EPIDEMIOLOGIC TRENDS IN DRUG ABUSE

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The National Institute on Drug Abuse (NIDA) acknowledges the contributions made by the members of the Community Epidemiology Work Group (CEWG) who voluntarily invested their time and resources in preparing the papers presented in this volume. Papers prepared and presented by researchers from Canada and Mexico also are included in this publication.

Editorial services for this volume were provided by MasiMax Resources, Inc., under contract number N01DA-1-5514. Volume I of this publication includes highlights and an executive summary of the 21 area papers.

Visit the CEWG home page through the NIDA Web site <http://www.nida.nih.gov> to obtain abstracts of the reports in these proceedings, Volume I (highlights and executive summary) of these proceedings, past CEWG publications, or more information about CEWG.

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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.

The 51st meeting of the CEWG, held in San Diego, California, on December 11–14, 2001, provided a forum for presentation and discussion of drug abuse data in the United States, Canada, and Mexico. The venue in San Diego afforded the opportunity for presentation and discussion of drug abuse-related issues of special concern to the local community. These included presentations on three local efforts to combat and treat methamphetamine abuse, a panel discussion by methamphetamine abusers on the problems associated with abuse of this drug, an effort to reduce teen drinking on both sides of the border (San Diego and Tijuana), and the impact of California's Substance Abuse and Crime Prevention Act (Proposition 36) on the treatment system. An official of the Drug Enforcement Administration described data sources used by the agency to track seizures of MDMA and determine the quality of drugs. A member of the Substance Abuse and Mental Health Services Administration conducted a workshop on the Drug Abuse Warning Network's emergency department data collection methods, reporting procedures, and the new type of information that will be available in the near future.

These wide-ranging research and other presentations pointed out unique and local aspects of drug abuse and social health consequences that have confronted and continue to concern the city of San Diego. They also served to capture the diversity and community-based nature of drug abuse, its emergence in the community, and its resolution by the community. They underscored, once again, the necessity of establishing effective networks of drug abuse surveillance at the local level in communities throughout the world.

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Introduction

At the 51st meeting of the Community Epidemiology Work Group (CEWG), held in San Diego, California, on December 11–14, 2001, 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 special reports from Canada and Mexico.

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 representative 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. By the end of 2000, 685 hospitals were included in the sample.

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," "heroin/morphine," "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 mention more than one drug, the DAWN ED data cannot be used to estimate prevalence.

The Drug Abuse Warning Network Medical Examiner Data

This dataset, maintained by OAS, SAMHSA, samples nearly 150 medical examiners (MEs) in more than 40 ME jurisdictions. Like the DAWN ED system, some drug categories are combined (e.g., "heroin/morphine"). A "drug death" may involve more than one drug "mention," and some types of deaths are excluded from the count. The exclusions are homicides, deaths in which the acquired immunodeficiency syndrome (AIDS) was reported, and deaths in which "drug unknown" was the only substance reported. Deaths totalling three or less in a metropolitan area are not counted. Like DAWN ED data, the data cannot be used to estimate prevalence since a decedent may be found to have two or more drugs in his or her system. Some deaths are caused by a drug overdose; in other cases, a drug may be considered a contributory but not the major cause of a death.

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 35 sites, were typically weighted.

Adult female data, collected in most sites, were unweighted. 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 provides confirmation of use of 10 drugs within a 2–3 day period prior to interview 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 utilization of 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 23 cities, 18 of which are 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 the 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.

EPIDEMIOLOGY OF DRUG ABUSE:

CITY PAPERS

Metropolitan Atlanta Drug Use Trends

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ABSTRACT

Cocaine and marijuana continue to dominate the Atlanta drug market according to epidemiologic indicators, with a possible increase in cocaine and a decline in marijuana suggested. According to some indicators, heroin use remains low, although emergency department rates of heroin mentions increased significantly from 1999 to 2000. Epidemiologic data indicate a possible increase in heroin use and a shift from crack smoking to heroin intranasal use by some users in the Atlanta area. The trend since 1998 of heroin purity increases in conjunction with price decreases appears to be shifting. The average level of heroin purity in 2000, as projected by the DEA's Domestic Monitor Program, was 48.6 percent, down from an overall average of almost 60.1 percent in 1999. The price jumped from $0.30 to $1.15 per milligram pure. The use of other opiates may be increasing, according to local ethnographic and DAWN data. MDMA ("ecstasy"), ketamine, methamphetamine, and GHB indicators are increasing, according to some sources. Quality of ecstasy in the Atlanta area remains questionable, and methamphetamine-OxyContin combinations have been reported. Similar to the figure reported last semester, approximately 24 percent of all AIDS cases in Georgia are related to injection drug use (18.1 percent to injection drug use alone and an additional 5.6 percent to the combination of male-male sex and injection drug use). Once again, injection-related AIDS cases in Atlanta account for a greater proportion of female than male cases (33 percent for females and 16 percent for males).

INTRODUCTION

Area Description

The city of Atlanta and the Atlanta metropolitan area are very different. The city covers 131 square miles and had an estimated population of 416,474 in 2000 (according to the U.S. Bureau of the Census). The Atlanta metropolitan area includes 2,584 square miles and has an estimated population of 4,112,198.

The 20 counties that comprise 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 was 816,006 in 2000, of which 45.2 percent were African-American, 49.1 percent White, 5.9 percent Hispanic, and 3.5 percent Asian. DeKalb 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-American, 39.2 percent White, 7.5 percent Hispanic, and 5.2 percent Asian. The Hispanic population more than doubled in these three counties during the past 10 years. 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, with 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 increased dramatically between 1990 and 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 percent 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 Program Data. The Georgia Department of Human Resources provided data on the primary drugs of abuse among the approximately 6,990 clients admitted to Atlanta's public drug treatment programs between January 1, 2000, and December 31, 2000. Data for the non metropolitan Atlanta counties of Georgia were also reported (n = 14,638).
- Emergency Department (ED) Data. Estimates of drug mentions among individuals admitted to par-

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ticipating metropolitan Atlanta emergency departments between January 1994 and December 2000 were provided by the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA).

- Arrestee Urinalysis Data. The Arrestee Drug Abuse Monitoring (ADAM) program, National Institute of Justice (NIJ), estimated drug use among recent arrestees in the local Atlanta pretrial detention center, local prisons, and jails. Data are available for all quarters of 2000, and the total sample size includes 1,115 men and 379 women. The findings for men are weighted and represent probability-based sampling; findings for women are not weighted.
- Price, Purity, and Trafficking Data. The Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP) provided preliminary information for 2000 on the price, purity, and source of heroin. The Atlanta High Intensity Drug Trafficking Area (HIDTA) Task Force is a coordinating unit for drug-related Federal, State, and local law enforcement agencies. Data from the Atlanta HIDTA 2002 Drug Threat Assessment provided information about the price and purity of drugs distributed in the metropolitan area, as well as information on trafficking trends.
- Ethnographic Information. 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.
- Acquired Immunodeficiency Syndrome (AIDS) Data. The Georgia Department of Human Resources provided information on AIDS cases in Georgia and the 20-county Atlanta metropolitan area from January 1981 through the third quarter of 2001 (September 30).

Drug Abuse Patterns and Trends

Cocaine and Crack

Over the last several years there has been some fluctuation in the estimated rate of emergency department cocaine mentions per 100,000 population: 151 in 1997, 218 in 1998, 189 in 1999, and 221 in 2000 (exhibit 1). The increase comes after a period of steady, but rather slow growth. Cocaine mentions were more common among men than women in 2000 (male to female ratio of 2:1), remaining steady since 1999. The estimated rate of cocaine ED mentions was greatest among individuals age 26–34, followed by those age 35 or older. Cocaine mentions were greatest among individuals of African-American (73 percent) race/ethnicity, followed by Whites (21 percent) and Hispanics (1 percent). The most common route of cocaine administration among ED mentions in 2000 was smoking (54 percent), followed by intranasal use (3 percent). Injection-related cocaine ED mentions were much greater among men than women (74 percent vs. 25 percent), and among those 35 and older.

As in the past, cocaine was reported as the primary drug of abuse for most public drug treatment admissions in metropolitan Atlanta. From the first half of 2000 to the second, cocaine admissions rose from 56 to 61 percent, an increase since the second half of 1999 (exhibit 2). During 2000, approximately 58 percent of those admitted to treatment facilities in Atlanta reported cocaine as their primary drug of abuse. The number of African-American cocaine treatment admissions is particularly high at 74 percent, while admissions for cocaine use among Whites are just under 27 percent. Hispanics accounted for less than 1 percent of the treatment population in 2000, which is comparable to their representation in 1999. The male to female ratio among cocaine users entering treatment narrowed from 1:5 in 1999 to 1:2 in 2000. At 81 percent of the total cocaine admissions, individuals age 35 and older are by far the largest age group represented, followed by 26–34-year-olds.

Smoking continues to be the most common route of cocaine administration among treatment admissions, but there has been a large drop in the percentage that may be related to changes in reporting procedures. With the addition of an "oral" route, the percentage of those smoking in 2000 (47 percent) fell from 1999 (72 percent). Those categorized as "oral" were at 39 percent, which would account for the discrepancy between the 1999 and 2000 "smoking" percentages, as the routes are presumably analogous. The number of those reporting intranasal use also dropped significantly, from 15 percent to just over 8 percent, which may also have to do with the addition of the new category.

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 (55.8 percent) and White (43.3 percent) users.

In the ADAM program, cocaine remains the most common drug found in positive urinalyses among

adult arrestees, but particularly among female arrestees. In 2000, approximately 58 percent of adult female and 49 percent of adult male arrestees tested positive for cocaine (exhibit 3). Roughly 56 percent of African-American, 65 percent of White, and no Hispanic female arrestees tested positive for cocaine in 2000. Among male arrestees, approximately 51 percent of African-American, 29 percent of White, and 33 percent of Hispanic tested positive for cocaine. The largest proportion of cocaine positives among both male and female arrestees was reported among persons age 31–35 and 36 or older.

According to the Atlanta HIDTA, cocaine (in all forms) remains the most regularly encountered drug by local and Federal law enforcement. The Atlanta Police Department reported that approximately 75 percent of street seizures are crack cocaine related. Seizures of cocaine at Atlanta's Hartsfield Airport in 2000 were more than double those of 1999, with 113.3 kilograms apprehended. The average price for a gram of powder cocaine and a gram of crack are both $100, with purity levels ranging from 50 percent up to 80 percent. The most recent HIDTA Drug Threat Assessment reports the average price for a rock of crack to be approximately $10–$20, while ethnographic information suggests a continued prevalence of $5 rocks, with $3 and, at times $1, rocks being sold to boost sales. Ethnographic research has also uncovered pockets of long-time crack cocaine smokers who are beginning to use heroin intranasally. Heroin is used primarily as a drug that causes a means to manage their crack use, which remains the drug of choice, and is rarely seen by the users as an issue of dependence.

Heroin

The estimated rate of heroin ED mentions increased slightly between 1999 and 2000, from 15 to 18 per 100,000 population, respectively (exhibit 1). From 1999 to 2000 the rate of heroin increased significantly, reaching its highest level in almost 10 years (and reflecting a 500-percent increase from 1990 to 2000). According to 2000 DAWN data, the rate of ED heroin mentions was highest among persons age 18–25 and 26–34 (26 and 24 per 100,000 population, respectively), followed by persons older than 35 (19 per 100,000). Mentions of heroin were greater among men than women (approximately 3:1), with the ratio of male to female mentions similar to that reported in 1999. The number of heroin ED mentions was greatest among African-Americans (55 percent), followed by Whites (34 percent) and Hispanics (1 percent).

Injection use continued to be the most cited route of heroin administration among ED mentions, with a slight decline between 1999 and 2000 (41 percent to 33 percent). Intranasal use remained low among ED mentions in 2000 (4 percent), as does smoking (1 percent). More men (71 percent) than women reported injection as the primary route of administration among ED mentions of heroin, and this distribution was similar to that reported in 1999. Among mentions with injection as the primary route, the greatest proportion was reported among those age 35 or older (57 percent), followed by those age 26–34 (24 percent) and 18–25 (16 percent).

The proportion of all individuals admitted to public drug treatment programs in metropolitan Atlanta from June to December 2000 with heroin as the primary drug of choice remained low (approximately 7 percent) and stable since the beginning of 2000 (exhibit 2). From 1999 to 2000, the proportion of clients with heroin as their primary drug increased (from 3 percent to 7 percent). Throughout 2000, more males (62 percent) than females were represented in the treatment population, similar to the proportion reported in 1999 (64 percent). Compared to 1999, the proportion of White and African-American clients in 2000 was nearly equivalent (48 percent and 47 percent in 2000, vs. 55 percent and 43 percent in 1999, respectively). Approximately 5 percent of the treatment population in metropolitan Atlanta in 2000 were Hispanic, compared with only 0.4 percent in 1999. In 2000, the majority of clients in Atlanta were age 35 or older (81 percent). Ethnographic reports continue to suggest the prevalence of both a young and an aging cohort of heroin users.

Among treatment clients in Atlanta, injection remains the most common route of administration. Snorting as a primary route of administration dropped from approximately 28 percent in 1999 to 18 percent in 2000, while the prevalence of smoking increased slightly during that time.

The characteristics of clients admitted to public drug treatment programs with heroin as the primary drug of choice in nonmetropolitan Atlanta were similar to those reported among clients in Atlanta, with the exception of more White clients (81 percent) than clients of other racial/ethnic backgrounds. The proportion who reported heroin as a primary drug was also somewhat lower than that seen in Atlanta (1 percent vs. 7 percent).

According to ADAM data for 2000, the proportion of positive heroin results among arrestees was similar for both men and women (exhibit 3). The largest proportion of heroin positives among male arrestees occurred among those age 31–35 (4.4 percent) and those 36 or older (4.3 percent), as well as

among African-American (3 percent) and White (2 percent) arrestees. Heroin positives were similarly distributed among female arrestees, with the majority of positives among women age 31–35 (6.3 percent) and 36 or older (5.5 percent), and in African-American (3.1 percent) and White (5.0 percent) arrestees.

The trend (since 1998) of heroin purity increasing while the price decreases appears to be shifting. The average level of purity in 2000, as projected by the DEA, was 48.6 percent, down from an overall average of almost 60.1 percent in 1999. Since 1999, when the average heroin price per milligram pure was $0.85, the price has jumped from $0.30 to $1.15 per milligram pure. While Atlanta purity levels are dropping in comparison to previous years, they remain 10 percent above the national average. Price is also higher than the national average by about 8 percent. As has long been the case, the purity of heroin in Atlanta depends greatly on the neighborhood where it is purchased and the point of origin of the heroin. South American heroin remains the most dominant and accessible. In early July 2000, U.S. Customs Service officials seized, in two separate incidents, 3.4 kilograms of South American heroin from Venezuelan nationals destined for Atlanta. In 2000, there was upwards of 39 kilograms of heroin seized at Hartsfield Airport, which is four times the amount seized in 1999.

Ethnographic data indicate a possible increase in heroin use during 2000. Data also suggest changes in herion use patterns. There is an increase in crack cocaine users who are both using intranasally and injecting heroin, in addition to an increase in longtime pill (primarily opiates) users, often young adult, White, and middle-class, who experiment with heroin. There is also an increase among those moving on to heroin as their tolerance for pills goes up, along with the price of their habit. Ethnographers also noted hearing about a hard-packed, almost rock, form of heroin in certain areas that had not been seen previously. The theory among users was that the form was less indicative of quality as it was a form of denoting a certain "brand" without having to stamp the bags with a name.

Other Opiates

Although indicator data on other opiates and narcotics such as codeine, hydromorphone, oxycodone, hydrocodone, and fentanyl are limited, ethnographic reports suggest that the use of other opiates is prevalent in the metropolitan Atlanta area. Hydrocodone and oxycodone ED mentions represented only a small proportion of mentions in Atlanta, with estimated mentions of both drugs remaining relatively low from 1995 to 2000 (exhibit 4). ED mentions of oxycodone, however, have been increasing linearly over time, and there was a sharp increase in oxycodone mentions from 1999 to 2000.

Information on the price of opiates other than heroin also remains limited, but ethnographic reports indicate that hydrocodone and similar opiates often sell for $5–$10 on the street. Hydromorphone (Dilaudid) pills are more expensive, selling for $40–$80 per pill. OxyContin sells for approximately $1 per milligram according to local users.

According to the Georgia Bureau of Investigation, there were 62 OxyContin-related deaths in 2000, and through June of 2001, 45 had been reported. Reports of methamphetamine use in conjunction OxyContin have also emerged according to local ethnographers. According to ethnographic reports, many heroin users prefer prescription opiates because they are "cleaner" and price and purity is consistent—especially with OxyContin.

Marijuana

The estimated rate of marijuana ED mentions per 100,000 population in 2000 was 86, a slight decrease from 1999 and 1998 (exhibit 1). A greater number of mentions occurred among men than women in 2000 (approximately 2:1), and the rate of marijuana mentions in 2000 among men (121 per 100,000) was more than twice that among women (52 per 100,000). The number and rate of ED mentions by gender for 1999 was similar to 2000. Marijuana ED mentions in 2000 were highest among African-Americans, followed by Whites. The rate of ED mentions was greatest among persons age 18–25, followed by those age 26–34 and 35 and older.

From the first half of 2000 to the second half, the proportion of clients reporting marijuana as their primary drug of abuse declined from approximately 18 percent to approximately 15 percent (exhibit 2). The proportion reporting marijuana as their primary drug also decreased, from 23 percent in 1999 to 16 percent in 2000. During 2000, more clients were White (52 percent) than African-American (45 percent), Hispanic (2 percent), or of another racial/ethnic background (1 percent). More males (67 percent) than females (33 percent) were in treatment for marijuana, but the gender gap has narrowed since 1999. The majority of clients reporting primary marijuana use in 2000 were age 35 or older.

Among publicly funded treatment admissions in the nonmetropolitan counties of Georgia, 24 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.

Marijuana was more common among male (38 percent positive) than female (26 percent positive) arrestees in 2000 (exhibit 3), and the percentage of positive drug screens for marijuana decreased with age among arrestees in both samples. In 2000, approximately 40 percent of African-American, 31 percent of White, and 5 percent of Hispanic male arrestees tested positive for marijuana. Twenty-eight percent of African-American, 23 percent of White, and no Hispanic female arrestees tested positive for the drug.

According to the Atlanta HIDTA, seizures of locally grown marijuana plants increased slightly in 2000, from 32,038 to 33,669. The largest percentage of the seizures occurred in northwest Georgia, less than 1 hour's driving distance from Atlanta. Importation of cannabis from outside of Georgia is still occurring, with most coming in from Mexico or Canada. In March of 2000 more than 170 pounds of Canadian marijuana and hash was seized, along with $65,000. The imported marijuana continues to have a higher tetrahydrocannabinol (THC) level than locally grown, which averages 9.5 percent, but can go as high as 14 percent. The average price in the area is $930 per pound.

Stimulants

According to DAWN ED data for 2000, the rate per 100,000 population of methamphetamine/speed mentions increased slightly since 1999 (from 3 to 4 per 100,000 in 2000) (exhibit 1). Injection was the most common route of methamphetamine administration among ED mentions with known routes of administration for the drug, which is similar to that seen in 1999. Although no demographic information was available for methamphetamine mentions in 2000, ED mentions with injection as the reported route of administration were greater among men than women and greatest among those age 35 or older.

The proportion of clients in local metropolitan Atlanta drug treatment programs reporting stimulants as their primary drug of abuse has remained relatively stable since last semester, rising from 1.3 percent in the first half of 2000 to 1.6 percent in the second half of 2000 (exhibit 2). Compared to 1999, the proportion of clients with stimulants as their primary drug also remained (1.7 percent in 1999 and 1.5 percent in 2000). The majority of treatment admissions in 2000 were White (98 percent), a stable pattern stable since 1999. More men than women were among the treatment population in 2000, but the gender distribution in 2000 was nearly equivalent compared to 1999 (15 percent female in 1999 vs. 44 percent female in 2000). Seventy-eight percent of individuals in treatment programs during 2000 were age 35 or older.

Among local treatment admissions in 2000, other routes (primarily oral, 35 percent) of stimulant administration were most common, followed by injection (27 percent), intranasal use (26 percent), and smoking (8 percent). Ethnographic data continue to reveal a wide variety of administration routes for methamphetamine and other stimulants, although intranasal use and injecting remain the most popular.

The proportion of persons who entered public drug treatment for stimulant use during 2000 in nonmetropolitan counties of Georgia also remained low (4 percent) but slightly higher than the proportion reported for Atlanta (1.5 percent). Characteristics of individuals in treatment in non-metropolitan counties were similar to those among Atlanta counties, although a slightly greater percentage reported smoking as their main route of stimulant administration than in metropolitan Atlanta (14 percent vs. 8 percent).

Methamphetamine use remains low among arrestees in 2000, with only 0.5 percent of adult male and no female arrestees testing positive for the drug (exhibit 3). Among male arrestees, methamphetamine positives were reported among White arrestees only, and the largest proportion of positives was reported among those age 26–30.

The DEA estimates that Mexican organizations control up to 80 percent of methamphetamine distribution in the United States, and, in Atlanta, many law enforcement agencies directly link the continued rise of methamphetamine availability with a rise in the presence of migrant Hispanic workers. They also partially link the price of methamphetamine, which ranges from $8,000 to $20,000 per pound, to the size of the local Mexican population. Smaller quantities cost $100 per gram, $200–$275 per eightball (1/8 ounce), and $1,500 per ounce. Along with methamphetamine imported from Mexico there has been an increase in the number of small local labs that tend to produce smaller but more potent quantities. The purity level for imported methamphetamine is around 11 percent, but locally made batches are generally not cut as often, so the levels tend to be higher. The increase in labs is reflected in an increase in lab seizures. In the first half of 2000, 27 labs were reported seized, which far surpasses the rate for 1999. Many of these local labs are run by White males and are set up in motel rooms, cars, or single-dwelling houses.

Numbers reflecting stimulant use remain low

according to traditional indicators, but the increasing popularity of stimulants in Atlanta, as well as in other areas of Georgia, is quite evident according to ethnographic data and local reports. Ethnographic information suggests that among many of the younger new users, most of whom are White, the term of choice for methamphetamine is "shards." There is also an apparent hierarchy (as with many other drugs) related to which kind of methamphetamine is used. Those who use shards, for example, scorn the use of crank and sometimes are seemingly unaware that the two are essentially the same drug. There is also an apparent trend underway among "ravers" who previously were primarily methylenedioxymethamphetamine (MDMA) users and who have now switched over to methamphetamine.

Depressants

The use of the prescription drugs diazepam (Valium) and alprazolam (Xanax) remains common as indicated by ethnographic reports, as does use of gamma hydroxybutrate (GHB) and flunitrazepam (Rohypnol). The prices of GHB and Rohypnol have not changed since last semester, with the cost per dosage unit reported to be $10–$20 for GHB and $5–$10 for Rohypnol.

According to DAWN emergency department data for 2000, GHB mentions in Atlanta were among the highest among DAWN reporting areas. The estimated rate of GHB mentions in Atlanta per 100,000 population has increased steadily since 1994, but fell slightly from 1999 to 2000 (exhibit 1). The rate of flunitrazepam ED mentions has remained at very low levels since 1994.

Hallucinogens

According to DAWN emergency department data for 2000, the rate of mentions per 100,000 population for lysergic acid diethylamide (LSD) fell slightly from 3.1 to 2.5 from 1999 to 2000 (exhibit 1). The rate of LSD ED mentions has declined steadily since 1996, although LSD remains popular according to ethnographic reports. According to the Atlanta HIDTA, the cost of LSD has not changed much over time, with dosage units costing $4–$10 retail and approximately $1 wholesale. Much of the LSD that comes to Atlanta is mailed in from the western United States.

The rate of ED mentions for phencyclidine (PCP) and PCP combinations in 2000 was 0 per 100,000 population, compared with 1 per 100,000 in 1999 (exhibit 1). No PCP-positive tests were reported among the male or female arrestee population in 2000.

Club Drugs

Drugs such as MDMA ("ecstasy") and ketamine remain prevalent in Atlanta according to local ethnographers. The rate of DAWN ED mentions of MDMA has increased steadily since 1997 (exhibit 1), with a reported rate of 2.4 per 100,000 population in 2000. Rates of ketamine ED mentions remain very low according to DAWN 2000 data.

According to the Atlanta HIDTA, the major source of MDMA in Atlanta and Georgia continues to be Europe (e.g., Belgium and The Netherlands). As has happened across the Nation, the HIDTA Task Force Airport Group at Hartsfield seized large amounts of MDMA in 2000, with more than 9,000 tablets confiscated in March alone. Notably, in February 2000, U.S. Customs Service officers intercepted a courier at Hartsfield who had swallowed 1,600 tablets in a number of balloons. This was the first time they had observed smuggling of MDMA in this manner. The average price of a dose of MDMA remains steady at about $20.

According to local ethnographic reports, ecstasy use is common among both men and women and among persons younger than 35. Local reports indicate an increase in the use of ecstasy among certain African-American social networks, particularly those connected to a music scene (i.e., clubs). There are a wider variety of settings where MDMA is being used, with people no longer exclusively using in clubs or at raves. Reports suggest variable content of ecstasy pills or tablets, with reports of other substances being sold as ecstasy. Ethnographers have come across some dealers and users who have had their drugs tested to determine the contents. Many contained cocaine, while a few contained small amounts of heroin. Others are reporting that OxyContin is being abused with MDMA.

Infectious Diseases Related to Drug Abuse

Based on reported cases of AIDS through December 2000, Georgia remains 9th in the Nation in the cumulative number of cases, and Atlanta is 10th among selected metropolitan areas. From 1981 through the end of the third quarter of 2001 (September 30), the Georgia Department of Human Resources reported 23,628 cumulative adult and pediatric AIDS cases. Similar to that reported last semester, approximately 24 percent of all AIDS cases in Georgia are related to injection drug use: 18.1 percent are among injecting drug users (IDUs) and an additional 5.6 percent are among those in the dual risk category of men who have sex with men (MSM) and

are IDUs. Through the third quarter of 2001, the proportion of injection drug use-related AIDS cases among women is roughly 28 percent, whereas among men, only 16 percent of cases are attributable to injection drug use, with an additional 7 percent attributable to the dual risk category of MSM/IDU. The proportion of cases related to heterosexual exposure is approximately 45 percent among women and 7 percent among men.

Through September 2001, 16,555 cumulative adult and pediatric AIDS cases were reported to the Georgia Department of Human Resources for the 20-county metropolitan Atlanta area. Approximately 18 percent of adult cases were directly attributable to injection drug use, a stable proportion since last semester. Men who have sex with men and inject drugs account for an additional 6 percent. Once again, injection drug use-related AIDS cases account for a greater proportion of female than male cases (33 percent of female and 16 percent of male). Forty-one percent of women have been infected through heterosexual contact, and women account for approximately 14 percent of persons age 13 and over reported with AIDS in the Atlanta metropolitan area.

References

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Exhibit 1. Estimated Rate per 100,000 Population of ED Mentions in Atlanta: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
Cocaine	234	245	202	151	218	189	221
Marijuana	58.6	62.8	57.5	58	96	90.7	86
Heroin	17	15	14	14	17	15	18
Methamphetamine	3.6	5.5	5	7.9	5.9	3	4
GHB	0.0	0.5	1.4	2	2.9	5.1	4.6
MDMA	0.0	0.0	0.0	0.7	1.2	2.2	2.4
LSD	8.2	6.1	4.3	4.1	3.9	3.1	2.5
Ketamine	0.0	0.0	0.0	0.2	0.1	0.5	0
PCP	1.3	0.5	0.9	1.0	0.0	1.0	0

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Primary Drug of Abuse Among Public Drug Treatment Admissions in Atlanta, by Percent: 1997–2000

Drug	1H 1997	2H 1997	1H 1998	2H 1998	1H 1999	2H 1999	1H 2000	2H 2000
Cocaine	57.4	57.5	56.9	60.2	51.8	51.1	56.0	60.5
Marijuana	15.2	14.8	15.5	15.3	20.3	24.9	17.5	14.7
Heroin	4.3	5.2	5.9	5.8	4.1	1.9	6.6	6.6
Stimulants	1.7	1.9	2.0	1.7	1.7	1.7	1.3	1.6

SOURCE: Georgia Department of Human Resources

Exhibit 3. Percentage of Adult Arrestees Testing Positive for Various Drugs in Atlanta: 2000

Drug	Male	Female
Cocaine	48.5 percent	57.6 percent
Marijuana	38.2 percent	26.3 percent
Heroin	2.8 percent	3.4 percent
Methamphetamine	0.5 percent	0.0 percent

SOURCE: Arrestee Drug Abuse Monitoring Program, NIJ

Exhibit 4. Number of ED Mentions of Hydrocodone and Oxycodone in Atlanta: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
Hydrocodone	0	59	14	45	58	38	40
Oxycodone	10	2	11	11	15	20	43

SOURCE: Drug Abuse Warning Network, SAMHSA

Drug Use in the Baltimore Metropolitan Area: Epidemiology and Trends, 1996-2000

Leigh A. Henderson, Ph.D.[1]

ABSTRACT

Heroin treatment admissions continued to increase, with a rising number of young White heroin injectors. In the metropolitan area as a whole, heroin treatment admissions were more or less equally divided between intranasal users and injectors. In Baltimore City, the treatment admission rate for intranasal heroin use was 25 percent higher than for injection; the reverse was true in the suburban counties. Declines were seen in emergency department (ED) mention rates for all major illicit drugs (heroin, cocaine, and marijuana), but this may be related to changes in DAWN reporting in 2000. The population in treatment for smoked cocaine (crack) continued to age: in 2000, 59 percent were older than 35, compared with 54 percent in 1999. Almost one-half (48 percent) of marijuana treatment admissions were younger than 18, and 65 percent entered treatment as the result of a judicial process. Stimulants represented insignificant proportions of ED and treatment admissions.

INTRODUCTION

Area Description

The Baltimore primary metropolitan statistical area (PMSA) was home to some 2.5 million persons in 2000. 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 2000 census, however, the population has risen to 651,000 in 2000. The population of the surrounding counties has grown steadily, from approximately 1.7 million in 1990 to 1.9 million in 2000.

The city and the suburban counties represent distinctly different socioeconomic groups. In 1997, median household income in the city was $28,000, and 24 percent of the population lived in poverty. In the suburban counties, however, median household income ranged from $45,000 to $68,000 and the poverty rate ranged from 4 to 8 percent. The 2000 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, D.C., 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, D.C. (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. Population estimates for 2000 and 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) Data. These data were provided by the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA), for the Baltimore PMSA for 1994 to 2000 (exhibits 1 and 2).
- Treatment Admissions Data. These data were provided by the Maryland Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, for 1996 to 2000. Data are presented for the PMSA as a whole, as well as separately for Baltimore City and the suburban counties. Included are those programs that receive both public and private funding. All clients are reported, regardless of individual source of funding. Significant omissions

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are the Baltimore City and Fort Howard Veterans' Administration Medical Centers, which do not report to the State data collection system.
- Maryland Drug Early Warning System (DEWS) Data. Data were used from various reports available at http://www.cesar.umd.edu/dews.htm.
- Heroin Price and Purity Data. Preliminary data for 2000 were provided by the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP).
- Acquired Immunodeficiency Syndrome (AIDS) Data. 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> (2000 data for Maryland and Baltimore).

Drug Abuse Patterns and Trends

In the 1990s, heroin and marijuana indicators showed net increases, while cocaine indicators decreased. Heroin was the predominant illicit drug responsible for treatment admissions throughout the decade. While the treatment admission rate for cocaine abuse was almost as high as for heroin in the early 1990s, it declined with the waning popularity of crack cocaine. In the second half of the decade, abuse of both heroin and cocaine emerged as the dominant pattern. Emergency department rates for heroin and cocaine were virtually identical; cocaine was cited as a secondary substance by a majority of heroin treatment admissions.

The trends below are reported separately by drug. However, most admissions to treatment and to emergency departments are polydrug users. An average of 1.7 drugs was mentioned per ED visit. Only 26 percent of treatment admissions failed to report problems with a secondary substance (exhibit 3).

The abuse of both heroin and cocaine by the same individuals appears to be a dominant pattern of abuse. 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 2000 were for heroin, but 59 percent of heroin injectors admitted to treatment in 2000 also used cocaine. Cocaine was reported as the primary substance by 13 percent of drug-related treatment admissions, and an additional 36 percent reported it as a secondary substance.

Cocaine and Crack

Indicators of cocaine abuse have generally declined since 1994 (exhibit 1). As the cocaine/crack epidemic continued to wane, both treatment admission and ED rates declined in 2000. The cocaine and heroin ED rates and patterns have been similar since 1995, probably because of the concurrent use of the two drugs.

The rate of cocaine-related ED episodes for 2000 (208 per 100,000 population) represented a significant decline, and the decline occurred among all age groups (exhibit 2). Eighty-one 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 use. However, while cocaine was reported as a primary substance by 13 percent of treatment admissions in the Baltimore PSMA in 2000, it was reported as a secondary substance by an additional 36 percent. The population in treatment for cocaine smoking has aged; 59 percent were age 35 or older in 2000. Crack cocaine represented 75 percent of the admissions for primary cocaine use. Smokers of crack cocaine included a significant proportion of women (45 percent) (exhibit 4). Sixty-seven percent were African-American, and the average age at admission to treatment was 36. Less than one-half (42 percent) of the crack smokers were entering treatment for the first time, and 60 percent were likely to be referred through sources outside the criminal justice system. Daily crack use was reported by 35 percent, and use of other drugs was reported by more than two-thirds (69 percent). Alcohol was the most commonly used secondary drug (48 percent), followed by marijuana (29 percent) and heroin used intranasally (13 percent). Only 2 percent of crack smokers reported heroin injection.

Heroin

Indicators of heroin abuse were mixed between 1994 and 2000 (exhibit 1). There are different populations of heroin users in Baltimore (urban versus suburban, intranasal users versus injectors), and indicators for some of these groups increased in 2000. Treatment admissions increased over that period, while ED mentions decreased. Treatment admission rates for heroin intranasal use and injection have been at fairly similar levels since 1995. In the city, heroin treatment admission rates for intranasal use have increased every year since 1997 and have been higher than the rate for heroin injection since 1998 (exhibit 3).

The rate of heroin ED mentions in 2000 (227 per 100,000 population) represented a significant decline from 357 in 1994, and the decline occurred among all age groups except those age 12 to 17 (exhibit 2). However, Baltimore had the second-highest rate of heroin ED mentions among all DAWN cities. Fifty-three percent of heroin-related ED episodes involved other drugs as well as heroin.

Heroin remained the leading primary illicit drug among treatment admissions through 2000, at a rate of 674 admissions per 100,000 population age 12 and older in the total PSMA (exhibit 3). The admission rate was five times higher in Baltimore city than in the suburban counties. Just as heroin has historically dominated the Baltimore city treatment system, it surpassed alcohol as the dominant primary drug in the suburban counties in 1997. Primary heroin users constituted 53 percent of all drug-related treatment admissions in the PMSA.

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 the city also has a substantial number of slightly younger African-American heroin inhalers. White users entering treatment for heroin are younger and are predominantly injectors.

In the total PMSA, the proportion of White heroin injectors entering treatment increased dramatically, from 33 percent in 1996 to 45 percent in 2000 (exhibit 6). The proportion of admissions younger than 25 also increased, from 11 percent in 1996 to 19 percent in 2000. In the suburban counties, youth younger than 25 increased from 20 percent in 1996 to 32 percent in 2000. For the total PMSA, the average age at admission was 36, and women accounted for 42 percent of admissions. Most persons reported daily use (75 percent), and relatively few had been referred through the criminal justice system (24 percent). The proportion receiving treatment for the first time declined slightly, from 39.1 percent in 1997 to 33 percent in 2000. Use of other drugs was reported by 72 percent of heroin injectors entering treatment: 50 percent used cocaine by routes other than smoking, 9 percent smoked cocaine, 23 percent had an alcohol problem, and 12 percent used marijuana.

Among heroin intranasal users, most admissions were African-Americans (82 percent), age 26 and older (91 percent), and, on average, first used heroin 10 years prior to admission (exhibit 7). The new cohort of White suburban youth that reportedly began to emerge in the early 1990s is now appearing in the treatment system. In the suburban counties, White admissions increased from 30 percent in 1996 to 41 percent in 2000, reaching 54 percent in 1998. Nearly one-half of all total PMSA admissions for heroin intranasal use (47 percent) occurred among women. The proportion of intranasal users younger than 25 has decreased, from 21 percent in 1996 to 9 percent in 2000. The average age at admission was 35. Nearly three-quarters (71 percent) reported daily heroin use. Intranasal users were more likely than injectors to be referred through the criminal justice system (32 percent) and to be receiving treatment for the first time (39 percent). Heroin intranasal users were less likely than injectors to report use of other drugs (65 percent), and the drugs used were different. Cocaine smoking was much greater among heroin intranasal users (29 percent), and 17 percent reported using cocaine by other routes. Alcohol use, at 24 percent, was similar in the two groups, but marijuana use was somewhat higher among intranasal users (17 percent).

Heroin purity remained low in 2000, at 24 percent, below the national metropolitan average of 36 percent. Price also remained low, at $0.39 per milligram pure, compared with $0.97 per milligram pure as the national metropolitan average.

Other Opiates and Narcotics

According to some youth offenders, oxycodone (Percocet) is crushed and inhaled or injected. They reported taking hydrocodone with beer to enhance its effects.

Marijuana

Indicators of marijuana use remained fairly stable (exhibit 1).

The marijuana ED rate per 100,000 population declined among all age groups, except those age 12 to 17; the rate was highest among those age 18 to 25 (exhibit 2). Sixty-three percent of marijuana-related ED episodes involved other drugs as well.

In the total PSMA, primary marijuana use represented 16 percent of treatment admissions in 2000, and marijuana was reported as a secondary substance by an additional 23 percent of all admissions (exhibit 3). The marijuana admission rate per 100,000 population increased slightly, to 200. 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: in the total PMSA, 48 percent were younger than 18, and the average age at admission to treatment was 21 (exhibit 8). Marijuana admissions

were primarily male (82 percent). The racial breakdown of marijuana admissions approached that of the underlying population more closely than for other illicit drugs (51 percent White and 46 percent African-American). Admissions were likely to be experiencing their first treatment episode (71 percent), and almost one-third (29 percent) reported daily marijuana use. More than two-thirds (71 percent) of marijuana admissions reported using additional substances: 62 percent reported alcohol use, 11 percent reported cocaine use, and 6 percent reported use of heroin or other opiates. Some 8 percent of admissions used other secondary substances, primarily hallucinogens and inhalants.

A large proportion of marijuana treatment admissions (65 percent) represented referrals through the criminal justice system, compared with a smaller percentage (24 percent) for heroin injectors. Maryland instituted a Drug Court in 1994, and it is possible that the high marijuana treatment admission rate is related to this policy. Treatment admission rates for both criminal justice and noncriminal justice referrals increased from 1992 to 1995. While rates from noncriminal justice referrals stabilized in 1995 and declined from 1997 to 2000, those for criminal justice referrals continued to increase through 1996. Admission rates for criminal justice referrals were 70 percent higher than those for other referrals in 1999.

Stimulants

Methamphetamine/speed is rarely reported in emergency departments. However, DAWN amphetamine emergency departments rates have more than tripled from 2 per 100,000 population in 1996 to 7 per 100,000 population in 2000.

As has been the case previously in Baltimore, virtually no stimulant treatment admissions were reported in 2000.

Youth offenders indicated that methylphenidate (Ritalin) is crushed and inhaled or injected. They reported taking Ritalin with beer to enhance its effects.

Depressants

Youth offenders reported taking diazepam (Valium) with beer to enhance its effects.

Hallucinogens

DAWN lysergic acid diethylamide (LSD) mentions have remained in the range of 40 to 50 since 1997. Phencyclidine (PCP) mentions increased significantly, from 45 in 1999 to 73 in 2000.

Club Drugs

DEWS reported that methylenedioxymethamphetamine (MDMA or "ecstasy") was an emerging drug (i.e., moving from the club scene to the broader population) in Baltimore's suburban counties, but not in Baltimore City. DAWN ED mentions rose from 35 in 1999 to 64 in 2000. Street names tend to feature colors, cartoon characters, or expensive cars and other status symbols. Youth offenders indicate that there is a widespread belief that ecstasy is adulterated with heroin, cocaine, mescaline, or speed. They report "candy flipping" (mixing MDMA with LSD) and "speedballing" (mixing MDMA with ketamine). "Parachuting" was reported—crushing a pill in a napkin and swallowing it to achieve more rapid effects.

Gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol), and ketamine were not seen as emerging drugs in the Baltimore area. ED mentions remained low, at 3, 0, and 4, respectively. GHB was involved in the highly publicized death of a University of Maryland student in the fall of 2001. The Office of the Chief Medical Examiner will begin testing for GHB in a case-by-case basis in early 2002.

Infectious Diseases Related to Drug Abuse

The Baltimore metropolitan area had the eighth highest AIDS incidence rate among major metropolitan areas, at 38 per 100,000 in 2000. In the year ending June 30, 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 22,183 persons in Maryland living with HIV/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 cases were in injecting drug users (IDUs), 21 percent involved non-IDU men who had sex with men, and 16 percent involved heterosexual transmission.

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Exhibit 1. Rate of Drug-Related Treatment Admissions and Emergency Department Mentions Per 100,000 Population in Baltimore (PMSA) Age 12 and Older: 1994–2000

Year	Cocaine ED Mentions	Cocaine Treatment Admissions	Heroin ED Mentions	Heroin Treatment Admissions	Marijuana ED Mentions	Marijuana Treatment Admissions
1994	400	322	337	524	35	123
1995	384	313	366	606	42	175
1996	376	281	357	584	53	205
1997	273	233	256	608	61	199
1998	296	202	289	610	65	190
1999	296	193	299	653	72	190
2000	208	162	227	674	68	200

SOURCES: Alcohol and Drug Abuse Administration, Maryland Department of Health and Mental Hygiene; Office of Applied Studies, SAMHSA, Drug Abuse Warning Network (DAWN) 2000, (03/2001 update)

Exhibit 2. Cocaine, Heroin, and Marijuana Emergency Department Mentions in Baltimore PMSA by Demographic Characteristic: 1996–2000

Characteristic	Cocaine					Heroin					Marijuana				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
(Number of mentions)	(8,515)	(6,253)	(6,871)	(6,921)	(4,943)	(8,093)	(5,863)	(6,711)	(6,999)	(5,405)	(1,194)	(1,402)	(1,495)	(1,679)	(1,620)
Percent of all episodes	53.2	49.0	50.0	48.8	43.0	50.6	46.0	48.9	49.4	47.0	7.5	11.0	10.9	11.8	14.1
Percent of all mentions	31.4	28.4	29.2	27.9	24.9	29.9	26.6	28.5	28.3	27.2	4.4	6.4	6.4	6.8	8.2
Rate of mentions per 100,000 population															
Total	376	273	296	296	208	357	256	289	299	227	53	61	65	72	68
12-17	14	22	41	27	20	11	25	42	35	24	94	164	146	159	169
18-25	372	261	300	285	216	349	302	378	379	330	141	149	174	206	185
26-34	904	627	667	651	442	796	527	579	628	469	98	97	107	115	109
35+	336	255	278	290	206	340	245	274	282	210	24	28	29	32	31
Percentage distributions															
Multiple-drug episode	73.8	77.4	79.9	80.6	81.3	62.3	62.7	57.8	60.0	53.1	72.3	66.8	67.6	66.8	63.3
Sex															
Male	63.2	63.7	63.0	61.2	61.6	62.4	61.8	61.9	60.2	62.1	71.8	68.4	65.8	66.2	64.2
Female	36.8	36.3	37.0	38.8	38.4	37.6	38.2	38.1	39.8	37.9	28.2	31.6	34.2	33.8	35.8
Race/ethnicity															
White	17.9	24.1	26.1	28.1	32.3	14.9	22.5	26.4	27.1	37.0	45.1	53.2	50.1	52.2	56.9
African-American	79.0	72.9	70.7	68.9	64.2	82.3	73.9	70.9	70.3	61.0	51.8	43.9	42.9	38.5	30.7
Hispanic	0.8	0.4	0.4	0.3	0.3	0.6	0.4	0.4	0.3	0.3	0.8	0.8	0.3	0.5	0.4
Other/Unknown	2.3	2.6	2.8	2.7	3.2	2.3	3.3	2.3	2.3	1.6	2.2	2.1	6.7	8.8	12.1
Age at admission															
12–17	0.3	0.7	1.2	0.8	0.8	0.3	0.8	1.2	1.0	0.9	15.1	22.6	19.1	18.7	20.8
18–25	11.1	10.6	11.2	10.7	11.7	10.9	13.1	14.5	14.1	16.3	29.9	26.9	29.8	31.9	30.4
26–34	39.3	36.7	34.8	33.1	31.1	36.4	32.8	31.0	31.5	30.1	30.3	25.3	25.6	24.1	23.3
35+	49.2	52.1	52.8	55.5	56.4	52.4	53.3	53.3	53.4	52.6	24.7	25.2	25.5	25.3	25.4
Reason for use															
Psychic effects	8.7	5.7	6.9	6.9	10.0	7.6	5.2	6.0	4.5	5.4	24.2	24.8	33.6	28.3	30.4
Dependence	63.9	59.0	59.3	68.1	73.5	65.9	65.6	64.8	77.2	83.4	49.5	36.7	35.2	42.8	30.1
Suicide	9.7	13.7	8.1	7.4	5.7	6.8	9.8	5.9	4.3	3.3	8.9	9.3	11.2	9.6	8.0
Other	0.1	0.3	0.4	0.2	0.2	0.0	0.2	0.4	0.1	0.1	0.5	0.8	0.5	0.3	0.6
Unknown	17.7	21.3	25.3	17.4	10.7	19.7	19.2	22.9	13.8	7.8	16.9	28.4	19.6	19.0	30.8
Reason for ED visit															
Unexpected reaction	8.0	6.8	10.9	10.9	8.1	4.6	4.2	7.4	10.5	4.8	15.1	14.8	18.7	19.0	18.8
Overdose	6.8	8.1	9.9	9.7	11.2	6.8	9.5	11.7	10.2	14.0	7.4	7.6	11.4	11.0	11.6
Chronic effects	31.4	30.5	30.6	27.6	22.8	36.6	34.2	34.4	29.1	27.7	10.2	12.1	12.6	10.1	5.4
Withdrawal	9.3	12.3	5.8	4.4	5.1	13.1	18.6	13.2	10.7	14.1	4.7	4.6	2.2	1.6	3.0
Seeking detox	6.7	7.9	11.2	13.6	16.3	4.0	7.1	9.4	10.9	9.8	10.0	8.3	11.6	14.5	15.5
Accident/injury	7.2	3.1	3.3	3.6	2.8	10.2	3.3	4.6	4.4	2.6	3.0	3.9	7.6	7.4	3.9
Other	16.3	11.8	11.9	24.0	29.3	10.1	8.9	7.4	18.3	24.9	31.5	14.4	19.9	30.2	31.5
Unknown	14.3	19.5	16.3	6.2	4.3	14.7	14.2	11.8	5.9	2.1	18.1	34.3	16.0	6.3	10.3

Note: A small number of unknowns are excluded from percentage calculations for sex and age.

