These effects continued in most areas of their lives for the next 2–3 weeks. However, the effects on drug markets and psychosocial responses to the events of September 11 occurred most notably for the 2 weeks following the attacks, but continued for up to 6 weeks after the attacks, and longer for some individuals and drug use settings. Unless otherwise indicated, the sequence of circumstances and responses following the events of September 11 generally adhered to this temporal pattern through the period of the research. Again, there was variation by drug market area and by individual and drug network circumstances.

#### Active Drug Users

Drug users experienced various emotional responses to the attacks of September 11. Users both increased and decreased their drug use. The following are the four broad, overlapping areas that were initially affected by the attacks: drug users’ anxieties and fears; drug procurement and use; drug availability, quality, and price; and access to resources for drug users.

##### *General Anxiety and Fear*

On the day of the attacks, a number of drug users mentioned that they were frightened and anxious about what was happening and might happen following the initial attacks. Many drug users initially feared that their lives, and the lives and safety of their families, were in jeopardy from further attacks. A number of drug users with children were especially worried about them, with two respondents remarking that schools might be the target of future attacks. Drug users also expressed sadness

and shock over the loss of life in New York City and at the Pentagon. Respondents noted that drug dealers and users also appeared anxious about possible effects on the continued availability of drugs. Many of the fears and the distress continued for a number of weeks and were related to accounts of sleeplessness, fist fights, weeping, purportedly heightened drug use, and an increased interest in treatment.

#### *Drug Procurement and Use*

Many people reportedly bought and used more drugs than usual, especially during the first days after the attacks. At this time, many injection drug users (IDUs) bought drugs and used them at home rather than in local outdoor settings, because of the uncertainty and anxiety in the street. However, by the end of the first week, they were using drugs as they did before in local, informal shooting galleries and in cars and alleys. Moreover, with the police detailed to other locales for security purposes, users and dealers were soon transacting deals more openly than usual.

**Intranasal Heroin Users.** A number of respondents observed that drug addicts who mostly administered heroin intranasally and were employed worried that drugs might become scarce or sold out. They also feared coming to the street drug market too often, because of heightened police presence. In response, they bought heroin in larger quantities than usual, though less frequently, and seemed to be using more drugs than they had previously. Respondents stated that many of these users feared losing their jobs.

**Injection Drug Users.** Following the attacks, IDUs procured drugs as usual to meet the needs of their addiction, but there was palpable anxiety over the uncertainty of further attacks, drug scarcity, and heightened law enforcement. Regular street addicts and entrepreneurs indicated that drug users who were able bought and used drugs at higher rates than usual. Respondents mentioned that many IDUs on the street remarked that, if further attacks were going to happen, they wanted to be completely intoxicated (i.e., “tore up”). In contrast, some drug users found September 11, 2001 to be a “wake up call,” and decided to reduce or quit their use of drugs.

#### *Drug Availability, Quality, and Price*

Heroin and cocaine remained available and were purchased on the day of the attacks and in subsequent days, although there were reports of fewer dealers on the street and a related decrease in drug availability. Also at this time, a decline in quality and a slight increase in the price of these drugs began and continued

for a number of weeks, depending somewhat on drug market setting.

Immediately after the attacks, street dealers continued to sell heroin and crack cocaine, but in certain drug markets fewer dealers were selling drugs. Also, many dealers came to the street, sold their drugs, and quickly left, instead of lingering to make connections as usual. The number of people looking for drugs did not seem to diminish, but the reduction in drug dealers and runners created a sense of the unavailability of drugs.

By the end of the week and for at least the following 2–4 weeks, there were many reports that the number of people selling drugs remained lower than before September 11, and the amount of heroin available seemed to have decreased. For example, there were fewer brands of heroin available, and many respondents indicated that the quality of the drugs had declined.

Also by the end of the week and through the next few weeks, it was generally noted that most dealers demanded a nonnegotiable, full price for a bag of heroin (i.e., bags that previously cost \$8 or \$9 increased to \$10 in most cases). Regarding purer heroin for intranasal use, some individuals reported that lower priced bags (\$20) were no longer available and that the bag prices from some dealers increased slightly (approximately \$5), although differing drug dealer connections seemed to affect the price paid by users.

Following the attacks, there was heightened security in strategic areas around the District. A few respondents believed that the increased security in public transportation may have caused a decrease in the movement of drugs into the District from New York and other areas. However, respondents also reported the possibility that dealers were “sitting” on or hoarding their drug supplies to increase profits, or stretching their drugs by reducing their level of sales or diluting them to ensure their continuous supply in case drug trafficking decreased. However, soon after the terrorist attack, police presence in drug market areas greatly diminished. By the end of the week of the attacks and over the next 6 weeks, the lack of police presence in drug market areas led to greater numbers of people gathering on the street in search of drugs, outwardly exchanging money for drugs, and using drugs in local street settings.