SOURCE: Office of Applied Studies, SAMHSA, DAWN, 2000 (03/2001 update)

Exhibit 3. Characteristics of All Drug-Related Treatment Admissions in Baltimore: 1996–2000

	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
Characteristic	**1996**	**1997**	**1998**	**1999**	**2000**	**1996**	**1997**	**1998**	**1999**	**2000**	**1996**	**1997**	**1998**	**1999**	**2000**
(Number of admissions)	(28,282)	(27,279)	(26,303)	(26,856)	(27,104)	(14,751)	(13,280)	(12,593)	(13,314)	(13,514)	(13,531)	(13,999)	(13,710)	(13,542)	(13,590)
Primary substance (%)															
Alcohol with secondary drug	20.9	20.0	20.4	19.2	17.9	11.5	10.7	10.7	10.0	8.8	31.2	28.8	29.3	28.2	26.9
Cocaine	20.3	17.5	15.9	14.9	12.7	21.2	18.5	15.6	14.8	12.8	19.3	16.6	16.1	15.0	12.7
Smoked	15.4	12.7	11.7	10.8	9.5	16.2	13.3	11.4	10.8	9.8	14.4	12.1	11.9	10.9	9.2
Injected	1.8	1.7	1.4	1.3	1.0	2.2	2.2	1.8	1.7	1.2	1.5	1.3	1.0	1.0	0.8
Other	3.1	3.1	2.8	2.8	2.2	2.8	3.0	2.5	2.3	1.8	3.5	3.2	3.2	3.2	2.7
Marijuana/hashish	14.8	15.0	14.9	14.7	15.6	11.5	10.9	11.2	10.3	11.5	18.5	18.9	18.4	19.0	19.7
Heroin/other opiates	42.3	45.8	47.8	50.3	52.8	55.2	59.1	62.0	64.5	66.5	28.2	33.1	34.7	36.4	39.2
Injected	20.2	22.8	22.7	23.6	23.9	25.8	28.8	27.4	28.4	27.9	14.2	17.0	18.4	18.9	19.8
Snorted	19.6	20.3	20.8	21.7	24.7	27.7	27.9	30.1	30.5	34.9	10.8	13.0	12.3	13.1	14.6
Other	2.4	2.8	4.3	5.0	4.2	1.6	2.4	4.5	5.6	3.7	3.2	3.1	4.0	4.4	4.8
Stimulants	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.0	-	0.0	0.3	0.4	0.1	0.0	0.0
All other	1.5	1.5	1.0	0.9	0.9	0.6	0.6	0.5	0.5	0.4	2.5	2.4	1.5	1.4	1.4
Primary substance (annual admissions per 100,000 population aged 12+)															
Alcohol with secondary drug	289	265	260	249	228	306	263	253	256	222	282	266	262	246	230
Cocaine	281	233	202	193	162	567	454	370	377	322	175	153	144	131	109
Smoked	212	168	149	140	122	434	327	270	275	248	130	111	107	95	79
Injected	26	23	18	17	12	58	54	42	42	29	13	12	9	9	7
Other	43	41	36	36	28	75	73	58	60	45	31	30	28	28	23
Marijuana/hashish	205	199	190	190	200	308	266	265	264	290	167	174	165	166	169
Heroin/other opiates	584	608	610	653	674	1,474	1,452	1,470	1,649	1,677	256	306	311	318	336
Injected	280	302	290	306	305	689	707	650	727	704	128	158	165	165	170
Snorted	272	269	266	282	316	741	685	713	779	880	98	120	110	114	125
Other	33	37	54	65	54	43	60	107	143	93	29	28	36	39	41
Stimulants	2	4	1	0	0	1	6	0	-	0	2	3	1	0	0
All other	21	20	13	12	12	16	14	13	12	11	23	22	13	12	12
Secondary substance (%)															
None	24.6	25.5	23.9	23.8	25.6	27.9	27.7	25.4	25.4	28.7	21.0	23.5	22.5	22.2	22.5
Alcohol	27.7	27.0	27.9	28.1	28.7	26.4	26.2	27.5	27.4	28.1	29.1	27.8	28.2	28.9	29.3
Cocaine	37.0	36.4	37.7	37.9	36.1	42.2	43.2	45.3	45.5	42.9	31.3	29.9	30.8	30.4	29.3
Marijuana/hashish	25.5	25.2	25.2	23.7	23.2	19.0	17.4	17.0	15.9	15.0	32.6	32.6	32.7	31.5	31.4
Heroin/other opiates	10.1	9.2	8.7	8.9	8.4	10.9	9.8	8.9	9.1	8.4	9.3	8.6	8.6	8.7	8.4
All other	6.6	6.6	5.2	5.3	5.6	3.2	3.4	2.7	2.9	2.3	10.3	9.5	7.6	7.6	8.9

[a] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
- Quantity is zero.

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

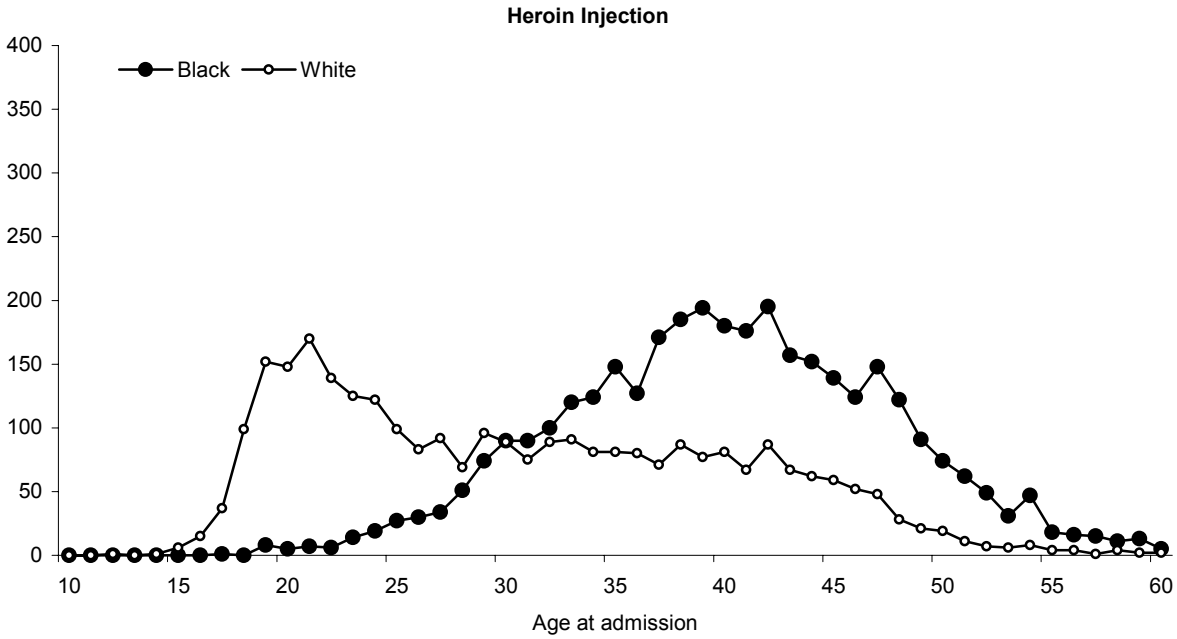
Exhibit 4. Characteristics of Primary Crack Cocaine Treatment Admissions in Baltimore: 1996–2000

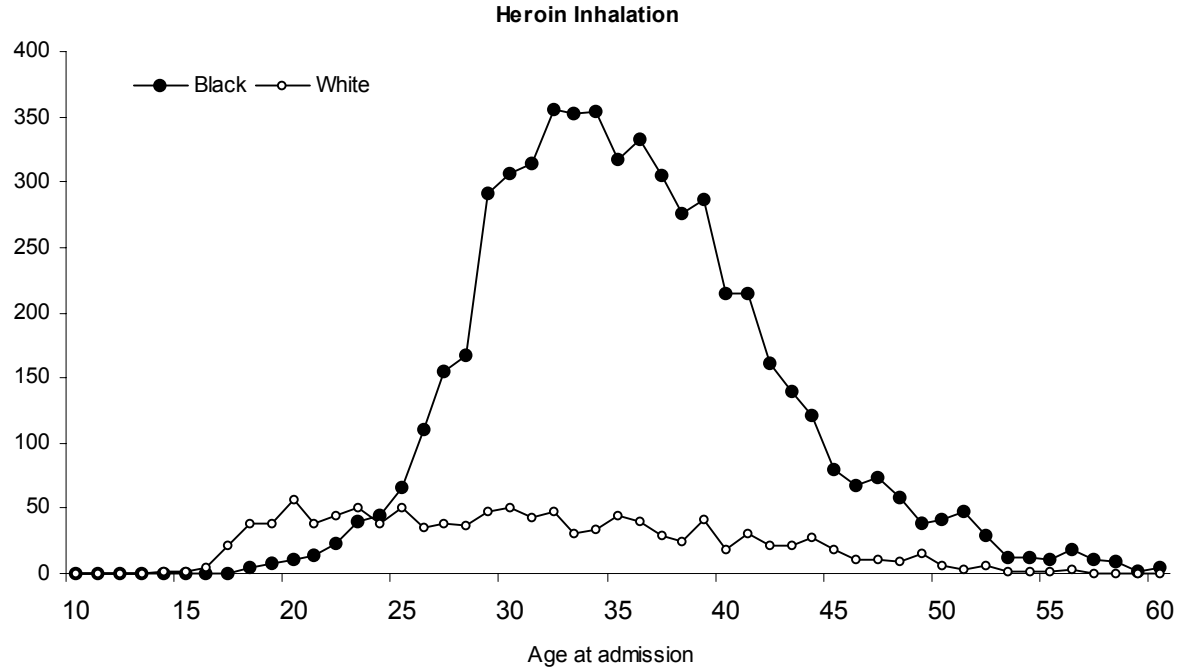
Characteristic	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
(Number of admissions)	(4,343)	(3,458)	(3,066)	(2,903)	(2,585)	(2,396)	(1,771)	(1,432)	(1,432)	(1,330)	(1,947)	(1,687)	(1,634)	(1,471)	(1,255)
Primary use of substance (%)	15.4	12.7	11.7	10.8	9.5	16.2	13.3	11.4	10.8	9.8	14.4	12.1	11.9	10.9	9.2
Sex (%)															
Male	55.2	55.2	56.6	55.4	55.4	47.9	51.0	49.5	45.5	46.4	64.2	59.6	62.9	65.0	64.9
Female	44.8	44.8	43.4	44.6	44.6	52.1	49.0	50.5	54.5	53.6	35.8	40.4	37.1	35.0	35.1
Race/ethnicity (%)															
White	35.0	35.7	39.3	37.0	31.6	15.5	17.2	18.6	16.1	13.2	59.0	55.2	57.4	57.3	51.1
African-American	64.0	62.9	59.2	61.5	67.0	83.8	82.0	80.3	82.8	85.9	39.6	42.9	40.7	40.8	47.0
Hispanic	0.5	0.8	0.8	0.8	0.7	0.4	0.6	0.3	0.4	0.4	0.5	1.1	1.2	1.2	1.1
Other	0.6	0.5	0.8	0.7	0.7	0.3	0.2	0.8	0.7	0.5	0.9	0.8	0.7	0.7	0.8
Age at admission (%)															
< 18	1.4	1.3	1.6	0.6	0.5	0.5	0.5	1.2	0.4	0.3	2.6	2.1	1.9	0.8	0.7
18-25	12.5	9.5	8.7	8.3	6.6	9.6	6.7	6.0	4.7	4.4	16.1	12.5	11.0	11.8	8.8
26-34	45.8	45.0	40.8	36.8	33.9	47.2	45.1	38.1	34.8	31.5	44.2	44.8	43.2	38.7	36.5
35+	40.2	44.2	48.9	54.4	59.0	42.7	47.7	54.7	60.1	63.8	37.1	40.6	43.9	48.8	53.9
Avg. age at admission	33 yrs	34 yrs	34 yrs	35 yrs	36 yrs	34 yrs	35 yrs	35 yrs	36 yrs	37 yrs	32 yrs	33 yrs	33 yrs	34 yrs	35 yrs
Daily use (%)	44.2	37.5	35.9	35.4	35.1	44.2	40.3	41.7	43.2	44.1	44.1	34.6	30.8	27.9	25.6
First treatment episode (%)	49.1	48.7	41.9	42.9	42.4	46.2	48.4	43.0	43.0	38.8	52.5	48.9	40.9	42.9	46.1
Avg. duration of use[a]	7 yrs	8 yrs	9 yrs	10 yrs	11 yrs	8 yrs	9 yrs	10 yrs	10 yrs	11 yrs	8 yrs	9 yrs	9 yrs	10 yrs	11 yrs
Criminal justice referral (%)	24.8	32.2	36.1	37.3	40.5	24.3	28.7	33.1	30.9	32.7	25.3	35.9	38.7	43.6	48.8
Secondary substance (%)[b]															
None	36.1	34.8	32.9	30.0	31.1	42.4	39.5	36.7	32.5	35.0	28.5	29.9	29.6	27.5	27.0
Alcohol	44.4	46.6	48.3	47.8	47.8	37.2	39.9	43.5	42.7	41.4	53.2	53.7	52.4	52.8	54.6
Cocaine	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Smoked cocaine (crack)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other cocaine	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Marijuana/hashish/THC	27.5	28.2	29.6	29.7	28.5	23.5	23.6	25.0	24.7	23.3	32.5	33.0	33.7	34.6	34.1
Heroin/other opiates	15.7	13.9	15.5	18.5	18.5	19.8	17.3	21.0	24.2	23.8	10.7	10.3	10.6	13.0	12.7
Injected	2.2	2.1	2.3	2.5	2.0	2.3	1.8	2.7	2.8	2.1	2.1	2.3	2.0	2.3	1.9
Snorted	11.9	10.1	11.1	13.3	13.2	16.2	13.3	16.2	18.9	19.2	6.7	6.8	6.7	8.0	6.9
All other	3.5	3.7	2.2	2.4	2.9	1.6	2.1	0.9	1.3	1.1	5.8	5.3	3.4	3.5	4.8

[a] For first-time treatment admissions.
[b] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
- Quantity is zero.

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

Exhibit 5. Number of Primary Treatment Admissions for Heroin in Baltimore PMSA 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 Heroin Injector Treatment Admissions in Baltimore: 1996–2000

Characteristic	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
(Number of admissions)	(5,727)	(6,208)	(5,976)	(6,344)	(6,466)	(3,807)	(3,822)	(3,452)	(3,783)	(3,771)	(1,920)	(2,386)	(2,524)	(2,561)	(2,695)
Primary use of substance (%)	20.2	22.8	22.7	23.6	23.9	25.8	28.8	27.4	28.4	27.9	14.2	17.0	18.4	18.9	19.8
Sex (%)															
Male	58.7	58.5	58.6	59.6	58.0	56.2	56.0	56.2	56.8	54.3	63.6	62.5	62.0	63.8	63.2
Female	41.3	41.5	41.4	40.4	42.0	43.8	44.0	43.8	43.2	45.7	36.4	37.5	38.0	36.2	36.8
Race/ethnicity (%)															
White	32.5	42.0	45.8	44.7	45.0	20.5	23.8	24.4	24.6	25.2	56.3	71.3	75.0	74.4	72.6
African-American	66.6	56.5	52.8	53.4	53.6	78.7	75.2	74.6	74.3	73.9	42.5	26.6	23.1	22.5	25.2
Hispanic	0.5	0.7	0.7	1.1	0.8	0.5	0.4	0.5	0.3	0.5	0.5	1.2	0.9	2.1	1.2
Other	0.4	0.7	0.7	0.8	0.7	0.3	0.6	0.5	0.7	0.5	0.7	1.0	0.9	0.9	1.0
Age at admission (%)															
< 18	1.1	1.4	2.0	1.4	1.0	0.4	0.5	1.0	0.6	0.5	2.3	3.0	3.3	2.6	1.6
18-25	9.9	13.2	17.1	17.2	17.9	5.8	6.8	9.6	8.2	8.7	18.1	23.5	27.4	30.6	30.8
26-34	27.3	26.8	24.5	22.7	23.3	28.1	27.3	23.9	22.3	22.1	25.8	26.1	25.3	23.3	25.1
35+	61.6	58.5	56.4	58.7	57.9	65.6	65.4	65.5	68.8	68.7	53.8	47.5	44.0	43.6	42.6
Avg. age at admission	36 yrs	36 yrs	35 yrs	36 yrs	36 yrs	37 yrs	37 yrs	37 yrs	38 yrs	38 yrs	34 yrs	33 yrs	32 yrs	32 yrs	32 yrs
Daily use (%)	72.3	73.4	74.9	72.6	74.8	69.9	73.0	77.6	75.7	79.7	77.1	74.0	71.3	68.2	67.9
First treatment episode (%)	35.7	39.1	34.1	37.1	32.7	34.2	38.5	32.0	34.5	30.8	38.6	40.2	36.9	41.0	35.0
Avg. duration of use[a]	13 yrs	14 yrs	13 yrs	13 yrs	14 yrs	15 yrs	16 yrs	15 yrs	16 yrs	16 yrs	12 yrs	10 yrs	11 yrs	10 yrs	10 yrs
Criminal justice referral (%)	22.2	22.0	24.3	22.9	24.1	23.6	23.7	25.6	23.2	22.4	19.5	19.4	22.6	22.5	26.5
Secondary substance (%)[b]															
None	22.5	26.1	23.5	27.2	28.2	18.8	20.8	17.8	23.4	25.9	29.8	34.5	31.4	32.8	31.5
Alcohol	26.1	23.5	23.1	22.8	23.0	25.9	25.2	23.1	23.6	24.2	26.3	20.7	23.0	21.7	21.4
Cocaine	66.7	62.1	64.2	61.0	58.5	72.6	71.0	74.0	68.6	64.7	55.1	47.8	50.8	49.8	49.9
Smoked cocaine (crack)	6.6	7.2	8.5	8.6	8.9	5.6	7.0	7.9	8.6	9.1	8.4	7.6	9.3	8.7	8.7
Other cocaine	60.2	54.9	55.9	52.3	49.6	66.9	64.1	66.2	60.0	55.5	46.7	40.3	41.8	41.0	41.3
Marijuana/hashish/THC	10.4	11.6	12.5	11.5	12.2	9.5	8.4	8.3	7.3	7.9	12.2	16.9	18.2	17.8	18.3
Heroin/other opiates	4.3	3.7	3.1	2.8	3.3	3.2	2.5	1.6	1.7	1.6	6.5	5.5	5.2	4.4	5.7
Injected	0.8	0.8	0.5	0.4	0.4	0.5	0.5	0.1	0.2	0.1	1.5	1.4	0.9	0.8	0.8
Snorted	0.1	0.1	0.2	0.0	0.2	-	0.1	-	0.0	0.0	0.3	0.2	0.4	0.1	0.4
All other	4.2	4.9	4.1	4.0	4.0	4.1	3.8	2.7	2.9	2.4	4.6	6.6	6.0	5.5	6.3

[a] For first-time treatment admissions.
[b] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
- Quantity is zero.

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

Exhibit 7. Characteristics of Primary Intranasal Heroin Treatment Admissions in Baltimore: 1996–2000

Characteristic	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1996	*1997*	*1998*	*1999*	*2000*	*1996*	*1997*	*1998*	*1999*	*2000*	*1996*	*1997*	*1998*	*1999*	*2000*
(Number of admissions)	(5,557)	(5,526)	(5,476)	(5,831)	(6,701)	(4,092)	(3,707)	(3,788)	(4,056)	(4,715)	(1,465)	(1,819)	(1,688)	(1,775)	(1,986)
Primary use of substance (%)	19.6	20.3	20.8	21.7	24.7	27.7	27.9	30.1	30.5	34.9	10.8	13.0	12.3	13.1	14.6
Sex (%)															
Male	52.8	54.5	51.7	52.6	52.9	50.3	51.1	45.9	46.2	47.6	59.5	61.4	64.8	67.3	65.5
Female	47.2	45.5	48.3	47.4	47.1	49.7	48.9	54.1	53.8	52.4	40.5	38.6	35.2	32.7	34.5
Race/ethnicity (%)															
White	11.9	20.4	23.2	19.2	17.0	5.3	8.3	9.7	8.1	7.0	30.2	45.1	53.6	44.7	40.7
African-American	87.6	78.6	75.7	79.6	82.0	94.3	91.0	89.7	91.3	92.3	68.9	53.4	44.4	53.1	57.8
Hispanic	0.3	0.4	0.5	0.7	0.5	0.2	0.4	0.3	0.3	0.3	0.4	0.5	1.1	1.5	0.8
Other	0.3	0.6	0.5	0.5	0.5	0.2	0.4	0.3	0.3	0.4	0.5	1.0	0.8	0.7	0.8
Age at admission (%)															
< 18	1.1	2.2	2.5	2.0	0.4	0.2	0.8	1.5	1.3	0.1	3.7	5.2	4.6	3.7	1.2
18-25	20.1	19.0	15.4	11.0	8.6	18.0	15.2	10.0	7.2	4.9	26.0	26.7	27.6	19.7	17.5
26-34	52.0	49.8	46.7	46.5	41.7	55.1	54.4	51.3	48.9	41.6	43.6	40.3	36.4	41.1	42.1
35+	26.7	29.0	35.4	40.5	49.2	26.7	29.6	37.2	42.7	53.4	26.7	27.8	31.4	35.5	39.3
Avg. age at admission	31 yrs	31 yrs	32 yrs	33 yrs	35 yrs	31 yrs	32 yrs	33 yrs	34 yrs	36 yrs	30 yrs	30 yrs	30 yrs	32 yrs	33 yrs
Daily use (%)	67.9	70.0	70.3	65.5	71.0	64.1	68.2	72.8	68.0	76.6	78.5	73.8	64.8	59.5	57.7
First treatment episode (%)	48.5	48.0	41.9	42.8	38.6	46.2	46.8	40.3	40.2	34.9	54.9	50.4	45.5	48.6	47.5
Avg. duration of use[a]	7 yrs	8 yrs	8 yrs	9 yrs	10 yrs	8 yrs	9 yrs	9 yrs	10 yrs	11 yrs	7 yrs	7 yrs	7 yrs	8 yrs	9 yrs
Criminal justice referral (%)	32.3	31.1	33.6	34.6	31.5	33.7	31.8	33.5	34.3	29.3	28.5	29.9	33.7	35.2	37.0
Secondary substance (%)[b]															
None	31.9	34.4	33.4	32.7	35.5	33.4	35.4	33.7	32.1	35.5	27.8	32.3	32.9	34.0	35.6
Alcohol	24.6	22.0	24.2	24.3	24.4	22.3	20.3	22.8	24.4	24.0	30.9	25.2	27.3	24.0	25.5
Cocaine	50.4	47.4	47.4	48.8	45.8	51.6	49.8	50.1	51.9	48.5	47.0	42.4	41.2	41.7	39.3
Smoked cocaine (crack)	31.4	28.6	29.2	30.1	29.3	33.0	31.4	33.2	34.8	33.7	26.9	22.8	20.1	19.5	18.7
Other cocaine	19.0	18.9	18.2	18.7	16.5	18.6	18.4	16.9	17.2	14.8	20.1	19.7	21.1	22.1	20.5
Marijuana/hashish/THC	20.3	20.6	19.2	17.5	17.1	19.1	17.2	16.4	15.1	14.2	23.9	27.6	25.5	23.0	24.0
Heroin/other opiates	2.7	2.5	2.1	2.5	2.4	2.1	1.6	1.3	1.5	1.3	4.4	4.2	3.9	4.7	4.9
Injected	-	0.1	0.0	0.0	0.1	-	-	0.0	0.0	0.0	-	0.2	0.1	-	0.2
Snorted	0.8	0.6	0.2	0.2	0.2	0.7	0.3	0.1	0.1	0.1	1.0	1.1	0.5	0.6	0.4
All other	1.6	2.3	2.3	2.0	1.9	1.2	1.4	1.6	1.4	1.3	2.7	4.1	3.9	3.4	3.5

[a] For first-time treatment admissions.
[b] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
- 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: 1996–2000

Characteristic	Total PMSA					Baltimore City					PMSA Excluding Baltimore City				
	1996	*1997*	*1998*	*1999*	*2000*	*1996*	*1997*	*1998*	*1999*	*2000*	*1996*	*1997*	*1998*	*1999*	*2000*
(Number of admissions)	(4,198)	(4,082)	(3,923)	(3,940)	(4,240)	(1,699)	(1,441)	(1,405)	(1,373)	(1,556)	(2,499)	(2,641)	(2,518)	(2,567)	(2,684)
Primary use of substance (%)	14.8	15.0	14.9	14.7	15.6	11.5	10.9	11.2	10.3	11.5	18.5	18.9	18.4	19.0	19.7
Sex (%)															
Male	83.2	83.1	83.9	82.9	81.9	85.9	86.5	84.2	80.6	79.0	81.3	81.2	83.8	84.1	83.6
Female	16.8	16.9	16.1	17.1	18.1	14.1	13.5	15.8	19.4	21.0	18.7	18.8	16.2	15.9	16.4
Race/ethnicity (%)															
White	49.2	53.0	53.8	52.0	50.6	21.0	23.5	25.8	32.5	29.3	68.4	69.0	69.3	62.5	62.9
African-American	47.9	44.2	43.1	44.8	46.2	76.5	74.7	71.4	65.9	68.7	28.4	27.5	27.3	33.5	33.2
Hispanic	1.7	1.7	2.0	1.8	1.6	1.5	1.0	1.7	0.9	1.0	1.8	2.0	2.1	2.2	1.9
Other	1.2	1.2	1.1	1.4	1.7	0.9	0.7	1.1	0.7	1.0	1.4	1.4	1.2	1.9	2.1
Age at admission (%)															
< 18	49.9	48.3	49.3	47.4	47.9	45.7	45.6	51.8	54.6	56.6	52.8	49.8	47.9	43.6	42.9
18-25	30.2	30.1	32.2	32.2	30.9	32.1	29.2	29.1	26.7	23.3	28.9	30.6	33.9	35.2	35.3
26-34	11.9	13.3	10.5	11.9	11.6	13.8	15.9	11.1	10.9	10.9	10.6	11.9	10.2	12.4	12.0
35+	8.0	8.3	8.0	8.5	9.6	8.5	9.3	8.0	7.9	9.2	7.7	7.7	8.1	8.9	9.8
Avg. age at admission	21 yrs	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
Daily use (%)	32.7	30.8	26.7	23.4	29.3	30.4	33.0	31.4	25.0	44.1	34.2	29.6	24.0	22.5	20.6
First treatment episode (%)	76.2	71.5	71.5	68.4	71.0	82.5	77.7	75.4	70.8	72.7	71.9	68.0	69.2	67.1	70.0
Avg. duration of use[a]	6 yrs	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
Criminal justice referral (%)	59.9	56.8	59.6	63.0	64.9	71.7	68.4	67.0	64.4	62.9	51.9	50.4	55.6	62.3	66.1
Secondary substance (%)[b]															
None	36.3	34.1	32.7	28.8	28.8	40.8	36.2	33.5	29.0	29.2	33.2	32.9	32.3	28.7	28.6
Alcohol	50.0	53.8	57.5	60.4	62.4	43.7	49.1	56.1	55.6	59.8	54.2	56.3	58.2	63.0	63.9
Cocaine	13.7	12.7	11.6	11.0	11.0	14.3	13.0	10.9	11.5	12.6	13.2	12.5	12.0	10.8	10.1
Smoked cocaine (crack)	6.5	6.1	5.6	5.5	4.8	6.0	6.0	4.7	5.1	5.7	6.8	6.2	6.1	5.6	4.3
Other cocaine	7.2	6.6	6.1	5.6	6.2	8.3	7.0	6.2	6.4	6.9	6.4	6.3	6.0	5.2	5.8
Marijuana/hashish/THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heroin/other opiates	6.4	7.7	6.5	5.8	6.4	7.7	9.2	7.8	7.3	9.0	5.6	6.9	5.7	5.1	5.0
Injected	1.3	1.9	1.1	0.9	1.2	1.9	1.9	1.2	1.0	1.7	0.9	1.9	1.1	0.9	0.9
Snorted	4.2	4.5	3.8	3.5	3.3	5.1	6.2	5.4	4.7	4.9	3.6	3.6	2.9	2.8	2.3
All other	12.3	11.9	8.0	9.6	8.0	6.8	6.6	5.1	9.1	4.8	16.1	14.8	9.5	9.8	9.8

[a] For first-time treatment admissions.
[b] "Secondary substance" totals equal more than 100 percent because they include secondary and tertiary substances.
- 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, B.A., and Elsa A. Elliott, M.S.[1]

ABSTRACT

Most indicators for cocaine in Boston continue to decline, while rising for heroin and staying level for marijuana. Heroin now rivals cocaine as the street drug of choice in Boston. However, both crack and cocaine drug lab submissions have risen recently, suggesting that the declining trend for cocaine may be ending. Among diverted prescription medications, oxycodone (Percocet and OxyContin) and clonazepam (Klonopin) are most frequently mentioned. Many pharmacy thefts targeting OxyContin have occurred in Greater Boston. Marijuana remains widely available, and seasonal use of psychedelics such as LSD and psilocybin mushrooms continues among youth. Club drugs such as MDMA (ecstasy), gamma hydroxybutyrate (GHB), and ketamine are still commonly reported in the club and rave scenes. MDMA in particular remains very popular among youth and young adults. Methamphetamine use is rare. Through November 1, 2001, a cumulative total of 16,629 adult/adolescent AIDS/HIV cases were reported in Massachusetts. Of these, injecting drug use accounted for 35 percent, while male-to-male sexual exposure accounted for 38 percent.

INTRODUCTION

Area Description

According to the 2000 U.S. census, Massachusetts ranks 13th in population (6,349,097 people). The 746,914 people in Boston 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 characteristics influence drug trends in Boston and throughout Massachusetts:

- Contiguity with 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, declining State revenues, and social service cutbacks
- A record number of homeless individuals seeking shelter

Data Sources

Data sources for this report include the following:

- The Substance Abuse and Mental Health Services Administration (SAMHSA), Drug Abuse Warning Network (DAWN). This source provided data on drug mentions in admissions to participating emergency departments (EDs) in the Boston metropolitan statistical area (MSA) from January 1996 through December 2000, and drug mentions in drug abuse-related deaths from participating medical examiners from 1996 through 1999.
- The Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services. DPH provided data on State-funded substance abuse treatment admission data from fiscal year (FY) 1994 (starting July 1993) through FY 2001 (ending June 30, 2001).
- DPH Drug Analysis Laboratory. Data from analysis of drug samples were provided by DPH, 1993 through June 30, 2001.
- DPH, AIDS Surveillance Program. Acquired immunodeficiency syndrome (AIDS) data by year between 1993 and 2000, and cumulative data through November 1, 2001, were provided by DPH.
- Massachusetts Substance Abuse Information and Education Helpline. Drug mentions in helpline calls from January through September 2001 were provided by this source.
- The Boston Police Department, Drug Control Unit and Office of Research and Evaluation; the Massachusetts State Police; and the Drug Enforcement Administration (DEA). Drug arrests; availability, price, and purity; and distribution patterns were derived from these sources.
- Massachusetts Poison Control Center. The center provided data on substance abuse-related calls, 2000.

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- Focus groups with adult clients in treatment and with adolescents in youth and treatment programs provided more in-depth information on drug use and availability.
- Structured interviews with needle exchange personnel, treatment providers, and law enforcement officials provided additional information on drug injecting practices.

Drug Abuse Patterns and Trends

Cocaine and Crack

Most cocaine indicators continue a decline that first became apparent in 1995, but a rise in drug lab submissions and emergency department (ED) mentions may signal a reversal of this trend. Although cocaine still ranks highest in Boston drug arrests, just 9 percent of those in 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 wavered around 30 percent since 1996, reaching 36 percent in the last half of 1998, falling to 26 percent in the first half of 2000, and rising to 29 percent in the second half (exhibit 1). The proportion of Greater Boston 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 constituted 51 percent of all drugs analyzed in calendar year (CY) 1993, fell to 26 percent in 2000, and rose to 31 percent in the first half of 2001.

Arrests by Boston police for Class B substances (cocaine and derivatives) continued to drop, from 45 percent of all drug-related arrests in 1999 to 41 percent in 2000 (exhibit 3). This is well below the all-time high of 66 percent in 1992. Boston police, outreach workers, and treatment providers all agreed that crack remains the predominant form of cocaine in the inner city, although some thought cocaine powder had become more available.

In the first three quarters of 2001, cocaine or crack was mentioned in 15 percent of the Massachusetts Substance Abuse Information and Education Helpline calls for Boston in which drugs were specified, level with 2000. By contrast, alcohol was mentioned in 40 percent and heroin in 26 percent of calls. In 1999, cocaine was mentioned in 34 percent of drug-related deaths reported by DAWN medical examiners in the Boston area, down from 51 percent in 1996.

Women and Blacks continue to be disproportionately represented among Greater Boston cocaine clients, compared with the treatment population as a whole or other primary drug groups (exhibits 4-1 and 4-2). In FY 2001, 38 percent of all admissions who reported cocaine as their primary drug were female. Of cocaine admissions, Blacks constituted 60 percent, while White admissions were 26 percent. Cocaine admissions continue to age. Those 30 or older increased from 65 percent in FY 1996 to 85 percent in FY 2001, compared with 70 percent for heroin admissions. A higher proportion of cocaine admissions had some involvement with the criminal justice system in FY 2001 (35 percent) compared with FY 1996 admissions (25 percent), and more reported a mental health problem: 32 percent in FY 2001 compared with 24 percent in FY 1996.

The DEA reported steady and wide availability of cocaine powder and crack cocaine. During April through September 2001, the DEA reported cocaine powder selling for $50–$90 per gram (40–65 percent pure), $880–$1,100 per ounce (40–90 percent pure), and $24,000–$32,000 per kilogram (70–90 percent pure), prices close to those in the previous half-year period. Crack, most of which is converted locally, is being sold at $10–$20 per rock, with purity ranging from 35 to 90 percent. The preferred variety of crack, described as hard, white, and pure, is called "mighty white." The DEA reported that cocaine availability declined in the wake of the World Trade Center attack in New York, with dealers reluctant to enter the city. State police reported that recent cocaine samples have been increasingly adulterated with caffeine, as well as standard adulterants such as procaine, lidocaine, benzocaine, and boric acid. The primary source for cocaine continues to be Colombia, with trafficking via California, the Dominican Republic, Florida, New Jersey, New York, Puerto Rico, and Texas.

Heroin

Most heroin indicators continue to rise. The impact of widely available, low-cost, and very pure heroin is reported by treatment providers, who continue to see more heroin users seeking services. Heroin may have surpassed cocaine as the drug of choice in Boston and other areas in Massachusetts. Primary heroin admissions now constitute the largest percentage of illicit drug admissions in Greater Boston's publicly funded treatment programs (42 percent).

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 (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). Those admissions reporting heroin as their primary drug rose from 31 percent in FY 1996 to 42 percent in FY 2001. In CY 2000, heroin arrests accounted for 27 percent of all drug arrests in Boston, up from 24 percent in 1999 and 13 percent in 1992 (exhibit 3). Heroin mentions in drug-related deaths reported in Boston by DAWN medical examiners in 1999 were unchanged at 56 percent, compared with 34 percent for cocaine.

Data from DPH's Drug Analysis Laboratory show that heroin submissions stayed level at 17 percent of all submissions in 1999, 2000, and the first half of 2001. In the first three quarters of 2001, 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 users admitted to State-funded treatment programs in FY 2001 in the Greater Boston area, the majority were male (76 percent), with Whites the largest racial/ethnic group (50 percent) (exhibit 4-1). The average age was 35, 73 percent had an annual income less than $1,000, and 29 percent were homeless. Compared with primary cocaine users, primary heroin users in FY 2001 constituted the lowest 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 heroin admissions in FY 2001 (65 percent), while intranasal use was reported by 29 percent, a drop from 33 percent in FY 1999.

Police contacts and the DEA continue to report wide availability, low prices, and high purity for heroin. The ounce price reported by the New England DEA for the April–September 2001 period was $3,100–$5,000, while a kilogram sold for $75,000–$120,000, both comparable to earlier periods. Purities averaged 60 percent, with maximum purity reaching 95 percent, and bag prices ranged from $6 to $20. Needle exchange contacts reported that heroin quality is relatively low in Boston, so users who encounter higher purity heroin from other cities are at risk of overdose.

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

Other Opiates/Narcotics

Of note is the significant rise in hydrocodone and oxycodone mentions 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 lab also reported a doubling of oxycodone samples from 1999 (178) to 2000 (374) statewide, with 145 samples confirmed for Greater Boston alone in 2000. State police reported well-organized trafficking in Percocet from New York, with distribution points in several Massachusetts cities. Many sources, including the State police drug lab, Boston police, treatment providers, and outreach workers, continued to report increasing seizures and mentions of OxyContin, a high-dose, time-release formulation of oxycodone. Users most often crush the drug and use it intranasally. Pharmacy thefts targeting OxyContin have been common, especially in the Boston metropolitan area. As described by police and treatment contacts, users are primarily White, consistent with the higher involvement of Whites with prescription drug abuse overall. Some individuals who develop an OxyContin habit reportedly shift to heroin as a much cheaper and more widely available alternative.

Teenage focus groups reported that opium was occasionally available, and opium was mentioned in a small number of calls to the Helpline. However, State police have not confirmed any analyses of true opium in their submissions.

Marijuana

Marijuana remains widely available in the Boston metropolitan statistical area (MSA) and throughout Massachusetts, with indicators level or up slightly. Marijuana was mentioned in 20 percent of all ED drug episodes in both halves of 2000, up from 17 percent in 1999 (exhibit 1).

The proportion of State-funded Greater Boston treatment admissions reporting past-month marijuana use has been steady over the last 4 years at around 13 to 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, 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 users constituted only a small proportion (4 percent) of those in treatment. 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) (exhibits 4-1 and 4-2). The percentage of Whites among marijuana clients declined and leveled off, from 35 percent in FY 1996 to 28 percent in FY 1999, while the proportion of Hispanic clients rose from 18 to 23 percent. Primary marijuana admissions were most likely to use alcohol as a secondary drug.

Police department marijuana submissions to DPH's Drug Analysis Laboratory for the first half of 2001 stayed level with those of recent years at 36 percent of all drugs analyzed, the highest for any drug. In the first three quarters of 2001, marijuana was mentioned in 4 percent of all Massachusetts Substance Abuse Information and Education Helpline calls specifying particular drugs, level with prior periods.

According to the DEA, marijuana continues to be readily available. Prices for marijuana held steady, with commercial grade marijuana costing $200–$250 per ounce and $800–$1,500 per pound, and sinsemilla costing $200–$300 per ounce and $2,500–$3,000 per pound. Some local grows continue, but most marijuana seems to be shipped overland or via delivery services from Mexico and the U.S. Southwest, 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 bongs, 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 rolling papers. Teens generally regard marijuana use as uncontroversial and involving far less risk 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 10 methamphetamine ED mentions have been reported each year in Boston between 1996 and 2000 (exhibit 1). Fewer than 1 percent of all Greater Boston area treatment admissions in FY 2001 had used amphetamine in the month before admission. Similarly, amphetamine submissions to the DPH Drug Analysis Laboratory remain infrequent, and Boston police contacts reported few, if any, cases involving amphetamines or methamphetamine. However, ED mentions for amphetamine have risen from less than 10 in 1997 to 369 in 2000, suggesting that availability of amphetamines has increased on the street.

State Police indicated that methamphetamine seizures remain infrequent in Massachusetts, with most methamphetamine encountered in the State shipped from 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 have held steady at $8,000–$24,000 per pound, $800–$1,900 per ounce, and $70–$200 per gram.

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 Boston, 7 percent reported using tranquilizers in the past month. Class E substance (prescription drug) arrests in Boston in 2000 accounted for fewer than 1 percent of all drug arrests (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 most frequently mentioned. The Massachusetts Poison Control Center reported that calls related to clonazepam were an everyday occurrence. Treatment contacts continued to report that abuse of benzodiazepines is common among illicit drug users.

Hallucinogens

Phencyclidine (PCP) and lysergic acid diethylamide (LSD) ED mentions remain quite low (exhibit 1). Fewer than 1 percent of Boston area admissions to State-funded treatment programs during FY 2001 reported past-month use of hallucinogens. Since 1993, hallucinogens have accounted for fewer than 1 percent of 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 the 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 groups. 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.

Club Drugs

Although MDMA, known popularly as ecstasy or "E," has not appeared in treatment or arrest indicators, other sources indicate that MDMA availability and use may still be increasing. ED mentions of MDMA rose from 16 in 1997 to 125 in 2000. The DEA, State Police, DPH Drug Analysis Laboratory, and Massachusetts Poison Control Center all continued to report many seizures, lab submissions, or calls involving MDMA. 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 its use and distribution were increasing among non-White city youth. The rise in MDMA use is being driven by its wide availability, primarily from Europe via New York City (according to the DEA), and by its reputation as a relatively benign, mood-enhancing substance. However, 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 that MDMA availability has continued to increase, with the retail price holding at $20–$30 per tablet. Similarly, the State Police lab reported that MDMA seizures continue to climb, and DPH drug lab samples of MDMA both statewide and in Boston have risen sharply from 1998 to 2000. MDMA purity reported by the State Police lab remains high, with caffeine the most common adulterant.

Significant among club drugs is gamma hydroxybutyrate (GHB), which is now a controlled drug in Massachusetts, along with ketamine and flunitrazepam (Rohypnol or "roofies"). The Massachusetts Poison Control Center continued to report many calls concerning GHB and its precursor gamma butyrolactone (GBL), involving mostly adolescent and young adult males. Use of the anesthetic ketamine ("Special K"), a drug also popular in the club and rave scenes, continues to be reported, although less frequently than MDMA and GHB use. The State Police lab reported an increase in the number and size of recent ketamine submissions. Flunitrazepam remains rare according to most sources.

Other Drugs

Needle exchange personnel in Northampton in western Massachusetts reported increases in steroid-injecting clients, who request extra-large needles for intramuscular injection. These clients tend to be young, straight, male bodybuilders seeking a quick increase in muscle mass reputedly made possible by steroids, which are widely available via the Internet and connections at gyms. The needle exchange in Boston reported injection of illicitly purchased hormones by transgendered youth. The State Police lab reported an increase in steroid submissions, some originating in 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 HIV/AIDS cases were reported in Massachusetts (exhibit 5). Of these, injecting drug use accounted for 35 percent, while male-to-male exposure accounted for 38 percent. During 2000, 639 new adult/adolescent HIV/AIDS cases were reported in the State, down from 1999 (877 cases). Preliminary data show that injecting drug users (IDUs) accounted for 32 percent of these cases, down from 38 percent in 1999. Injecting drug use has been the greatest single factor in HIV/AIDS incidence in Massachusetts since 1993.

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Exhibit 1. Biannual Estimated Emergency Department Mentions for Selected Drugs as a Percentage of Total Drug Episodes[a] in Boston: January 1996–December 2000

Drug	1996				1997				1998				1999				2000			
	1H		2H		1H		2H		1H		2H		1H		2H		1H		2H	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Alcohol-in-combination	2,791	(39)	2,559	(40)	2,575	(41)	2,315	(39)	2,545	(38)	2,585	(37)	2,229	(38)	2,211	(38)	2,361	(33)	2,615	(34)
Cocaine	2,165	(30)	1,941	(30)	1,660	(26)	1,672	(28)	2,051	(30)	2,475	(36)	1,722	(30)	1,838	(31)	1,883	(26)	2,217	(29)
Heroin/morphine	1,327	(19)	1,402	(22)	1,271	(20)	1,229	(21	1,358	(20)	1,380	(20)	1,360	(24)	1,500	(26)	1,820	(25)	2,048	(27)
PCP	10	(<1)	…[b]	…[b]	11	(<1)	12	(<1)	10	(<1)	11	(<1)	5	(<1)	2	(<1)	4	(<1)	7	(<1)
LSD	60	(1)	22	(<1)	27	(<1)	10	(<1)	18	(<1)	35	(<1)	25	(<1)	19	(<1)	11	(<1)	31	(<1)
Amphetamine	71	(1)	45	(1)	…[b]	…[b]	…[b]	…[b]	85	(1)	95	(1)	115	(2)	100	(2)	196	(3)	173	(2)
Methamphetamine	…[b]	…[b]	…[b]	…[b]	4	(<1)	9	(<1)	3	(<1)	3	(<1)	8	(<1)	…[b]	…[b]	7	(<1)	…[b]	…[b]
Marijuana/hashish	1,091	(15)	1,036	(16)	921	(14)	847	(14)	1,484	(22)	1,423	(21)	967	(17)	993	(17)	1,425	(20)	1520	(20)
Total drug episodes	7,109		6,427		6,357		5,868		6,739		6,917		5,784		5,885		7,230		7,672	
Total drug mentions	13,137		11,775		11,738		10,654		12,236		12,640		10,504		10,715		12,511		13,352	

[a] Percentage of episodes for which each drug was mentioned (mentions/total drug episodes).
[b] Estimate does not meet standard of precision or is less than 10.

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Percentage of Admissions to State-Funded Substance Abuse Treatment Programs by Drug Used in the Past Month in Greater Boston and the Remainder of Massachusetts[a]: July 1, 1993–June 30, 2001

Drug Used Past Month	FY[b] 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[c]	7	7	8	8	9	9	10	10
Total (*N*)	(20,968)	(23,282)	(24,363)	(25,470)	(26,505)	(24,653)	(24,478)	(25,269)
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[c]	8	10	10	10	10	10	11	11
Total (*N*)	(72,846)	(76,414)	(73,801)	(77,673)	(86,297)	(87,848)	(90,919)	(91,852)

[a] Excluding prisoners and out-of-State admissions.
[b] Fiscal years begin July 1 and end June 30.
[c] 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[a]: January 1990–December 2000

Class	1990		1991		1992		1993		1994		1995	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
A—Heroin and other opiates	1,153	(17)	924	(14)	803	(13)	1,050	(16)	1,428	(21)	1,419	(22)
B—Cocaine and derivatives	4,008	(59)	4,360	(64)	4,195	(66)	4,066	(62)	3,679	(54)	3,333	(51)
C—Hashish	56	(1)	49	(1)	28	(<1)	35	(1)	17	(<1)	21	(<1)
D—Marijuana	1,171	(17)	979	(14)	1,021	(16)	1,053	(16)	1,315	(19)	1,404	(22)
E—Prescription drugs	36	(1)	40	(1)	32	(1)	42	(1)	48	(1)	46	(1)
All others[b]	413	(6)	436	(6)	312	(5)	296	(5)	327	(5)	266	(4)
Total (*N*)	6,837		6,788		6,391		6,542		6,814		6,489	

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

[a] Includes all arrests made by the Boston Police Department (i.e., arrests for possession, distribution, manufacturing, and trafficking).
[b] Includes possession of hypodermic needles, conspiracy to violate false substance acts, and forging prescriptions.

SOURCE: Boston Police Department, Office of Planning and Research

Exhibit 4-1. Client Characteristics in Greater Boston State-Funded Substance Abuse Treatment Programs by Drug of Choice[a] and Percentage: July 1, 1995–June 30, 2001

Demographic Characteristic	Cocaine/Crack						Heroin/Opiates					
	FY[b] 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)	(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	1	1	1	1	<1	1	1	1	1	1	<1	1
19–29	35	31	28	19	18	15	30	28	29	27	27	29
30–39	50	53	53	56	55	55	45	45	42	42	40	39
40–49	13	13	16	21	23	26	21	24	24	25	27	25
50+	2	2	2	4	4	4	3	3	4	6	5	6
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
Total (*N*)	(5,526)	(4,920)	(3,869)	(3,165)	(2,837)	(2,283)	(7,079)	(7,359)	(9,240)	(8,915)	(9,137)	(10,553)

[a] Excludes prisoners and out-of-State admissions.
[b] Fiscal years begin July 1 and end June 30.

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

Exhibit 4-2. Client Characteristics in Greater Boston State-funded Substance Abuse Treatment Programs by Drug of Choice[a] and Percentage: July 1, 1995–June 30, 2001

Demographic Characteristic	Marijuana						Alcohol					
	FY[b] 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)	(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	26	33	34	24	19	27	2	2	2	1	1	1
19–29	53	43	44	50	56	51	22	19	17	15	14	14
30–39	16	18	17	17	18	16	40	40	41	39	38	36
40–49	4	5	5	6	5	6	24	26	27	32	34	35
50+	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 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
Total (*N*)	(995)	(1,119)	(1,143)	(1,125)	(1,109)	(1,098)	(10,490)	(11,833)	(11,980)	(11,154)	(11,099)	(11,025)

[a] Excludes prisoners and out-of-State admissions.
[b] Fiscal years begin July 1 and end June 30.

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

Exhibit 5. Biannual Incidence of Massachusetts Adult/Adolescent AIDS Cases by Exposure Category and Percentage: January 1993 to December 2000, and Cumulative Through November 1, 2001

Mode(s) of Exposure	Reporting Period								
	1993	1994	1995	1996	1997	1998	1999	2000	Cumulative as of 11/1/01
Men/sex/men	(36)	(32)	(31)	(30)	(27)	(26)	(23)	(22)	(38)
Injecting drug user (IDU)	(40)	(39)	(42)	(39)	(40)	(34)	(38)	(32)	(35)
Men/sex/men/IDU	(4)	(4)	(4)	(3)	(3)	(2)	(2)	(1)	(4)
Transfusion/blood components	(2)	(1)	(2)	(2)	(1)	(1)	(>1)	(1)	(2)
Heterosexual[a]	(10)	(13)	(12)	(15)	(13)	(13)	(12)	(15)	(10)
Undetermined/Other	(8)	(10)	(9)	(11)	(16)	(23)	(24)	(28)	(11)
Total Adult/Adolescent Cases (*N*)	1,733	1,459	1,365	1,126	883	906	877	639	16,629

[a] Includes persons who have had heterosexual contact with high-risk individuals (i.e., 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 mentions, treatment admissions, and population-based survey data show continued increases in heroin use in Chicago during 2000. While heroin emergency department mentions remained stable nationwide, they increased by 90 percent in Chicago from 1996 to 2000. This increase was especially dramatic among Hispanics. 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 continued to decrease 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 and other types of club drugs 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 projections, however, the city population increased about 4 percent during the 1990s.

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 following sources:

- Illinois Office of Alcoholism and Substance Abuse (OASA). OASA provided annual treatment admission data for the State of Illinois for fiscal years (FYs) 1988–2000 (July 1–June 30) and the first half of FY 2001 (July 1-December 31, 2000); 1993 statewide household survey to determine need for alcohol and other drug treatment services, funded by the Center for Substance Abuse Treatment (CSAT); and Illinois Youth Surveys among junior and senior high school students (1990, 1993, 1995, 1997, 1998, and 2000.) (The 2000 Youth Survey does not include figures for heroin or amphetamine use.)
- Arrestee Drug Abuse Monitoring (ADAM) Program, National Institute of Justice. Male and female arrestee urine toxicology results were available from Treatment Alternatives for Special Clients (TASC) through 2000.
- Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP). DEA provided information on heroin price and purity data through 2000. (The 2000 DMP data are preliminary and subject to updating.)
- Substance Abuse and Mental Health Services Administration (SAMHSA), Drug Abuse Warning Network (DAWN). DAWN provided emergency department (ED) mentions for 1988–2000 (2000 figures are unavailable for methamphetamine); medical examiner (ME) cases, 1988–1999; and 1998 National Household Survey on Drug Abuse data.
- Illinois and Chicago Departments of Public Health (IDPH and CDPH). These surveys report statistics on the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) through 2000, and on deaths related to accidental drug poisonings based on International Classification of Disease, Ninth Revision (ICD–9) codes on death certificates of Chicago residents 1980–98. (See the June 1997 Chicago Community Epidemiology Work Group [CEWG] report for an

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introduction to this indicator.) (The report on deaths related to accidental drug poisonings has not been updated since the Chicago CEWG June 2000 report was completed.)
- IDPH. The Adverse Pregnancy Outcomes Reporting System (APORS) produced pediatric toxicity reports through March 1999. (This report has not been updated since the June 2000 Chicago CEWG report was completed.)
- Centers for Disease Control and Prevention (CDC). CDC's "HIV/AIDS Surveillance Report," December 2000, provided additional data on HIV and AIDS.
- National Institute on Drug Abuse (NIDA) and the University of Michigan, Institute for Social Research. Data on student drug use were derived from the "Monitoring the Future" study, a national survey of American high school seniors and college students, 1975–2000.
- Chicago Youth Risk Behavior Survey (YRBS), CDC Youth Risk Behavior Surveillance System. Data from a representative sample of Chicago public school students in grades 9–12 are derived from this survey. This survey 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 from 1993–99.
- Illinois State Police (ISP) Division of Forensic Services. ISP provided price and purity data on drug samples from August 1989 to September 2001.
- Census 2000 Demographic Data. These data were used to describe the area population.
- NIDA-funded AIDS Intervention Study. These data represent findings from analyses of a 1988–1996 panel study of injecting drug users (IDUs) conducted by the Community Outreach Intervention Projects, School of Public Health, University of Illinois at Chicago.
- CDC-funded HIV Incidence Study (CIDUS I and II). The reported data are from analyses of a 1994–1996 study of 794 IDUs age 18–50 in Chicago (Ouellet, et al. 2000) and analyses of data from a 1997–1999 study of 700 young IDUs (age 18–30) in Chicago and its suburbs (Thorpe, et al. 2000, 2001; Bailey et al. 2001) (Both studies were conducted by the Community Outreach Intervention Projects, School of Public Health, University of Illinois at Chicago.)
- Qualitative Data. Ethnographic data presented on availability, price, and purity of drugs are from observations, interviews, and focus groups conducted by the Community Outreach Intervention Projects, School of Public Health, University of Illinois at Chicago.
- 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. Since 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 23 percent of all reported drug mentions in Chicago between January and December of 2000 were alcohol-in-combination ED 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 1989–98. 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 increased 10 percent from 1998 to 1999. The total number of 1999 drug abuse deaths reported to DAWN ME sites was 879, compared with 803 drug abuse cases in 1998.

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 below 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 was mixed but 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 1999 and 2000 indicators, after use appeared to stabilize at peak levels in 1997.

Cocaine ED mentions began to decline in the first half of 1998. The number of ED mentions decreased slightly, from 13,642 in 1998 to 13,399 in 1999, but increased to 14,879 in 2000. In terms of rates per 100,000 population, mentions decreased 3 percent between 1998 and 1999, from 232 to 226 (exhibit 1), and increased 9.1 percent to 247 in 2000. Chicago is second to New York City for having had the most cocaine ED mentions in DAWN sites in 2000.

Cocaine ED mentions declined slightly across nearly every demographic group. Between 1998 and 1999, mentions decreased 3 percent among African-Americans, 10 percent among Hispanics, and 9 percent among Whites. In 2000, Cocaine ED mentions increased 4 percent among African-Americans, decreased 1 percent among Whites, and increased 16 percent among Hispanics. African-Americans continued to have the highest number of cocaine ED mentions, followed by Whites and Hispanics. Mentions increased for all age categories except the 26–34 group, with the 18–25 group experiencing the largest increase (20 percent) in 2000. Males continued to account for more cocaine ED mentions than females, but increases were twice as high for females (15 percent) as for males (7 percent).

According to DAWN medical examiner data, deaths associated with cocaine increased 9 percent, from 468 in 1998 to 511 in 1999. Of the 879 total drug abuse deaths in 2000, 511 (58 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 abuse only) (exhibit 2). A total of 31,468 cocaine-related admissions to treatment were reported in FY 2000. More than 40 percent of this number (13,354) was reported in the first 6 months of FY 2001 (exhibit 2). Between 1999 and 2000, cocaine-related admissions decreased 4 percent among African-Americans and 2 percent among Whites, but increased 17 percent among Hispanics. Cocaine-related admissions increased 2 percent for males, from 16,893 in 1999 to 17,282 in 2000; among females, cocaine-related admissions decreased 6 percent, from 15,085 in 1999 to 14,186 in 2000. Since 1995, the number of cocaine treatment admissions has remained relatively stable.

According to the 2000 ADAM report, 59 percent of adult female arrestees tested positive for cocaine, and 42 percent reported using crack in the previous 30 days—the highest levels on both measures for any CEWG area (exhibits 3a and 3b). Of adult male arrestees, 37 percent tested positive for cocaine.

Based on analyses of drug seizures, the Illinois State Police crime labs indicate that cocaine purity remained relatively stable over the past decade until 2000. The average purity of samples weighing 2–25 grams across the State was 60–70 percent during 1991–99. As of September 2000, the average purity of 2–25-gram samples was significantly lower, at 39 percent among Cook County seizures and 23 percent in Chicago.

Cocaine prices and availability have historically been subject to wide variability ($18,000–$36,000 per kilogram). In November 2001, cocaine was widely available, but kilogram prices appeared to have increased slightly since 2000 to a range of about $20,000–$24,000. Ounce prices were reportedly about $700–$1,200, with a few reports as high as $2,800. A gram of cocaine typically is sold for $50–$140. Ounces of crack cocaine ("rock") sell for about the same price as ounces of powdered cocaine, and individual rocks generally sell for $5, $10, or $20.

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.

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

Heroin

Overall, the rate of heroin/morphine ED mentions per 100,000 population increased nearly 400 percent over an 8-year period, from 53 in 1992 to 206 in 2000, with a nearly 90 percent increase since 1996 (exhibit 1). This increase in Chicago contrasted with an observed stabilization of rates nationwide for the same time period. Chicago ranks third in heroin ED rates nationwide.

Within Chicago, heroin ED mentions were highest among African-Americans, followed by Whites and Hispanics. Recent increases, however, have been

greatest among Hispanics. Between 1999 and 2000, heroin ED mentions increased 13 percent among Whites, 23 percent among African-Americans, and 20 percent among Hispanics. In 2000, rates of ED mentions for heroin were higher among males than among females (242 vs. 169 per 100,000 population). In this last reporting period, an increase of 21 percent was noted among males, while the female rate increased by 34 percent.

In 1998, 404 heroin deaths were reported from sentinel DAWN medical examiner sites in the six-county Chicago area. This represents a 13-percent increase from the previous year, when 359 heroin deaths were recorded. Heroin-related deaths have increased by more than twofold from the late 1980s, when less than 200 per year were reported. Of the 879 total drug abuse deaths in 1999, 457 (52 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. Death certificate mentions of heroin declined to 92 in 1996, but this amount 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 2000 was 19,854, but an additional 70 percent of this number was reported in just the first 6 months of FY 2001 (10,301) (exhibit 2). The mode of heroin administration among those admitted to treatment has changed over the past 4 years. The proportion of treatment admissions reporting intranasal use of heroin as the primary drug and method of use has risen dramatically in the last few years, from about 60 percent in FY 1998 to 72 percent in FY 2000.

Between 1999 and 2000, heroin-related admissions increased 5 percent among African-Americans, 28 percent among Whites, and 21 percent among Hispanics. Heroin-related admissions have increased 10 percent for males, from 10,044 in 1999 to 11,041 in 2000; among females, heroin-related admissions increased 14 percent, from 7,767 in 1999 to 8,813 in 2000.

According to 2000 ADAM data, 27 percent of adult male and 40 percent of female arrestees in Chicago tested positive for opiates, the highest figures for any CEWG area (exhibits 3a and 3b).

The DEA's DMP conducts street-level purchases of heroin that are analyzed 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 more than 30 percent in the late 1990s. Heroin purity averaged 31 percent in 1997, but then declined to 25 percent in 1998 and 1999 (exhibit 4). In 2000, heroin purity in these samples averaged 23 percent. The price per pure milligram of heroin reached a low for the decade at $0.58 in 1998, but increased to $0.67 in 1999. In 2000, the price per milligram decreased to $0.54.

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 the past year, tends to have the highest purity levels on average. It seems likely, therefore, that there may be an increase in purity during 2001. Nearly 65 percent of the heroin in Chicago is from South America.

On the street, heroin is commonly sold in $10 and $20 units (bags). 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. The range in gram prices was greater this reporting period: $60–$275, compared with $100–$200 last period. Kilogram prices reported for brown Mexican heroin ranged from about $17,000 to $20,000, while prices for "China white" were reported between $21,000 and $36,000. On the street, China white (Southeast Asian heroin) is available for $1,000–$2,500 per ounce. Prices for an ounce of brown or tar heroin generally ranged from $600 to $1,400.

Nationwide, between 1991 and 1996, there was a large proportional increase in heroin use among school students (grades 8, 10, and 12), as reported in the Monitoring the Future Study (Johnston et al. 2001). Heroin use in the MTF peaked in 1996 among 8th graders and a year later in the upper two grades. Student usage rates remained stable through 1999, before rising significantly among 12th graders in 2000.

However, increases in heroin use among youth have not yet been evidenced in periodic representative surveys conducted among Illinois high school students. The Illinois Youth Survey shows 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 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.Data from 1999 show a slight decline with 7.1 percent testing positive. Data from the first quarter of 1999 show a slight decline, with 6 percent testing positive

Other Opiates

The abuse of hydromorphone (Dilaudid), the pharmaceutical opiate preferred by many Chicago IDUs, has diminished considerably since 1987 because of decreased street availability. When available, most often on the North Side, it sells for $10 per 4 milligrams. Also available in certain locations is methadone, priced at about $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 103 in 1998, continuing a downward trend from 247 in 1990, and representing a 40-percent decrease from 1997. This decline continued in 1999, when 61 codeine ED mentions were reported, a 41-percent decline from 1998. In 2000, 103 codeine-related deaths were reported from sentinel DAWN medical examiner sites in the six-county Chicago area. This represents a 4-percent increase from the previous year, when 99 codeine-related deaths were observed. On the street, codeine pills are available for $1–$3, 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.

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. Admissions have increased 159 percent for males, from 313 in 1999 to 810 in 2000; among females, admissions increased 98 percent, from 446 in 1999 to 883 in 2000.

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 using a razor, remove the tobacco, and replace it with marijuana. Cigars without tobacco are reported to be 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 increased 19 percent between 1999 and 2000, after an increase of 240 percent between 1993 and 1998. Marijuana ED mentions in Chicago have been higher among African-Americans and Whites than among Hispanics since 1990. Between 1999 and 2000, increases were noted among Whites (7 percent), Hispanics (29 percent), and African-Americans (3 percent).

Between 1999 and 2000, marijuana ED mentions increased for all age groups. The percentage increase was largest (36 percent) for the 18–25 group. Males tended to have more than twice as many mentions as females, but the percentage increase from 1999 to 2000 was slightly higher for females (21 percent) than for males (16 percent).

Marijuana users represented approximately 17 percent of all treatment admissions (excluding those for primary alcohol abuse only) in FY 2000, down from the 25 percent observed in FY 1999. However, total marijuana admissions increased from 18,842 in FY 1999 to 20,773 in FY 2000, and 11,231 admissions were reported in the first half of FY 2001 (exhibit 2).

Between 1999 and 2000, marijuana-related treatment admissions increased 12 percent among African-Americans, 6 percent among Whites, and 24 percent among Hispanics. Marijuana-related admissions increased 9 percent for males, from 14,682 in 1999 to 16,053 in 2000; among females, marijuana-related admissions increased 14 percent, from 4,160 in 1999 to 4,720 in 2000.

According to 2000 ADAM data, 45 percent of adult male and 25 percent of adult female arrestees tested positive for marijuana (exhibit 3a, 3b). Among CEWG areas, these levels were the highest for women and among the highest for men.

APORS data also show increases in marijuana use. Among the 2,249 Illinois infants who tested positive for controlled substances in 1995, 96 (4 percent) tested positive for marijuana. Positive tests increased to 5 percent in 1996, 7 percent in 1997, and 8 percent

in 1998, evidencing a slow, continued upward trend. Data from the first quarter of 1999 show 11 percent of all infants testing 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 continues with a 38 percent prevalence in 2000.

The 1995 Chicago Youth Risk Behavior Survey 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 Youth Risk Behavior Survey reveals 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. Prices appear to have declined recently. 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 $100–$200. On the street, marijuana is most often sold in $5, $10, and $20 bags.

Stimulants

Methamphetamine 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. The most recent data from the Illinois State Police indicate that in September 2001, more methamphetamine was seized than was cocaine or heroin in almost 40 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 the June 2001 report 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.

Amphetamine ED mentions have been increasing since 1994. Between 1999 and 2000, mentions increased 76 percent, from 204 in 1999 to 360 in 2000.

Stimulants account for 2 percent of all treatment admissions (excluding primary alcohol abuse only) in FY 2000, up from 1 percent in FY 1999. Total stimulant admissions increased from 684 in FY 1999 to 1,270 in FY 2000 (exhibit 2). In just the first half of 2001, stimulant admissions were at 1,701. Between 1999 and 2000, stimulant/methamphetamine-related treatment admissions increased 234 percent among African-Americans, 68 percent among Whites, and 93 percent among Hispanics. Admissions increased 88 percent for males, from 586 in 1999 to 987 in 2000; among females, stimulant-related admissions increased 83 percent, from 289 in 1999 to 528 in 2000.

Based on the 1998 National Household Survey on Drug Abuse, annual prevalence of overall stimulant use in the U.S. population during the previous year was estimated at 0.7 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 from previous reports, with bags costing $20, but 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, generically known in the streets as "beans," 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 22 percent between 1999 and 2000, after an increase of 10 percent between 1994 and 1998.

Despite a steady decrease in diazepam (Valium) ED mentions in the past decade, mentions increased 18 percent, from 157 in 1999 to 186 in 2000. On the street, diazepam is the most readily available and frequently used pharmaceutical depressant.

In 1999, 11 diazepam-related deaths were reported from sentinel DAWN medical examiner sites in the six-county Chicago area. This represents a 35-percent decrease from the previous year, when 17 diazepam-related deaths were observed. Of the 879 total drug abuse deaths, 11 (1 percent) had a mention of diazepam.

Treatment admission 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 FY 2000 treatment admissions numbered 1,693, more than double the 759 figure for FY 1999, 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. Data for the first quarter of 1999 indicate that approximately 2 percent tested positive for these drugs.

Tablets of 5 and 10 milligrams are easily obtained throughout the city for between $1 and $4, depending on whether they are generic or name brands.

Hallucinogens

Following a 15-percent increase in lysergic acid diethylamide (LSD) ED mentions between 1998 and 1999, a 17-percent decrease was seen from 1999 to 2000. It is too soon, however, to interpret this change as indicating a decrease in LSD use.

Recent ED mentions for PCP and its combinations increased 59 percent, from 631 in 1999 to 1,003 in 2000. This trend of increasing PCP-related ED mentions 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 typically 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. For FY 2000, treatment admissions were up again, to 517.

According to the 2000 ADAM report, 4 percent of adult male arrestees and 3 percent of adult female arrestees tested positive for PCP.

The 2001 Illinois Youth Survey of high school students showed that 6 percent of respondents reported any hallucinogen use in the past year. This category includes LSD, PCP, and club drugs.

Ethnographic reports suggest that PCP use in Chicago has remained constant and 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. On the West side, 2–3 "sticks" about the size of toothpicks can be purchased for as little as $10. 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 are sold for $20 each and are mainly available on the far South Side.

LSD hits are most commonly sold for $5 and are available in both the city and most suburbs.

Club Drugs

In the Chicago area, 3,4-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.

Recent ED mentions for MDMA increased 109 percent, from 103 in 1999 to 215 in 2000. ED mentions per 100,000 population increased 111 percent between 1999 and 2000, from 1.7 to 3.6.

Ecstasy, once limited to the rave scene, can be found in most mainstream dance clubs and many house parties, according to ethnographic reports. It continues to be sold in pill or capsule form, and the price range remains the same as in previous reports: $20 to $40 per pill. Individuals with connections to suppliers or producers report prices as low as $12 to $15 per pill. Ecstasy is usually sold at dance clubs, rave parties, house parties, or through individual dealers, and 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 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 increased 3 percent, from 135 in 1999 to 139 in 2000. ED mentions per 100,000 population increased 92 percent between 1998 and 1999, from 1.2 to 2.3, but remained unchanged in 2000 (2.3).

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, another depressant with hallucinogenic properties, is an animal tranquilizer often referred to as "Special K." Ketamine ED mentions in 2000 were virtually unchanged from 1997 (from 16 to 17). ED mentions per 100,000 population also remained unchanged since 1997, at 0.3.

Ketamine is usually sold in $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 February 2001, 25,159 diagnosed AIDS cases were reported to the State. More than one-quarter of adult AIDS cases occurred among IDUs, while an additional 5 percent involved male IDUs who had sex with other men. Within Illinois, 85 percent of the cumulative AIDS cases reported to date come from the Chicago metropolitan area.

Chicago's proportion of AIDS cases in Illinois has increased since the December 2000 CEWG report. By September 2000, 17,076 AIDS cases were reported to the Chicago Department of Public Health.

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 37 percent of the Chicago population. Of the remaining new cases, 19 percent were among Whites and 12 percent among Hispanics.

Between 1988 and 1999, IDUs as a proportion of AIDS cases increased from 16 to 24 percent, while the proportion among men who have sex with men 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 percent per person-year to 2 percent per person-year observed) over a 4-year time period.

For the CIDUS-I study, a cohort of 794 active injectors was recruited in 1994–96 from inner-city Chicago neighborhoods for 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.

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. 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.

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.

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Exhibit 1. Estimated Rate of Emergency Department Mentions per 100,000 Population in Chicago for Selected Drugs, by Half-Year: FY 1992–2000

Year	Cocaine	Heroin/Morphine	Marijuana	Methamphetamine
1992				
1H	75	26	14	-
2H	73	27	12	-
1993				
1H	67	26	11	0.2
2H	87	37	14	-
1994				
1H	86	41	18	-
2H	105	44	22	0.2
1995				
1H	106	40	27	0.5
2H	82	44	24	-
1996				
1H	100	46	29	0.3
2H	120	63	33	0.2
1997				
1H	122	68	36	0.2
2H	125	80	41	0.3
1998				
1H	117	77	44	0.3
2H	115	82	41	0.3
1999				
1H	104	79	38	0.2
2H	122	84	38	0.2
2000				
1H	122	102	42	0.1
2H	125	104	48	-

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Yearly Illinois Treatment Admissions to Publicly Funded Programs by Primary Drug of Abuse by Half-Year: December 1998–December 2000

Primary Drug	December 1998	June 1999	December 1999	June 2000	December 2000
Cocaine	18,631	13,347	18,531	12,937	13,354
Heroin	10,047	7,764	11,733	8,121	10,301
Cannabinoids	11,235	7,607	12,484	8,289	11,231
Hallucinogens	260	141	290	227	255
Stimulants	348	336	577	693	1,701

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: 1991–2000

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*	45	37	27

*Figures for 2000 are based on a new method of data collection and cannot be compared with those from previous years; data are weighted.

SOURCE: Arrestee Drug Abuse Monitoring program, NIJ

Exhibit 3b. Percentage of ADAM Adult Female Arrestees Testing Positive in Chicago for Selected Drugs by Year: 1998–2000

Year	Marijuana	Cocaine	Opiates
1998	19.7	55.5	27.0
1999	26.5	64.3	32.4
2000*	25.4	59.2	40.0

*Figures for 2000 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.

SOURCE: Arrestee Drug Abuse Monitoring program, NIJ

Exhibit 4. Domestic Monitor Program Trends for Chicago Heroin Purity (Percent) and Price Per Milligram Pure: 1993–2000

Trend	1993	1994	1995	1996	1997	1998	1999	2000
Purity (%)	31.4	17.4	28.0	30.4	31.0	24.8	24.8	22.9
Price per milligram pure	0.70	1.90	1.12	0.84	0.68	0.58	0.67	0.54

SOURCE: Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP)

Patterns and Trends in Drug Abuse: Denver and Colorado

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

ABSTRACT

Marijuana continues to be a major problem in Colorado, accounting for the largest proportion of drug-related treatment admissions in the first half of 2001. Also, marijuana emergency department (ED) mentions increased by 89 percent from 1994 to 2000, with large increases also seen in marijuana-related hospital discharges. Almost all ethnographic reports indicate availability of very potent marijuana. Cocaine indicators are mixed, with ED mentions, hospital discharges, and deaths showing increases, treatment admissions declining, and new users in treatment remaining stable. Cocaine inhalers have been entering treatment in greater numbers, while smokers have been declining. The Denver Police Department and the Drug Enforcement Administration reports of greater cocaine hydrochloride availability at high purity may be driving some of these changes. Heroin indicators are mostly increasing, with ED mentions, hospital discharges, and deaths climbing over the past 5 years. Treatment admissions and new users in treatment had been climbing, but showed slight decreases in the first half of 2001. Also, heroin treatment client demographic proportions have changed somewhat, with more White and younger users, and fewer Hispanics. Accompanying this has been a continuing small upward trend in the proportion of heroin smokers and inhalers. Methamphetamine indicators, which increased from 1993 through 1997, mostly declined in 1998 and 1999, but seem to have started climbing again in 2000 and 2001. Finally, limited indicator data, a recent treatment study, and anecdotal data point to an increasing club drug problem in Colorado, mostly among adolescents and young adults.

INTRODUCTION

Area Description

Denver, the capital of Colorado, is located somewhat northeast of the State's center. Covering only 111.32 square miles, Denver is bordered by several large suburban counties: Arapahoe on the southeast, Adams on the northeast, Jefferson on the west, and Douglas on the south (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, it had grown by 30 percent to 2,109,282. In general, Colorado has been one of the top five fastest growing States in the country, increasing from 3,294,394 in 1990 to 4,301,261 in 2000, or by 31 percent. The Denver metro 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 metro area, though prospering economically, have seen small increases in unemployment rates. Colorado's unemployment rate for August 2001 was 3.6 percent, up from 2.8 percent in the same time period in 2000. Likewise, Denver's unadjusted unemployment rate for August 2001 was 3.5 percent, compared with 2.4 percent a year ago.

Data Sources

Data presented in this report were collected and analyzed in October and November 2001. Although these indicators reflect trends throughout Colorado, they are dominated by the Denver metro area.

- Qualitative and Ethnographic Data. These data were collected mainly from clinicians in treatment programs across the State, local researchers, and street outreach workers.
- Drug-related emergency department (ED) mentions. ED data for the Denver metro area for 1994 through 2000 are provided by the Substance Abuse and Mental Health Services Administration (SAMHSA) through its Drug Abuse Warning Network (DAWN).

[1] Alcohol and Drug Abuse Division, Colorado Department of Human Services, Denver, Colorado

- Hospital Discharge Data. Statewide data for 1994–2000 are available from the Colorado Hospital Association through the Colorado Department of Public Health and Environment, Health Statistics Section. Data included are diagnoses (ICD-9-CM codes) for inpatient clients at discharge for all acute care hospitals and some rehabilitation and psychiatric hospitals. These data do not include ED care.
- Drug/Alcohol Coordinated Data System (DACODS). These reports are completed on clients at admission and discharge from all Colorado alcohol and drug treatment agencies receiving public monies. Annual figures for the State are given for 1995–2000; 2001 data are for the first half. The data presented exclude admissions for alcohol abuse; selected admissions data for Denver County, 2000, are also provided and also exclude "alcohol only" admissions. DACODS data are collected and analyzed by the Alcohol and Drug Abuse Division (ADAD), Colorado Department of Human Services.
- Drug Availability, Price, and Distribution. These data are available from local Drug Enforcement Administration (DEA) Denver Division officials, Denver Police Department Vice/Drug Control Bureau for the winter of 2000, and the Rocky Mountain High Intensity Drug Trafficking Area (HIDTA) Task Force reports for calendar year (CY) 2001.
- Death Statistics and Communicable Disease Data. These are available from the Colorado Department of Public Health and Environment (CDPHE). Data are presented for 1993–2000.
- Rocky Mountain Poison and Drug Center (RMPDC). These data are presented for Colorado and represent the number of calls to the center regarding street drugs from 1994 through 2000.
- The Arrestee Drug Abuse Monitoring (ADAM) Program. ADAM reports arrestee urinalysis results based on quarterly studies conducted under the auspices of the National Institute of Justice (NIJ). ADAM data in Colorado are collected and analyzed by the Division of Criminal Justice. In CY 2000, NIJ changed its procedures from a convenience to a probability sample for adult males. Thus, no ADAM data trend analysis is presented. Rather, CY 2000 use percentages by drug type are indicated.

Drug Abuse Patterns and Trends

Cocaine and Crack

Cocaine indicator patterns are mixed, with some increasing and some declining. In general, cocaine use remains a major concern throughout Denver and Colorado. Denver metro cocaine ED mentions per 100,000 population declined from 86 to 53 from 1994 to 1996, increased steadily to 87 in 1999, and declined slightly to 83 in 2000 (exhibit 1).

Also, statewide hospital discharge data (exhibit 2) showed that cocaine occurrences per 100,000 increased from 60.1 in 1994 to 62.8 in 1998, declined slightly to 62.3 in 1999, but then increased slightly to 63.5 in 2000.

In 1994, there were 71 calls to the RMPDC concerning cocaine. Calls dropped to 49 in 1995, remained at about that level through 1999, but increased to 59 in 2000. However, the proportion of cocaine treatment admissions in the State has declined considerably over the past 6-1/2 years (exhibit 3). In 1995, primary cocaine abuse accounted for 31.0 percent of all drug abuse treatment admissions, compared with only 21.3 percent for the first half of 2001.

Treatment admission data for Colorado indicate that cocaine injecting declined from 1995 (12.4 percent) through 1998 (10.6 percent), but increased slightly to 13.7 percent through the first half of 2001. Smoking percentages, though level at 67.2 percent in 1995 and 1996, have since declined steadily to a low of 56.7 percent in the first half of 2001. Conversely, inhalation has been steadily increasing, from 17.6 percent in 1995 to 26.3 percent in the first half of 2001. These changes are probably associated with the increased availability of powder cocaine.

Of the cocaine users entering treatment in Colorado, the proportion of "new" cocaine users, defined as those admitted to treatment within 3 years of initial cocaine use, has remained relatively level from 15.8 percent in 1995 to 14.6 percent in the first half of 2001 (exhibit 4).

Race/ethnicity proportions for total cocaine treatment admissions in Colorado have been changing. In the first half of 2001, Whites accounted for the largest percentage of cocaine admissions (48.1 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 28 percent in the first half of 2001. Conversely, African-American cocaine admissions have declined by almost one-half from 39 percent in 1995 to only 21 percent in the first half of 2001.

Likewise, age categories for Colorado's treatment admissions have been changing since 1995. In 1995, 63.2 percent of cocaine admissions were under 35, decreasing to 47.3 percent in the first half of 2001. Conversely, cocaine admissions age 35 and older have climbed steadily during the same time period, from 36.8 to 52.7 percent. Cocaine admissions continue to be predominantly male, with the proportion remaining relatively constant from 1995 (59.3 percent)

through the first half of 2001 (58 percent). As mentioned above, the increased availability of cocaine powder may have brought about changes in the cocaine user groups, and thus, in the population entering treatment.

Among 2,538 treatment admissions in Denver County in 2,000, 17.9 percent were for primary abuse of cocaine. Most (13.1 percent) were crack admissions.

Also, cocaine deaths in the State climbed from 73 in 1993 (21 per million) to a peak of 146 in 1999 (36 per million). While they declined to 116 in 2000 (27 per million), this was still the second highest number of deaths in the 8-year time period.

The CY 2000 ADAM data for a sample of Denver arrestees show that 35.4 percent of males and 46.5 percent of females had cocaine-positive urine samples.

The Denver Field Division of the DEA reports substantial availability of cocaine powder across the State in ounce, pound, and kilogram quantities. Mexican polydrug trafficking groups control the majority of cocaine distribution in the Denver metro 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: $18,000–20,000 per kilogram and $800–1,000 per ounce in the Denver metro area with purity in the 50–90 percent range; $15,000–25,000 per kilogram, and $500–$1,100 per ounce in Colorado Springs (south of Denver on the Front Range); and $20,000–22,000 per kilogram and $700–$1000 per ounce in Grand Junction (Western Slope of Colorado). These prices indicate only small changes from the prior reporting period.

The DEA also reports that crack cocaine use has been declining, but there is still substantial availability in larger metro areas. The major suppliers are street gangs in Los Angeles and Chicago. Crack prices remain relatively stable at $800–$1,200 per ounce and $20–30 per rock in Denver.

The Denver Police Department (DPD), Vice/Drug Control Bureau, also reports substantial availability of powder cocaine, with seizures of 526 pounds in 1999 and 244 pounds in 2000.

In addition to the DEA and DPD, HIDTA collects reports from drug task forces throughout the State. The Front Range Task Force reports that cocaine investigations consume 40 percent of its time. It has found that cocaine distribution organizations are transporting multi-kilogram quantities of cocaine into Colorado in vehicles with traps and compartments built into the vehicle bodies.

Reports from clinicians, researchers, and street outreach workers around the State substantiate the continuing cocaine problems reflected in the indicator data. Clients in one Denver-area treatment program say that powder cocaine is cheap, pure, and available. This is corroborated by young clients in another program who say the cocaine on the street is "the best they have ever had." Also, many programs feel that an increase in Hispanics using powder cocaine is related in part to greater accessibility to Hispanic gangs involved in distribution. Boulder treatment programs, however, are still seeing mainly injectors or smokers, and increasingly, younger users and women. Some programs in the northeast, too, are seeing more adolescents but they are also describing continuing use among people who started using in the 1970s and 1980s.

Accounts from the southeast indicate that cocaine is cheaper and again the "in-thing." They also talk about it being popular with blue-collar workers who work long hours. On the other hand, some clinicians from the southeast area say their clients describe the prohibitive cost of cocaine, with methamphetamine being more affordable. A West Slope program reports seeing Anglo clients under age 40 who are smoking cocaine, as well as clients under 21 who say they can make money dealing cocaine, but are also becoming addicted.

As to the increase in cocaine snorting, programs across the State mention the decline in crack use as an outgrowth of information about its addictive nature and its connection to more severe legal penalties.

Heroin

Most heroin indicators are increasing. DAWN data show that rates of heroin ED mentions (exhibit 1) declined from 1994 (33 per 100,000) through 1996 (22 per 100,000). However, from 1996 to 2000 the rate nearly doubled (41 per 100,000).

Similarly, hospital discharge data (exhibit 2) indicate that opiate occurrences per 100,000 population, after dropping from 29.8 to 19.9 from 1994 to 1996, have climbed steadily to 47.7 by 2000 (a 60-percent increase) over the 6-year period.

However, heroin-related calls to the RMPDC, which had been steady from 1994 (21 calls) to 1998 (22), increased to 36 in 1999 but declined to only 12 in 2000.

Among Colorado treatment admissions (exhibit 3), 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 12.1 percent in the first half of 2001. Likewise, the proportion and number of new heroin users entering treatment, after increasing from 14.9 percent in 1995 to 18.6 percent in 2000, declined to the 1995 level in the first half of 2001 (exhibit 4).

Like those of cocaine users, some of the demographics of heroin users entering treatment in Colorado have changed. The proportion of female heroin admissions has remained stable from 1995 (33.1 percent) through the first half of 2001 (31.8 percent). However, race/ethnicity proportions have changed during this same time period. Whites have increased as a percentage of the total, from 56 percent in 1995 to 65.7 percent in the first half of 2001, while Hispanics have decreased from 29.8 to 22.4 percent. Also, the 25 and younger age group has increased as a percentage of heroin admissions, from only 10.2 percent in 1995 to 18.1 percent in 2000.

Accompanying the heroin client demographic realignments are small changes in route of administration, with heroin smoking and inhalation becoming more common among Colorado's treatment admissions. In 1995, only 3.5 percent of treatment admissions reportedly smoked or inhaled heroin, compared with 5.9 percent in 1996, 7.3 percent in 1997, 8.9 percent in 1998, 8.3 percent in 1999, 10.1 percent in 2000, and 9.7 percent in the first half of 2001.

Among treatment admissions in Denver County in 2000, 22.2 percent were for primary abuse of heroin–nearly 8 percent points higher than in the State overall in 2000.

Opiate-related deaths more than doubled from 81 (23 per million) in 1993 to 182 (46 per million) in 1998, but declined somewhat to 142 in 1999 (35 per million) and to 147 in 2000 (34 per million). Nonetheless, the 612 opiate deaths from 1997 through 2000 represent a 26-percent increase over the 484 deaths from 1993 through 1996.

Interestingly, CY 2000 ADAM data indicate that, as was the case with cocaine screens, the sample of Denver-area female arrestees had positive heroin urine screens at a slightly higher rate (5.8 percent) than their male counterparts (3.4 percent).

The Denver DEA reports that heroin grams and ounces are readily obtainable in the Denver metro area, with the majority of heroin sales taking place in the lower downtown area. Marketing is controlled by Mexican nationals.

Interestingly, the DEA asserts that "street-level weight is usually sold in the form of black tar, whereas ounce or heavier weights are primarily Mexican brown heroin." Sometimes black tar and Mexican brown are combined to make up negotiated weight.

The DEA Domestic Monitor Program buys reveal that black tar heroin ranges from 10 to 65 percent in purity and retails for $50–$100 per gram on the street. On the other hand, the DEA reports that ounce purchases of Mexican brown heroin have an average purity of 67 percent (with ounce purchases of black tar at 36 percent). Tar and brown both sell for $1,300–$2,000 per ounce in the metro area. In Colorado Springs, tar sells for $1,800 to $3,500 per ounce and $75–$300 per gram, with an average purity of 40 percent.

The Denver Police Department's Vice/Drug Control Bureau also reports substantial availability of heroin in the metro area, with seizures of 25 and 24 pounds in 1999 and 2000, respectively.

Recent HIDTA Front Range and Colorado Springs Task Force reports describe the increasing availability of black tar heroin from Mexican traffickers.

Reports from clinicians, researchers, and street outreach workers around the State indicate that a lot of heroin is available at higher purity, for the most part, at decreased prices. Denver-area treatment programs indicate that the awareness of human immunodeficiency virus (HIV) infection, hepatitis C, and the fear and stigma of injection use has resulted in an increase in heroin smoking and inhalation. They are also seeing an increase in younger users. This same pattern is described in the Central Mountain region, Northeast, Boulder area, and Southeast parts of the State.

Other Opiates

Opiates other than heroin (i.e., narcotic analgesics) include hydrocodone, hydromorphone, codeine, and oxycodone. Denver metro ED mentions per 100,000 population for "narcotic analgesics" (other than heroin) remained relatively flat from 1994 (10.3) through 1998 (12.7), but increased dramatically in 1999 (18.7) and 2000 (24.5). Also, as discussed above, opiate-related hospital discharges have increased 60 percent from 1994 to 2000.

As to treatment admissions, other opiates remained relatively stable from 1995 (2.5 percent) to 1999 (2.7 percent), but increased to 3.2 percent and 3.7 percent in 2000 and the first half of 2001, respectively.

The DEA reports that diversion of OxyContin is a "major problem" in the Rocky Mountain West with a $4 prescription dose selling for as much as $40 on the street.

Marijuana

Data from the 1999 National Household Survey on Drug Abuse placed Colorado first among the 50

States in past-month marijuana use (8.1 percent of the 12-and older population). Similarly, most marijuana indicators in the State are increasing.