#### *Access to Resources*

The economic resources of drug users were affected by changes in drug use and sales, and commercial sex work, and by the tightening of the economy and job loss that were related to responses to the terrorist attacks.

Some members of the drug-using community indicated that, during the week of the attacks and over the next few weeks, the resources upon which many drug users relied, such as petty stealing, became more difficult because of heightened security at many commercial establishments. Also, there was less money or interest in purchasing stolen or traded goods in the informal, street economy.

Following September 11 and over the next 3 to 4 weeks, drug dealers demanded exact or “straight” money for a “bag” of heroin (the typical quantity sold on the street). This made the practice of bargaining and receiving a discount on the price of bags of drugs and selling them at a small profit (“juggling”) more difficult for many drug users who rely on this practice to obtain drugs.

Other street-level “hustles,” or means of making money in the informal, illegal economy, flourished for a number of weeks following the attack. The greater number of people on the street, coupled with a lack of police presence and the increased use of drugs, allowed dealers to make additional profits. Also, “hitters”—individuals who inject those IDUs who cannot access their own veins—made more than their usual income with the increase in repeat customers. However, following the events of September 11, money appeared to be less available for prostitutes who used both heroin and crack.

A number of respondents mentioned that, for drug users who rely on money from jobs or from employed relatives, there was both heightened job insecurity and an increase in unemployment and lack of available work in the hotel, restaurant, and transportation industries following the attacks. This was mentioned as impacting the finances of certain drug users.

### **Drug Treatment Clients**

The attacks of September 11 had various effects on the concerns and interactions of individuals in detoxification, outpatient methadone treatment, and inpatient drug treatment programs. A few drug users observed that there was both more discussion about entering treatment and a noticeable increase in the number of people actually entering treatment.

#### *Effects on Clients in Drug Treatment*

Individuals in all forms of treatment were concerned and upset over the unforeseen and destructive nature of the attacks and the possible effects on their lives and recovery. The attacks were a key topic in discussions among clients, with many expressing concerns for their families and for their own lives. Some were fearful of

being drafted into military service. Others considered the possibility of another attack, remarking that their lives could be coming to an end. This situation created an increased anxiety in many programs for a number of weeks following the attacks of September 11.

The staff at inpatient and outpatient clinics were concerned that the anxiety created by news of the attacks and the loss of life could lead people to relapse. Therefore, many programs held discussions that focused on the events, the feelings they evoked, and the implications for those in treatment (e.g., continued program support).

In all clinics, but especially in an inpatient therapeutic community, staff and clients noted tensions and anxieties in clients following the terrorist attacks. These were manifested by infractions of rules, such as smoking, and outbursts of anger in group counseling sessions.

During the first week after the terrorist attack, individuals in a large methadone program worried that the clinic might close and they would not be able to obtain their medication. Even with assurance of regular clinic hours, most clients came for their medication only in the morning, rather than throughout the day as usual, to ensure their access to methadone. In addition, the psychosocial impact of the attacks continued for a number of weeks.

Most respondents who were methadone clients feared further attacks and exhibited either strong emotional reactions to the attacks, such as prayer and weeping, or various anxieties, such as not riding subways or avoiding certain movie theaters. One patient remarked that the events of September 11 influenced her to stop using drugs and strive for full recovery. Some methadone clients remarked that they knew of other clients who dropped out of the program after the attacks of September 11. Certainly there are many reasons why people backslide from drug treatment, and respondents in this instance observed that undoubtedly it was for a number of reasons. Yet, they noted that individuals mentioned September 11 as contributing in some way to their behavior.

#### *Drug Users and Treatment*

A few drug users observed that more people talked about entering drug treatment after the events of September 11 in order to take control of their lives amidst the increased fear of a potential loss to themselves and their families. However, they also attributed increased interest in drug treatment to the typical cycle of drugs deteriorating to such poor quality

that they were not worth the time and money needed to procure them.

Methadone treatment clients and drug users reported that people who had been considering treatment for some time but were procrastinating, decided that, following the events of September 11, it was time to begin the process of entering treatment. Thus, these events seemed to amplify their preexisting inclinations.

#### SUMMARY

This study entailed a rapid assessment of the impact of the events of September 11 on active drug users and individuals in drug treatment. It found that these events influenced patterns of drug use, drug procurement and market conditions, and attitudes about drug treatment. The findings of this study indicate the need for an ongoing ability to rapidly assess and respond to similar disasters, and to prepare drug treatment and outreach intervention programs to handle such events in the future.

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