From 1994 to 2000, the rate per 100,000 population of marijuana ED mentions increased by 89 percent from 27 to 51 (exhibit 1). Likewise, marijuana hospital discharge occurrences per 100,000 (exhibit 2) rose dramatically from 41.9 in 1994 to 57.1 in 2000.

Marijuana calls to the RMPDC were nearly nonexistent between 1994 and 1998, with only one or two per year. However, in 1999 and 2000 there were 47 and 58 calls, respectively, related to marijuana effects. Marijuana treatment admissions increased from 35.2 percent in 1995 to 43.7 percent in 1999. However, since that time they have declined slightly, to 40.4 percent through the first half of 2001. In general, marijuana users have accounted for the largest proportion of all Colorado drug treatment clients since 1995 (exhibit 3). These increases may be partly related to user accounts of increased drug potency.

The proportion of new users entering treatment for marijuana use had been declining steadily from 1995 (36.6 percent) through 1999 (25.4 percent) (exhibit 4). However, in 2000 this proportion climbed slightly to 28.9 percent, with a small decline to 27.4 percent during the first half of 2001.

Data indicate only slight changes in the demographics of marijuana treatment clients in the State. Race proportions remained relatively stable from 1995 to the first half of 2001. Hispanics increased as a percentage of marijuana admissions, from 31.4 percent in 1995 to 36.3 percent in 1999. However, they declined back to 31.3 percent by the first half of 2001. Likewise, Whites declined from 57.1 percent to 52.4 percent of marijuana admissions during 1995 to 1999, but increased to the 1995 level in both 2000 and the first half of 2001. Male-to-female marijuana admission ratios remained at 3 to 1 during 1995–2001. Moreover, there were only small changes in the ages of marijuana admissions from 1995 to the first half of 2001. Those age 12–17 decreased slightly from 42.1 percent in 1995 to 37.4 percent in the first half of 2001, but remained the largest group in treatment for marijuana use.

In Denver County in 2000, the proportion of primary marijuana treatment admissions (16.5 percent) was considerably lower than the figure statewide (42.4) percent.

Also, CY 2000 ADAM data indicate that 40.9 percent of the male arrestee sample and 38.5 percent of the female arrestee sample had positive marijuana urine screens.

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 a pound to multi-pound quantities." Mexican marijuana sells at a price range of $500–$1,000 per pound. They also indicate 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 varying from basic to elaborate operations that have sophisticated lighting and irrigation systems. Domestically grown marijuana prices range from $1,000 to $1,500 per pound and from $200 to $400 per ounce.

The DPD's Vice/Drug Control Bureau also reports substantial availability of marijuana in the metro area, with seizures of 8,227 and 2,683 pounds in 1999 and 2000, respectively.

Similar to DEA and DPD information, HIDTA reports from around the State indicate substantial marijuana availability and use. Among these, the Gunnison County authorities have seized indoor-marijuana grows ranging from 50 to 200 plants. This locally grown marijuana is called "kind bud." El Paso County and Teller County law enforcement officers report that marijuana investigations consume 10 percent of their Drug Units' time. Also, Jefferson County authorities report recent seizures of 280 pounds of Mexican marijuana and 10 pounds of "BC bud."

Uniformly across the State, reports from clinicians, researchers, and street outreach workers indicate that marijuana is potent and in abundance. Denver and Boulder area programs describe an overall "increased tolerance" for marijuana use in families and, seemingly, in society in general. Availability is across the spectrum from low-quality "swag" at $15 per bag or $50 per ounce to high quality "chronic" at $80–$100 per bag and $400 per ounce. One program in the metro area said that some clients are getting "marijuana cravings" because of the increased potency.

Northeast, Central Mountain, Southeast and West Slope programs also report the ready availability and potency of marijuana, in addition to the circumstance of increased family acceptance and general public apathy about pot use.

Stimulants

Indicator data show substantial fluctuation in methamphetamine and other stimulant use in Denver and across Colorado from 1994 to 2001.

Methamphetamine ED mentions per 100,000 in Denver increased from 10 in 1994 to 12 in 1995, but declined to only 7 in 2000 (exhibit 1). Conversely, amphetamine ED mentions per 100,000, after dropping from 14 to 7 from 1997 to 1998, rose to 21 in 2000. Amphetamine-related hospital discharge occurrences per 100,000 (exhibit 2) have also shown a fluctuating pattern from 1994 to 2000. However, overall they have increased during that time period, from 16.3 to 21.9 per 100,000 population.

Amphetamine-related calls (street drug category) to the RMPDC had decreased from 1994 (36 calls) to 1996 (16 calls), but increased sharply in 1997 (38 calls). While such calls dropped to only 11 in 1998, they rebounded to an astounding 291 and 269 in 1999 and 2000, respectively.

Methamphetamine treatment admissions in Colorado have shown a fluctuating pattern over the past 6-1/2 years. However, in the first half of 2001 they constituted 14.8 percent of drug admissions, the highest proportion since 1997 (14.9 percent) (exhibit 3). Amphetamine admissions are typically only a fraction of those for methamphetamine. However, from 1995 to 2000 they increased from 111 to 168, or from 0.9 percent to 1.3 percent of all drug treatment admissions, but declined slightly to 62 admissions (1 percent) during the first half of 2001.

In 1995, 29.6 percent of primary methamphetamine users entering treatment in Colorado were new users (exhibit 4). By 1997, new users accounted for 30.5 percent of primary methamphetamine treatment admissions. However, by the first half of 2001, the proportion of new users had declined to only 16.2 percent.

Injecting had been the most common route of administration for methamphetamine admissions. However, the proportion who are injecting drug users (IDUs) has been declining from 1995 (41 percent) to the first half of 2001 (34 percent), while smoking has become increasingly common in the last 6-1/2 years. In the first half of 2001, about 40 percent of methamphetamine treatment admissions smoked the drug, compared with only 16 percent in 1995.

Methamphetamine treatment admissions in Colorado for the first half of 2001 remain predominately White (87.1 percent) and male (54.9 percent). However, from 1995 to 2001, those age 25 and younger have remained at about one-third of admissions, those 26 to 34 have declined from 39 percent to 31 percent of admissions, and those over 35 have increased from about one-fourth to one-third of methamphetamine admissions.

In Denver County in 2000, 3.9 percent of treatment admissions were for primary methamphetamine abuse.

Though amphetamine-related deaths in Colorado are far fewer than for opiates or cocaine, the number has increased sharply from only 12 between 1993 and 1996 to 31 between 1997 and 2000.

According to ADAM data, only a small percentage of positive amphetamine urine screens were reported in CY 2000: 2.6 percent of the male arrestee sample and 5.3 percent of the female arrestee sample. The DEA describes widespread methamphetamine availability, with most of it originating in Mexico or in large-scale laboratories in California. However, the DEA is making extensive laboratory seizures. During July through September 2001, 152 methamphetamine laboratories were seized in the Rocky Mountain West. These laboratories, generally capable of manufacturing an ounce or less per "cook," varied from being primitive to quite sophisticated. The average purity for Mexican methamphetamine is 10 to 20 percent. The DEA reports that Denver methamphetamine street prices are stable at $90–$110 per gram and $750–$1,200 per ounce. The DPD, Vice/ Drug Control Bureau, also reports substantial availability of methamphetamine in the metro area. In 1999 the bureau seized 111 pounds. However, in 2000, methamphetamine seizures nearly doubled to 212 pounds.

Agencies reporting to HIDTA statewide describe extensive amounts of time spent on methamphetamine investigations. For example, the West Metro Task Force, including Jefferson County, reports that 70 percent of its drug investigation time involves methamphetamine. It has seized 44 "box labs" (producing small quantities) so far in 2001. Similarly, the Colorado Springs Task Force reports that methamphetamine investigations consume 25 percent of its time. It has seized 50 laboratories, so far, in 2001, which primarily use the "Nazi" production method.

Anecdotal reports from clinicians, researchers, and street outreach workers around the State confirm the up-and-down pattern for methamphetamine availability illustrated in the indicator data. Treatment programs in Denver, Boulder, the northeast, southeast, Central Mountain, and Western Slope report off-and-on "lab busts" that diminish supply for a while, but with an inevitable return to larger supplies because of demand for this relatively cheap and potent stimulant. Reports of younger users come from across the State. In the Denver area and in the southeast, staff in several programs spoke of young male clients in the labor trade using stimulants to be more

productive and to feel more focused. They also spoke of methamphetamine users binging for days without sleeping, culminating in a sense of loss of control. Program staff in the northeast spoke of women using methamphetamine because the highs last longer and it is good for weight control. A number of treatment staff talked about the relationship between methamphetamine and club drug users. A Western Slope program described easy access to the drug, with difficulty in treating long-time users.

Club Drugs

Club drugs are generally synthetic drugs commonly associated with all-night dance clubs called "raves." These drugs include 3,4-methylendioxymethamphetamine (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 do not have separate breakouts for these drugs. The only sources of indicator data are DAWN and RMPDC.

In 2001, however, ADAD conducted a survey on club drug use among young adults and adolescents admitted to selected treatment programs across the State (n=764). Some results of this study are presented in this section along with DAWN and RMPDC data. In addition, some anecdotal information on club drugs is provided from the DEA, the Denver Police Department, HIDTA Task Force reports, and from clinicians in a number of treatment programs across the State. MDMA, or ecstasy, originally developed as an appetite suppressant, is chemically similar to the stimulant amphetamine and the hallucinogen mescaline, and thus produces both stimulant and psychedelic effects. The handful of MDMA-related calls to the RMPDC ranged from only 3 to 11 during 1994–99. However, ED mentions jumped from 6 in 1998 to 15 in 1999 to 57 in 2000. In the ADAD treatment survey sample of 764, 266 (34.8 percent) reported lifetime use of ecstasy, with 4.6 percent having used in the past 30 days. The average age of the users was 17.3 years.

The above information still does not come close to providing a complete view of MDMA prevalence in Colorado. The DEA reports that MDMA 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, typically White and in their late teens or twenties, get MDMA from Las Vegas, Nevada, and various cities in California, with source connections in Europe. They report prices of $10–$30 per tablet or capsule. Likewise, MDMA is prominently mentioned in HIDTA Task Force reports. For example, the Front Range Task Force states that MDMA investigations are presently consuming 50 percent of task force resources. The Jefferson County Task Force reports increasing availability, with seizures of 500 dosage units a common occurrence.

Denver-area programs are beginning to report a few young clients coming into treatment for MDMA as a primary drug. Whether it is their primary drug or they are using it on an experimental basis, young adults talk about using MDMA in social settings like clubs, bars, concerts, and raves. They also talk about increased energy and euphoria associated with its use. Several programs across the State mention that many MDMA users experience depression. Also, MDMA users in treatment programs say it is difficult to stay away from drugs at raves.

GHB is a central nervous system depressant that can sedate the body, and at higher doses it can slow breathing and heart rate dangerously. It can be produced in clear liquid, white powder, tablet, and capsule forms, and is often used in combination with alcohol, making it even more dangerous. During 1994–98 the RMPDC reported only one to six calls about GHB. However, in 1999 the number of GHB calls jumped to 92. GHB ED mentions have also increased, from 7 in 1997 to 13 in 1998 to 70 in 1999. However, such mentions dropped to 43 in 2000. In ADAD's treatment survey sample of 764, 73 (9.6 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.

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

A Denver-area program reported that a young client overdosed on GHB while in treatment, passing out in group therapy. A bottle of GHB was found on him.

Flunitrazepam (Rohypnol) is a benzodiazepine sedative (others include diazepam [Valium] and alprazolam [Xanax]) approved as a treatment for insomnia in over 60 countries, but not in the United States. Flunitrazepam is tasteless, odorless, dissolves easily in carbonated beverages, and its effects are aggravated by alcohol use. Use of this drug does not appear to be widespread in either the general population or the rave scene in Colorado. The number of calls received by RMPDC about this drug jumped from 1 in 1994 and 1995 to 22 in 1998. However, such calls declined to only 7 in 1999. Also, there has

been only one flunitrazepam ED mention from 1994 through 2000. In the ADAD's treatment survey, only 14 (1.8 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.

Ketamine is an injectable anesthetic that has been approved for both human and animal use in medical settings. However, about 90 percent of the ketamine legally sold today is intended for veterinary use. Produced in liquid form or white powder, it can be injected, inhaled, or swallowed. Similar to phencyclidine (PCP) in its effects, it can bring about dreamlike states and hallucinations. 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.

In ADAD's treatment survey sample of 764, 138 (18.1 percent) reported lifetime use of ketamine, with 2.2 percent having used in the past 30 days. The average age of the users was 17 years.

Dextromethorphan (DXM) is an opioid agent used as a cough suppressant in a number of over-the-counter cough and cold products. Most products contain 10–15 milligrams of DXM. However, Coricidin HBP contains 30 milligrams, the largest dose on the market. DXM produces a dissociative high, like an out-of-body experience. Large doses can cause a fast heartbeat, slurred speech, confusion, hallucinations, and possibly seizures.

In ADAD's treatment survey sample of 764, 78 (10.2 percent) reported lifetime use of DXM, with 2.2 percent having used in the past 30 days. The average age of the users was 16 years.

A Denver area program reported that its younger clients say DXM is very popular, but it has not yet shown up as a primary drug of abuse. They stated that adolescents steal Coricidin HBP from pharmacies and "eat 6 to 12 pills" at a time.

Infectious Diseases Related to Drug Abuse

Of the 7,272 AIDS cases reported in Colorado through September 30, 2001, 8.9 percent were classified as IDUs, and 11.0 percent were classified as homosexual or bisexual males and IDUs (exhibit 5).

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Exhibit 1. Rates of Emergency Department Mentions for Selected Drugs in the Denver Metropolitan Area: 1994–2000

Year	1994	1995	1996	1997	1998	1999	2000
Cocaine	86	75	53	69	73	87	83
Heroin	33	33	22	32	32	40	41
Marijuana	27	31	19	31	37	43	51
Methamphetamine	10	12	7	19	8	6	7

SOURCE: Substance Abuse and Mental Health Services Administration, Drug Abuse Warning Network

Exhibit 2. Number of Hospital Discharge Mentions Per 100,000 in Colorado for Selected Drugs: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
Amphetamines	598	728	532	959	815	682	942
Rate per 100,000	16.3	19.4	13.9	24.6	20.5	16.9	21.9
Cocaine	2,200	2,070	2,255	2,245	2,492	2,517	2,732
Rate per 100,000	60.1	55.3	59.0	57.7	62.8	62.3	63.5
Marijuana	1,533	1,708	1,740	2,118	2,227	2,204	2,455
Rate per 100,000	41.9	45.6	45.6	54.4	56.1	54.6	57.1
Narcotic Analgesics	1,093	1,103	760	1,458	1,566	1,639	2,053
Rate per 100,000	29.8	29.4	19.9	37.5	39.5	40.6	47.7
Population	3,661,665	3,746,585	3,819,789	3,892,996	3,966,198	4,039,402	4,301,261

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

Exhibit 3. Treatment Admissions[1] in Denver by Drug Type [2] and Percent: 1995-2001

Drug	1995	1996	1997	1998	1999	2000	2001
Total (N)	12,599	12,988	11,754	14,294	14,450	13,046	6,117
Heroin	15.4	15.1	13.7	13.2	14.3	14.5	12.1
Non-Rx Methadone	0.3	0.3	0.1	0.2	0.2	0.2	0.2
Other Opiates	2.5	2.2	2.2	2.3	2.7	3.2	3.7
Methamphetamine	11.2	8.9	14.9	13.5	10.7	13.0	14.8
Other Stimulants	1.1	8.9	14.9	13.5	10.7	13.0	14.8
Cocaine	31.0	30.6	27.1	26.6	23.6	21.2	21.3
Marijuana	35.2	38.8	37.9	39.8	43.7	42.4	40.4
Hallucinogens	0.6	0.7	0.6	0.7	0.7	0.8	0.6
Barbiturates	0.1	0.1	0.1	0.2	0.4	0.1	0.0
Sedatives	0.2	0.1	0.2	0.2	0.2	0.3	0.1
Tranquilizers	0.7	0.7	0.7	0.7	0.9	0.6	0.6
Inhalants	1.4	1.0	0.9	0.8	0.5	0.5	0.7
Other	0.4	0.7	0.7	1.2	1.1	1.7	3.8

[1] Data for 2001 are for the first 6 months only.
[2] Excludes "alcohol only".

SOURCE: Drug/Alcohol Coordinated Data System

Exhibit 4. Annual Percentage of Heroin, Methamphetamine, Cocaine, and Marijuana Users Entering Treatment within 3 Years of Initial Use: 1995–2001[1]

Drug	1995	1996	1997	1998	1999	2000	2001[1]
Heroin							
(N)	(280)	(328)	(262)	(362)	(354)	(336)	(109)
Percent	14.9	17.1	16.6	19.6	17.6	18.6	14.9
Methamphetamine							
(N)	(412)	(296)	(514)	(517)	(312)	(340)	(142)
Percent	29.6	25.8	30.5	27.3	20.6	20.4	16.2
Cocaine							
(N)	(607)	(599)	(433)	(587)	(515)	(445)	(188)
Percent	15.8	15.3	14.0	15.8	15.5	16.5	14.6
Marijuana							
(N)	(1,601)	(1,783)	(1,429)	(1,669)	(1,540)	(1,541)	(661)
Percent	36.6	35.8	33.1	30.5	25.4	28.9	27.4

[1] Data for 2001 are for the first 6 months only.

SOURCE: Drug/Alcohol Coordinated Data System

Exhibit 5. Number and Percent of Colorado Cumulative AIDS Cases by Demographic Category: Through September 30, 2001

Category	Number of Confirmed Cases	Percent
Total	7,272	100
Gender		
Male	6,748	92.8
Female	524	7.2
Race/Ethnicity		
White	5,342	73.5
African-American	794	10.9
Hispanic	1,060	14.6
Asian	29	.4
Native American	47	.6
Age at Diagnosis (Years)		
< 13	29	.4
13-19	28	.4
20-29	1,213	16.6
30-39	3,548	48.8
40-49	1,788	24.6
50+	666	9.2
Exposure Category		
Men/sex/men (MSM)	4,985	68.6
Injecting drug user (IDU)	645	8.9
MSM and IDU	797	11.0
Heterosexual contact	395	5.4
Other	183	2.4
Risk not identified	267	3.7

SOURCE: Colorado Department of Public Health and Environment

Drug Use Trends in Detroit/Wayne County And Michigan

Richard F. Calkins[1]

ABSTRACT

Overall, cocaine indicators were stable, with increases in deaths in Detroit/Wayne County (6 percent for 2001 to date) and hospital emergency department (ED) mentions (2 percent in 2000) for southeast Michigan. Cocaine (primarily crack) remains the most frequently reported illicit primary drug among treatment admissions statewide, but it is now exceeded by heroin among Detroit/Wayne County admissions in fiscal year (FY) 2001. In 2000, 24 percent of male adult arrestees and 42 percent of female adult arrestees in Wayne County tested positive for cocaine. Almost all heroin indicators increased. It is estimated that in Wayne County, deaths with positive toxicology for heroin will increase 3.6 percent in 2001, to a total of just under 500 cases. ED mentions for heroin increased 25 percent from 1999 to 2000 in southeast Michigan. Heroin accounted for an increasing proportion of treatment admissions. Herion purity remains far higher than levels in the 1980s, and prices are much cheaper than they were 10 or more years ago. In 2000, only 7.8 percent of male adult arrestees in ADAM tested positive for opiates, as did 24.2 percent of females, but the number of female arrestees was small (n = 107). Data for other opiates reflect increasing abuse of some drugs in this group. Codeine abuse remains predominant and stable. The ED mentions for hydrocodone continue to increase sharply in southeast Michigan. Other opiates accounted for an increasing proportion of treatment admissions statewide (yet not in Detroit/Wayne County) during FY 2001. Oxycodone (OxyContin) is beginning to appear in indicator data. There were a growing number of reports of abuse of this drug in early 2001. Marijuana remains the most frequently abused illicit drug of abuse both in Detroit/Wayne County and across Michigan, and indicators are relatively stable. Indicators for stimulants are increasing. Methamphetamine lab seizures continue to steadily increase. In 2000, 40 labs were seized in Michigan. By the end of 2001, it is estimated that there will be 100 such seizures. There are indicators of methamphetamine abuse in many parts of Michigan outside of metropolitan Detroit. Depressants and hallucinogen indicators remain low and stable across the State. In 2001, there are indicators of increasing abuse in Michigan of club drugs such as MDMA and ketamine. Seizures are up sharply, mentions are now being reported in emergency departments in southeast Michigan, and cases are appearing among statewide treatment admissions.

INTRODUCTION

Area Description

Detroit and surrounding Wayne County, located in the southeast corner of Michigan's lower peninsula, had a population of 2.1 million residents in 2000, representing 21 percent of Michigan's 9.9 million population. Michigan is the eighth largest State in the United States. The Detroit metropolitan area ranks 10th among the major U.S. population centers. The city of Detroit's population was 951,000 in 2000. Michigan's population increased by 6.9 percent between 1990 and 2000. Population growth above the statewide average occurred in those age 10–14 (12 percent), 15–17 (8.5 percent), and 5–9 (7.6 percent). There was net population loss among those under 5 years of age (4.3 percent) by 2000 due to declining birth rates since the mid-1990s. Several factors contribute to probabilities of substance abuse in the State:

- Michigan is home to a major international airport (in 2000 there were 277,688 flights) and numerous large (the 10 other Michigan airports which also have international flights totaled more than 200,000 flights in 2000) and small airports (Michigan has 235 public and private airports).
- Michigan 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 there are many places along the 85 miles of heavily developed waterway that are less than one-half mile away from Canada. Michigan has 940,000 registered boats. Two major bridge crossings between Michigan and Canada (Windsor Tunnel and Ambassador Bridge)

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in 2000 had 8.4 million cars, 1.8 million trucks, and 41,000 buses cross over into or out of Detroit. Southeast Michigan, the busiest port on the northern U.S. border, had about 21 million vehicle crossings with Canada in 2000.
- Numerous colleges and universities are located in Michigan.
- There is a large population of skilled workers with relatively high income (especially in the auto industry), as well as a large population with low or marginal employment skills.
- Chronic structural unemployment problems exist. Michigan has prospered in recent economic periods, with low unemployment. In July 2001, statewide unemployment was 5.3 percent, while in Detroit the unemployment rate was 10.1 percent.

Data Sources

Data for this report were drawn from the following sources:
- Drug Abuse Warning Network (DAWN) Hospital Emergency Department (ED) Data. These data were provided by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration (OAS/SAMHSA) through 2000.
- Michigan and Detroit/Wayne County Treatment Admissions Data. These data were provided by the Division of Mental Health Performance, Michigan Department of Community Health, and by State- and federally funded programs. Reporting practices, which changed on October 1, 1998, impact on capability to reliably track trends in client characteristics, drugs of abuse, and other data reported in admissions records. During fiscal year (FY) 2001 there were revisions in State reporting requirements that also challenged reporting continuity. The reported admissions volume has been declining over the past several years; it is difficult to identify whether changes in data are due to reporting practices or reflect actual changes in the populations entering treatment. This report will not examine trends over time, but will focus on data for FY 2001 (October 2000–September 2001).
- Drug-related Death Data. The Wayne County Office of the Medical Examiner (ME) provided data on deaths with positive drug toxicology from 1993 through September 2001. Drug tests are routine when the decedent had a known drug use history, was younger than age 50, died of natural causes or homicide, was a motor vehicle accident victim, or if there was no other clear cause of death.
- National Institute of Justice (NIJ) Arrestee Drug Abuse Monitoring (ADAM) Program Data. ADAM data, based on a sample of arrestees in Detroit/Wayne County, were 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. The ADAM sampling plan was revised in 1999 and 2000 as directed by NIJ in an effort to gain data that would statistically be representative of Wayne County arrestees. Earlier data were for city of Detroit arrestees only. Caution is suggested in examining comparisons between 1999 and 2000 findings.
- Intelligence Data. Both the Michigan State Police (MSP) and the Drug Enforcement Administration (DEA) provided intelligence data.
- Threat Assessment Data. These data were provided by the High Intensity Drug Trafficking Area Investigative Support and Deconfliction Center of Southeast Michigan for FY 2001.
- Poison Control Data. Contact data were provided by the Children's Hospital of Michigan Poison Control Center on cases of intentional abuse of substances for 2001 through October. This center is one of two in Michigan; their catchment area is primarily eastern Michigan, yet contacts can originate from anywhere. Changes in case data coding and systems affect capabilities to merge some of the data for the full period in 2001 to date.
- Acquired Immunodeficiency Syndrom (AIDS) and Human Immunodeficiency Virus (HIV) Data. The Michigan Department of Community Health provided case data and prevalence estimates for AIDS and HIV.

Drug Abuse Patterns and Trends

Cocaine and Crack

Between 1994 and 1999, cocaine was the most frequent ED drug mention in the Detroit metropolitan area (exhibit 1). The area rate of cocaine/crack mentions per 100,000 was stable in 1999 (178 cases) and 2000 (179 cases). There were 7,870 cocaine/crack ED mentions in 2000, an increase of 2 percent over 1999. The typical cocaine emergency room cases continued to be males age 35 or older who came to the emergency room seeking help for chronic effects of cocaine dependence.

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 (18 percent of total) admissions. In Detroit/Wayne County, however, cocaine represented

28 percent of total admissions, but less than the percentage of heroin admissions (34 percent).

In Detroit/Wayne County, there were 3,678 cocaine and crack primary drug admissions in FY 2001, 3,001 as secondary drug, and 751 as tertiary drug. Statewide cocaine and crack admissions for this same time period totaled 10,330 as primary drug, 7,699 as secondary drug, and 2,541 as tertiary drug. Crack users continue to outnumber cocaine powder users entering treatment by a wide margin, both in Detroit/Wayne County and statewide. Crack accounted for 94 percent of Detroit/Wayne County cocaine primary drug admissions in FY 2001 and 83 percent of statewide cocaine admissions. Females made up 42 percent of crack admissions in Detroit/Wayne County in FY 2001, while on a statewide basis females represented 48 percent of crack admissions. Among cocaine powder admissions, females represented 39 percent of both Detroit/Wayne County and statewide admissions during FY 2001.

In Detroit/Wayne County, abusers age 36–44 accounted for 49 percent of crack and powder cocaine admissions in FY 2001. Statewide, this age group accounted for 32 percent of admissions. The next most frequent age group among admissions was 30–35-year-olds, at 25 percent in Detroit/Wayne County and 24 percent statewide. Admissions younger than 21 accounted for less than 1 percent of cocaine/crack admissions in Detroit/Wayne County and 2 percent statewide in FY 2001.

Virtually all (95 percent) of Detroit/Wayne County cocaine admissions in FY 2001 reported smoking as their route of administration, while 88 percent of statewide admissions reported smoking the drug. Intranasal use was reported by 9 percent of statewide admissions. Injecting was reported by 0.1 percent (111 cases) among statewide admissions, with 10 of these cases in Detroit/Wayne County.

Deaths with positive drug toxicology for cocaine in Detroit/Wayne County were stable between 1994 and 1999, with positive or negative 12 percent fluctuations year to year (exhibit 2). In 2000 there was a 16-percent increase in cocaine deaths over 1999. For 2001, cocaine deaths are expected to increase by 6 percent over 2000, based on 316 cocaine deaths during the first 9 months of the year.

Cocaine use among city of Detroit arrestees has been generally declining since the peak of 53 percent testing positive in 1987, with year-to-year fluctuations between 25 and 30 percent since that year (exhibit 3). In 1999, 27 percent of adult male arrestees and 46 percent of adult female arrestees tested positive for cocaine. For 2000, 24 percent of male arrestees (weighted Wayne County sample) and 42 percent of female arrestees (unweighted Wayne County sample) tested positive for cocaine. In 2000, 15 percent of male adult arrestees self-reported using crack in the past 30 days, and 4 percent reported using powder cocaine. Among females, 32 percent reported crack use and 4 percent reported powder cocaine use during the past 30 days.

Availability, prices, and purity for powder cocaine and crack remain relatively stable. Ounce and kilogram prices have been stable for at least the past 6 years. Wholesale prices for larger quantities of cocaine have been declining over the past several years. Crack rocks now typically cost $10–20, with $10 being 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 2001 Threat Assessment produced by the Southeast Michigan High Intensity Drug Trafficking Area Center. 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.

Heroin

ED mentions for heroin have trended gradually upward since 1992 (exhibit 1). In 1999, the Detroit metropolitan area rate of heroin mentions was 61.5 per 100,000 population, while in 2000 this rate was 75.8. Heroin ED mentions increased by 25 percent in 2000 compared to 1999. The typical heroin ED case continues to be 45–54-year-old males seeking help in emergency rooms for chronic effects of heroin dependence.

Heroin accounted for 34 percent of all primary drug admissions in Detroit/Wayne County and 13 percent of admissions statewide in FY 2001. In Detroit/Wayne County during FY 2001, heroin was reported as primary drug for 4,461 admissions, as secondary drug for 519 admissions, and as tertiary drug for 290 admissions. On a statewide basis, heroin was reported as the primary drug for 7,857 admissions, as secondary drug for 1,026 admissions, and as tertiary drug for 511 admissions. Statewide, heroin primary drug admissions in FY 2001 resided in 62 of Michigan's 83 counties.

Females accounted for 40 percent of both Detroit/Wayne County and statewide primary drug heroin admissions in FY 2001. Among the Detroit/Wayne County heroin primary drug admissions in FY 2001, the largest age group was 45–54-year-olds (49 percent of all cases), while on a statewide basis this age group made up 38 percent of all heroin primary drug admissions. Fewer than 1 per-

cent of heroin primary drug admissions were younger than 21 in Detroit/Wayne County and statewide.

In FY 2001, injecting was reported as the route of administration by 49 percent of primary drug heroin admissions in Detroit/Wayne County. Intranasal use was reported by 50 percent, and smoking accounted for the remaining 1 percent of these admissions. On a statewide basis, injecting was reported by 60 percent of heroin primary drug admissions, while 37 percent reported intranasal use; 1.5 percent reported smoking.

Heroin deaths have been steadily increasing in Detroit/Wayne County since 1992 (exhibit 2). In 1996, there were 240 heroin-related deaths; by 2000 the annual number of such deaths nearly doubled. The 383 deaths with heroin metabolites present in 1999 reflect a 24-percent increase over 1998. During 2000, heroin deaths increased again by 23 percent over the 1999 total. During the first 9 months of 2001, there have been 368 heroin-present deaths; at this rate there will be about 490 such deaths by year end. The expected annual increase of heroin deaths in 2001 is 3.6 percent.

Findings of 6-monoacetylmorphine (or 6-AM, tested for since 1996 by the Wayne County ME lab) among decedents also parallel increases in heroin (morphine) positivity over time. About one-half of heroin decedents also were positive for this drug, which is reflective of the more acute effects of heroin use. There were 109 cases positive for 6-AM found between April and September 2001.

Since 1995, 5–10 percent of adult males and 9–24 percent of adult females in Detroit (relatively small samples likely impact year-to-year fluctuations) have tested positive for heroin metabolites (exhibit 3). In 1999, 9 percent of a sample of male arrestees in Detroit were found to be heroin positive, while in 2000 some 8 percent of a weighted sample of Wayne County male arrestees were found positive. Among females, in the 1999 sample of Detroit arrestees, 16 percent were found positive, while in 2000, 24 percent of the unweighted Wayne County female sample were found heroin-positive. In 2000 self-reported interview data from these samples, 7 percent of males and 13 percent of females reported use of heroin in the past 30 days.

Nearly all available heroin in Detroit continues to be white powder. South America (Colombia) remains the dominant source, although in the past year or so heroin samples originating from both Southeast Asia and the Middle East have been identified. Heroin from these latter two sources had not been very common since the mid-1990s. Heroin originating in Mexico is available in some parts of Michigan outside of 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 of this area individual units sometimes cost $15. Bundles of 10 hits cost $75–$125.

The most recent information from the DEA indicates the average price per pure milligram in 2000 was $1.07. Heroin purity, which had been increasing since the early 1990s to a peak of almost 50 percent in 1999, was about 20 percent in 2000 per preliminary DEA information.

Other Opiates

Indicators for "other opiates" remain relatively low. Codeine and its prescription compounds (Schedule III and IV drugs) remain the most widely abused "other opiates," although codeine indicators have been stable. Indicators of other opiate drugs, such as hydrocodone (Vicodin, Lortab, or Lorcet), carisoprodal (Soma), and oxycodone (OxyContin) have been increasing, but the numbers are still small.

Toxicology findings from the Wayne County ME lab show 126 cases of codeine positivity between April and September 2001, compared with 139 cases in the prior 6 months and 107 cases in the April–September 2000 period.

"Other opiates" were reported as primary drugs by 131 treatment admissions in FY 2001 in Detroit/Wayne County and by 1,633 admissions statewide. Statewide, 875 admissions reported "other opiates" as the secondary drug, and 457 admissions reported them as tertiary drug. More than one-half (55 percent) of the statewide admissions were females; 32 percent were age 36–44, 21 percent were age 30–35, and 19 percent were age 45–54.

Hydrocodone began to appear in southeast Michigan hospital ED drug mentions in 1994, with sharp increases in 1998 (175 mentions),1999 (235 mentions), and 2000 (369 mentions) (exhibit 1). This drug was identified by the Wayne County ME lab in 60 decedents in 2000 and in 62 decedents in the first 9 months of 2001. Children's Hospital of Michigan Poison Control reported 40 cases of intentional abuse of "other opiates" in 2001; about one-half were females, about one-half were age 30–40, 30 percent were younger than 20 years old, and 20 percent were age 20–30 years.

Carisoprodal was identified in 20 Wayne County decedents in 2000 and in 25 cases during the first 9 months of 2001.

In southeast Michigan, there were 24 DAWN ED oxycodone mentions in 2000 and none in prior years. However, oxycodone (OxyContin) abuse arrests have been increasingly reported by law enforcement agencies in western and northern lower Michigan. Michigan State Police reported 33 arrests during the first 9 months of 2001, with more than 400 pills

involved. It has been reported that persons treated in some emergency rooms have asked specifically for this drug for various ailments. Pharmacy break-ins specifically seeking this drug have also been reported. Oxycodone was found in 10 decedents in Wayne County in 2000, and through the first 9 months of 2001 another 10 cases have been identified. Five oxycodone drug abuse cases were reported to Children's Hospital of Michigan Poison Control between July and October 2001; four of these were female teens.

Methadone was found in 35 decedents in Wayne County between April and September 2001. In the past 2 years the Child Death Review Panel for Wayne County identified seven hospitalizations of young children due to accidental methadone ingestion. Treatment admissions data suggest that methadone diversion may be increasing statewide, with more people seeking treatment as a result of using methadone purchased illicitly. These admissions are not included in the total "other opiate" admissions due to concerns about coding accuracy.

Marijuana

Mexican marijuana continues to the dominant type available, with indicators stable or increasing. Detroit metropolitan area ED data show a steady upward trend since 1990, with some fluctuations (exhibit 1). In 1999, the rate of marijuana mentions per 100,000 population was 95, while in 2000 it increased slightly to 99. Typical cases involved males age 20–25.

During FY 2001 in Detroit/Wayne County, marijuana accounted for 985 treatment admissions as primary drug, 1,579 admissions as secondary drug, and 1,240 admissions as tertiary drug. For this same period statewide there were 8,528 marijuana admissions as primary drug, 10,002 as secondary drug, and 3,420 as tertiary drug.

In FY 2001, more than one-quarter (26 percent) of the marijuana primary drug admissions in Detroit/Wayne County were under 21. Among statewide marijuana admissions for this same time period, 36 percent were under 21. Females represented 27 percent of statewide marijuana primary drug admissions and 31 percent of Detroit/Wayne County marijuana admissions for this same time period.

The percentages of Detroit adult arrestees testing positive for marijuana have been relatively stable since 1995 (exhibit 3). Between 1995 and 2000, 42–50 percent of adult males tested marijuana-positive, while the percentages for adult females ranged between 16 and 28 percent. In 1999, 48 percent of male arrestees tested positive. In 2000, 50 percent of the Wayne County weighted sample of male arrestees tested positive for marijuana. In 1999, 26 percent of Detroit female arrestees were found to be marijuana-positive. In 2000, 24 percent of the Wayne County unweighted sample of females were marijuana-positive. Almost one-half (49 percent) of the 2000 weighted arrestee male sample self-reported marijuana use in the past 30 days. In the 2000 unweighted sample of females, 33 percent self-reported using marijuana in the past 30 days.

The majority of marijuana seizures in Michigan originate in Mexico. Notable seizures include those by the Michigan State Police of more than 42,000 plants and a total or more than 15,000 pounds in the first 9 months of 2001. The DEA reported a large seizure of a trailer with more than 1,700 kilograms of marijuana.

Stimulants

Indicator data show low but increasing levels of methamphetamine abuse in Michigan, mostly outside the Detroit metropolitan area.

Southeast Michigan ED methamphetamine mentions have declined to virtually none in 2000 (exhibit 1). Between 1992 and 1996 there were increases in amphetamine mentions, but they have declined since that period.

Methcathinone (cat), an easily manufactured stimulant, was identified in Michigan's Upper Peninsula around 1990, and an epidemic ensued until about 1994 when no further labs were found and seized. 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.

During FY 2001, among statewide treatment admissions there were 277 primary drug stimulant admissions reported; 11 of these cases occurred in Detroit/Wayne County. This compares to 189 such admissions in FY 2000. Methamphetamine accounted for 60 percent of statewide primary stimulant admissions, followed by other amphetamines (39 percent) and methcathinone (1 percent). Among stimulant admissions, males were more likely to report methamphetamine (58 percent), while females were more likely to report other amphetamines (67 percent). Among methamphetamine admissions, 27 percent were age 30–35, followed by 19 percent in the 36–44 age group, and 15 percent among 21–25-year-olds. Among other amphetamine admissions, the top age group was 36–44-year-olds (25 percent), followed by 21–25-year-olds (18 percent), and 14–17-year-olds (17 percent).

During FY 2001, 138 admissions reported methamphetamine as secondary drug, and 132 reported it as tertiary drug. Amphetamines were reported as secondary drug by 139 admissions and as tertiary drug by 127 admissions. There were five methcathinone admissions as a secondary drug and seven as a tertiary drug.

The 277 stimulant admissions in FY 2001 live in 52 of the 83 counties in Michigan (10 were in Detroit/Wayne County), mostly in rural areas with more admissions in western and southern counties. Upper Peninsula residents accounted for 49 of these 277 stimulant admissions. During FY 2000, stimulant admissions lived in 36 different counties.

Mortality data from the Wayne County ME lab reported only two decedents positive for methamphetamine in the period from April to September 2001. Methamphetamine has not been found in drug tests of Detroit or Wayne County arrestee samples since the testing began.

Michigan's border with Canada has been the focus of efforts to stop the flow of large amounts of pseudoephedrine and ephedrine entering the United States. These synthetic alkaloid substances (sold legally in over-the-counter medications) have been destined for the western part of the United States and are ingredients for making methamphetamine. Increasingly, these other ingredients used in making stimulant drugs are being used in clandestine labs around Michigan.

Michigan State Police reported seizing 40 methamphetamine labs in 2000 (all outside Detroit) compared with 14 labs in 1999. During the first 9 months of 2001, at least 72 labs have been seized; by the end of 2001 it is expected that about 100 labs will have been identified. At least three labs have been seized in the Upper Peninsula, where none were found in 2000. Environmental cleanups from these labs are an increasing issue. At least three labs exploded and burned so far in 2001.

Michigan has a long history of high per capita distribution of methylphenidate (Ritalin). Per the DEA, Michigan ranks third per capita in distribution, with the amount of this drug increasing by 45 percent since 1998. Distribution per capita is now 60 percent more than the national average for all States. Indicators show little evidence of intentional abuse, yet anecdotal reports of such cases continue.

Depressants

All indicators are relatively stable for depressants. Treatment admissions remain low in proportion to alcohol, cocaine, heroin, and marijuana. Depressant treatment admissions typically involve benzodiazepines or sedative/hypnotics. Barbiturates or tranquilizers are less often reported. Depressants are more often reported as secondary or tertiary drugs.

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.

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

During FY 2001, there were 77 hallucinogen admissions as primary drug statewide, with 8 of these cases involving phencyclidine (PCP). Males continue to dominate among admissions (3:1 ratio to females), and one-half of these admissions were under age 21.

Club Drugs

Club drugs include ecstasy, gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol), and ketamine. Indicators are increasing for ecstasy and ketamine, while they are declining somewhat for GHB. There is no information from any source or indicator data to suggest flunitrazepam use is occurring in Michigan.

The drug known as ecstasy is typically methylenedioxymethamphetamine (MDMA) or methylenedioxyamphetamine (MDA). Both drugs have been identified in lab testing of samples of ecstasy, sometimes in combination. There are many anecdotal reports of widespread and increasing use since about 1997, but these drugs rarely show up in traditional indicators identifying abuse.

Southeast Michigan ED drug mentions first began to reflect MDMA in 1998, with six mentions. In 1999 there were 40 mentions, while in 2000 there were 60 ecstasy mentions reported (exhibit 1).

Children's Hospital of Michigan Poison Control received reports of 16 cases involving ecstasy between July and October 2001; cases were equally divided among males and females and ranged in age from 13 to 31 years of age.

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. 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 are western Europe or Canada, where it is reported that six labs were seized in Quebec or Ontario in 2000. Wholesale prices can be as low as $10 a pill for quantities of 500 via Canada. Terms such as "jars" (quantities of 30–100 pills) and "buckets" (up to 1,000 pills) have emerged in the distribution chain. Customs seizures via airport and land seizures involving the border totaled 14,145 pills in 1998, 42,000 pills in 1999, 131,000 pills in 2000, and an estimated 400,000 ecstasy pills by the end of 2001. Users are typically college students or young professionals, often in dance settings. Urban areas outside Detroit noted as having significant ecstasy use are Kalamazoo (where a lab

with reported potential to make ecstasy was seized), Battle Creek, and Grand Rapids, Michigan. It is not unusual for users to use other drugs while using ecstasy, including nitrous oxide. Some samples of ecstasy have been found to contain various other drugs; PCP has been one such combination.

Since 1998, there have been several indicators of increasing ketamine use. Break-ins to veterinary clinics have continued in efforts to obtain this drug. Children's Hospital of Michigan Poison Control Center was consulted on three cases of hospitalization involving ketamine during the first 6 months of 2001.

Michigan State Police arrested 15 individuals for ketamine during the first 9 months of 2001, and seized over 1,000 grams in powder form. In July 2001 the DEA arrested 3 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 ketamine seizure to date by the DEA.

GHB and gamma butyrolactone (GBL) abuse began to be reported about 1997, with peaking in cases occurring about 1999 in both ED mentions and Poison Control case reports. Use has been primarily in nightclubs and at private parties. ED mentions of GHB totaled 45 in 1999 and 22 in 2000 (exhibit 1). Children's Hospital of Michigan Poison Control case reports totaled 100 cases in 1999 and about 35 cases in 2000. In the first 10 months of 2001, Poison Control was notified of 13 GHB cases; most of these involved hospitalization. Nine of these 13 cases involved GHB abuse by males.

Other Drugs

Nitrous oxide continues to be reported as being used at private parties and dance venues; most often it is used in combination 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 (an 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 dissociate effect; use of up to 40 pills at a time has been reported. During 2000 there were 44 cases reported, while in the first 10 months of 2001 there have been at least 52 cases involving this drug. Most cases involved teens, and nearly two out of every three cases were males. About two of every three of these cases involved hospitalization.

Also noted by Poison Control were five cases of cough syrup abuse (also containing dextromethorphan) between July and October 2001. Four of these were 14–17-year-olds.

Infectious Diseases Related to Drug Abuse

As of July 1, 2001, a cumulative total of 11,577 cases of AIDS have been reported in Michigan. Only 2 of Michigan's 83 counties have no reported AIDS cases. Cases in Detroit/Wayne County account for 55 percent of Michigan's total cases.

Injecting drug users (IDUs) continue to account for 30 percent of total AIDS cases; 23 percent have only this risk factor and 7 percent have both injection drug use and male-to-male sex as risk factors.

Among cases reported currently living with AIDS or HIV, of the 7,804 males, 15 percent are IDUs and 7 percent are in the dual risk group.

Among the 2,289 females living with AIDS or HIV, 32 percent are IDUs , 40 percent were infected through heterosexual contact, and 25 percent have undetermined risk factors.

Michigan ranks 17th among all States with an AIDS case rate of 116.4 per 100,000 population.

Statewide HIV prevalence is now estimated at a maximum of 2,970 IDUs and 810 IDUs who also engage in male-to-male sex. The estimate for IDUs is a slight decrease over prevalence estimates for the prior 6 months, while the dual risk group estimate is unchanged from that earlier period. Total HIV prevalence remains at 13,500 cases.

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Exhibit 1. Estimated Number of Emergency Department Drug Mentions in the Seven-County Area of Southeast Michigan: 1990-2000

Mentions	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Alcohol-in-combination	4,307	5,683	7,313	9,449	7,220	8,379	9,087	7,984	7,992	7,199	8,447
Cocaine	3,888	5,919	6,939	8,991	7,964	8,767	10,435	8,093	8,617	7,699	7,880
Heroin/morphine	1,552	1,828	1,843	2,380	2,160	2,390	3,188	3,028	1,410	2,653	3,328
PCP/PCP combinations	14	19	33	57	26	56	21	19	20	24	21
LSD	33	44	42	91	99	143	57	74	27	63	*
Amphetamine	*	15	27	210	305	292	440	359	362	178	*
Methamphetamine/speed	24	29	10	24	17	*	*	*	0	*	*
Marijuana/hashish	589	807	1,487	2,716	2,955	3,875	4,210	3,746	2,007	4,100	4,344
GHB	-	-	-	-	*	0	*	*	11	45	22
MDMA (ecstasy)	-	-	-	-	*	0	0	*	6	40	60
Hydrocodone	-	-	-	-	89	129	159	155	175	235	369
Drug Episodes	11,527	14,327	15,777	19,169	17,653	18,626	20,796	17,604	17,477	16,125	17,042
Total drug mentions	19,102	24,377	28,378	35,715	31,633	34,192	38,952	32,487	32,582	30,207	32,740
Total ER visits (in 1,000s)	1,556	1,522	1,507	1,568	1,436	1,513	1,537	1,449	1,461	1,481	1,474
Drug episodes (rate/100,000)	293	361	393	472	432	451	498	417	409	374	388
Drug mentions (rate/100,000)	468	614	707	880	776	828	933	770	763	700	746

* An estimate with a relative standard error greater than 50 percent has been suppressed.

SOURCE: SAMHSA, Drug Abuse Warning Network files

Exhibit 2. Positive Drug Toxicology Cases Independent of Cause of Death in Detroit/Wayne County: 1994-2001

Month	1994	1995	1996	1997	1998	1999	2000	2001
January								
Heroin	16	16	21	17	21	23	43	52
Cocaine	11	31	36	29	32	21	39	50
February								
Heroin	8	14	16	27	26	31	37	40
Cocaine	6	23	29	33	27	20	27	36
March								
Heroin	12	11	13	13	21	41	34	45
Cocaine	10	28	15	29	27	33	38	39
April								
Heroin	12	12	11	24	23	29	42	38
Cocaine	26	25	33	29	35	34	24	32
May								
Heroin	11	19	10	14	16	28	56	33
Cocaine	24	36	19	22	32	33	46	27
June								
Heroin	15	25	25	24	33	40	42	36
Cocaine	19	31	32	30	38	32	32	30
July								
Heroin	6	25	21	30	21	30	44	46
Cocaine	21	27	32	26	32	25	36	42
August								
Heroin	16	13	23	27	25	29	35	46
Cocaine	15	14	29	28	25	31	36	36
September								
Heroin	9	12	18	33	29	31	23	32
Cocaine	9	16	25	22	37	21	24	24
October								
Heroin	16	16	29	27	27	37	39	
Cocaine	40	29	34	32	33	35	26	
November								
Heroin	22	21	20	27	32	41	40	
Cocaine	37	29	28	28	32	32	35	
December								
Heroin	15	19	33	24	35	23	38	
Cocaine	33	28	37	36	35	25	33	
Total								
Heroin	**151**	**203**	**240**	**287**	**308**	**383**	**473**	
Cocaine	**324**	**342**	**349**	**344**	**384**	**342**	**396**	

SOURCE: Wayne County Medical Examiner's Office

Exhibit 3. Arrestee Drug Abuse Monitoring Data, Detroit Adult Urine Test Results by Percent: 1995-2000*

Drug	1995	1996	1997	1998	1999	2000*
Heroin-Positive						
Males	6	7	5	7	9	8
Females	17	18	9	22	16	24
Cocaine-positive						
Males	30	27	23	28	27	24
Females	61	53	48	46	46	42
Marijuana-positive						
Males	42	46	44	47	48	50
Females	16	19	28	22	26	24

* In year 2000, a revised sampling strategy was implemented to reflect a Detroit/Wayne County representative sample; earlier samples were city of Detroit arrestees only. Results for 2000 are based on weighted sample for male arrestees.

SOURCE: National Institute of Justice

Illicit Drug Use in Honolulu and the State of Hawaii

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ABSTRACT

In Hawaii in 2000–2001, drug abuse patterns were relatively unchanged from 1999, except for crystal methamphetamine ("ice"). Crystal methamphetamine increased its impact on the State: treatment admissions, deaths, Honolulu Police cases, and neighbor island police cases increased. Prices of ice are down, supply is high, and the societal costs, in terms of violence and disruption of families and communities have continued. Ecstasy abuse has now been confirmed in the islands, with seizures by police and reports of deaths associated with the drug. Raves, in Waikiki and elsewhere on the islands, remain unregulated and unsupervised high-risk environments for youth.

INTRODUCTION

This report presents current information on illicit drug use in the city and county of Honolulu (Oahu) and the neighboring island of Hawaii, based on data presented at the Honolulu Community Epidemiology Work Group (CEWG) meeting on October 26, 2001. No law enforcement data were available from Kauai, although a representative of the Kauai Narco-Vice Unit did attend the meeting.

Area Description

The 2000 U.S. Census shows that the State's current 1.2 million population is somewhat different from the population reported in the 1990 census. The major difference is in ethnicity. The 2000 census includes people with more than one ethnic identity. More than one-fifth (21.4 percent) of the population identified two or more ethnicities. While the population decreased in number in the latter part of the 1990s, it has shown a 9.3 percent increase more recently. The Tri-Isle county of Maui, Molokai, and Lanai had the greatest increases, at about 24 percent, followed by the "Big Island" (Hawaii) at just over 13 percent.

There is no distinct ethnic majority, but those identifying as "Asian" now constitute 41.6 percent of the State population. Whites account for 24.3 percent and Blacks for 1.8 percent. Hawaiians are separately identified in these census data but Part-Hawaiians are not. The percent of Hawaiians in the State is 9.1.

The Hawaii economy strengthened during the first two quarters of 2001. Overall, a modest increase in State revenues and GDP is predicted. There are concerns about the tourism industry as the economic "engine" for the State, especially Asian tourism. The economy of Japan remains sluggish, and the essential fiscal reforms are apparently not forthcoming.

The influence of the mainland United States and Asia has never been as great as during the first half of 2001. Past Asian purchases of businesses and property in Hawaii have resulted in many vacant properties in bankruptcy. Mainland purchasers in the last half-year continue the new investment trend that started in late 2000. For the local economy, this is not an unfamiliar situation. The goods and services produced in the State are controlled by offshore investors; the influence of those investors has not tended to be beneficial for local employment, wages, and benefits.

Data Sources

Quantitative and qualitative data were compiled from participants in the October 26, 2001, Honolulu CEWG meeting.

Data from the following sources are for January−June 2001 except as noted otherwise:

Treatment data—Admissions and client demographic data were provided by the Hawaii State Department of Health, Alcohol and Drug Abuse Division (ADAD). Previous ADAD data are updated for this report whenever ADAD reviews its records. These data represent all State-supported treatment facilities (95 percent of all facilities). About 5 percent of the programs and two large private treatment facilities do not provide data. During this reporting period, approximately 45 percent of the treatment admissions were paid for by ADAD; the remainder were covered by State health insurance agencies or by private insurance.

[1] The author is affiliated with the Department of Sociology, University of Hawaii at Manoa, Honolulu, Hawaii.

Mortality data—This information was provided by the Honolulu City and County Medical Examiner (ME) Office. The data are based on toxicology screens performed by the ME Office on bodies brought to them for examination. The circumstances that would lead to a body being examined are cases of 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.

Availability, price, and purity data—These data were provided by the Honolulu Narcotics Division and the Drug Enforcement Agency. These data are updated for discrepancies whenever possible.

Law enforcement data—Data are usually provided by the Vice Divisions of the Honolulu, Maui, Hawaii, and Kauai Police Departments. These data are updated whenever possible to include cases that had occurred during a previous period but were then under investigation. No current data were received from the Kauai Police Department but information was presented on Kauai for the CEWG members.

Acquired immunodeficiency syndrome (AIDS) data—The Department of Health provided data on newly reported AIDS cases.

DRUG ABUSE TRENDS

Indicators reflect substance abuse patterns and trends in the State of Hawaii. Although much of the drug activity involves alcohol and tobacco, and marijuana use is historically endemic to the area, crystal methamphetamine is the most devastating and serious of all drugs in the State. The number of methamphetamine abusers arrested, the number entering treatment, and the number dying has increased from previous years.

Hawaiians and Whites continue to be the majority groups within the 17 identified ethnic groups (plus 2 other categories: "other" and "unknown/blank") accessing ADAD facilities for substance abuse treatment. During January−June 2001, 40.1 percent of the admissions were Hawaiian and 27.3 percent were White. This represents an increase in Hawaiians and a decrease in Whites.

Among treatment admissions, methamphetamine (31.7 percent) was the leading primary substance of abuse behind alcohol (35.1 percent). However, it is important to note that almost all polydrug treatment admissions list alcohol as the primary substance of abuse. Marijuana remains the third (19.0 percent) most frequently reported primary substance among treatment admissions. The 25−34 and 35−44-year-old age groups had the highest representation among treatment admissions. Marijuana abuse accounts for the majority of treatment admissions among those younger than 18.

Drug prices in Honolulu remain stable or slightly lower because of the relatively stable drug supply. This makes access to drugs much easier for abusers. Prices for major drugs in the first half of 2001 are shown in exhibit 1. 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.

Ice continues to dominate the Hawaiian drug market. Prices have decreased throughout the reporting period, indicating that more ice is available on the street. It is now easier to purchase larger quantities than in the past. In addition, police closed four clandestine labs (almost exclusively reprocessing labs).

Because of weak airport security 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. Inter-island flights from the neighbor islands are being used again because of reduced security.

The mainland supply chain is the main source of the precursor chemicals used in reprocessing crystal methamphetamine. Thus, there is less use of clandestine labs to produce the drug. Purity of ice in Hawaii approaches 100 percent. During the reporting period, more than 7.5 liters of liquid methamphetamine and 18.25 kilograms of ice were seized. The Hawaii DEA continues its efforts to break the supply of chemicals from California needed to operate Hawaii's ice labs.

The Big Island's "Operation Green Harvest" was restored. The Big Island Police worked with the National Guard to eradicate marijuana plants. The effort was organized to destroy the plants rather than to seek interdiction directly. More than 55,000 plants were seized in the Hilo area alone. Oahu efforts during this period netted 39,035 plants.

In the following sections, data are presented as annualized charts. In examining the police activity data exhibits, all neighbor island data have been combined and titled "neighbor island" because of inconsistencies in data reporting from police departments. These data should be seen as preliminary. The reports from the Honolulu Police Department (HPD) are more consistent.

Cocaine and Crack

Admissions for cocaine use were relatively stable between 1996 and 1999, but are now decreasing (exhibit 2). In 2000, there were 550 treatment admissions identifying cocaine as their primary drug of abuse. This represents a 16-percent reduction from 1999. For the first half of 2001, ADAD reported 219 primary cocaine/crack admissions, which suggests a further reduction in cocaine treatment admissions. Current cocaine and crack use rank fourth among primary drugs of treatment admissions, behind methamphetamine, alcohol, and marijuana.

Over the past 6 years, the Honolulu ME has consistently reported between 22 and 32 deaths per year, based on cocaine-positive toxicology screens (exhibit 2). Data for the first half of 2001 suggest an annual number of decedents in the range of 15, a marked reduction.

According to the HPD, cocaine prices have not changed appreciably for nearly 3 years. Powder cocaine prices have stabilized throughout the State, at $100–$250 per gram, $1,000–$1,500 per ounce, and $24,000 per kilogram (exhibit 1). Purity levels remain lower for smaller quantities (20–50 percent per gram) and increase with quantity purchases (>90 percent per pound). For larger amounts of cocaine, prices and purity tend to be stable. The DEA does not regularly test the purity of drugs from Hawaii, so the data presented here are from local laboratory analyses.

The number of HPD cocaine cases has continued to decline during the current reporting period. The rate has been decreasing over the past 4 years. This half-year period is no exception to that trend and is projected to show a 10-percent decrease in the number of cases over the previous year (exhibit 3). Data are from all neighbor islands except Kauai, and numbers slightly exceed those reported by the HPD.

Heroin and Other Opiates

Black tar heroin monopolizes the heroin market in Hawaii and is readily available in all areas of the State. “China white” is extremely rare and very difficult to obtain. Purity levels remain fairly high for “black tar” (67 percent). According to the HPD, heroin prices are now stable in Honolulu, at $50−$75 per quarter gram, $150−$200 per gram, and $2,500−$3,500 per ounce.

Heroin treatment admissions decreased again for the first half of 2001. There were 521 admissions in 1998, 487 in 1999, 441 in 2000, and a projected 340 for 2001 (based on 170 in the first half of 2001). Heroin treatment admissions peaked in 1998 (exhibit 4).

The Honolulu ME reported that deaths in which heroin was detected will likely be lower for 2001. There were 9 ME cases involving heroin during the first 6 months of 2001.

Honolulu police reported a continual decline in the number of heroin cases. In the first half of 2001, there were only 17 cases. If the numbers hold for the rest of 2001, Honolulu will have the smallest number of heroin cases since reporting began in 1991 (exhibit 5). Neighbor island police reported 39 heroin cases during the first half of 2001, about the same as in the previous year, if the rate of heroin cases remains stable throughout 2001.

Marijuana

Statewide, marijuana treatment admissions are currently the highest in the 10 years recorded by the Hawaii CEWG. There were 1,443 admissions for marijuana treatment in 2000, and 743 in the first half of 2001, suggesting the 2001 total that will exceed that of 2000 (exhibit 6). In examining these treatment data, it is important to remember that the number of persons in treatment for marijuana use has tripled since 1992. It is also important to note that while marijuana is listed as the primary drug of abuse, many of these admissions also used other substances. Most of these admissions are young adults and adolescents.

The Honolulu ME reports that over the past 5 years there have been 15 to 20 deaths per year in which marijuana is found in specimens submitted for toxicology screening. In 2000, that number increased to 25. In the first half of 2001, the number of decedents with marijuana identified through toxicological examination was 19, suggesting a much higher annual number of 38.

There have been several seizures of marijuana over the past few months. Marijuana prices have increased, according to the Honolulu Vice/Narcotics Divisions, at $5–$20 per joint, $100–$200 per quarter ounce (based on quality), $300−$500 per ounce of low quality marijuana, $400–$800 per ounce for higher quality, and $6,000–$9,000 per pound (exhibit 1). As yet, there is no sign of blunt use.

Honolulu police continue to monitor, but do not specifically report, case data for marijuana. Possession cases are steady at about 650 per year; however, distribution cases continue to increase. Law enforcement sources speculate that much of the Big Island's marijuana is brought to Oahu for sale, and case data for the Big Island have increased substantially (exhibit 7). During the first half of 2001, nearly 40,000 plants were confiscated in addition to about 10 kilograms of dried marijuana.

Methamphetamine

In spite of the dramatic problems with “ice” in terms of disrupting life on the islands, little if any notice was

taken of the problems at the latest session of the legislature. Child Protective Service caseloads are swollen by family violence reports, the police are in a constant state of vigilance regarding potential ice-related violence, and hospitals and emergency services personnel are well aware of the gravity of the situation. California-based Mexican trafficking groups capitalize on Hawaii's cultural diversity to facilitate smuggling and distribution of methamphetamine to and within the islands. Analysis of confiscated methamphetamine continues to reveal that the product is still a high-quality *d*-methamphetamine hydrochloride in the 90–100 percent purity range.

Primary methamphetamine treatment admissions remained extremely high during the first half of 2001, exceeded only by those for alcohol. There were 1,241 primary methamphetamine treatment admissions during the first half of 2001, suggesting the annual admissions will be higher than those in the previous year (2,419). As exhibit 8 shows, the rate of increase for methamphetamine treatment has been geometric and not linear over the past decade. Treatment demand has far outstripped the treatment system's capacity. People seeking treatment would not be likely to receive it in a timely manner.

The Honolulu crystal methamphetamine ME mentions have remained between 25 and 35 cases per year for the past 7 years. The number in 2001 may increase if the rate during the first half of 2001 data (26 deaths) continues through the rest of the year.

Crystal methamphetamine prices have decreased. "Ice" is sold in the islands as "clear" (a cleaner, white form) or "wash" (a brownish, less processed form). Prices for ice vary widely for these two forms of the drug, as illustrated by prices on Oahu: $50 (wash) or $75 (clear) per quarter gram; $100 (wash) or $200 (clear) per gram; $250−400 per quarter ounce; $2,200−3,000 per ounce. Other price data appear in exhibit 1.

HPD methamphetamine case data (exhibit 9) show increased activity, with 348 cases in the first 6 months of 2001. That projects to about 700 cases for the year if the current case rate continues. Neighbor island data (except Kauai) also show an increase in cases, at 706 in 2000, compared with 342 in 1999.

Depressants

ADAD maintains admissions data on three categories of depressants: benzodiazepines, other tranquilizers, and barbiturates. There were only two primary admissions for depressant abuse in the first half of 2001 and three in 2000 (exhibit 10).

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

The HPD has not reported depressant case data since 1991. Neighbor island police report fewer than 15 cases per year since 1996 (exhibit 11).

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

Hallucinogens

Primary hallucinogen treatment admissions continued to be less than five per year since 1998 (exhibit 12). No hallucinogen ME mentions have been reported since data collection began for the CEWG.

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

In 2001, no hallucinogen case data were generated by HPD, although neighbor island police reported 18 cases in 2000 (exhibit 12).

AIDS

As shown in exhibit 14a, the rates of AIDS peaked at 34 per 100,00 population in 1993 and dropped to 9 in 2000. More than two-thirds of the cases were attributed to men having sex with men (MSM), 7 percent involved injection drug use only, and 4 percent were categorized in the dual MSM/IDU exposure category (exhibit 14b). In the first half of 2001, 35 new cases of AIDS were reported in Hawaii (exhibit 14c). The majority, again, were classified in the MSM exposure category (61 percent), with 6 percent attributed to injection drug use, and 4 percent to MSM/IDU.

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Exhibit 1. Drug Prices in Honolulu: January-June 2001

Drug/Price	Heroin	Cocaine	Ice	Marijuana
Paper	$50-$75	$25-$35	$50 per quarter gram	$5-$20/joint
Gram	$150-$200	$100-$250	$100-$200	$25
Quarter Once	$750	$400	$250-$400	$100-$200
1 Ounce	$2,500-$3,500	$1,000-$1,500	$2,220-$3,000	$400-$800
1 Pound	N/A	$24,000	$30,000	$6,000-$9,000
1 Kilogram	N/A	$26,500-$52,000	$50,000-$70,000	N/A

SOURCE: Honolulu Police Department, Narcotiocs Vice Division

Exhibit 2. Hawaii Cocaine Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	15	30	21	38	23	32	23	29	24	22	7
Treatment Admissions	162	291	422	531	560	662	647	662	656	550	219

* Partial year data (01/01/01-06/30/01)

SOURCES: Honolulu City and County Medical Examiner Office and Department of Health, Hawaii

Exhibit 3. Hawaii Cocaine Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu	316	648	613	901	1,056	1,218	1,045	874	385	225	102
Neighbor Island	735	553	210	639	474	528	468	345	384	283	108

* Partial year data (01/01/01-06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 4. Hawaii Heroin Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	14	12	22	40	40	34	22	20	24	22	9
Treatment Admissions	134	209	190	236	416	346	330	521	487	441	170

* Partial year data (01/01/01–06/30/01)

SOURCE: Honolulu City and County Medical Examiner and Department of Health, Hawaii

Exhibit 5. Hawaii Heroin Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu			43	35	54	49	39	87	86	74	17
Neighbor Island	87	56	46	107	120	148	61	95	99	77	39

* Partial year data (01/01/01-06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 6. Hawaii Marijuana Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	1	8	6	12	17	19	20	15	21	25	19
Treatment Admissions	249	489	642	565	414	948	1,132	1,301	1,418	1,443	743

* Partial year data (01/01/01-06/30/01)

SOURCE: Honolulu City and County Medical Examiner and Department of Health, Hawaii

Exhibit 7. Hawaii Marijuana Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu	608	370	234	492	569			92	205	173	
Neighbor Island	673	477	550	1,240	1,087	1,365	1,210	1,065	1,914	1,599	645

* Partial year data (01/01/01-06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 8. Hawaii Methaphetamine Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	11	20	14	36	39	24	36	27	34	35	26
Treatment Admissions	152	268	454	628	1,008	909	1,478	1,450	1,922	2,419	1,241

* Partial year data (01/01/01–06/30/01)

SOURCE: Honolulu City and County Medical Examiner and Department of Health, Hawaii

Exhibit 9. Hawaii Methaphetamine Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu	260	434	915	589	984	502	742	602	583	699	348
Neighbor Island	85	46	86	177	254	352	425	385	342	706	348

* Partial year data (01/01/01–06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 10. Hawaii Barbituate Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	12	25	22	6	3	1	9	2	6	1	2
Treatment Admissions	8	6	8	6	6	22	12	5	3	2	

* Partial year data (01/01/01–06/30/01)

SOURCE: Honolulu City and County Medical Examiner and Department of Health, Hawaii

Exhibit 11. Hawaii Barbituate Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu	0	0	0	0	0	0	0	5	0	0	0
Neighbor Island	22	13	16	14	16	30	7	12	12	17	0

* Partial year data (01/01/01–06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 12. Hawaii Hallucenogen Use Indicators: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Oahu Deaths	0	0	0	0	0	0	0	0	0	0	0
Treatment Admissions	4	10	12	9	12	7	9	3	2	4	3

* Partial year data (01/01/01–06/30/01)

SOURCE: Honolulu City and County Medical Examiner and Department of Health, Hawaii

Exhibit 13. Hawaii Hallucinogen Cases: 1991-2001*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*
Honolulu	1	4	5	11	0	0	0	0	0	0	0
Neighbor Island	35	12	8	11	10	5	3	4	4	4	0

* Partial year data (01/01/01–06/30/01)

SOURCE: Department of Health, Hawaii

Exhibit 14a. Rates of AIDS Cases per 100,000 Reported in Hawaii: 1982–2000

1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
0	1	1	2	5	7	10	17	13	18	12	34	21	20	16.2	8.2	13.7	8.7	9

n = 2,468

SOURCE: Department of Health, Hawaii

Exhibit 14b. AIDS Cases by Risk and Percent: 1993–2000

MSM	IDU	MSM/IDU	Heterosexual	Transfusion	Hemophiliac	Others	Undetermined
68	7	4	8	1	0	0	12

SOURCE: Department of Health, Hawaii

Exhibit 14c. AIDS Cases by Risk and Percent: 2001

MSM	IDU	MSM/IDU	Heterosexual	Transfusion	Hemophiliac	Others	Undetermined
61	6	4	11	1	0	1	16

n = 35

SOURCE: Department of Health, Hawaii

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

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ABSTRACT

Heroin and cocaine are the principal illicit drugs of abuse in Los Angeles. Although the major indicators of heroin use have shown signs of decline, heroin still accounts for the highest proportion of primary treatment admissions. According to law enforcement officials, Mexican black tar heroin, with a purity level of approximately 25 percent, is the most frequent form of heroin used in Los Angeles. Most cocaine indicators remain stable, yet high. Crack cocaine is the predominant form mentioned in emergency departments (EDs) and reported by treatment admissions. Marijuana and methamphetamine indicators are mixed. ED marijuana mentions decreased slightly and mentions of methamphetamine remained relatively low and stable, while primary treatment admissions increased by approximately 25 percent for both drugs. Because of environmental hazards such as the toxic contamination of clandestine laboratories, the ease of manufacture, and the violence associated with its distribution, methamphetamine continues to compromise the safety of communities. In addition, law enforcement officials perceive the use of MDMA, GHB, and diverted pharmaceuticals as an increasing public health threat. Klonopin has expanded to the metropolitan Los Angeles area via the rave and club scene. Suppliers' newly adopted distribution practices have resulted in an overall decrease in the number of large drug shipments passing through Los Angeles. The proportion of AIDS cases attributable to injection drug use, male-to-male sexual contact, and heterosexual contact continue to decrease.

INTRODUCTION

Area Description

Los Angeles County encompasses approximately 4,061 square miles with a total population of 9,519,338. The majority (8,531,801) of persons reside within the 88 cities in the county and 987,537 persons reside in unincorporated areas. The largest cities are Los Angeles, with 3,694,820 residents, Long Beach (population 461,522), Glendale (194,973), Santa Clarita (151,088), Pomona (149,473), Torrance (137,946), and Pasadena (133,936). The overall racial/ethnic makeup of the county is as follows: White (48 percent), Hispanic/Latino (of any race) (45 percent), Asian/Pacific Islander (13 percent), African American (10 percent), and American Indian/Alaska Native (<1.0 percent). Thirty-six percent of Los Angeles County residents are foreign-born. More than 5,000 county residents represent 50 countries/regions and 45 percent speak a language other than English at home. Approximately 27 percent of all Los Angeles County residents are under the age of 18, and 10 percent are older than 65. Twenty-nine percent of non-elderly residents (age 18–64) and 20 percent of children (17 years and younger) do not have health insurance.

Los Angeles County is geographically divided into eight Service Planning Areas (SPAs). Most ethnic and all racial groups can be identified in all of the SPAs. However, 63 percent of all African-Americans in Los Angeles County reside in the South and South Bay SPAs. When African-Americans living in the San Gabriel Valley are included, this accounts for 75 percent of all African-Americans in Los Angeles County. Sixty-five percent of the West SPA and 62 percent of the Antelope Valley SPA populations are White, and 65 percent of the population in the East SPA are Latino.

The California-Mexico border continues to be one of the most active drug-smuggling corridors in the Southwest. Increasing commerce between the United States and Mexico has had an impact at the border as Mexican drug trafficking organizations continue to use the free flow of trade to facilitate drug smuggling operations. Mexican drug trafficking organizations are the predominant threat to Southern California, using the region as both a destination and a transhipment point for drugs destined for locations throughout the United States. These organizations, working through established smuggling and distribution networks, dominate the trafficking of methamphetamine, heroin, cocaine, and marijuana. Mexican wholesalers usually work through middlemen who move the drugs to street-level dealers.

Data Sources

[1] Integrated Substance Abuse Programs, University of California, Los Angeles.
[2] WestEd, Los Alamitos, California.

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

- Treatment Data. These data were derived from the California Department of Alcohol and Drug Programs (ADP), California Alcohol and Drug Data System (CADDS): Los Angeles County alcohol and other drug treatment and recovery program admission data for 1999–June 2001.
- Hepatitis B and C Data. This information was derived from the Los Angeles County Department of Health Services Morbidity/Communicable Disease Surveillance Unit for January–June 2001.
- Illicit Drug-induced Death Data. The Los Angeles County Department of the Coroner provided drug-related mortality data for 1996–2000.
- Emergency Department (ED) Data. This information was accessed from the Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS), Drug Abuse Warning Network (DAWN), 1996–2000.
- Drug Availability, Price, Purity, and Distribution Data. This information was 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 (HIDTA), and the National Drug Intelligence Center (NDIC).
- Demographic and Geographic Data. This information was provided by the United Way of Greater Los Angeles and the Los Angeles County Department of Health Services, Public Health.
- Acquired Immunodeficiency Syndrome (AIDS) and Human Immunodeficiency Virus (HIV) Data. The Los Angeles County Department of Health Services, HIV Epidemiology Program, provided cumulative data through June 2001.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine and Crack

Cocaine is a principal illicit drug of abuse in Los Angeles. Most cocaine indicators remain stable, yet high. Crack cocaine is the predominant form mentioned in emergency departments and by treatment admissions.

Cocaine/crack was the second most frequently mentioned major substance of abuse in the Los Angeles–Long Beach metropolitan area in 2000, accounting for 20 percent of all DAWN ED drug mentions. The proportion of ED cocaine/crack mentions in ED drug episodes rose from 27 percent in 1997 to 36 percent in 2000 (exhibit 1).

As shown in exhibit 2, ED cocaine/crack mentions totaled 4,472 in the first half of 2000, increasing 29 percent from the second half of 1999 to the first half of 2000 and continuing the rising trend that began in the first half of 1997. In a slight reversal, ED mentions decreased 3 percent from the first to second half of 2000. Of the 9,094 ED cocaine/crack mentions reported in 2000, 65 percent occurred among males and 33 percent among females. In terms of race/ethnicity, 49 percent of the mentions were among Blacks, followed by 26 percent among Hispanics, and 18 percent among Whites. The age category comprising the highest percentage of cocaine/crack mentions was the 35 and older category (57 percent), followed by the 26–34 (27 percent) and 18–25 years (14 percent) categories. Approximately three-quarters of the ED cocaine mentions occurred during multidrug episodes. When asked about drug use motive, more than one-half reported cocaine dependence. Chronic effects (40 percent) and unexpected reaction (35 percent) were the most frequently reported reasons for ED contact.

The rate of population-adjusted ED cocaine/crack mentions increased by 33 percent in the Los Angeles-Long Beach metropolitan area from 1999 to 2000, peaking at 105 mentions per 100,000 population in 2000 (exhibit 3).

Although cocaine/crack continues to rank highest in the number of DAWN ED illicit drug mentions, only about 18 percent of county-contracted treatment and recovery program admissions between January and June 2001 reported crack or powder cocaine as the primary drug of abuse. (Numbers are shown in exhibits 4 and 5.) As a percentage of the total, cocaine admissions have remained stable since July 1999. Among primary cocaine admissions, alcohol was by far the most commonly abused secondary drug, followed by marijuana. The preferred route of administration for 88 percent of the cocaine admissions was smoking; another 8 percent of the cocaine admissions reported snorting as the preferred route of administration.

Exhibit 4 shows demographic characteristics of primary cocaine treatment admissions in the period from January to June 2001. Of the primary cocaine admissions, 61 percent were male. The racial/ethnic group constituting the largest percentage of cocaine admissions was Blacks (59 percent), followed by Hispanics (21 percent) and Whites (14 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 (57 percent).

According to the Los Angeles County Department of the Coroner, the proportion of cocaine-induced deaths has fluctuated over the past several years, from a high of 19 percent of all illicit drug-induced deaths reported in 1996 to a low of 13 percent in 1999 (exhibit 6).

Citywide cocaine arrests decreased slightly, from 2,581 in the first half of 2000 to 2,342 in the first half of 2001. Cocaine arrests accounted for 18 percent of all narcotics arrests.

The wholesale price for 1 kilogram of cocaine is $16,500, and the street value is $80,000. Both prices were up slightly from the June 2001 reporting period. The purity of cocaine available in Los Angeles County has remained high and stable at approximately 80–85 percent.

Powder cocaine seizures decreased 71 percent, from 1,850 pounds in January–June 2000 to 534 pounds in January–June 2001. Data on year 2000 seizures of rock cocaine were unavailable. The street value of the seized cocaine accounted for 41 percent of the total street value of all drugs seized.

The primary source of cocaine to Los Angeles is Mexico, via southern California (San Diego) and El Paso, Texas. The HIDTA states that Mexican drug trafficking organizations are now sending smaller shipments of cocaine to Los Angeles simultaneously to reduce losses from the seizure of large shipments. Law enforcement agencies identify Los Angeles as a primary source of cocaine to cities throughout California and to at least 20 other States, including Colorado, Hawaii, New Mexico, and Nevada. LAPD rated crack cocaine as a high threat to the public's health.

Heroin

In 2000, 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. The proportion of ED heroin/morphine mentions has remained stable at around 15 percent since 1996 (exhibit 1).

ED heroin mentions decreased 23 percent from 1,791 mentions in the first half of 2000 to 1,386 in the second half of 2000 (exhibit 2). Of the 3,177 heroin ED mentions in 2000, 70 percent were among males. Hispanics represented 41 percent of the heroin mentions, followed by Whites (34 percent) and Blacks (17 percent). The age category comprising the highest percentage of heroin mentions was the 35 and older category (70 percent), followed by those age 26–34 (20 percent) and 18–25 (9 percent). There was an even split of heroin mentions between single-drug and multidrug episodes.

Heroin dependence was reported as the drug use motive among the vast majority (83 percent) of these mentions. Chronic effects (44 percent) and overdose (30 percent) were the most frequently reported reasons for ED contact.

The rate of heroin/morphine ED mentions per 100,000 population in the Los Angeles-Long Beach metropolitan area peaked in 1993 at 46. Since 1996, the population-adjusted rate of heroin/morphine ED mentions has fluctuated between 30 and 40 (exhibit 3).

Although the major indicators of heroin use have shown signs of decline, heroin still accounts for the highest proportion of primary treatment admissions.

The percentage of primary heroin treatment admissions to county-contracted treatment and recovery programs has decreased slightly over the last several 6-month periods, dropping overall from 46 percent of all admissions in July–December 1999 to 40 percent in January–June 2001 when they totaled 9,527 (exhibit 5). In the first half of 2001, primary heroin admissions were predominantly male (73 percent), older than 35 (73 percent), somewhat more likely to be Hispanic (49 percent) than White (33 percent) or Black (12 percent), and likely to report cocaine as a secondary drug of abuse (23 percent). Compared with other major types of illicit drug admissions, primary heroin admissions had the largest proportion of males, Hispanics, and users age 36 and older (exhibit 4). Eighty-nine percent of the primary heroin admissions injected heroin, 6 percent smoked the drug, and 3 percent snorted (inhaled) the drug. Despite the high proportion of heroin injectors, a growing number of heroin users entering treatment are employing routes of administration other than injection.

A slightly higher percentage of younger heroin users entered treatment for a primary heroin problem in the first half of 2001 than in 1999 or 2000. The proportion of admissions between the ages of 21 and 25 has grown from 5 percent in 1999 to 6 percent in the first half of 2001. Similarly, the proportion of admissions between the ages of 26 and 30 increased 8 percent in 1999 to 10 percent in the first half of 2001. This may be associated with a growing proportion of heroin users who prefer to smoke or snort heroin rather than inject the drug.

According to the Los Angeles County Department of the Coroner, the proportion of heroin-induced deaths has trended downward in the last few years, from a high of 12 percent of all illicit drug-induced deaths reported in 1996 to a low of 7 percent in 2000 (exhibit 6).

Citywide heroin arrests increased 29 percent, from 2,717 in January–June 2000 to 3,514 in January–June 2001, accounting for 27 percent of all narcotics arrests.

Citywide seizures (in pounds) of heroin tar increased more than 1,000 percent from 28.81 pounds in January–June 2000 to 332.09 pounds in January–June 2001. This dramatic increase occurred with the LAPD Major Violations Section's one-time seizure of 142,000 gross grams of tar heroin transferred to U.S. Customs and the DEA. Seizures of other types of heroin increased more than 400 percent, from 6.88 pounds in the first half of 2000 to 35.41 pounds in the first half of 2001.

The wholesale price per kilogram of heroin remained stable at approximately $16,000–$17,000, while the street value decreased from a range of $70,000–$100,000 to a range of $35,000–$50,000. The LAPD reports that Mexican black tar heroin has a purity level of 25 percent, while South American white heroin is 94 percent pure. The DMP findings for 2000 indicated that heroin purchased in Los Angeles had an average purity of 23 percent (lower than the East, West, and national averages) and an average price of $0.93 per milligram pure. The price of heroin in Los Angeles was comparable to the national price of $0.97. The recent trend towards higher purity, lower cost heroin is not as evident in Los Angeles as it is in other parts of the country, such as New York and Philadelphia. Mexico was determined to be the source area for the heroin purchased in Los Angeles. None of the heroin analyzed through the DMP originated in South America, Southeast Asia, or Southwest Asia.

Although Mexican black tar heroin is the most prevalent type of heroin available in Los Angeles, Southeast Asian, Southwest Asian, and South American heroin are transshipped through Los Angeles to markets throughout the eastern United States. Those types of heroin, however, are not encountered as frequently by law enforcement in the area. Mexican trafficking organizations dominate transportation, as well as wholesale and retail distribution in Los Angeles. Furthermore, the city is identified as a source of heroin by State and local law enforcement agencies elsewhere in California and in eight other States. Local law enforcement officials believe that heroin is growing in popularity among recreational users (e.g., college students, blue- and white-collar workers).

Other Opiates/Narcotics

ED mentions of narcotic analgesics, such as codeine and hydromorphone, have increased approximately 25 percent over the past several years, from 988 mentions in 1996 to 1,245 mentions in 2000. ED mentions of codeine have trended upward from 41 in 1998, to 55 in 1999, to 63 in 2000, a 15-percent increase. Hydromorphone mentions, although quite low in number, increased from 7 in 1998 to 16 in 2000. There were few mentions of other narcotic analgesics, such as fentanyl, hydrocodone, and oxycodone.

From January to June 2001, there were 404 admissions to county-contracted treatment programs that reported other opiates/synthetics as their primary drug problem. This total comprised less than 2 percent of all admissions during that time period.

According to local law enforcement officials, diverted pharmaceuticals pose a new challenge. Numerous Internet chat rooms devoted to the drug OxyContin explain how the drug can be illegally purchased.

Marijuana

Marijuana indicators are mixed. Marijuana ED mentions and citywide marijuana arrests decreased slightly, while primary treatment admissions increased approximately 30 percent.

Marijuana/hashish was the third most frequently mentioned major substance of abuse in the Los Angeles-Long Beach metropolitan area in 2000, accounting for 13 percent of all ED drug mentions. The proportion of marijuana/hashish ED mentions among ED drug episodes rose from 11 percent in 1996 to 26 percent in 1999 and then decreased slightly to 23 percent in 2000 (exhibit 1).

ED marijuana mentions decreased 18 percent, from 3,219 mentions in the first half of 2000 to 2,627 mentions in the second half of 2000 (exhibit 2). Of the 5,846 ED marijuana mentions reported in 2000, 66 percent occurred among males, 28 percent among Hispanics, and 20 percent among Whites; 39 percent were and 35 and older, 26 percent were 18–25, and 23 percent were 26–34. More than 85 percent of the ED marijuana mentions occurred during multidrug episodes. When asked about drug use motive, 29 percent of the mentions reported marijuana dependence. Sixty-two percent were admitted to the hospital, while 36 percent were treated in the emergency department and released.

The Los Angeles-Long Beach metropolitan area ranked 10th in terms of the estimated rate of marijuana/hashish ED mentions per 100,000 population (by CEWG area). In 2000, marijuana/hashish mentions reached the highest rate per 100,000 (67) in more than 10 years (exhibit 3). The rate increased substantially from 25 in 1997, to 41 in 1998, to 64 in 1999.

The percentage of primary marijuana admissions increased from 6 percent in July–December 1999 to 10 percent in January–June 2001 when they totaled 2,258 (exhibit 5). The total number of marijuana admissions increased by 30 percent between the second half of 2000 (1,736) and the first half of 2001 (2,258). Males (69 percent) and individuals younger than 18 (54 percent) constituted the majority of these admissions; 45 percent were Hispanic, 26 percent were Black, and 19 percent were White. Alcohol was the secondary drug of choice for 43 percent of the admissions. Ten percent reported cocaine, and 7 percent reported methamphetamine as a secondary drug of choice. Compared with other major illicit drug admissions, primary marijuana admissions had the largest proportion of users age 17 and younger (54 percent) (exhibit 4).

There was an 11 percent decrease in citywide marijuana arrests between the first half of 2000 (3,102) and the first half of 2001 (2,771). Marijuana arrests accounted for 21 percent of all illicit drugs.

Mexican marijuana is generally the most inexpensive type found in the Los Angeles area because of its wide availability and lower tetrahydrocannabinol (THC) content (4–6 percent). The wholesale price per pound of low-grade marijuana is $350, and the street value is $2,500. Domestically produced marijuana—particularly that cultivated from hydroponic indoor growing operations—is of a higher grade (25–30 percent) and more expensive. Law enforcement officials report that Canadian "BC bud," formerly limited to the Pacific Northwest, is now available in Honolulu, Los Angeles, and Oakland, as well as in some parts of the West Central Region of the United States. Mexican drug trafficking organizations and criminal groups dominate the wholesale marijuana market in the Los Angeles area, while Hispanic and Black street gangs are the predominant distributors of marijuana at the retail level.

Citywide seizures (in pounds) of marijuana increased 4 percent from 7,726 pounds during the first half of 2000 to 8,012 pounds during the first half of 2001. The street value of the seized marijuana comprised 46 percent of the total street value of all drugs seized.

Stimulants

Methamphetamine indicators were mixed during this reporting period. ED methamphetamine mentions remained relatively low and stable, while primary treatment admissions increased by approximately 25 percent.

Methamphetamine/speed was the fifth most frequently mentioned major substance of abuse in the Los Angeles-Long Beach metropolitan area in the year 2000 and accounted for 3 percent of all ED drug mentions. Mentions of amphetamines accounted for an additional 2.4 percent. The proportions of ED methamphetamine/speed and amphetamine mentions in ED drug episodes have remained stable at around 5 percent and 4 percent, respectively, since 1996 (exhibit 1).

DAWN data show that ED methamphetamine/speed mentions increased significantly from 1999 to 2000 (51 percent) in the Los Angeles/Long Beach metropolitan area. After reaching a peak level of 17 mentions per 100,000 population in 1994, the population-adjusted rate of methamphetamine/speed mentions decreased to lower levels in succeeding years. In 2000, however, the Los Angeles rate rebounded to 16 per 100,000 population (exhibit 3).

Primary methamphetamine admissions to county-contracted treatment and recovery programs increased 23 percent from the second half of 2000 to the first half of 2001, accounting for 10 percent of the total admissions and totaling 2,403 (exhibit 5). Among the 2,403 primary methamphetamine admissions, 52 percent were male. Nearly 68 percent of the admissions were age 18–35. Whites (53 percent) were the predominant racial/ethnic group among primary methamphetamine admissions, followed by Hispanics (34 percent) (exhibit 4). Compared with other major illicit drug admissions, primary methamphetamine admissions had the largest proportion of females (48.0 percent), Whites (53.7 percent), Asian/Pacific Islanders (3.5 percent), 18–25-year-olds (27.9 percent), and 26–35 year olds (40.0 percent).

The demographics for primary amphetamine admissions were comparable to primary methamphetamine admissions in terms of age and race/ethnicity. More females (54 percent) than males (46 percent) reported amphetamines as their primary problem.

The top three preferred routes of methamphetamine administration were smoking (59 percent), snorting (23 percent), and intravenous injection (11 percent). The order of preferred route of administration for other amphetamines was slightly different, with 54 percent of the primary amphetamine admissions preferring to smoke, 18 percent preferring to snort, and 13 percent preferring to take amphetamines orally. Marijuana and alcohol were the most frequently mentioned secondary drugs of abuse among both methamphetamine and other amphetamine admissions.

According to the Los Angeles County Department of the Coroner, the proportion of methamphetamine/amphetamine-induced deaths has fluctuated slightly over the past several years, from a low of 34 percent of all illicit drug-induced deaths in 1996 to a high of 40 percent in 1999. The proportion of methamphetamine/amphetamine-induced deaths decreased 2 percent from 1999 to 2000 (exhibit 6).

Citywide amphetamine arrests increased 8 percent, from 59 during the first 6 months of 2000 to 64 during the same period in 2001. In total, amphetamine arrests comprised less than 1 percent of all illicit drug arrests.

According to the Los Angeles Police Department, the wholesale price per pound of methamphetamine is $4,000–$5,000, and the street value ranges from $35,000 to $50,000. The purity of methamphetamine available in the county remains stable at approximately 15 to 20 percent.

Citywide methamphetamine seizures decreased 38 percent from 310 pounds in January–June 2000 to 192 pounds in January–June 2001. The street value of the seized methamphetamine comprised 9 percent of the total street value of all drugs seized.

Clandestine (large- and small-scale) methamphetamine labs continue to proliferate within the Los Angeles metropolitan and rural areas. Environmental hazards such as the toxic contamination of neighborhoods present significant

dangers. Coupled with the ease of manufacture and the violence associated with its distribution, methamphetamine remains a serious threat to the local community.

California has been referred to as a "source country" for methamphetamine. Law enforcement agencies in 17 States specifically refer to Los Angeles as a primary source of methamphetamine to their areas. According to NDIC, Mexican methamphetamine that enters the United States overland from Mexico is smuggled through many of the same points of entry as cocaine. But only Los Angeles, Central Arizona, and San Diego appear to function as transportation hubs for methamphetamine.

The Los Angeles HIDTA and the DEA's Los Angeles division note a developing but currently limited market for methamphetamine tablets (known as Yaba) at raves and nightclubs in the Los Angeles area. In some cases, the tablets are sold as methylenedioxymethamphetamine (MDMA); in others, the tablets are taken in addition to MDMA.

Depressants

Los Angeles ED mentions of benzodiazepines have fluctuated since 1996, first decreasing 8 percent from 1996 to 1997 and then increasing 14 percent from 1,858 mentions in 1998 to 2,113 mentions in 2000. Diazepam (Valium) was the leading benzodiazepine mentioned in 2000 (with 371 mentions), followed closely by clonazepam (Klonopin) (358 mentions) and alprazolam (Xanax) (280 mentions) (exhibit 7). Mentions of barbiturates, such as phenobarbital (Luminal), increased from 185 mentions in 1998 to 333 mentions in 2000. Despite this dramatic increase, the number of ED barbiturate mentions is far lower than the number of mentions of major illicit drugs.

County-contracted treatment and recovery program admissions reporting barbiturates, benzodiazepines, or other sedatives and hypnotics as primary drugs of abuse continue to represent less than 1 percent of all admissions.

Law enforcement officials perceive the use of diverted pharmaceuticals as an increasing public health threat. According to the LAPD, Klonopin, a legal anti-convulsive medication, has been encountered with increasing frequency. Originally, the drug was popular in the San Diego area. The drug has since expanded to the metropolitan Los Angeles Area via raves and clubs.

Hallucinogens

The proportion of ED hallucinogen mentions has remained level at approximately 5 percent and has accounted for 2–3 percent of all ED drug mentions since the mid-1990s. Phencyclidine (PCP) and lysergic acid diethylamide (LSD) emergency department mentions peaked in 1995 at 1,266 and 260 mentions, respectively. The number of ED mentions attributable to PCP has fluctuated between 600 and 800 mentions since 1996 and the number of ED LSD mentions has fluctuated between 150 and 250 mentions since 1996 (exhibit 1). Unadjusted ED PCP mentions increased significantly (13 percent) from 1999 to 2000. Conversely, ED LSD mentions decreased slightly from 229 mentions in 1999 to 217 mentions in 2000. The rates of PCP and LSD emergency department mentions per 100,000 population have remained stable at around 10 and 3, respectively, since 1996 (exhibit 3).

Over the past several years, the proportion of primary PCP admissions has stabilized at approximately 1 percent. The number of primary PCP admissions increased slightly from the second half of 2000 (166) to the first half of 2001 (198). Alcohol (27 percent) and cocaine (20 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 June 2001 reporting period in terms of user demographics. Other hallucinogens, such as LSD, peyote, and mescaline comprised approximately 0.1 percent of the total treatment admissions from January to June 2001.

According to the Los Angeles County Department of the Coroner, the proportion of PCP-induced deaths has remained relatively stable since 1997, ranging from 36 to 38 percent of all illicit drug-induced deaths (exhibit 6).

PCP arrests declined 38 percent, from 103 in the first half of 2000 to 64 in the first half of 2001 (accounting for less than 1 percent of all narcotic arrests). The wholesale price of PCP per gallon is $7,250, and the street value is $30,000. PCP is most commonly found in "sherm" cigarettes or packaged as a liquid in small bottles.

Citywide PCP seizures decreased 19 percent from the first half of 2000 (27 pounds) to the first half of 2001 (22 pounds). The street value of the seized PCP comprised less than 1 percent of the total street value of all drugs seized. LAPD notes that PCP's popularity has increased substantially rather recently.

Club Drugs

Club drugs, such as gamma hydroxybutyrate (GHB), MDMA ("ecstasy"), ketamine, and flunitrazepam (Rohypnol) have only recently begun to show up in the "traditional" indicators. Substance abuse treatment programs do not report

specific clubs drugs such as GHB and MDMA separately. Instead, these types of drug admissions are included in broader drug categories, such as "stimulants" or "tranquilizers."

Although the numbers of ED club drug mentions are relatively small when compared with those for other drugs, they have been increasing dramatically in Los Angeles over the past several years. ED MDMA mentions increased 240 percent from 52 mentions in 1999 to 177 mentions in 2000 (exhibit 8). ED mentions of GHB increased 15 percent from 1999 to 2000. Mentions of ketamine and Rohypnol remained marginal.

According to LAPD, the use of club drugs has become increasingly popular in venues other than clubs or raves. Law enforcement officials perceive the use of MDMA and GHB as an increasing threat to the public's health. More and more people are using club drugs in their homes or in other social settings. The use of the Internet to purchase precursor chemicals has increased.

Los Angeles is one of several "principal importation gateways," or ports of entry, for MDMA. The DEA has warned the public of an emerging concern—"crystal ecstasy." This form of ecstasy has a purity of 96 percent. Ecstasy tablets, on the other hand, are approximately 35 percent pure. Although the use of crystal ecstasy has yet to be observed in Los Angeles, it has recently been seized in other cities, such as Philadelphia, Tucson, Houston, and Boulder.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

AIDS and HIV Infection

The proportion of AIDS cases attributable to injection drug use, male-to-male sexual contact, and heterosexual contact continue to decrease.

A cumulative total of 42,591 adult/adolescent AIDS cases were reported in Los Angeles County through June 30, 2001. Two hundred and fifty-four of those cases were reported between March 31, 2001, and June 30, 2001. Approximately 16,000 Los Angeles County residents are currently living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 6 percent of the 753,907 cumulative cases nationwide and 35 percent of the 74,548 cumulative cases in California. Of the total reported Los Angeles County cases, 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.

In Los Angeles, less than one-tenth (7 percent) of cumulative AIDS cases involved injection drug use as the primary route of exposure. Among the nearly 3,000 injecting drug users (IDUs) who contracted AIDS, 74 percent were male (exhibit 9). Blacks continue to be the modal group of IDUs (accounting for 39 percent of the total IDUs), followed by Whites (31 percent) and Hispanics (28 percent). Among female IDUs, Blacks continue to represent the majority (45 percent), followed by Hispanics (32 percent) and Whites (21 percent).

Male-to-male sexual contact accounted for the highest proportion of cumulative cases countywide—77 percent of the male cases and 72 percent of the total cases. An additional 7 percent of the male cases were attributable to a combination of male-to-male sexual contact and injection drug use. Male heterosexual cases accounted for 1 percent of the total male adult/adolescent cases, while female heterosexual cases accounted for 46 percent of the total female adult/adolescent cases.

During the 6-month period from January 1 to June 30, 2001, the proportion of AIDS cases attributable to all major exposure categories decreased from 15 percent (male-to-male sexual contact/IDU) to 63 percent (male heterosexual contact) compared with the same 6-month period in 2000. The proportions of cases attributable to most exposure categories have been trending downward since 1999 (exhibit 10).

Of the 235 pediatric AIDS cases (children age 12 or younger at time of diagnosis), 69 percent involved a mother with/at risk for HIV. An additional 26 percent were exposed to the disease through a blood transfusion.

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). Thirty-four hepatitis B acute cases and 5 hepatitis C acute cases were reported, confirmed, and closed in the Los Angeles County Communicable Disease Reporting System from January to June 2001. Reported hepatitis B and C acute cases were down 29 percent and 11 percent, respectively, from the total number of cases reported from January to June 2000.

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Exhibit 1. Los Angeles-Long Beach Annual Estimated Emergency Department Mentions for Selected Drugs as a Percentage of Total Drug Episodes: 1996–2000

Substance of Abuse	1996		1997		1998		1999		2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alcohol-in-combination	5,648	(28)	4,650	(27)	6,129	(36)	8,195	(40)	10,993	(43)
Cocaine/crack	5,708	(28)	4,703	(27)	5,779	(34)	6,768	(33)	9,094	(36)
Heroin/morphine	3,278	(16)	2,471	(14)	2,601	(15)	2,923	(14)	3,177	(13)
Marijuana/hashish	2,132	(11)	2,084	(12)	3,422	(20)	5,472	(26)	5,846	(23)
Metham-phetamine	1,268	(6)	1,229	(7)	786	(5)	910	(4)	1,375	(5)
Amphetamines	627	(3)	728	(4)	541	(3)	866	(4)	1,072	(4)
PCP	709	(4)	696	(4)	605	(4)	731	(4)	823	(3)
LSD	216	(1)	186	(1)	162	(<1)	229	(1)	217	(<1)
Total drug episodes	20,275		17,187		17,103		20,667		25,286	
Total drug mentions	35,218		29,684		29,805		36,945		45,015	

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Estimated Semiannual Emergency Department Mentions in Los Angeles-Long Beach: January–June 1996 to July–December 2000

Year	1H96	2H96	1H97	2H97	1H98	2H98	1H99	2H99	1H00	2H00
Cocaine	2,748	2,960	2,295	2,408	2,629	3,150	3,183	3,586	4,622	4,472
Heroin	1,724	1,554	1,324	1,147	1,214	1,387	1,431	1,491	1,791	1,386
Marijuana	1,031	1,101	1,061	1,023	1,343	2,079	2,517	2,955	3,219	2,627
Methamphetamine	575	694	596	633	418	369	414	496	982	693
Amphetamines	307	320	337	391	272	268	410	456	532	540

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 3. Estimated Rate of Emergency Department Mentions in Los Angeles-Long Beach Per 100,000 Population: 1996–2000

Substance of Abuse	Total 1996	Total 1997	Total 1998	Total 1999	Total 2000
Alcohol-in-Combination	68	56	73	96	127
Cocaine/crack	69	56	68	79	105
Heroin/morphine	40	30	31	34	37
Marijuana/hashish	26	25	41	64	67
Methamphetamine	15	15	9	11	16
Amphetamines	8	9	6	10	12
PCP	9	8	7	9	10
LSD	3	2	2	3	3
Total drug episodes	245	205	202	242	292
Total drug mentions	425	355	352	433	519
Total ED visits (in 1,000s)	28,173	26,682	25,315	27,020	29,960

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 4. Characteristics of Treatment Admissions in Los Angeles County by Primary Substance and Percent: January–June 2001

Characteristics	Cocaine	Heroin	Marijuana	Methamphetamine	All Admissions
Gender					
Male	61.0	72.6	69.0	52.2	66.8
Female	39.0	27.4	31.0	47.8	33.2
Race/Ethnicity					
White/non-Hispanic	14.3	33.3	19.4	52.7	30.7
Black/non-Hispanic	59.1	11.5	25.6	3.6	24.6
Hispanic origin	20.7	49.3	45.0	33.5	37.2
American Indian	<1.0	<1.0	<1.0	1.6	<1.0
Asian/Pacific Islander	1.5	<1.0	2.6	3.5	1.7
Age					
17 and younger	1.6	<1.0	54.3	4.7	7.9
18-25	10.9	6.2	22.4	27.9	11.7
26-35	30.5	20.7	12.4	40.0	24.7
36 and older	57.0	72.9	11.0	27.5	55.8
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	Marijuana	Alcohol
Total Admissions (N)	4,349	9,537	2,258	2,403	23,697

SOURCE: California Alcohol and Drug Data System (CADDS)

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

Year	07/99–12/99	01/00–06/00	07/00–12/00	01/01–06/01
Heroin	12,138	12,333	10,642	9,527
Cocaine	4,584	4,609	4,342	4,349
Marijuana	1,633	1,817	1,736	2,258
Meth. /Amphet.	1,992	2,181	1,959	2,403
PCP	162	171	166	198

Total Admissions: 07/99–12/99 = 26,122 01/00–06/00 = 26,849 0 7/00–12/00 = 23,719 01/01–06/01 = 23,697

SOURCE: California Alcohol and Drug Data System (CADDS)

Exhibit 6. Proportion of Illicit Drug-Induced Deaths in Los Angeles County by Drug: 1996–2000

Year	1996	1997	1998	1999	2000
Methamphetamine	34	39	37	40	38
Cocaine	19	11	15	13	15
Heroin	12	11	11	8	7
PCP	33	38	36	38	37

SOURCE: Los Angeles County Department of the Coroner

Exhibit 7. Number of DAWN ED Mentions of Psychotherapeutic Agents in Los Angeles-Long Beach County: 1996–2000

Year	1996	1997	1998	1999	2000
Valium	520	377	316	331	371
Klonopin	309	371	336	316	358
Xanax	329	262	237	266	280

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies, Year-End-2000 Emergency Department Data from the Drug Abuse Warning Network, 2001

Exhibit 8. Number[1] of Estimated Annual ED Mentions of Club Drugs in Los Angeles-Long Beach County: 1996–2000

Year	1996	1997	1998	1999	2000
GHB	108	0	48	130	149
MDMA	46	24	30	52	177
Ketamine	0	0	0	7	15

[1]Mentions of GHB, MDMA, and ketamine have been suppressed in certain 6-month periods due to estimates with a relative standard error (RSE) greater than 50 percent.

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 9. Number of Cumulative Adult/Adolescent AIDS Cases in Los Angeles County by Exposure Category, Gender, and Race: Cumulative as of June 30, 2001

Exposure Category	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Men who have sex with men (MSM)	30,550	(77)	N/A	-	30,550	(72)
Injection Drug Users (IDUs)	2,216	(6)	773	(26)	2,989	(7)
MSM and IDUs	2,717	(7)	N/A	-	2,717	(6)
Hemophilia or coagulation disorder	161	(0)	11	(0)	172	(1)
Heterosexual contact	568	(1)	1,392	(46)	1,960	(5)
Transfusion recipient	287	(1)	234	(8)	521	(1)
Other/undetermined	3,065	(8)	617	(20)	3,682	(9)
Total	39,564	(100)	3,027	(100)	42,591	(100)

* Not all reported cases are included in these totals.

SOURCE: Los Angeles County Department of Health Services, HIV Epidemiology, Advances HIV Disease (AIDS) Quarterly Surveillance Summary, July 15, 2001

Exhibit 10. Number of AIDS Cases Reported in the First 6 Months of 1999–2000 in Los Angeles County by Gender, Race/Ethnicity, and Exposure Category, and Percent Change from 1998–2001

Category	1H 1999 Number	1H 2000 Number	1H 2001 Number	% Change '98–'99	% Change '99–'00	% Change '00–'01
Gender						
Male	927	683	539	0%	-26%	-21%
Female	107	112	88	+3%	+5%	-21%
Race/Ethnicity[1]						
White	342	229	188	+5%	-33%	-18%
Black	257	190	136	-1%	-26%	-28%
Hispanic	404	359	281	-4%	-11%	-22%
Exposure Category						
Men who have sex with men (MSM)	555	421	318	-9%	-24%	-24%
MSM/IDU	45	34	29	-10%	-24%	-15%
Male IDU	58	38	31	-17%	-34%	-18%
Female IDU	24	20	16	+71%	-17%	-20%
Male heterosexual contact	25	27	10	-4%	+8%	-63%
Female heterosexual	46	48	27	-10%	+4%	-44%
Total	1,034	795	627	0%	-23%	-21%

*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,* July 15, 2001

Drug Abuse in Miami and South Florida

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ABSTRACT

Cocaine remains the most commonly mentioned illicit substance of abuse in South Florida hospital emergency departments. In Miami-Dade County, the rate of cocaine ED mentions per 100,000 population was 225 in 2000—the highest rate recorded for this area. Cocaine was also the most commonly detected illicit substance at crime labs. The cocaine-abusing population continues to age; only 19 percent of all ED cases involved patients under age 30. The rate of heroin ED mentions increased dramatically from 48 in 1999 to 75 in 2000. In addition, heroin-related deaths increased in South Florida. Heroin predominates narcotic abuse in Miami-Dade County. Oxycodone continues to be the cause of more fatalities than heroin, cocaine, or any other illicit substance in Broward County, causing 21 deaths during the first 6 months of 2001. Although low in number, oxycodone ED mentions have also been trending up. Heroin and oxycodone abusers seeking treatment and visiting emergency departments are predominantly White males older than 30. Oxycodone continues to be substituted for heroin and vice versa. There were no major changes in marijuana indicators in the first half of 2001. There were five deaths related to MDMA, three to methamphetamine, and one death to GHB in the first half of 2001 in Miami-Dade County. MDMA ED mentions increased and continues to involve predominantly younger White patients.

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 residence in Miami-Dade County.

Broward County is the second most populated county in Florida, with an estimated population of nearly 1.5 million in 1999 that has increased 20 percent since 1990. The county is situated just north of Miami-Dade County and just south of Palm Beach County. The population is roughly 75 percent White, 15 percent Black, and 9 percent Hispanic.

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 U.S. trade: 40 percent with Central America, 35 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. Cruise ship smuggling is mentioned as an important trend in South Florida trafficking in the South Florida High Intensity Drug Trafficking Area (HIDTA) regional threat assessment.

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 distribution of illicit foreign drugs destined for all regions of the United States. Haiti has emerged as a major link with Colombian traffickers.
- South Florida is a designated High Intensity Drug Trafficking Area and a leading U.S. cocaine importation center. The area also became a gateway for Colombian heroin in the 1990s. Millions of 3,4_methylenedioxymethamphetamine (MDMA, "ecstasy" or "XTC") tablets originating in the Benelux countries enter the United States here.

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

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- Broward General Emergency Department Drug Abuse Case Review. This department provided data from a review of all drug abuse cases presenting to Broward General Medical Center (BGMC) ED for the three time periods: January−June 2000, July−December 2000, and January−June 2001.
- Substance Abuse and Mental Health Services Administration Drug Abuse Warning Network (DAWN). DAWN ED drug mentions (through 2000) were utilized.
- Broward County Medical Examiner (ED) Department. This department provided data on drug-induced deaths from 1998 to 2001.
- Miami-Dade County Medical Examiner's Department. This source provided data on drug-induced deaths from 1990 to 2001 for Miami-Dade County.
- Florida Department of Law Enforcement Medical Examiners Commission, 2000 Annual Report. This source provided data on drug-induced and drug-related deaths in the State of Florida in 2000.
- Spectrum Programs, Inc. Spectrum provided information on Broward County addiction treatment for January−June 2001 and earlier periods.
- Broward Addiction Rehabilitation Center. This center provided addiction treatment data for January−June 2001.
- Broward Sheriff's Office Crime Lab. This source provided reports of illicit substances analyzed in 1999, 2000, and January−June 2001.
- The Drug Enforcement Administration (DEA) Domestic Monitor Program (DMP). Heroin price and purity, through the first quarter of 2000 were derived from DMP.
- Drug Enforcement Administration. The Drug Intelligence Group of DEA provided information on drug availability, price, and purity for South Florida.
- South Florida HIDTA: Threat Assessment 2001. This source also provided drug availability, price, and purity data, as well as law enforcement drug threat information.
- Florida Department of Law Enforcement Public Safety Alert. Data on 191 deaths related to abuse of prescription drugs in Florida were derived from the medical examiner's preliminary report, http://www.fdle.state.fl.us/press_releases/20010109_oxycontin_alert.html.
- Florida Youth Surveys on Substance Abuse 2000 and 2001. Prevalence data on drug use among Florida school students in Grades 6−12 were derived from these surveys.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine use remains at a very high level as indicated by ED mentions, deaths, crime lab data, and drug abuse treatment admissions. The population seeking cocaine detoxification treatment and treatment in emergency departments tends to be older than populations seeking treatment for other drug abuse problems.

In the first 6 months of 2001, a daily review of all ED charts at Broward General Medical Center was conducted to gauge illicit substance abuse-related ED cases. A total of 35,690 charts were reviewed, and 1,266 cases of drug abuse were found (3.5 percent of the charts). During 2000, 3.1 percent of all ED chart cases involved illicit substance use. Cocaine was the most common illicit drug identified in the charts, accounting for 54 percent of the drug abuse cases in the first half of 2001 (exhibit 1). Almost three-quarters (74 percent) of these patients were male; 51 percent were White, 42 percent Black, and 7 percent Hispanic/other. Cocaine-using patients seeking emergency treatment at BGMC were typically age 30 or older (81 percent), continuing the trend towards older cocaine ED patients (78 percent were 30 or older in 2000). Another 2 percent were under age 20, 17 percent were in their twenties, 45 percent were in their thirties, 30 percent were in their forties, and 6 percent were 50 or older.

The most common reasons for coming to the emergency department were as follows:

- Depression/suicidal (29 percent)
- Psychosis/schizophrenia/hallucinations (9 percent)
- Chest pain/cardiac problems (9 percent)
- Dependence/seeking detoxification (8 percent)
- Trauma/accidents (6 percent)
- Gastrointestinal complaints (5 percent)

Crack cocaine was mentioned in 31 percent of the ED cases at BGMC in the first half of 2001, down slightly from 36 percent in 2000.

Cocaine was used in combination with alcohol in almost one-half (48 percent) of the ED cases, essentially the same as in 2000. This combination forms a cometabolite cocaethylene, which can dramatically increase toxicity.

Another frequently reported combination during the first 6 months of 2001 involved cocaine and marijuana. Approximately 25 percent of all cocaine cases involved marijuana, up from 21 percent in 2000.

In Miami-Dade County in 2000, there were 4,383 cocaine and crack ED mentions in the DAWN system. Of these, 39 percent (*n*=1,712) were for crack. These numbers combined represent a 9-percent increase over the cocaine/crack ED mentions in 1999 and a 60-percent increase over 1994. The rate of ED cocaine mentions per 100,000 population has been trending up since 1996, reaching a peak of 225 in 2000.

During the first 6 months of 2001, there were a total of 23 cocaine-induced fatalities among the 38 cocaine-related deaths reported in Broward County. In all of 2000, there were 80 cocaine-related deaths including 18 cocaine induced-deaths, suggesting that the rate of cocaine-related deaths has remained essentially unchanged, while cocaine is more likely to be the cause of death when detected in recent cases.

Cocaine abuse was the primary cause of death for 21 decedents in Miami-Dade County during the first 6 months of 2001. Heroin was also detected in one of these cases. Cocaine was also detected in 9 (43 percent) of the 21 heroin-induced deaths during this same period. The number of cocaine deaths in the first half of 2001 represents an increase over the 30 cocaine-induced deaths reported in Miami-Dade County during all of 2000. The 2001 rate is similar to that for 1999, when there were 43 deaths, and for 1998, when there were 39 such deaths.

Addiction treatment profiles were compiled using data from two major treatment providers: the Broward Addiction Recovery Center (BARC) and Spectrum. BARC 2001 data were not available. However, as shown in exhibit 2, 8 percent of Spectrum admissions were for cocaine abuse in the first half of 2001, compared with 27 percent in 2000 and 16 percent in 1999. In the Spectrum and BARC programs in the first half of 2001, 37 percent of cocaine admissions were White, 40 percent were Black, and 23 percent were Hispanic/other. In these same facilities, the majority of the admissions (63 percent) were age 35 or older.

Cocaine trafficking and abuse remains prominent, and the drug continues to be described as "highly available" in Broward County by the DEA Drug Intelligence Group. Cocaine also continues to be the most commonly analyzed substance by the Broward Sheriff's Office Crime Lab, where it accounted for 69.7 percent of all items analyzed in the first half of 2001. This compares with 77.6 percent of all substances analyzed in the second half of 2000, 78.4 percent in the first half of 2000, and 79.8 percent in the second half of 1999.

The cocaine kilogram price range remained fairly stable at $18,000−$22,000, as reported by DEA Drug Intelligence, at about an 83 percent purity.

The Florida Youth Survey on Substance Abuse for 2000 and 2001 show that less 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 crack use was reported by about 0.5 percent. Both powder cocaine and crack use declined for high school students in 2001.

Heroin

Based on the daily review of all ED charts at BGMC in the first half of 2001, there were 89 heroin cases (7 percent of all illicit substance abuse cases). This represents an increase from 2000, when there were 138 cases for the entire year, and is nearly double the cases in the second half of 1999 (*n* = 49). Heroin ED cases in the first half of 2001 were predominantly older White males experiencing withdrawal and/or seeking detoxification. Seventy-three of the 89 cases (82 percent) were male. Three-quarters were White. There were only three teenagers (3 percent) among the cases, while 21 percent were in their twenties, 35 percent were in their thirties, 32 percent were in their forties, and 9 percent were age 50 or older.

In Miami-Dade County, DAWN rates of heroin ED mentions per 100,000 population have been trending up since 1994, increasing dramatically from 48 in 1999 to 75 in 2000. In Miami-Dade County, there were 1,452 heroin ED mentions reported in 2000 by DAWN. This number represents a 58-percent increase over 1999 and a 463-percent increase over 1994, when there was a total of 258 heroin ED mentions. The route of drug administration for 28 percent of the heroin ED cases was injecting (the route of drug administration was unknown/not documented for 66 percent). Only 6 percent of heroin ED cases reported intranasal use of the drug.

In the first half of 2001, heroin accounted for 7 percent of all illicit drug ED cases at the Broward County General Medical Center. In these, heroin was the sole drug of abuse (with or without alcohol) in 48 percent of the cases. Cocaine was a co-exposure in 28 percent of the cases, followed by benzodiazepines (17 percent) and marijuana (11 percent). Alcohol was involved in 39 percent of the cases. The most common reason for the patient to visit the emergency department was withdrawal/seeking detoxification (46 percent), followed by depression (16 percent) and altered mental status (14 percent). Ten percent of the cases visited the emergency department for medical clearance for jail or rehabilitation, while psychosis accounted for only 2 percent of cases.

In the first 6 months of 2001, there were 16 deaths in Broward County in which heroin was considered a cause of death (exhibit 3). In eight of these deaths, the combination of cocaine and heroin was determined to be the cause, and in the other eight, heroin without cocaine was implicated in the decedents' demise. Hydrocodone, oxycodone, methadone, and benzodiazepines were combined in some of the heroin deaths; only two deaths were related to

heroin alone. This 6-month total of 16 heroin deaths represents an estimated increase from 2000, when there were 24 heroin deaths throughout the year.

Fourteen of the 16 Broward County heroin decedents in the first 6 months of 2001 were White, similar to 2000 (92 percent), 1999 (95 percent), and 1998 (97 percent). They continued to be predominantly male (88 percent), similar to the last several years. One-half of the decedents were in there forties, while 31 percent were in there thirties, 13 percent were in there twenties, and one was in his fifties. These overdoses were considered accidental.

In Miami-Dade County, heroin was detected in 21 decedents in the first 6 months of 2001. It was the cause of death in 15 of these cases. During all of 2000, 61 heroin-induced deaths were identified in Miami-Dade County among 72 heroin-related fatalities. Three-fourths of the 72 heroin decedents in 2000 were older than 34. Statewide, heroin-related deaths totaled 276 in 2000, a 5-percent increase from 1999.

In the first half of 2001, one-half of the 203 heroin admissions in Spectrum and BARC were age 35 or older. More than one-half (57 percent) were White, and nearly one-third were Hispanic/other.

During the first half of 2001, only 74 heroin cases were identified by the BSO Crime Lab, compared with 98 such cases during the first half of 2000 and 90 in the second half of 2000. The decline may be related in part to a change in operating procedure at the Crime Lab. Last year, the lab examined all non-cannabis cases submitted. In 2001, however, the lab is only working 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.

According to DEA Drug Intelligence, South Florida heroin prices have remained steady at about $60,000−$65,000 per kilogram, with an average purity of approximately 70 percent.

The 2001 Florida Youth Survey on Substance Abuse shows that less 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.

Other Opiates

Oxycodone, a semisynthetic opioid oral analgesic prescription pain medication (usually 5−10 milligrams), is used in a variety of brand-name and generic medications, alone or in combination with acetaminophen or aspirin, including Tylox, Percocet, Percodan, Roxicet, Roxicodone, Endocet, Endocodone, and Endodan.

OxyContin, a sustained release form of oxycodone, is designed to deliver oxycodone over a 12-hour period. However, if the OxyContin pill is crushed and inhaled or injected, or chewed and swallowed, the full effect of the potentially lethal dose is immediate. OxyContin tablets of 10, 20, 40, and 80 milligrams are selling on the street for anywhere from $0.25 to $1.00 per milligram. According to a Florida Medical Examiners' report released in February 2001, there were 68 overdose deaths related to oxycodone or hydrocodone in the preceding 6 months. This State report did not include Miami-Dade County and Broward County. Special "black box" warnings were issued by the Food and Drug Administration (FDA) and Purdue Pharma about OxyContin's abuse potential in July 2001. Also in July, a physician in Palm Beach was charged with first degree murder for inappropriately prescribing OxyContin.

In the DAWN national sample, oxycodone ED mentions increased 89 percent between 1993 and 1999 (from 3,395 to 6,429); they continued to increase to 5,261 in the first half of 2000.

During the first 6 months of 2001, there were 58 oxycodone overdose cases treated at BGMC. This represents a 71-percent increase over the previous 6-month period. Most (69 percent) were men, and 86 percent were White. The ages of these patients ranged from 18 to 58 years old. There were 3 teenagers, 10 patients in their twenties, 11 in their thirties, 31 in their forties, and 3 age 50 or older. OxyContin was specifically mentioned in 69 percent of these cases. The route of administration was not specified in most medical charts. In 43 percent of these cases, the reason for visiting the ED was dependence/withdrawal.

In 26 percent of the ED cases, use was clearly non-medical. In 16 percent of the cases, the oxycodone was being used for other psychic effects (such as excessive amounts for pain), and in another 16 percent, the oxycodone was taken in a suicidal gesture. Sixteen patients (28 percent) presented with central nervous system depression, and five presented because of convulsions. Eight patients received naloxone. Twenty patients (35 percent) required hospital admission, and the remaining were treated and released from the emergency department. Co-ingestants in these cases included benzodiazepines (in 31 percent of cases), especially alprazolam (7 cases); marijuana (24 percent); cocaine (16 percent); and other opioids such as heroin or methadone (12 percent) and hydrocodone (7 percent).

During the first 6 months of 2001, oxycodone was detected in 27 Broward County decedents. In 21 cases, oxycodone was specifically mentioned as a cause of death. There were 13, 18, and 24 oxycodone-caused deaths in the previous 3 6-month periods. In the first half of 2001, OxyContin was mentioned in 21, or 43 percent, of deaths. Eighty-one percent were considered accidents, and 19 percent were considered suicides.

Among the oxycodone-related deaths, there were two teenagers, four persons in there twenties, five decedents in there thirties, eight decedents in there forties, and two decedents in their sixties. Twenty of the 21 Broward County oxycodone overdose decedents were White (95 percent), and 86 percent were male. Most overdoses involved multiple drugs/medications, including benzodiazepines (especially alprazolam), heroin, hydrocodone, cocaine, and

alcohol. In addition, there were seven additional non-oxycodone deaths in which hydrocodone was considered a cause of death, and five deaths for which methadone was considered a cause.

In Miami-Dade County, there were six oxycodone-related deaths identified in the first 6 months of 2001. Most of the decedents were White or Hispanic and male. They ranged in age from 22 to 48 years.

Marijuana

In the review of ED charts at BGMC, 443 (35 percent) involved marijuana. Only 16 percent of the marijuana users did not use alcohol or any other drugs. Seventy-five percent were male, 11 percent were teenagers, 30 percent were in their twenties, 29 percent were in their thirties, 20 percent were in their forties, and 9 percent were age 50 or older. Of these patients 58 percent were White, 32 percent Black, and 10 percent Hispanic/other/unknown.

In 39 percent of the ED cases, marijuana was used in combination with cocaine. Marijuana was also found in combination with drugs such as MDMA and amphetamines (15 cases). In 18 percent of the cases, alcohol was the only documented co-ingestant with marijuana.

The most common reasons for marijuana ED visits were as follows:

- Depression/suicidal (22 percent)
- Trauma (12 percent)
- Psychiatric related (e.g., hallucinations, anxiety, bizarre behavior, delusions) (11 percent)
- Altered mental status (8 percent)
- Chest pain (6 percent)

Marijuana continues to be the most popular drug among young people treated in emergency departments. About one-half of all illicit substance abuse cases in the 12−25 age group involved marijuana. This compares to 27 percent for cocaine and 16 percent for benzodiazepines (16 of these involved alprazolam). Nine percent of the marijuana cases involved MDMA and 5 percent involved heroin.

In Miami-Dade County in 2000, there were 1,768 marijuana ED mentions reported by DAWN. This represents a 38-percent increase over the number of marijuana ED mentions in 1999 and a 148-percent increase over the total for 1994. The rate of ED mentions per 100,000 population was 91, much higher than the rate in 1999.

Marijuana treatment data for the first half of 2001 show that 1,626 admissions in Broward County programs were for primary abuse of marijuana. This represents 28 percent of the Broward program clients admitted to treatment. Forty-four percent were Black, 40 percent were White, and 16 percent were Hispanic/other. Sixty-six percent were younger than 18.

According to the 2001 Florida Youth Survey, 2 percent of 6th graders and 20 percent of high school seniors reported past-30-day use of marijuana. Lifetime prevalence ("ever used") ranged from 5.6 percent for 6th graders to 42 percent for seniors. There was a 70-percent increase in marijuana use between 2000 and 2001 among 7th graders and a 38-percent increase among 6th graders. Figures rose nearly 20 percent for 8th and 9th graders, while levels for 10th graders remained unchanged. There were significant declines of current marijuana use reported by 11th and 12th graders in 2001, compared with 2000.

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 (BD).

GHB-containing products may have ingredients such as furanone, furanone dihydro, 4-butyrolactone, dihydro-2 (3H)-furanone dihydro, tetrahydro-2-furanone, and butryolactone gamma. Brand name examples of gamma butyrolactone include Blue Nitro, Renewtrient, GH Revitalizer, Gamma G, Remforce, Firewater, ReActive, Rest-eze, Beta-Tech, Thunder, Jolt, and Verve.

BD may include active ingredients such as tetramethylene glycol; sucol 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, and 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, products that include BD are 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 rave scene and at other parties. Commonly used with alcohol, they have been implicated in drug rapes and other crimes. They have a short duration of action and are not easily detectable on routine hospital toxicology screens.

During the first 6 months of 2001, the Broward General Medical Center emergency department treated 32 people for GHB or GHB precursor overdose and two GHB withdrawal cases. This compares with a total of 77 in all of 2000. In virtually all of these GHB overdose cases, the reason for the ED visit was decreased responsiveness or coma, usually lasting less than 3 hours.

The ages of the GHB toxicity patients ranged from 14 to 50 years, with an average age of 26.3. Some (19 percent) were teens, 59 percent were in their twenties, 16 percent were in their thirties, and there was one 40-year-old and one 50-year-old. Seventeen (53 percent) of these GHB overdose patients were men; 81 percent were White non-Hispanic, 3 percent were White Hispanic, and 9 percent were Black non-Hispanic. The race/ethnicity was unknown in 6 percent of the cases.

While a urine toxicology screen was not obtained on every ED GHB case, the screen was amphetamine-positive in 31 percent of the cases, cocaine-positive in 13 percent, and marijuana positive in 16 percent. Alcohol was involved in 63 percent of the GHB cases. The GHB cases in which a blood alcohol level was obtained ranged from 0 to 249 milligrams per deciliter.

The location of the incident requiring the ED visit was a local bar/nightclub or the beach in one-half of the cases. Most (72 percent) presented to the emergency department between 11 p.m. and 6 a.m.

Five (16 percent) of the 32 patients were completely comatose (as judged by the Glasgow Coma Scale of 3). Airway assistance (e.g., nasal trumpet or oxygen) was required for many patients. At least 3 of the 32 patients vomited. Most were treated and released from the emergency department within several hours. However, 4 of the 32 patients required hospital admission, all to the intensive care unit, and 2 patients required endotracheal intubation.

In the first half of 2001, there were two GHB, five GBL, and four butanediol cases analyzed by the BSO Crime Lab. In the second half of 2000, there were only three GHB cases and one GBL case analyzed by the BSO Crime Lab; this compares to 12 GHB-related cases and 1 GBL case analyzed at BSO in the first half of 2000.

There were no GHB-related deaths reported in Broward County during the first 6 months of 2001, although some cases are still under review. From 1996 to December 31, 2000, in Broward County, there have been a total of 11 deaths that involved GHB in some way (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 cause of death. In one other case, a patient was admitted to a hospital for GHB intoxication, appeared recovered, but subsequently succumbed for other reasons. In one other death, the patient was brought dead on arrival to the BGMC emergency department as a multiple drug overdose that included GHB by history; however, the medical examiner found GHB to be noncontributory to the death.

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 of nine cases, with blood alcohol contents ranging from 90 to 340 milligrams per deciliter (legally drunk in Florida is 80 milligrams per deciliter). One recent fatality involved no coingestants and no alcohol. This case is important because it refutes the commonly espoused misperception that GHB is only fatal when another central nervous system depressant is taken with GHB. There was one GHB death reported in Miami-Dade County in 2001. The decedent was a 30-year-old White female. GHB was the only drug detected.

3,4-methylenedioxymethamphetamine (MDMA)

MDMA, a hallucinogenic amphetamine also known as "ecstasy," has become popular as a club drug at raves. The psychoactive, synthetic, DEA Schedule I drug is called the "hug drug." It has been promoted as a drug that increases empathy, relaxation, and sexuality. Indicators such as crime lab statistics, area drug confiscations, and national survey data point to increased abuse of this drug.

Each ecstasy pill generally contains 75−125 milligrams of MDMA in a 300 milligram pill. Wholesale prices in the United States are approximately $8 per tablet, but they may retail in clubs and at raves for $10−$25. According to DEA Drug Intelligence, South Florida ecstasy prices may have started dropping in the first half of 2001, reflecting increased supply.

Clandestine labs in Western Europe, especially the Netherlands and Belgium, have been the major source of the designer logo emblazoned pills. Although not verified, there are rumors of clandestine labs in South Florida beginning MDMA production. The practice of "rolling" (when heroin is used to counteract the stimulant effect of MDMA) has been reported in Orlando and Miami.

As of January 1, 2000, the BSO Crime Lab began to report MDMA separately. During 2000, MDMA accounted for 244 cases. In comparison, during 2000, heroin accounted for only 188 cases, LSD for 52, methamphetamine for 23, ketamine for 28, and GHB/GBL for 16. Thus, the BSO Crime lab worked more MDMA cases than heroin, LSD, GHB, or methamphetamine. In the first 6 months of 2001, 132 MDMA cases were reported by BSO, which was more than for heroin, LSD, GHB, GBL, butanediol, and methamphetamine combined.

In the first half of 2001 in Broward County, hospital cases involving MDMA were divided into three major categories: (1) those in which MDMA was specifically mentioned in the medical record and the patient tested positive for amphetamines (11 such cases); (2) those in which MDMA was mentioned but the toxicology screen was

either not obtained or negative for amphetamines (25 such cases); and (3) those cases in which MDMA was not specifically mentioned but was suspected, based on circumstances and a urine screen was positive for amphetamines (13 such cases). In the first half of 2001, there were 49 hospital cases in which MDMA was believed to be involved. If this pace continues, there will be a 58-percent increase over the year 2000 total.

Of the 2001 MDMA cases, most (92 percent) were young, White non-Hispanics; 15 percent were in their teens, 71 percent in their twenties, 10 percent in their thirties, and two were in their forties. Many cases involved a combination of MDMA and some other drug, including alcohol (43 percent), marijuana (33 percent), cocaine (33 percent), GHB (22 percent), and benzodiazepines (especially alprazolam/Xanax) (14 percent); there was one lysergic acid diethylamide (LSD)/"XTC" combination.

The reasons for the Broward County ED visits were altered mental status/decreased responsiveness (29 percent); depression/suicidal ideation (14 percent); and anxiety, agitation, confusion, paranoia, or bizarre behavior (12 percent). Other reasons for the ED visit were palpitations or chest pain (12 percent) and convulsions (8 percent). With one exception, patients were treated and discharged from the emergency department without requiring hospital admission. In Miami-Dade County, there were 105 MDMA ED mentions reported by DAWN in 2000, a 78-percent increase from 1999 and a 775-percent increase from 1994.

During the first 6 months of 2001, there were no fatalities for which MDMA was considered a cause in Broward County. However, there are some cases pending at this time. In Miami-Dade County during the first half of 2001, five deaths were linked to MDMA.

Lysergic Acid Diethylamide (LSD)

LSD, a synthetic hallucinogen popularized in the 1960s in the United States, is usually abused orally in small tablets ("microdots"), in 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.

LSD appears to be losing popularity among young people. According to the 2000 Monitoring the Future survey, the proportion of 8th graders using LSD in the last year remained at 2.4 percent. However, the percent of 10th graders using LSD in the last year declined to 5.1 percent from 6 percent in 1999, and from 6.9 percent in 1996. The percent of 12th graders saying that they had tried LSD within the last year dropped significantly from 8.1 percent in 1999 to 6.6 percent in 2000. Annual use among 12th graders peaked in 1996 at 8.8 percent. No 2001 survey data are available at this time.

In the first half of 2001, six LSD abuse cases reported at the BGMC emergency department. One was a teenager, four were in their twenties, and one was 54 years old. All LSD users were non-Hispanic White males. In three cases, marijuana was also used, and benzodiazepines were co-ingested in two cases. One case involved cocaine and heroin, and one involved the co-ingestion of MDMA. Two patients presented because of depression. Three patients were brought to the ED for medical clearance from rehabilitation or before being brought to jail, and one case involved bizarre behavior and/or hallucinations. LSD is not identified in most hospital toxicology screens. According to DAWN, there were 55 ED mentions for LSD in Miami-Dade County in 2000. This number has been stable since 1996, but it represents a 26-percent decrease from 1994.

There were 22 LSD samples identified by the BSO Crime Lab in the first 6 months of 2001, which compares with 52 LSD cases in 2000.

During the first half of 2001, there were several interesting cases that warrant further discussion.

Frequent Visitors

Many illicit drug users came to the emergency department for treatment several times during the first 6 months of 2001. Approximately 22 percent of all illicit substance abuse ED visits involved patients who had visited the ED more than once. Twenty-five patients made 3 visits to the emergency department, 7 made 4 visits, 3 made 5, and 1 made 11 visits.

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 Hollywood/Ft. Lauderdale International Airport are brought to BGMC for treatment. During the first 6 months of 2001, there were 21 bodypackers treated at BGMC; all but one had ingested latex-covered packets of cocaine. They claimed to have ingested from 2 to 89 of these packets, with an average of approximately 50 packets. Most (71 percent) were male, and the average age of these individuals was 29.7. Most (62 percent) were Black, 19 percent were White, one was Hispanic, and race was unknown in three cases. In each of the cocaine bodypacking cases where country of origin was documented, it was Jamaica. The one case that did not involve cocaine was a heroin bodypacker from Venezuela who had ingested approximately 50 heroin packets. He

had flown into Miami International, then took a shuttle to Ft. Lauderdale/Hollywood International Airport where he became symptomatic. He required critical care management and a naloxone drip, and eventually had 52 packets removed surgically with two rupturing. He did recover.

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Exhibit 1. Drug Mentions Among Broward ED Cases by Percentage of All Illicit Drug Cases: January–June 2001

Cocaine	Marijuana	Heroin	GHB	Ecstasy	Other
54	35	7	3	4	5

SOURCE: Broward General Medical Center

Exhibit 2. Primary Treatment Admissions in Broward County Spectrum Programs by Selected Drug and Percent: 1999-2001

Drug	1999	2000	2001
Cocaine	16	27	8
Heroin	1	2	1
Marijuana	45	37	39

SOURCE: Spectrum Programs, Inc.

Exhibit 3. Number of Heroin-Related Deaths in Broward County, Miami, and the State: 1995–June 2001

Year	1995	1996	1997	1998	1999	2000	1H 2001
Broward County	9	14	19	37	40	24	16
Miami/DadeCounty	45	31	52	61	58	72	21
State of Florida	84	123	136	206	246	276	146

SOURCE: Medical examiners

Drug Abuse Trends In Minneapolis/St. Paul, Minnesota

Carol Falkowski[1]

ABSTRACT

There is growing evidence of an emerging heroin abuse problem in the Minneapolis/Saint Paul metropolitan area in recent years. Opiate-related deaths, most from accidental heroin overdose, increased significantly in the first half of 2001 in Minneapolis/Saint Paul and outnumbered cocaine-related deaths. Treatment admissions for heroin, while a relatively small percentage of all admissions, increased throughout the 1990s, and in 2001 accounted for 3 percent of all admissions. Snorting was the primary route of administration for roughly half of those entering treatment for heroin addiction. Cocaine indicators reflected more of a mixed picture. Cocaine-related deaths declined, ED mentions rose slightly, and treatment admissions were stable. Law enforcement seizures remained at high levels. Most methamphetamine-related indicators increased, including continued growth in the number of clandestine methamphetamine labs in the State. More users reported smoking methamphetamine than in the past. Indicators regarding "club drugs" continued upward trends. From 1999 to 2000, hospital emergency department episodes increased for gamma hydroxybutyrate (GHB) (from 33 to 93) and for MDMA ("ecstasy") (from 16 to 65). More pills sold as MDMA were found to not contain the drug at all, or to contain other drugs in addition to MDMA, which underscores the dangers inherent in using it.

INTRODUCTION

Area Description

The Minneapolis and Saint Paul metropolitan area includes the city of Minneapolis, the capital city of Saint Paul, and the counties of Hennepin, Ramsey, Anoka, Dakota, and Washington. According to the 2000 census, the population is 2,482,353, roughly one-half of the Minnesota State population. More than one-half (56 percent) of the Ramsey County population lives in the city of Saint Paul, and one-third (34.2 percent) of the Hennepin County population lives in the city of Minneapolis. The remainder of the State is more sparsely populated and rural in character.

In the five county metropolitan area, 84 percent of the population is White. In Minneapolis and Saint Paul, 65 percent of the population is White. 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 total State population increased 9 percent from 1990 to 1998, while the minority population increased 45 percent. The Hmong population doubled over the past decade in Saint Paul to more than 24,000—making it home to the largest Hmong population of any U.S. city.

To the north, Minnesota shares a 596-mile international border with Canada, a largely unpatrolled wilderness area that makes it well suited for smuggling. U.S. Customs reported that nearly 3 million people crossed into Minnesota from Canada in 1999. Nine million tons of freight arrived by truck. Duluth, Minnesota, the largest U.S. inland harbor, and other Lake Superior ports, because of their large volume of foreign shipping (67 million tons of cargo annually, 39 in Duluth alone), also make the area susceptible to smuggling activity. Interstate Highway 35, which runs north-south from Duluth to Minneapolis/Saint Paul, originates in the Mexican border town of Laredo, Texas. Interstate 90, which runs west-east from Seattle to Boston, passes through southern Minnesota. To the west, Minnesota borders two of the Nation's most sparsely populated States, North Dakota and South Dakota, and to the south and east Iowa and Wisconsin, respectively.

According to law enforcement sources, most illegal drugs in Minnesota are supplied by Mexican drug trafficking organizations. Mexican criminal organizations provide the wholesale supply of cocaine, while African-American street gangs control the retail sales of crack cocaine. Additionally, emerging criminal networks involved in cocaine distribution include small groups of Russian immigrants, Hispanic gangs, and Jamaican criminal groups.

South American heroin arrives from Mexico via Texas or Arizona and is distributed by Mexican drug trafficking organizations. Chicago-based Nigerian trafficking organizations reportedly dominate the distribution of Southeast Asian heroin, while street gangs (African-American and Hispanic) are involved

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in retail heroin sales.

Southeast Asian traffickers continue to import opium for use largely confined to the Hmong community. Asian criminal groups are also believed to be increasingly involved in the importation and distribution of MDMA and crudely manufactured Asian stimulants.

Methamphetamines are imported and distributed by Mexican criminal organizations, while street gangs, outlaw motorcycle gangs, and independent Caucasian dealers operate at the retail level. Mexico is the primary source of marijuana in Minnesota, although local indoor and outdoor cultivation occurs throughout the State.

The rate of reported illicit drug abuse in Minnesota ranks below that of many States (27th), according to the 1999 National Household Survey on Drug Abuse. Among Minnesotans age 12 and older, 6.1 percent reported illicit drug use in the past month, compared with 6.4 percent nationally.

However, Minnesota ranks 10th for past-month illicit drug use among young people (age 12–25). Among 12–17-year-olds, 11.6 percent in Minnesota reported past-month drug abuse, compared with 9.9 percent nationally. Among 18–25-year-olds, 19.2 percent in Minnesota reported past-month drug abuse, compared with 16.1 percent nationally.

The explosive popularity of club drugs among suburban youth; the growing availability of drugs, drug recipes, and dietary supplements via the Internet; and the infiltration of drug trafficking organizations and gangs into small, nonurban towns may contribute to a heightened risk of drug abuse among young Minnesotans.

Data Sources

Data sources for this report include the following:

- Mortality Data. Drug abuse-related deaths are from the Hennepin and Ramsey County Medical Examiners through June 2001. Hennepin County cases include those in which drug toxicity was the immediate cause of death and those in which the recent use of a drug was listed as a significant condition contributing to the death. Ramsey County cases include those in which drug toxicity was the immediate cause of death and those in which drugs were present at the time of death.
- Hospital Emergency Department (ED) Data. These data are weighted estimates from the Drug Abuse Warning Network, Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). The estimates include all drug abuse-related ED mentions in non-Federal, short-term general hospitals in the standard metropolitan statistical area through 2000. A single drug abuse-related ED episode can involve the "mention" of up to four drugs and alcohol-in-combination.
- Treatment Data. These data are from addiction treatment programs (residential, outpatient, extended care) as reported on the Drug and Alcohol Abuse Normative Evaluation System of the Minnesota Department of Human Services through June 2001.
- Poison Center Data. These data are from the Hennepin Regional Poison Center, Toxic Exposure Surveillance System (TESS), through October 2001.
- Arrestee Data. Data on drug abuse among arrestees are from the Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice, U.S. Department of Justice, under the local direction of the Minneapolis Medical Research Foundation through December 2000. During 2000, there were 4,018 bookings, from which a sample of 1,113 was drawn. The interview refusal rate was 21 percent and the urine refusal rate was 6 percent among interviewees.
- Law Enforcement Data. These data and information on arrests, drug seizures, and prices are from various law enforcement agencies, including the U.S. Drug Enforcement Administration (DEA); Hennepin, Washington, and Ramsey County Sheriffs and the St. Paul and Minneapolis Police Departments. Crime lab data on purity levels, based on the drugs submitted for analysis by law enforcement agencies, are from the Saint Paul Police Department, the Minneapolis Department of Health and Family Support, and the Minnesota Bureau of Criminal Apprehension.
- Population Survey Data. These data are from Youth Substance Use: State Estimates from the 1999 National Household Survey on Drug Abuse, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, September 2001, DHHS Publication No. (SMA) 01-3546.
- Acquired Immunodeficiency Syndrome (AIDS) Data. These data are from the Minnesota Department of Health.
- Additional Information. Other information is from Minnesota Drug Threat Assessment, National Drug Intelligence Center, U.S. Department of Justice, August 2001 and interviews with treatment program staff, and school-based chemical health specialists conducted in November 2001.

Drug Abuse Patterns and Trends

Cocaine and Crack

Indicators related to cocaine were mixed during the first half of 2001: some increased, some declined, and some remained constant.

The rate of ED cocaine mentions per 100,000 population seems to have stabilized. The rate was 34.6 in 2000 compared with 34.1 in 1999. Cocaine-related hospital ED mentions increased slightly (3.3 percent) from 1999 to 2000 and continued to outnumber those related to any other illicit drug. There were 841 ED cocaine mentions in 2000, compared with 814 in 1999 (exhibit 1). Roughly one-third (30 percent) were single-drug episodes, and 70 percent involved drugs in addition to cocaine. Very few (5.7 percent) of these patients were under age 18, and 19.7 percent were age 18–25. Regarding patient disposition, 42.1 percent were treated and released, 54.4 percent were admitted to the hospital, and 1.6 percent left against staff advice.

In the first half of 2001, 13.5 percent of treatment program admissions were primary cocaine abusers, unchanged from the prior year (exhibit 2). Most cocaine (83.2 percent) admissions were for crack. The vast majority (88.3 percent) involved persons 26 and older, with 54.2 percent being age 35 or older (exhibit 3).

Cocaine-related deaths in Hennepin County fell to 14 in the first half of 2001, compared with 43 in each of the past 2 years (2000 and 1999). In Ramsey County there were 8 cocaine-related deaths in the first half of 2001, compared with 17 in 2000 and 10 in 1999. Two of the cocaine-related deaths in each county also involved the simultaneous use of heroin. One decedent in Hennepin County was a stillborn infant; in this case, maternal abuse of cocaine was cited as a significant contributing condition.

According to ADAM data, 66.7 percent of males arrested in Minneapolis in 2000 tested positive for at least one drug (exhibit 4). Overall, drug positivity was more common among more youthful offenders, except for cocaine and heroin, for which the opposite was true. One-quarter of male arrestees tested positive for cocaine in 2000.

The volume of cocaine seized by law enforcement varied by jurisdiction, with some reporting significant increases since 2000. Gangs dominated the retail distribution of cocaine and especially crack. Cocaine prices were $100 per gram, $250 per "eight-ball" (one-eighth ounce, 3.5 grams), $700–$1,200 per ounce, and $24,000 per kilogram. A rock of crack sold for $10–$20; the price was higher in suburban and rural areas.

Heroin

Heroin indicators continued to increase in 2001, and opiate-related deaths, most from accidental heroin overdose, surpassed those from cocaine in both cities. High-purity heroin at very low prices, and in steady supply, fueled this increase in mortality.

The rate of ED heroin mentions per 100,000 population rose from 2.9 in 1994 to 9.4 in 2000. Hospital ED heroin mentions also gradually increased throughout the 1990s and rose 25 percent from 1999 to 2000. (exhibit 1). Forty-six percent were single-drug episodes, and 53 percent involved heroin and at least one other drug. None of these patients was under age 18 and only 13 percent were age 18–25. Regarding patient disposition, 68.4 percent were treated and released, and 29.3 percent were admitted to the hospital.

Slightly more than 3.0 percent of treatment admissions in 2001 were heroin-related, compared with 1.5 percent in 1991. Most (84 percent) were age 26 and older (exhibits 2 and 3). Using heroin intranasally is more attractive to new users. Nearly one-half (46.6 percent) of the people seeking treatment for heroin cited intranasal use as the primary route of administration. Injection was the primary route of administration for more than half (51.7 percent) of the heroin patients. Smoking heroin by laying lines out on a piece of aluminum foil, heating it from below, and inhaling the vapors, commonly known as "chasing the dragon," is known as "foiling" in Minneapolis. In addition to abstinence-based treatment programs, 7 methadone maintenance programs serve roughly 1,400 clients. Among Minneapolis male arrestees in 2000, 3 percent tested opiate-positive, most in their early thirties (exhibit 4).

Heroin-related deaths continued to climb. Hennepin County reported 27 opiate-related deaths in the first half of 2001, compared with 41 in all of 2000 and 27 in 1999. Most were accidental heroin overdoses. Ramsey County reported 11 opiate-related deaths in the first half of 2001, compared with 17 in 2000 and 20 in 1999.

Most heroin seized by law enforcement was white, off-white, or tan powder. Dark-colored chunks of Mexican black tar heroin were quite rare. Powdered, tan heroin also appeared packaged in small, clear capsules. Multijurisdictional law enforcement drug task forces operating throughout the State seized 352 grams of heroin in 1999, compared with 97 grams in 1997.

The year 2000 was a turning point for heroin in Minneapolis. For the first time, high-potency heroin sold for as little as $10 per dosage unit or "paper," $50 per quarter-gram, and $900–$2,000 per ounce.

Heroin purity levels became extremely high, undoubtedly contributing to the heightened accidental overdose deaths. Even experienced addicts can easily overdose from unexpectedly high-purity heroin.

Other Opiates/Narcotics

Narcotic analgesics, medically prescribed painkillers, are sometimes used as heroin substitutes or consumed by drug abusers seeking the mood-altering, narcotic effects. Collectively, there were 303 hospital ED mentions of narcotic analgesics in 2000, compared with 210 in 1999, and 209 in 1998.

Oxycodone (the active ingredient in Percodan, Percocet, and the longer acting OxyContin), while a growing drug of abuse in some eastern, rural parts of the country, has resulted in only a handful of law enforcement cases in mostly rural parts of Minnesota to date. Still, there are some early signs of heightened activity involving oxycodone. The State crime lab reported 11 cases involving oxycodone in 1999, 19 in 2000, and 17 in 2001 (through September). Hydromorphone (Dilaudid) is another sought-after, Schedule II prescription painkiller.

One metropolitan area treatment program reported treating more hydrocodone (Vicodin) addicts in the past 6 months than in the past 7 years combined, although the numbers are still small. The typical profile was of an employed, female addict with a 1–2-year abuse history and a very hidden addiction, who would obtain the prescription under false pretenses from multiple doctors.

Within the Hmong community opium smoking remains a concern. Routinely shipped from Asia to residents of the Southeast Asian community in the Twin Cities area, packages containing opium are sent by mail at the risk of interception by U.S. Customs. Samples of opium analyzed by one law enforcement lab also contained traces of acetaminophen, aspirin, and caffeine (the ingredients in Excedrin). It was hypothesized that the users were possibly attempting to synthesize opium into heroin with the addition of these ingredients.

Marijuana

Marijuana remained a significant and problematic drug of abuse among young people, and indicators continued upward trends. The rate of hospital ED marijuana mentions per 100,000 population increased dramatically from 20.7 in 1998 to 33.1 in 2000. Hospital ED marijuana mentions increased 28.5 percent from 1999 to 2000 when they totaled 803 (exhibit 1). Most (69.5 percent) were multiple drug episodes, and most patients (65.4 percent) were age 26 or younger—32.7 percent were under age 18 and 32.7 percent were age 18–25. In terms of patient disposition, roughly one-half were treated and released, and one-half were admitted to the hospital.

Marijuana joints are sometimes dipped into other psychoactive substances prior to smoking to achieve additional, more pronounced effects or to enhance the effects of marijuana alone. Joints dipped in formaldehyde or embalming fluid, which is often mixed with phencyclidine (PCP), are known as "wets" or "amp." Joints or tobacco cigarettes dipped in PCP are known as "wet daddies."

In 1991, 8.0 percent of treatment admissions reported marijuana as the primary substance problem, compared with 22.9 percent in 2001. One-half of the patients were under age 18 and entering treatment for the first time (exhibits 2 and 3).

Marijuana remained easily available. An individual cigarette or joint sold for $3–$5, dipped joints for up to $10. In bulk, marijuana typically sold for $50 per quarter ounce, $150–$175 per ounce, and $700–$3,000 per pound, depending on the alleged potency. Among male arrestees in Minneapolis 54.2 percent tested marijuana-positive in 2000, but among those under age 21, 74.8 percent were marijuana positive (exhibit 4).

Stimulants

Indicators related to methamphetamine, also known as "meth," or "crystal," continued strong upward trends in 2001, except for deaths in Ramsey County, which declined.

The rate of ED methamphetamine mentions per 100,000 population in Minneapolis increased from 4.7 in 1999 to 6.3 in 2000. From 1999 to 2000, ED methamphetamine and amphetamine mentions increased 61 percent. There were 153 methamphetamine and 189 amphetamine-related hospital emergencies, for a combined total of 342 in 2000. This compares with combined totals of 213 in 1999 and 153 in 1998 (exhibit 1).

The number of methamphetamine addicts entering treatment increased as well, accounting for 0.3 percent of treatment admissions in 1991, 3.0 percent in the first half 2000, and 3.6 percent in the first half of 2001. Almost 4 of 10 were women, the largest proportion of women within any drug admission category, possibly due to the initial desirability of the stimulant and appetite suppressant effects (exhibit 2). Roughly one-third (35 percent) of patients were age 25 or younger (exhibit 3). While intranasal use was the most common route of administration (41 percent), smoking methamphetamine is increasingly popular (29.3 percent), especially using a gutted light bulb as a pipe.

Hennepin County reported five amphetamine/methamphetamine-related deaths in the first 6 months of 2001, compared with five in 2000 and two in 1999. Included in this count are the deaths of a 19-year-old Black male associated with MDMA, a 49-year-old White male associated with amphetamines and PCP, and a stillborn White male for whom maternal amphetamine abuse was cited as a significant condition contributing to the death. However, in Ramsey County methamphetamine-related deaths fell sharply, with 1 in the first half of 2001, compared with 11 in 2000 and 5 in 1999.

Methamphetamine seizures increased overall from 1999 to 2000. Purity levels, while generally higher than in years past, were still quite variable, thus making use of the drug even more unpredictable. Dimethylsulfone (DMSO), the most common cutting agent, is a fluffy, white substance used to treat arthritis in horses.

Although most methamphetamine in Minnesota is imported from Mexico, the growth of homemade, do-it-yourself methamphetamine labs continued. In 1998 46 clandestine methamphetamine labs were shut down in Minnesota by the DEA, compared with 204 in 2001 (through November 16). The volatile and toxic raw ingredients, combined with the rudimentary and makeshift conditions that characterize these labs, can result in serious injury to anyone in the area, be it a family member, friend, customer, stranger, or law enforcement officer. In addition, the long-lasting environmental contamination of surrounding areas continues to be of serious concern.

Very few (1.6 percent) Minneapolis arrestees tested positive for methamphetamine in 2000 (exhibit 4). Prices were unchanged at $90–$100 per gram, $600–$900 per ounce, $10,000–$12,000 per pound, and $15,000 per kilogram. The methamphetamine comes in white, tan, and various pastel colors depending on the extent to which different ingredients are processed out during the manufacture.

MDMA, or 3,4-methylenedioxymethamphetamine (often called "ecstasy," "X," "E," "XTC," or "the hug drug"), is a methamphetamine with mild hallucinogenic properties. MDMA abuse by young people in the metropolitan area continued to escalate. It is no longer limited to raves or nightclub settings. MDMA comes in small pills of different colors with various logos imprinted on them, or in capsules that typically sell for $20 each. School-based counselors reported the emergence of MDMA abuse and rave garb (pacifiers, glow sticks, fairy wings) among students since the spring of 2000.

Hospital ED MDMA mentions skyrocketed in Minneapolis/Saint Paul from 16 in 1999 to 65 in 2000, a fourfold increase (exhibit 5). Of the 4,511 MDMA episodes nationwide in 2000, the vast majority (81.6 percent) involved persons under age 26; 20 percent were under age 18, and 61.6 percent were age 18–25. Hennepin Regional Poison Center received 50 calls regarding exposure to MDMA in 2001 (through October), compared with 45 in all of 2000. Addiction treatment programs reported a rising number of patients who were heavy MDMA abusers, but it is difficult to ascertain the exact number because of measurement issues. Almost all patients presented with polydrug abuse histories.

In 2001 there were no MDMA-related deaths in Ramsey County and one in Hennepin County. This compares with three MDMA-related deaths in Hennepin County and three in Ramsey County in 2000.

Law enforcement seizures of MDMA submitted to the Minneapolis crime lab rose from 2,047 dosage units in 2000 to 7,346 in 2001 (through October), more than a threefold increase. Growth in MDMA seizures was even more pronounced at the State crime lab—213 tablets in 2000 to 2,892 in 2001 (through September). Ramsey County seized 3,000 tablets in a single case in the Asian community in 2001, and the local DEA removed 1.7 kilograms of MDMA powder and 1,578 dosage units in 2000.

One significant new trend regarding MDMA, in addition to its growing abuse, is that the pills themselves are more variable in content. More frequently than in the past, alleged MDMA pills contain additional or alternate psychoactive ingredients. MDA, or 3,4-methylenedioxyamphetamine, a chemical similar in effect to MDMA, was also being sold as MDMA, and orange pills with butterfly imprints were found to actually contain PCP. Still other pills sold as ecstasy were found to contain a mixture of MDMA and ketamine, and others a mixture of MDMA, ketamine, methamphetamine, and caffeine. These findings underscore the dangers inherent in MDMA use and reliance on rave-based field tests, which are promoted as harm-reduction efforts to determine actual content of the pills to make ecstasy use "safer."

Khat, a plant used for its stimulant effects in East Africa and in the Middle East, first appeared several years ago within the growing Somali refugee communities in the Twin Cities and in Rochester, Minnesota. Its active ingredients, cathinone and catheine, are controlled substances in the United States. There has been one ED episode involving khat to date.

Methylphenidate (Ritalin), a prescription drug used in the treatment of attention deficit hyperactivity disorder (ADHD), is also used as a drug of abuse by crushing and snorting the pills, which sell for $5 each. There were 34 hospital ED episodes involving methylphenidate in 2000, compared with 16 in 1999 and 32 in 1998.

Hallucinogens

The relatively new category of club drugs, so named for their use and sale at nightclubs and rave parties, includes the hallucinogens lysergic acid diethylamide (LSD) and ketamine, in addition to MDMA, GHB, and flunitrazepam (Rohypnol). LSD, a strong, synthetically produced hallucinogen, is typically sold as saturated, tiny pieces of paper known as "blotter acid" for $5–$10 per dosage unit. Hospital ED episodes of LSD declined from 64 in 1999 to 58 in 2000 (exhibit 5).

Ketamine, also known as "Special K," "Vitamin K," or "cat-killer," is a veterinary anesthetic that first appeared as a drug of abuse among young people in Minnesota in 1997. There was one ketamine ED mention in 2000 and one in 1999 (exhibit 5), and five cases submitted to were the Minneapolis crime lab. The drug is used intranasally, injected, or put into capsules or pills. Hennepin Regional Poison Center received six calls regarding exposures to ketamine in 2001 (through October).

Other hallucinogens include the naturally occurring psilocybin mushrooms. There were 36 hospital ED episodes involving these mushrooms in 2000, compared with 25 in 1999 and 17 in 1998. They sell for up to $200 per dried ounce. Hennepin Regional Poison Center received 29 calls regarding exposures to hallucinogenic mushrooms in 2001 (through October).

Phencyclidine (PCP), a dissociative anesthetic that appeared in the area, is mostly used in combination with marijuana. PCP-soaked cigarettes and marijuana joints, or those soaked in a combination of PCP and formaldehyde, are known by various slang terms including "amp," "wets," or "wet daddies." They are easily distinguished by their pungent, unpleasant, chemical odor. PCP can also be injected or snorted. Very few male arrestees (1.8 percent) in Minneapolis tested positive for PCP in 2000. There were 20 hospital ED mentions of PCP in 2000, compared with 18 in 1999. In Hennepin County in 2001 there was one mixed-drug overdose death of a 49-year-old White male that involved PCP and amphetamine.

Sedatives/Hypnotics

Flunitrazepam (Rohypnol) is a long-acting pharmaceutical benzodiazepine. Although not approved for medical use in the United States, 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 was initially used in drug-assisted rapes and assaults. There were no ED mentions of flunitrazepam in 2000 or 1999, but it should be noted that the DAWN does not record cases unless the patient knowingly ingested the drugs, thereby excluding drug-rape cases from its database.

Gamma hydroxybutyrate (GHB), also known as "G," "gamma," "liquid E," or "liquid X," is a liquid abused for its stupor-like, depressant effects and as a predatory drug-induced rape drug. In small amounts it produces effects similar to drunkenness, and in larger doses it produces seizure-like activity, unconsciousness, and respiratory arrest. It sells for $10 by the capful, shot glass, or swig from a bottle. It is sometimes mixed in bottled water containers. Because becoming unarousable is part of the GHB experience, some people mark their palms with a large letter "G" to indicate they are using GHB, so if they are found unconscious, their friends need not call 911, but can wait until the user regains consciousness.

GHB accounted for more ED mentions than any other club drug in the metropolitan area. From 1999 to 2000, ED mentions for GHB rose from 33 to 93 (exhibit 5). People entering emergency departments with GHB complications were slightly older than those with MDMA mentions—60 percent of GHB episodes involved patients under the age of 25, compared with 81 percent of MDMA mentions. Of the 4,959 GHB-related ED episodes nationwide in 2000, those under age 18 accounted for 6.3 percent, 18–25-year-olds for 53.6 percent, and 26–34-year-olds for 31.5 percent.

Addiction treatment programs reported a growing number of patients who presented with GHB addiction, exhibiting physical dependence, tolerance, and withdrawal. A typical scenario after several months of use is a compulsion to dose with GHB every 3 hours at the risk of experiencing severe withdrawal symptoms. Two GHB-related deaths occurred in 1999.

Gamma butyrolactone (GBL), known as furanone dihydro, and 1,4 butanediol, known as BD or 1,4 BD, are chemical cousins of GHB that convert into GHB once ingested. Despite recent State and Federal laws and regulatory actions targeting GHB, GBL, and 1,4-BD, it is still possible to find recipes and purchase products that contain these chemicals on the Internet, where they are sold as nutritional supplements, muscle-stimulating growth hormones, aphrodisiacs, fish tank cleaners, or household cleaning solvents. In 2001, the State crime lab handled three cases involving a total of 3,544 milliliters of GHB-related products. In November a man was convicted in Federal Court for distributing over 4,000 ounces of 1,4 BD in 1,041 separate spray bottles.

Other Drugs/Substances

Alcohol remained the most prevalent drug of

abuse, with more than one-half (55.5 percent) of Minnesotans older than 12 reporting past-month alcohol use, compared with 46.4 percent nationwide.

In Minnesota 23.7 percent of the population reported binge drinking (5 or more drinks on a single occasion), compared with 20.2 percent nationwide. Yet among 18–25-year-old Minnesotans, almost one-half (49.5 percent) reported past-month binge drinking compared with 37.8 percent nationally. For binge drinking among 18–25-year-olds, Minnesota ranked fourth highest in the Nation, behind North Dakota (54.3 percent), Wyoming (50.7 percent), and Massachusetts (49.7 percent).

In Hennepin County there were 96 alcohol-involved deaths in 2000, mostly cases in which acute alcohol intoxication was listed as a significant contributing condition. Ramsey County reported 19 deaths in 2000 caused by alcohol toxicity or related to having a blood alcohol content (BAC) over 0.10 percent. Because alcohol is reported on the DAWN only when used in combination with other drugs, it is difficult to accurately assess the relative contribution of alcohol versus illegal drug abuse to the practice of emergency medicine. There were 1,780 ED mentions of alcohol-in-combination in Minneapolis/St. Paul in 2000, compared with 1,678 in 1999. Alcohol treatment admissions represented a declining percentage of total admissions throughout the 1990s. Three-quarters of people entering addiction treatment reported alcohol as the primary substance problem in 1991, compared with slightly over one-half (56.4 percent) in 2001. Sixty percent were age 35 and older (exhibit 2).

One-third (33.6 percent) of Minnesotans age 12 and older reported past-month use of any tobacco product, compared with 30.3 percent nationally, ranking 11th highest. Yet among 18–25-year-olds, Minnesota ranked second highest in the Nation (54.9 percent), behind Kentucky (55.2 percent), and compared with 44.4 percent nationally. The vast majority of patients entering addiction treatment programs reported daily nicotine use.

Hennepin Regional Poison Center received a call this year involving a young man who intentionally injected embalming fluid intravenously for the psychoactive effects. Although marijuana joints are sometimes dipped in "embalming fluid," lab analysis of the liquid known as embalming fluid typically reveals the presence of PCP in addition to embalming fluid and/or formaldehyde. The person became unconscious and required emergency medical attention.

Some students at a local suburban high school were using marijuana in deliberate combination with echinacea tablets. It is a dietary supplement derived from the purple coneflower, which is sold most often in capsules to prevent or delay the onset of cold and flu symptoms and respiratory infections.

School-based counselors reported the intermittent abuse of dextromethorphan (DXM), a substance found in over-the-counter cough medications and sold as a powder or in clear capsules for $5. Hennepin Regional Poison Center received 62 calls regarding exposure to products containing dextromethorphan in 2001 (through October). Counselors also continued to report widespread abuse of nutritional supplements and some over-the-counter allergy medications by youth, sometimes in massive amounts, and especially ephedrine- or caffeine-containing products that promise high energy and mood elevation. One school reported the sale of individual pills of pseudoephedrine (Sudafed).

Infectious Diseases Related to Drug Abuse

Of the AIDS cases in Minnesota, 88 percent were in the Minneapolis/St. Paul metropolitan area at onset.

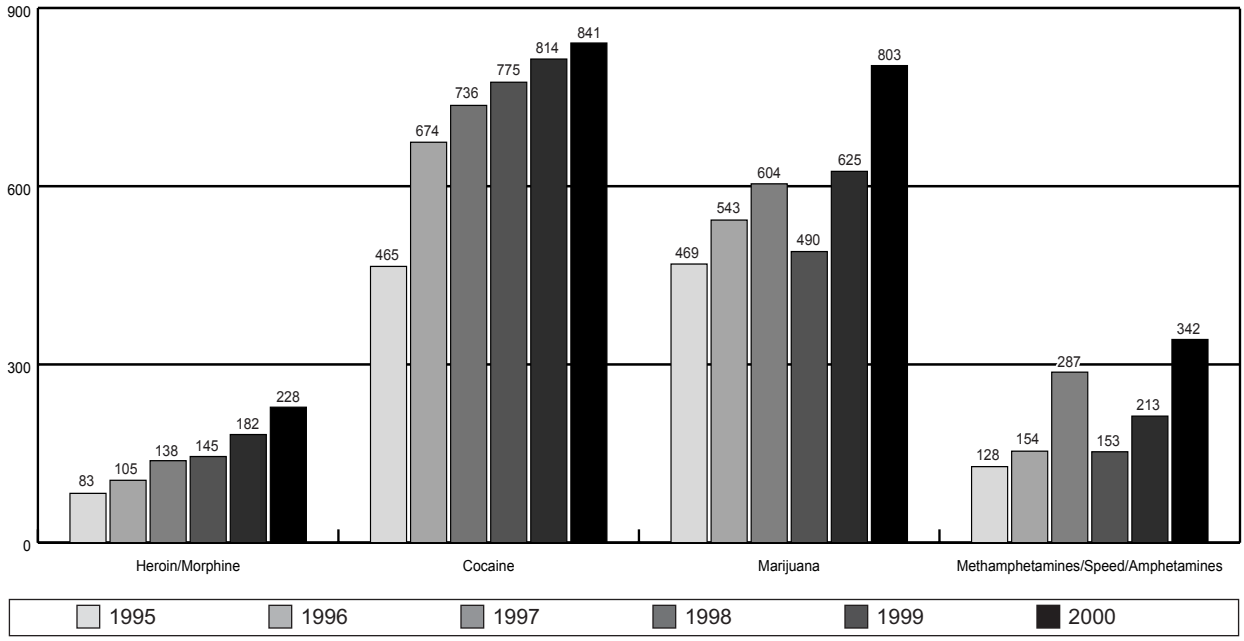
Of the 3,372 cumulative AIDS cases among adult/adolescent males in Minnesota as of July 1, 2001, the exposure categories were as follows: men who have sex with men (MSM) (75 percent) injecting drug users (IDUs) (6 percent), MSM/IDUs (7 percent), hemophilia or coagulation disorder (2 percent), heterosexual contact (2 percent); transfusion or blood (1 percent), and other or undetermined (7 percent).

Exposure to human immunodeficiency virus (HIV) associated with injection drug use is a much more prevalent risk factor for women. Of the 396 cumulative AIDS cases among adult/adolescent females in Minnesota July 1, 2001, the exposure categories were as follows: injection drug use (23 percent) heterosexual contact with an IDU (20 percent) heterosexual contact with others (26 percent), transfusion or blood (4 percent), hemophilia or coagulation disorder (<1 percent), and other or undetermined (27 percent).

Many addicts with a history of injection drug use contract the hepatitis C virus (HCV), a blood-borne liver disease, the symptoms of which may not appear for as long as 20 years after initial exposure. The estimated rate of HCV among methadone patients runs as high as 90 percent.

For inquiries concerning this report, please contact Carol Falkowski, Hazelden Foundation, Butler Center for Research, 15245 Pleasant Valley Road, Box 11, Center City, Minnesota, 55012-0011, Phone: (651) 213-4566, Fax: (651) 213-4344, E-mail: <cfalkowski@hazelden.org> *or go to* <www.hazelden.org/research>.

Exhibit 1. Number of Hospital Emergency Department Mentions of Major Illicit Drugs of Abuse in Minneapolis/Saint Paul: 1995–2000



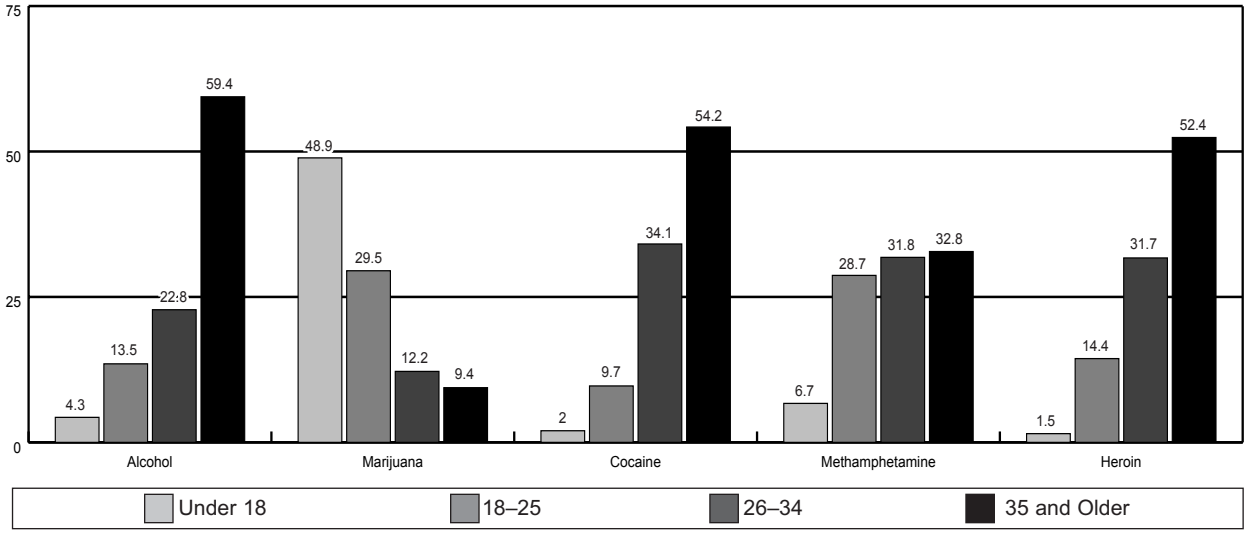
SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Selected Characteristics of Admissions to Minneapolis/St. Paul Treatment Programs by Primary Drug: January–June 2001

Total Admissions (*N* = 8,789) Percent of Total	**Alcohol (4,961) 56.4**	**Marijuana (2,017) 22.9**	**Cocaine (1,192) 13.5**	**Meth (314) 3.6**	**Heroin (271) 3.1**
Gender					
Male	73.8	78.4	66.7	60.5	67.9
Female	26.2	21.6	33.3	39.5	32.1
Race/Ethnicity					
White	79.9	70.9	40.0	91.3	46.6
African-American	12.2	18.4	51.8	1.0	46.6
Hispanic	2.8	3.7	3.7	2.7	4.8
American Indian	4.1	3.6	2.1	2.0	0.8
Asian	0.3	1.1	0.9	1.3	0.4
Age					
17 and younger	4.3	48.9	2.0	6.7	1.5
18–25	13.5	29.5	9.7	28.7	14.4
26–34	22.8	12.2	34.1	31.8	31.7
35 and older	59.4	9.4	54.2	32.8	52.4
Route Of Drug Administration					
Smoking			83.2	29.3	1.7
Intranasal			14.4	40.9	46.6
Injection			2.4	22.6	51.7
Other				(Oral 7.2)	
Secondary Drug Used	Marijuana 60.3	Alcohol 80	Alcohol 57.9	Marijuana 40.6	Cocaine 37.5
Tertiary Drug Used	Cocaine 40.7	Cocaine 25.5	Marijuana 43.4	Alcohol 44.3	Alcohol 32.1
First Treatment Entry	31.6	49.9	18.1	34.5	23.3
Percent Daily Nicotine Use	59.9	61.6	64.9	71.9	73.2

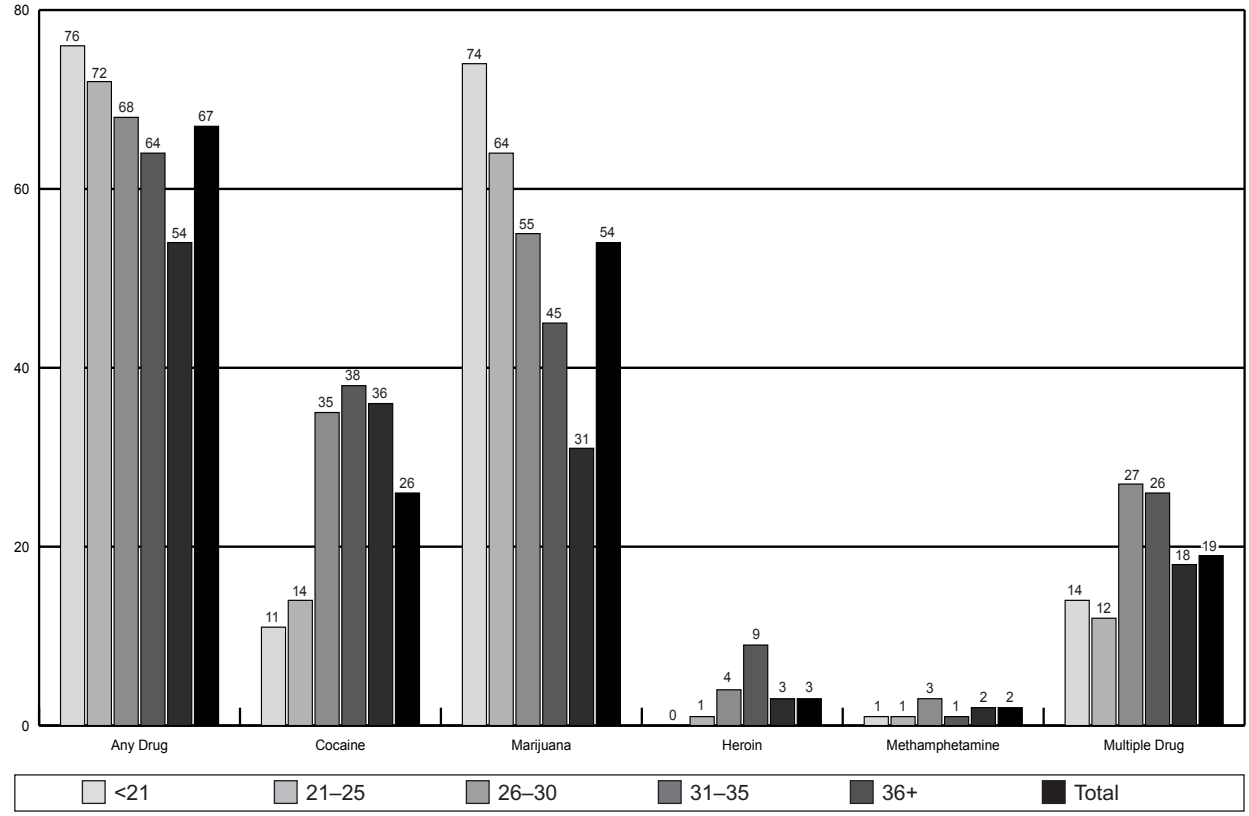
SOURCE: Drug and Alcohol Abuse Normative Evaluation System, Minnesota Department of Human Services, 2001

Exhibit 3. Admissions to Treatment Programs in Minneapolis/Saint Paul by Primary Drug, Age Group, and Percent January–June 2001



SOURCE: Drug and Alcohol Abuse Normative Evaluation System, Minnesota Department of Human Services, 2001

Exhibit 4. Percent* of Male Arrestees in Minneapolis who Tested Positive for Selected Drugs by Age Groups: 2000

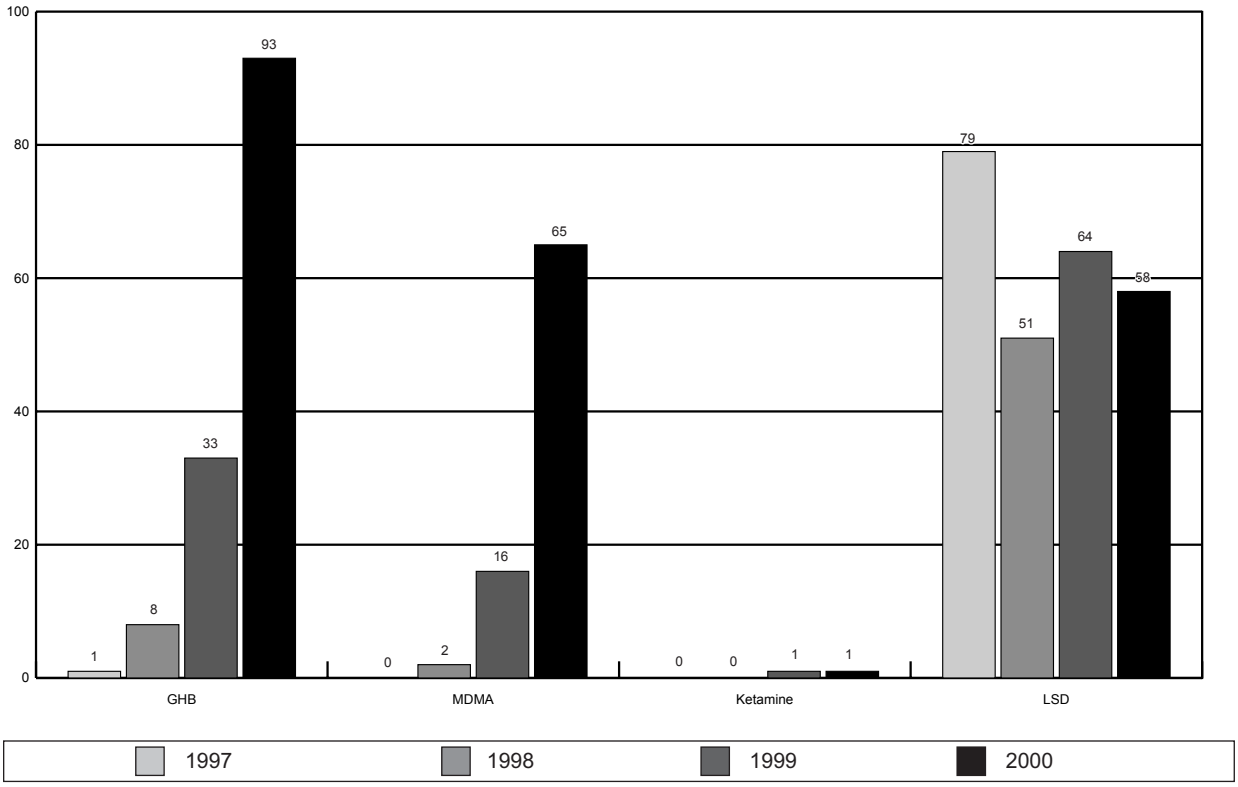


N = 1,113

* Rounded to nearest percent

SOURCE: Arrestee Drug Abuse Monitoring Program, National Institute of Justice Programs, 2000 Annualized Site Reports, Pre-release Updated Version, 2001

Exhibit 5. Estimated Number of Emergency Department Mentions of Club Drugs in Minneapolis/Saint Paul: 1997–2000



SOURCE: Drug Abuse Warning Network, SAMHSA

Patterns Of Drug Abuse In Newark

Abate Mammo, Ph.D.[1]

ABSTRACT

This report presents data on drug abuse patterns and trends in Newark and its primary metropolitan statistical area (Newark PMSA), based on indicator data from a variety of sources. As in previous years, most (97.1 percent) treatment admissions in 2000 were illicit-drug related. Heroin accounted for 76.9 percent of primary treatment admissions in Newark, compared with 8.3 percent for cocaine and 5.6 percent for marijuana. After rising from 54.0 to 80.5 percent between 1992 and 1998, heroin use as primary, secondary, or tertiary drug in Newark remained stable between 1999 and 2000 (80.4 percent and 80.8 percent, respectively). Excluding Newark, heroin use as primary, secondary, or tertiary drug also remained stable in the Newark PMSA, accounting for 60.2 and 59.9 percent of all drug use in 1999 and 2000, respectively. Statewide, heroin use as primary, secondary, or tertiary drug increased from 46.4 percent in 1999 to 49.0 percent in 2000. Consistent with treatment data, ED heroin mentions in the Newark PMSA were also stable (33.3 percent in 1999 and 33.7 percent in 2000). Although only 2.7 percent of year 2000 admissions in Newark 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 42.2 percent of Newark primary, secondary, or tertiary drug treatment admissions and for 20.9 percent of Newark PMSA ED mentions in 2000. Between 1999 and 2000, heroin purity increased from 67.5 percent to 72.2 percent, while its price fell from 36 to 33 cents per milligram. Most of the heroin sold in the Newark PMSA was South American. Heroin use has spread to suburban and rural areas, with injection becoming increasingly more popular among persons between the ages of 18 and 25. Partial data from 2001 show a continued increase both in heroin use and in heroin injection

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 (or African-Americans) 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 (or Latinos) for 29 percent. Only 4 percent reported multiple races. In 2000, about 5 percent of the people lived in group quarters, and 2.7 percent were institutionalized. Over one-half (51.9 percent) of the families had underage children, and 27.9 percent of Newark residents were under 18 years old. Even though 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 being 5 years old 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 ($9,424) in 1989, compared with $35,038 in 1989 and $38,715 in 1999 for Newark PMSA.

Data Sources

This report uses data from various sources:

- Drug Treatment Data. These 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 (DAS) of the Department of Health and Senior Services (DHSS). 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 600,000 admission and discharge records. Treatment information obtained from ADADS includes all statistics for Newark, the Newark PMSA, and the State. This report uses

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treatment data primarily from 2000 (exhibit 2). Major drug treatment admissions for Newark and the rest of the Newark PMSA, excluding Newark city, are presented in exhibit 3. Data from the Client Oriented Data Program (CODAP) dating from 1977 to the first half of 1991 are also used to study trends in drug injection among Newark and statewide heroin treatment admissions in exhibits 4 and 5, respectively.

- Emergency Department (ED) Data. This information was obtained from the March 2001 update of the Drug Abuse Warning Network (DAWN) compiled by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration. The DAWN system collected data on ED cases in the Newark PMSA (i.e., in Essex, Morris, Somerset and Union Counties).
- Mortality Data. These data were obtained from the DAWN December 2000 issue entitled "Annual Medical Examiner Data 1999." The DAWN system compiled data for counties in the Newark PMSA.
- Heroin Purity and Price Data. This information was 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 purity, retail price, and origin of heroin by purchasing through undercover operations. Illicit drug prices were also obtained from the Illicit Drug Price Survey conducted in methadone programs by the New Jersey Division of Addiction Services between late October and early November 2001.
- Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) Data. These 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 June 30, 2001, are used in this report (exhibits 6 and 7).

DRUG ABUSE PATTERNS AND TRENDS

Exhibit 1 shows changes in selected indicators for specific drug types in the Newark PMSA for 1999–2000.

In Newark city, alcohol-related treatment admissions were stable, with their share declining slightly from 8.4 percent in 1999 to 8.3 percent in 2000. Consistent with treatment data, ED alcohol-in-combination mentions declined from 2,377 to 2,123 between 1999 and 2000.

Heroin was the most prominent drug of abuse in the Newark PMSA. Primary heroin treatment admissions accounted for 76.9 percent of all treatment admissions in Newark city, compared with 45.7 percent in the State. Heroin abuse increased in the State between 1999 and 2000, with evidence of a spread of the drug into suburban and rural areas. ED heroin mentions in the Newark PMSA declined from 260.3 to 237.7 per 100,000 population. Heroin ED mentions also decreased, from 4,733 in 1999 to 4,399 in 2000.

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 8.3 percent of all treatment admissions in 2000, compared with 9.9 percent in 1999. ED cocaine mentions also declined between 1999 and 2000.

In 2000, marijuana accounted for 5.6 percent of all treatment admissions, up from 4.8 percent in 1999. However, 16.6 percent of treatment admissions in 2000 reported using marijuana as primary, secondary, or tertiary drug, compared with 14.2 in 1999. ED marijuana mentions were stable at about 29 per 100,000 population.

Phencyclidine (PCP) and other hallucinogens were rarely reported in the Newark PMSA. Among treatment admissions, there were only 17 PCP admissions (primary drug) in 1999, compared with 33 in 2000. By comparison, there were 69 other hallucinogens mentions in 1999 and 65 in 2000. Consistent with treatment data, ED PCP mentions increased from 15 in 1999 to 39 in 2000, while other hallucinogens mentions fell from 10 in 1999 to none in 2000.

Methamphetamine use was rare among treatment admissions in Newark, with only 25 admissions in 1999 and 21 in 2000. There were only three methamphetamine ED mentions in1999, compared with six in 2000.

Club drugs such as 3,4-methylenedioxymethamphetamine (MDMA or "ecstasy"), gamma hydroxybutyrate (GHB), and ketamine were rarely reported by clients in the Newark PMSA. DAWN ED MDMA mentions declined from 38 in 1999 to 21 in 2000. The New Jersey treatment system will be reporting the use of club drugs among treatment populations in the near future.

Overall, substance abuse treatment admissions in the Newark PMSA increased between 1999 and 2000, with most of the increase being driven by heroin and marijuana.

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 15,865 heroin abusers and 4,822 cocaine abusers in Newark in 1999. However, only 25.7 percent of those with heroin abuse and 50.1 percent of those with cocaine abuse problems received treatment in 1999.

Statewide, the proportionate share of primary heroin treatment admissions grew from 24.9 percent (or 23,497 admissions) in 1992 to 45.7 percent (or 24,272 admissions) in 2000. For marijuana, the increase was from 3.9 (or

5,545 admissions) to 10.7 percent (or 5,671 admissions) in the same time period. By comparison, primary alcohol treatment admissions declined from 32.4 percent (or 17,728 admissions) in 1999 to 30.0 percent (or 15,941 admissions) in 2000, while alcohol mentions declined from 55.7 percent to 52.0 percent in 2000.

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 2000 (exhibit 2). Heroin injection among 18–25-year-old primary heroin treatment admissions continued to increase, from 24.8 percent in 1999 to 28.9 percent in 2000 (exhibit 4). Partial data from 2001 indicate an even sharper increase (39 percent). Statewide, injection by 18–25-year-old clients increased from 47.1 percent in 1999 to 49.5 percent in 2000, with partial 2001 data showing a continued rise to over 50 percent (exhibit 5).

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 72.2 percent in 2000, up from 67.5 percent in 1999. 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 majority of statewide cumulative HIV/AIDS cases (51 percent in 2000) were related to injection drug use. The HIV/AIDS surveillance data also show that 39 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 1999, the total number of drug-related deaths in the Newark PMSA was 251. Seventy-six percent of the decedents were male, with Blacks and Whites accounting for 44 and 41 percent of the ME drug-related deaths, respectively. Most of the decedents (87 percent) were older than 25, with 67 percent being 35 years or older.

Consistent with the rise in heroin use in the Newark PMSA and the State, heroin-related deaths in 1999 exceeded cocaine-related deaths for the first time in the past decade. The 2000 data were not yet available for comparison.

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 the arrests for sale and manufacture (79.7 percent) and 55.4 percent of arrests for possession and sale were from 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 8.3 percent of 2000 treatment admissions (5.6 percent for crack cocaine and 2.7 percent for powder cocaine). In 1999, 7.0 percent were primary crack abusers, and 2.9 percent were powder cocaine abusers, for a total of 9.9 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 (exhibit 2). Consistent with Newark data, cocaine abuse as primary, secondary, or tertiary drug in the rest of the Newark PMSA declined slightly to 38.8 percent in 2000 from 40.8 percent in 1999 (exhibit 3).

In 2000, males accounted for 59.8 percent of powder cocaine admissions and 49.1 percent of crack cocaine admissions in Newark. Ninety-five percent of cocaine admissions in Newark were older than 25; 59.9 percent of crack cocaine and 58.3 percent of powder cocaine admissions were at least 35 years old.

More than two-thirds (68 percent) of cocaine admissions in Newark smoked the drug (meaning they were likely to be using crack), while 26.8 percent used it intranasally in 2000. Reversing the long held trend, cocaine injection among cocaine treatment admissions increased from about 2 percent in 1999 to 4.9 percent in 2000.

Cocaine use varied by race/ethnicity in Newark. In 2000, 85.3 percent of crack admissions were non-Hispanic Black, 10.4 percent were Hispanic, and 3.9 percent were non-Hispanic White. By comparison, 65.2 percent of powder cocaine admissions were non-Hispanic Black, 23.5 percent were Hispanic, and 11.4 percent were non-Hispanic White. Most of the Hispanic treatment admissions were of Puerto Rican origin.

After declining from 268 to 201 per 100,000 population between 1995 and 1997, the rate of ED cocaine mentions in the Newark PMSA increased to 208 per 100,000 population in 1998 and declined further to 171.8 and 147.3 in 1999 and 2000, respectively.

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. The survey data also suggested that prices have not changed since the crisis on September 11, 2001.

Cocaine-related deaths increased to 123 in 1998 and further to 138 in 1999. The increase in cocaine-related deaths was not consistent with either the decline in cocaine treatment admissions or the pattern in ED cocaine mentions in the Newark PMSA. Cocaine as a primary, secondary, or tertiary drug among treatment admissions in Newark declined from 47.7 percent (or 6,556) in 1999 to 42.2 percent (or 6,442) in 2000 (exhibit 3).

Heroin

In Newark city, there were 3,826 primary heroin admissions in 2000, compared with 3,856 in 1999, suggesting stability in the number of primary heroin admissions. The share of primary heroin admissions also stayed high but stable (76.1 percent in 1999 and 76.9 percent in 2000).

In 2000, males accounted for 61.4 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 69.5 percent, non-Hispanic Whites for 7.8 percent, and Hispanics for 22.0 percent of heroin treatment admissions (exhibit 2). Almost all (93.6 percent) of the Hispanic heroin admissions were of Puerto Rican origin. Over 90 percent (93.1 percent) of primary heroin admissions were over 25 years of age, with 57.7 percent being 35 years or older.

While heroin abuse as a primary, secondary, or tertiary drug was proportionately higher in the city than in the rest of the Newark PMSA (excluding Newark), it continued to rise in the rest of the Newark PMSA (exhibit 3), growing from 5,915 mentions in 1999 to 6,147 in 2000. Early indications for 2001 suggest a continuation of this increase 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 injecting 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.

In 2000, 76.5 percent of Newark's primary heroin admissions used the drug intranasally, while 22.3 percent injected it (exhibit 2). 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, 60 percent of treatment admissions used heroin intranasally, and 40 percent injected it. Consistent with the increase in Newark, heroin injection continued to rise in the State after reaching its lowest point in 1995. Consistent with Newark data, the statewide increase in heroin injection was most pronounced for 18–25-year-olds (exhibit 5). Both in Newark and the State, injection by those age 35 and older continues to decline, and the pattern was similar by gender as well as race/ethnicity.

Following the increase that started in 1990, heroin ED mentions surpassed cocaine mentions in 1993 and have remained higher ever since in the Newark PMSA. The rate of heroin ED mentions declined from 260.3 per 100,000 population in 1999 to 237.7 in 2000. 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. This trend of increasing heroin admissions in the PSMA has continued, with no indication of a decline in sight (exhibit 3).

Even though heroin purity is still high, it has been fluctuating in recent years. It fell 8 percentage points to 61 percent between 1997 and 1998. In 2000, heroin was 72.2 percent pure, compared with 67.5 percent pure in 1999.

The price per milligram of heroin fell from $0.62 in 1997 to $0.36 in both 1998 and 1999, falling further to $0.33 in 2000. The latest data indicate that the heroin in the Newark PMSA has the second highest purity (after Philadelphia) and the second lowest price among the 21 DAWN cities. In the first quarter of 2001, heroin sold for $10–$20 per bag or $62–$160 per gram in the Newark PMSA. Consistent with the price reported in the DMP data, a recent survey of methadone clinics found the median price for a bag of heroin in October to be $10, compared with $15 in August 2001. This suggests a fall in heroin prices since the crisis on September 11, 2001, even though some 21 percent of methadone clients reported difficulty in obtaining heroin since the crisis.

The 1999 data show 147 heroin-related deaths in the Newark PMSA, compared with 109 in 1998 and 144 in 1995. Consistent with the ever-increasing percentage of heroin admissions among treatment admissions in the Newark PMSA, heroin-related deaths exceeded cocaine-related deaths in 1999.

Opiates Other than Heroin

There were 196 primary "other opiate" or synthetic drug abusers among treatment admissions in 1999 in the Newark PMSA, of which 46 were in Newark. The corresponding numbers in 2000 were 182 and 29, respectively. Statewide, there were 1,222 "other opiate" or synthetic mentions in 2000, compared with 1,219 in 1999.

Marijuana

In 2000, marijuana accounted for 5.6 percent of primary treatment admissions in Newark (exhibit 2), which was higher than the 4.8 percent in 1999.

Only 13.2 percent of primary marijuana treatment admissions were 35 years or older in 2000. Most marijuana treatment admissions (65.0 percent) were under 26 years old, with 29.6 percent being under 18 years of age. A substantial proportion (43.4 percent) of primary marijuana treatment admissions in Newark also abused alcohol as a secondary drug, and 6.6 percent abused cocaine as a tertiary drug.

ED marijuana mentions per 100,000 population were similar in 1999 (29.3) and 2000 (29.1). In 2000, 20.3 percent of treatment admissions in the Newark PMSA reported using marijuana as a primary, secondary, or tertiary drug (exhibit 3), compared with 18.3 percent in 1999. This suggests a slight rise in marijuana use.

According to the Newark Police Department (NPD), marijuana accounted for 25 percent of drug seizures in the first quarter of 2000, compared with 30 percent for heroin and 45 percent for cocaine. DEA drug seizures in an area that included Newark, Atlantic City, and Camden declined from 4,773 to 2,280 between fiscal years (FYs) 1998 and 1999. More recent drug seizure and arrest data were not yet available from the DEA or the NPD.

Prices of marijuana were stable in the Newark PMSA. According to the DEA, in the first quarter of 2001, marijuana sold for $5–$10 per bag and $2–$5 per joint. Based on a recent survey of clients in methadone clinics in Newark, the price of marijuana ranged from $5 to $10 before and after the September 11 crisis.

Stimulants

MDMA use is still rare in Newark city. In the Newark PMSA, there were 38 ED MDMA mentions in 1999 and only 21 in 2000. As of late July 2001, New Jersey included MDMA and other club drugs in its reporting system. There were 56 MDMA mentions in the State, and only 1 mention in Newark.

In 2000, only two primary methamphetamine treatment admissions were reported in Newark. Only eight admissions reported using methamphetamine as a primary, secondary, or tertiary drug. Methamphetamine use was rare in the State, with its use as a primary, secondary, or tertiary drug reported by 172 admissions in 1999 and 183 in 2000.

Depressants

Benzodiazepines remain the fifth most abused drugs in Newark after alcohol, heroin, cocaine, and marijuana. In 1999, benzodiazepine use was reported as a primary, secondary, or tertiary drug by 1.3 percent of treatment admissions, compared with 0.7 percent in 2000.

GHB and ketamine ("Special K") are reportedly used at rave parties around college campuses. For the first time in July 2001, New Jersey included GHB, ketamine, and MDMA use in its reporting system. Up until now, the only source of data for the abuse of these drugs was the DAWN reporting system in the Newark PMSA. According to DAWN data, there were 7 GHB ED mentions and 14 ketamine ED mentions in 1999. In the year 2000, the corresponding numbers were only 5 and 9, respectively.

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. This is considered a high level by any standard for middle school students.

Hallucinogens

In the Newark PMSA, PCP treatment admissions increased from 17 in 1999 to 33 in 2000. There were 15 ED PCP mentions in 1999, compared with 39 in 2000. Statewide, PCP treatment admissions increased from 254 in 1999 to 336 in 2000.

Lysergic acid diethylamide (LSD) use remains low in the Newark PMSA, with 20 ED mentions in 1999 and only 10 in 2000.

Alcohol

In Newark, primary alcohol abuse among treatment admissions declined from 26.0 percent to 8.3 percent between 1992 and 2000. Alcohol-only admissions accounted for 2.9 percent, and alcohol-in-combination accounted for 5.4 percent of total Newark primary treatment admissions (exhibit 2).

Alcohol continues to be used as a concomitant drug among cocaine, heroin, and marijuana treatment clients. In 2000, 43.0 percent of crack admissions, 40.2 percent of powder cocaine admissions, and 43.4 percent of marijuana admissions reported alcohol as their secondary drug. More importantly, alcohol abuse as 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 48.1 percent in 1999 to 47.2 percent in 2000, compared with the drop from 30.4 to 28.3 percent in Newark city. Statewide, alcohol abuse as a primary, secondary, or tertiary drug declined from 55.7 percent in 1999 to 52.0 percent in 2000. Middle school surveys corroborated the decline in alcohol use in New Jersey.

As expected, a large proportion of alcohol-only treatment admissions (88.3 percent) and 86.9 percent of alcohol-in-combination admissions were older than 25 in 2000 (exhibit 2).

Tobacco

A very large proportion of substance abusers are heavy cigarette smokers. In 2000, 82 percent of treatment admissions in Newark reported smoking cigarettes, compared with 76 percent in the State.

Cigarette smoking in Newark continued to vary by gender, race/ethnicity, and type of drug abused. Overall, 79.3 percent of male clients and 86.1 percent of female clients smoked cigarettes in 2000. Among male treatment admissions in Newark in 2000, heroin admissions smoked the most (84.6 percent), followed by cocaine admissions (69.4 percent), alcohol admissions (61.9 percent), and marijuana admissions (59.5 percent). The percentages of female cigarette smokers among heroin, cocaine, alcohol, and marijuana admissions were 87.7 percent, 83.0 percent, 78.3 percent, and 71.7 percent, respectively.

Females also smoked cigarettes at a higher proportion compared with males within each racial/ethnic group. Statewide, 74.1 percent of male and 81.3 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 in 1999.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

There is a lot of overlap between the drug-abusing population and those living with HIV/AIDS in Newark and the rest of the State. There were 5,672 people living with HIV/AIDS in Newark as of June 31, 2001. Of these, 5,280 were adults and 2,366 (42 percent) were females; 43 percent of the adult cases were IDUs (exhibit 6). By age, only 7 percent were under 20 years old, and 18 percent were over the age of 49. Sixty eight percent of the cases were in the 30–49-year age group.

The distribution of people living with HIV/AIDS in Newark was skewed towards non-Hispanic Blacks, who accounted for 80 percent of all cases, followed by Hispanics (16 percent). In Newark, the HIV/AIDS 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 per 1,000 and 4.7 per 1,000, respectively.

Statewide, the number of people living with HIV/AIDS as of June 30, 2001, was 30,005, of which 28,513 were adults and 37 percent of adults were females. IDUs, including those who engage in male-to-male sex, accounted for 39 percent of statewide adult cases (exhibit 7).

Only 5 percent of statewide cases were under 20 years old, and 17 percent were over 49 years of age. The race/ethnicity distribution of people living with HIV/AIDS is also skewed towards non-Hispanic Blacks, who accounted for 57 percent of all cases, and Hispanics, who had a 20 percent share of the cases.

Statewide, a large and growing proportion of females (36 percent as of June 30, 2001) were infected through heterosexual contact, compared with 9 percent for males. In Newark the corresponding percentages, respectively, were 36 and 13 (exhibits 6 and 7).

While the recent increase in heroin injection by young adults (age 25 or younger), along with the rise in heroin use, suggests a possible increase in the prevalence of infectious diseases, no data are yet available to document this pattern.

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Exhibit 1. Selected Indicators for Specific Drugs in the Newark PMSA: 1999–2000.

Drug Use Mentions	Treatment Data	ED Mentions
Alcohol-in-combination	Stable	Decreased
Heroin	Increased	Decreased
Cocaine	Decreased	Decreased
Marijuana	Increased	Stable
PCP	Increased	Increased
Methamphetamine	Decreased	Increased
Ecstasy (MDMA)	(N/A)	Decreased
Ketamine	(N/A)	Decreased
GHB	(N/A)	Decreased
Total	Increased	Decreased
Other trends		
Heroin purity	Increased	
Heroin price	Decreased	
Injection	Increased	
Drug related arrests	Decreased	

SOURCES: Division of Addiction Services, State Department of Health and Senior Services; Substance Abuse and Mental Health Services Administration, Drug Abuse Warning Network; Drug Enforcement Administration, Domestic Monitor Program; Client Oriented Data Program

Exhibit 2. Demographic Characteristics of Primary Alcohol, Cocaine, Heroin, and Marijuana Admissions in Newark City by Percent: January–December 2000

Demographic Characteristic	Alcohol Only	Alcohol-in-Combination	Crack	Cocaine	Heroin	Marijuana
Gender						
Male	79.3	66.3	49.1	59.8	61.4	81.1
Female	20.7	33.7	50.9	40.2	38.6	18.9
Race/ethnicity						
White	15.2	9.4	3.9	11.4	7.8	1.8
Black	57.9	70.4	85.3	65.2	69.5	75.7
Hispanic	26.9	19.4	10.4	23.5	22.0	21.8
Puerto Rican	8.3	15.7	6.5	14.4	20.6	17.9
Other Hispanic	18.6	3.7	3.9	9.1	1.4	3.9
Other	0.0	0.7	0.4	0.0	0.7	0.7
Age at admission						
<18	2.1	2.2	0.0	0.0	0.1	29.6
18-25	9.7	10.9	4.7	4.5	6.7	35.4
26-34	20.7	34.1	35.5	37.1	35.4	21.8
35 and older	67.6	52.8	59.9	58.3	57.7	13.2
Route of administration						
Smoking	-	-	-	-	1.0	100.0
Snorting	-	-	-	83.3	76.5	-
Injecting	-	-	-	15.2	22.3	-
All other/multiple	100	100	100	1.5	0.0	-
Most frequently reported secondary drug	-	Cocaine/Crack 39.0	Alcohol 43.0	Alcohol 40.2	Cocaine/Crack 36.6	Alcohol 43.4
Most frequently reported tertiary drug	-	Cocaine/Crack 21.3	Alcohol 11.8	Alcohol 12.9	Alcohol 9.3	Cocaine/Crack 6.6
Total (N = 4,977)	(145)	(267)	(279)	(132)	(3,826)	(280)
Percentage of Total	2.9	5.4	5.6	2.7	76.9	5.6

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: Alcohol and Drug Abuse Data System, Research and Information Systems, Division of Addiction Services, State Department of Health and Senior Services

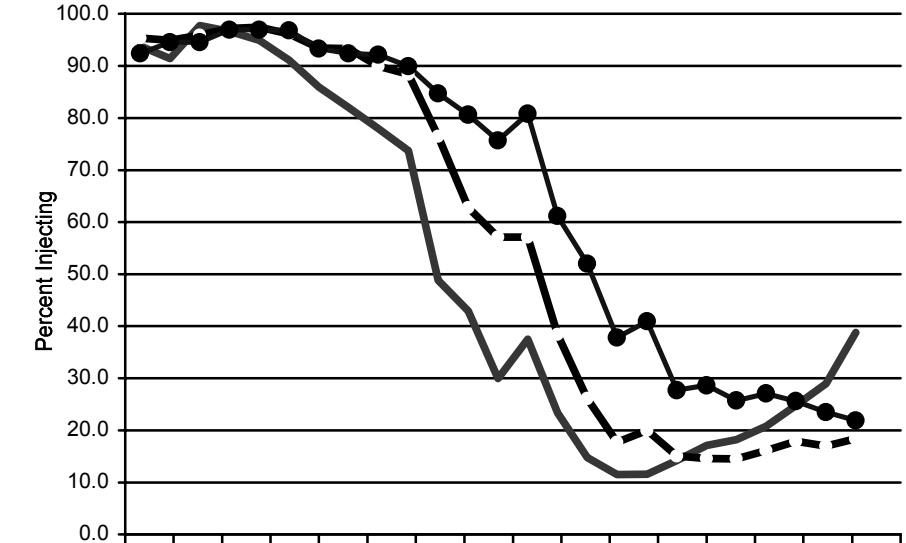
Exhibit 3. Primary, Secondary or Tertiary Admissions in the Newark PMSA (Excluding Newark City) and Newark City by Drug Type: 1992–2001

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Heroin (PMSA)	30.5	40.4	44.9	50.9	52.0	53.9	57.4	59.9	60.2	63.1
Heroin (City)	54.0	66.8	70.4	79.0	78.6	78.6	80.5	80.4	80.9	85.0
Cocaine (PMSA)	49.0	45.6	42.9	44.3	44.4	41.4	42.2	40.8	38.8	35.8
Cocaine (City)	65.7	57.0	53.5	52.8	52.8	47.4	45.7	47.7	42.2	42.4
Marijuana (PMSA)	21.5	21.4	21.3	22.5	21.8	23.1	22.3	20.4	22.1	18.6
Marijuana (City)	12.4	12.6	15.0	12.7	15.5	16.5	14.5	14.2	16.6	10.6

Note: 2001 data come from partial year reporting only.

SOURCE: Alcohol and Drug Abuse Data System, Research and Information Systems, Division of Addiction Services, State Department of Health and Senior Services

Exhibit 4. Heroin Injection Among Treatment Admissions in Newark City: 1977–2001

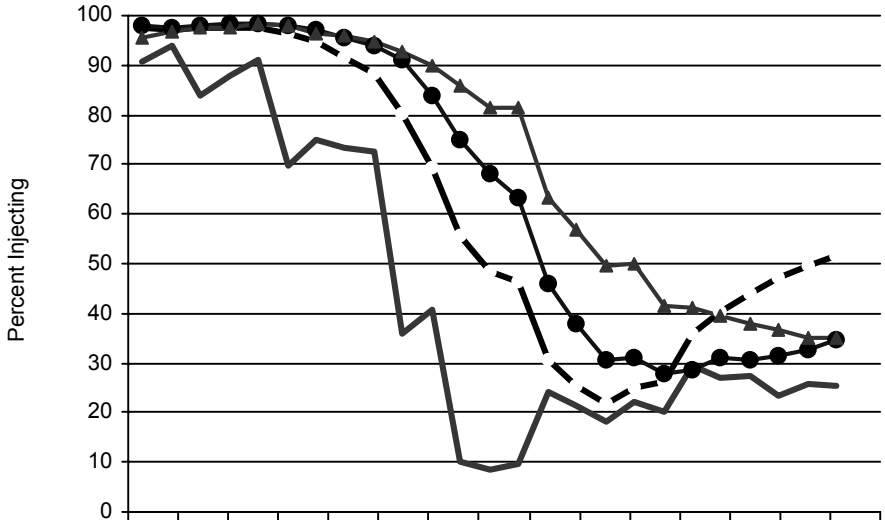


	1977	1979	1980	1982	1984	1985	1987	1988	1990	1992	1993	1995	1997	1998	2000	2001
18-25	93.8	97.7	96.6	91.1	82.0	78.0	48.8	42.9	37.5	14.8	11.5	14.2	18.2	20.8	28.9	38.8
26-34	95.3	95.9	97.2	96.1	93.3	89.9	76.5	62.8	57.1	26.1	17.7	15.1	14.5	16.1	17.0	18.4
35+	92.4	94.5	96.9	96.8	92.4	92.1	84.7	80.6	80.8	52.0	37.8	27.7	25.7	27.1	23.5	21.9

Note: 1991 and 2001 data come from partial year reporting only.

SOURCE: Client Oriented Data Program (CODAP)

Exhibit 5. Heroin Injection Among Treatment Admissions by Age Group in New Jersey: 1977–2001



	1977	1979	1980	1982	1984	1986	1987	1989	1991	1993	1994	1996	1998	2000	2001
Under18	90.6	84	87.8	69.8	73.3	35.7	40.9	8.3	24	18.2	22.2	29.4	27.3	25.7	25.5
18-25	97.4	97.4	97.7	96.3	91.4	80.3	69.4	48.3	30.7	21.9	25.1	35.7	44	49.5	51.7
26-34	98	97.9	98.4	98.1	95.7	91.3	84	68	46	30.6	31.2	28.5	30.6	32.8	34.7
35+	95.7	97.6	97.5	98	95.9	92.9	89.8	81.5	63.5	49.6	50.2	41.2	38	34.9	34.9

Note: 2001 data represent partial year reporting only.

SOURCE: Client Oriented Data Program (CODAP)

Exhibit 6. Adult/Adolescent and Pediatric Cases Living With HIV/AIDs in Newark by Exposure Category and Gender as of June 30, 2001

Exposure Category	Males		Females		Total	
	N	(%)	*N*	(%)	*N*	(%)
Adult/Adolescent						
Men/sex/men (MSM)	460	(15)	0	(0)	460	(9)
Injecting drug user (IDU)	1,332	(43)	805	(37)	2,137	(40)
IDU/MSM	156	(5)	0	(0)	156	(3)
Hemophiliac	12	(<1)	0	(0)	12	(<1)
Heterosexual contact	394	(13)	769	(36)	1,163	(22)
Transfusion with blood/products	8	(<1)	17	(1)	25	(1)
Risk not specified/other	758	(24)	569	(26)	1,327	(25)
Total	3,120	(100)	2,160	(100)	5,280	(100)
Pediatric						
Hemophiliac	1	(1)	0	(0)	1	(<1)
Parent at risk/has AIDS/HIV	184	(99)	202	(98)	386	(98)
Transfusion with blood/products	0	(0)	0	(0)	0	(0)
None of the above/other	1	(1)	4	(2)	5	(1)
Total	186	(100)	206	(100)	392	(100)

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

Exhibit 7. Adult/Adolescent and Pediatric Cases Living With HIV/AIDs in New Jersey by Exposure Category and Gender as of June 30, 2001

Exposure Category	Males		Females		Total	
	N	(%)	*N*	(%)	*N*	(%)
Adult/Adolescent						
Men/sex/men (MSM)	4,819	(26)	0	(0)	4,819	(17)
Injecting drug user (IDU)	6,717	(36)	3,515	(35)	10,232	(36)
IDU/MSM	817	(4)	0	(0)	815	(3)
Hemophiliac	67	(1)	1	(<1)	68	(<1)
Heterosexual contact	1,715	(9)	3,593	(36)	5,308	(19)
Transfusion with blood/products	94	(1)	141	(1)	235	(1)
None of the above/other	4,196	(23)	2,840	(28)	7,036	(25)
Total	18,423	(100)	10,090	(100)	28,513	(100)
Pediatric						
Hemophiliac	7	(1)	0	(0)	7	(3)
Parent at risk/has AIDS/HIV	709	(97)	745	(98)	1,454	(97)
Transfusion with blood/products	3	(<1)	6	(1)	9	(1)
None of the above/other	11	(2)	11	(1)	22	(1)
Total	730	(100)	762	(100)	1,492	(100)

SOURCE: New Jersey Department of Health and Senior Services, Division of AIDS Prevention and Control

Drug Abuse Indicators in New Orleans

Gail Thornton-Collins[1]

ABSTRACT

Although indicators have been trending down, cocaine/crack is still the most serious drug problem in New Orleans. The rate of ED cocaine/crack mentions decreased from 312 per 100,000 population in 1991 to 162 in 2000, but it is still high compared to the ED rates for other drugs. The proportion of primary cocaine/crack treatment admissions in Orleans Parish decreased from 58 percent in 1991 to 34 percent in 2000. Heroin indicators continued to trend up in Orleans Parish but increased little in other parishes in the State. In 2000, the rate of ED mentions in New Orleans was 81, the highest in 10 years. More than 11 percent of treatment admissions in Orleans Parish reported heroin as their primary drug of abuse in 2000. Marijuana indicators have stabilized at relatively high levels. In 2000, 46.6 percent of ADAM male arrestees and 28.0 percent of female arrestees tested positive for marijuana. Based on the indicators, methamphetamine abuse does not appear to be a serious problem in the city of New Orleans or its surrounding parishes. However, there are reports that synthetic opiates such as oxycodone and hydromorphone are increasingly being abused. MDMA and GHB ED mentions have also been increasing, but the numbers are still relatively small.

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 in the crossroads 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 has all cargo airlines, and the New Orleans Lakefront Airport, which serves general aviation, as well as 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

The data sources for this report are detailed below:

- Drug-related homicide and suicide data—The Orleans Parish Coroner's Office provided data on drug-related homicides and suicides for the first halves of 1999, 2000, and 2001.
- Emergency department (ED) data—These data were derived from the Substance Abuse and Mental Health Services Administration (SAMHSA), Drug Abuse Warning Network (DAWN) for 1993–99.
- Drug treatment data—These data were provided by the Louisiana State Office for Addictive Disorders and by not-for-profit treatment facilities for Louisiana parishes for 1999–2000.
- Youth survey data—These data were provided by the Louisiana State Office for Addictive Disorders, Communities that Care, Youth Survey, 1999.
- Drug arrest data—These data were provided by the New Orleans Police Department (NOPD) for the first halves of 2000 and 2001.
- Drug price, purity, and seizure information—These data were provided by the New Orleans Division of the Drug Enforcement Administration (DEA) for the first halves of 1999 and 2000.
- Acquired immunodeficiency syndrome (AIDS) data—These data were provided by the Louisiana State Health Department and represent new and cumulative cases through November 2001.

DRUG ABUSE TRENDS

Cocaine and Crack

[1] The author is affiliated with City of New Orleans, Special Health Projects.

Although cocaine/crack indicators have been decreasing for the past several years, this drug continues to be the most serious drug problem in New Orleans and surrounding parishes. Both powder and crack cocaine are still readily available.

In New Orleans, the rate of ED cocaine mentions per 100,000 peaked in 1991 at 312 and oscillated in succeeding years, reaching 196 in 1999 and declining to 162 in 2000 (exhibit 1).

The percentage of primary cocaine/crack admissions to treatment in Orleans Parish have been trending downward for the past 10 years, from 58 percent in 1991 to 34 percent in 2000 (exhibit 2). Approximately 1,115 primary cocaine/crack abusers entered treatment in Orleans Parish in 2000.

African-American males represented 60 percent of cocaine/crack admissions in 1999, declining to 55 percent in 2000. White males declined from 9 percent to 8 percent, while White females increased from 2 percent to 5 percent. African-American females increased from 16 percent in 1999 to 33 percent in 2000.

Of the eight parishes included in the Louisiana State Epidemiology Work Group (SEWG), three reported increases in cocaine admissions in 2001: Bossier, Caddo, and East Baton Rouge. The others—Calcasieu, Lafayette, Orleans, Ouachita, and Rapides—had declining admissions for cocaine/crack (exhibit 3).

According to ADAM data for 2000, 41.1 percent of the adult female arrestees and 34.8 percent of the male arrestees in New Orleans tested positive for cocaine (exhibit 4). Most (84.9 percent) of the female arrestees (n = 264) and male arrestees (n = 884) in New Orleans during this period were African-American. A high percentage (43.8) of White female arrestees tested positive for cocaine, but only a small number of White females were included in this arrestee population.

The New Orleans Police Department reported 693 arrests for cocaine possession and 423 for distribution in the first half of 2001. Possession arrests declined between the first halves of 2000 and 2001, from 758 to 693. Distribution arrests also declined, from 507 to 423 (exhibit 5). Arrests for cocaine possession declined in all race and gender categories, except White females, and arrests for cocaine distribution declined among all categories, except for other males.

Price and purity for cocaine and crack remained stable in the first half of 2001. Powder cocaine prices averaged $80–$150 per gram, $800–$1,200 per ounce, and $18,000–$25,000 per kilogram (exhibit 6).

Heroin

Heroin indicators continued to increase in 2000. The rate of heroin ED mentions per 100,000 population peaked in 2000 at 81, the highest rate in more than 10 years (exhibit 1).

The percentage of primary heroin treatment admissions has also been trending up in Orleans Parish over the past 10 years, from only 2.6 percent in 1991 to 11.2 percent in 2000. There was, however, a slight decrease from 12.2 percent in 1999 to 11.2 percent in 2000 (exhibit 2).

In 2000, almost three-quarters (74 percent) of the heroin treatment admissions were African-American males; 11 percent were White males, 9 percent were African-American females, and 5 percent were White females.

Of the eight largest parishes in Louisiana, five reported increases in heroin treatment admissions in 2001, two reported decreases (one of which had a slight decrease), and one (Bossier) continued to report no primary heroin admissions (exhibit 3). Parishes reporting small increases included Caddo, Calcasieu, Lafayette, Ouachita, and Rapides. Orleans Parish had more heroin treatment admissions in 2001 than all of the other parishes combined. It will be important to monitor heroin treatment admissions in all parishes to help determine if and where heroin abuse is spreading.

The ADAM data show that among CEWG areas, New Orleans ranks second (to New York City) for the highest percentage of adult male arrestees testing positive for opiates, 15.5 percent (exhibit 4). African-American males (17.1 percent) were much more likely than White males (4.8 percent) to test positive for opiates. Among female arrestees, only 8.5 percent tested positive for opiates, and White females were more likely than African-American females to test positive for this drug (8.0 percent).

In New Orleans, arrests for heroin distribution declined from 100 in the first half of 2000 to 69 in the first half of 2001 (exhibit 5). Heroin possession arrests also decreased, from 171 in the first half of 2000 to 149 in 2001. In 2001, African-American males were much more likely to be arrested for heroin possession (110 vs. 22) and distribution (54 vs. 3) than White males. Relatively few African-American and White females were arrested for heroin distribution.

Colombian, Southeast Asian, and Mexican heroin are widely available in the New Orleans area. Street sources indicate that black tar heroin is also available, but rarely used.

Heroin prices declined slightly between the first half of 2000 and 2001. In the first half of 2001, a gram of heroin sold for $450–$750, an ounce for $5,000–$10,000, and a kilogram for $140,000–$175,000 (exhibit 6).

Other Opiates

Hydromorphone (Dilaudid) remains the drug of choice for opiate abusers in New Orleans. Indicators have remained low over the last 5 years. Other opiates represent less than 1 percent of treatment admissions in New Orleans. Hydrocodone (Vicodin), oxycodone (Percodan), and propoxyphene (Darvon) are the most commonly abused opiates,

other than heroin.

Hydrocone ED mentions fluctuated between 1994 and 2000, with the highest number of mentions occurring in 2000 (17). Between 1999 and 2000, the number of ED oxycodone mentions increased from 19 to 39, a 105.3-percent increase. These numbers are small, but it will be important to continue monitoring them in future years.

Marijuana

Marijuana continues to be the drug of choice among young people in New Orleans.

The rate of ED marijuana mentions per 100,000 population peaked in 1997 at 113 and has stabilized during the past 3 years at a lower level (86 in both 1999 and 2000) (exhibit 1).

In Orleans Parish, marijuana treatment admissions have trended up from 9.4 percent of all treatment admissions in 1991 to 29.2 percent in 2000 (exhibit 2). However, the number of marijuana (primary drug of abuse) treatment admissions in Orleans Parish decreased from 1,089 in 2000 to 947 in 2001. The numbers of marijuana treatment admissions in most of the other parishes in Louisiana have remained relatively stable over the past 4 years. Admissions continued to increase in East Baton Rouge, from 509 in 1998 to 633 in 2001.

Of the marijuana treatment admissions, 75 percent were African-American males, 15 percent were African-American females, 8 percent were White males, and 2 percent were White females.

As in prior years, adult male arrestees were much more likely than adult female arrestees to test positive for marijuana (46.6 percent vs. 28.0 percent) (exhibit 4). White female arrestees (37.5 percent) were much more likely than African-American female arrestees (26.4 percent) to test positive for marijuana.

According to police data, arrests for possession of marijuana declined between the first halves of 2000 and 2001, from 2,784 to 2,595, however, arrests for the distribution of marijuana increased from 439 to 449 during the same period (exhibit 5).

In the first half of 2001, there were 2,595 arrests for possession of marijuana in Orleans Parish, a slight decrease from the number in the first half of 2000 (2,784). There was a slight increase in the number arrested for marijuana distribution in 2001 (449 compared to 397 in 2000). More than one-half (65 percent) of the individuals arrested for marijuana possession in 2001 were African-American males, 25 percent were White males, 5.4 percent were African-American females, and 4.3 percent were White females. Of the individuals arrested for marijuana distribution in 2001, 78.6 percent (n = 353) were African-American males.

Between the first halves of 2000 and 2001, marijuana prices remained stable, averaging $100 per gram, $125–$168 per ounce, $750–$1000 pound, and $2000 per kilogram (exhibit 6).

Stimulants

Law enforcement agencies report methamphetamine use among college-age men and women remains a problem, although most indicators are low.

ED mentions in New Orleans showed a downward trend. In 2001, there was only one treatment admission in Orleans Parish for methamphetamine as the primary drug of abuse.

Club Drugs

ED mentions for methylenedioxymethamphetamine (MDMA or "ecstasy") showed an upward trend, reaching 51 in 1999 and decreasing slightly to 44 in 2000. Gamma hydroxybutyrate (GHB) ED mentions also peaked in 1999 at 78; they declined to 69 in 2000.

The average price of an MDMA tablet was $15.25 in 2001. GHB prices were $5.00 per capsule or $10 per ounce. Gamma butyrolactone (GBL) prices were similar at $5.00 per capsule and $10 per ounce.

YOUTH SURVEY

A survey conducted by the Louisiana State Office of Addictive Disorders in 1999 showed that 43 percent of 12th graders in Orleans Parish drank alcohol in the past 30 days. This was somewhat lower than the 52 percent reported for the State. Of the 12th grade students, 47 percent reportedly smoked cigarettes in their lifetime and 15 percent admitted to current use of cigarettes.

More than one-third (34 percent) of the 12th graders had used marijuana in their lifetime, and 13 percent admitted current marijuana use. Lifetime use of inhalants was highest among 8th and 9th graders at 9 percent.

AIDS, THE HUMAN IMMUNODEFICIENCY VIRUS (HIV), AND INJECTION DRUG USERS (IDUS)

Through November 30, 2001, the State of Louisiana reported 13,296 cumulative AIDS cases. Of the 5,774 new cases reported, 59 were pediatric cases (exhibit 6). Orleans Parish represented 36.8 percent of the cases, and IDUs

represented 18 percent, which is consistent with the percentage reported during 2000. The dual risk category of injection drug use and men who have sex with other men also remained stable (8 percent) during 2000 and 2001. The proportion of those age 40–49 increased slightly in 2001, as did the proportion of those age 50 and older.

Through November 2001, there were 20,998 cumulative cases of HIV infectious reported in Louisiana. More than one-third (38 percent) of the HIV infected cases were Orleans Parish residents.

HOMICIDES/DEATHS

The Orleans Parish Coroner's Office reported 112 homicides in the first half of 2001. Homicides in Orleans Parish peaked in 1995 at 189, declined to 88 in 1999, and rose to 120 in 2000. Of the 2001 homicides, 75 percent were drug related—a decline from 83 percent in the first half of 2000. The coroner reported 42 suicides in the first half of 2001, up from 26 in the first half of 2000. Of the 42 suicides in 2001, 50 percent were drug-related, up from 31 percent in the first half of 2000.

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Exhibit 1. New Orleans Rate of ED Mentions by Type of Drug: 1990–2000

Drug	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Cocaine	307	312	252	147	164	174	203	199	199	196	162
Heroin	23	20	13	12	17	24	26	36	44	55	81
Marijuana	55	43	43	53	77	88	106	113	100	86	86

SOURCE: DAWN, Office of Applied Studies, SAMHSA

Exhibit 2. Orleans Parish Treatment Data, Percentage of Admissions by Drug and Year: 1991–2000

Drug	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total (*N*)	**(3,093)**	**(3,651)**	**(3,143)**	**(3,460)**	**(3,762)**	**(3,550)**	**(3,472)**	**(3,732)**	**(3,150)**	**(3,242)**
Cocaine/Crack	57.6	55.7	53.2	49.1	40.4	41.1	36.2	38.1	35.5	34.4
Heroin	2.6	2.3	1.9	2.9	3.5	3.6	6.2	8.4	12.2	11.2
Marijuana	9.4	8.5	11.5	16.5	28.2	31.3	30.9	30.2	33.0	29.2
Methamphetamine	0.3	0.3	0.2	0.2	0.2	0.2	0.0	0.2	0.0	0.0
Alcohol	30.6	30.6	30.7	29.5	25.5	22.3	24.9	21.4	17.8	20.5
Other Drugs	2.6	2.5	2.4	1.8	2.3	1.5	1.8	1.8	1.6	5.4

SOURCE: Louisiana State Office of Alcohol and Drug Abuse

Exhibit 3. Number of Treatment Admissions for the State of Louisiana by Parish, Major Drug, and Percent: Fiscal Years 1998–2001

Drug and Parish	1998	1999	2000	2001
Cocaine				
Bossier	57	31	87	112
Caddo	759	432	784	868
Calcasieu	353	345	306	249
East Baton Rouge	1,757	2,010	1,612	1,797
Lafayette	394	339	320	258
Orleans	1,291	1,139	1,211	1,114
Ouachita	491	415	465	412
Rapides	416	406	433	418
Heroin				
Bossier	0	0	0	0
Caddo	11	7	9	11
Calcasieu	17	6	2	7
East Baton Rouge	16	24	32	31
Lafayette	2	3	6	7
Orleans	344	173	453	362
Ouachita	6	3	2	4
Rapides	6	3	2	4
Marijuana				
Bossier	28	43	59	110
Caddo	188	158	271	254
Calcasieu	254	187	311	251
East Baton Rouge	509	564	599	633
Lafayette	133	77	134	115
Orleans	1,210	1,021	1,089	947
Ouachita	376	216	363	302
Rapides	302	263	359	401

SOURCE: Louisiana State Office of Addictive Disorders

Exhibit 4. Percentage of ADAM Adult Arrestees Testing Positive for Selected Drugs: 2000

Drug	Males	Females
Cocaine	34.8	41.1
Opiates	15.5	8.5
Marijuana	46.6	28.0

SOURCE: Arrestee Drug Abuse Monitoring Program, NIJ

Exhibit 5. Drug Arrests in Orleans Parish by Race/Ethnicity, Gender, and Offense: First Halves 2000–2001

Drugs	Black Males		White Males		Other Males		Black Females		White Females		Other Females		Total	
	1H 2000	1H 2001	1H 2000	1H 2001	1H 2000	1H 2001	1H 2000	1H 2001	1H 2000	1H 2001	1H 2000	1H 2001	1H 2000	1H 2001
Cocaine														
Possession	571	513	76	70	2	1	93	89	16	20	0	0	758	693
Distribution	344	303	14	12	0	3	93	93	50	11	6	1	507	423
Heroin														
Possession	116	110	40	22	1	1	7	6	7	10	0	0	171	149
Distribution	83	54	7	3	4	2	3	9	3	1	0	0	100	69
Marijuana														
Possession	1,731	1,685	724	641	19	16	155	142	144	111	11	0	2,784	2,595
Distribution	294	353	52	51	0	3	42	35	42	6	9	1	439	449
Scheduled Drugs*														
Possession	416	363	244	260	5	0	92	91	61	79	0	0	818	793
Distribution	90	238	315	87	8	0	22	28	21	24	0	1	456	378
Other Drugs	80	93	41	44	0	0	11	21	9	82	0	0	141	240
Drug Paraphernalia	514	470	359	316	6	6	142	130	81	78	1	1	1,103	1,001

* Scheduled drugs are Schedule I, II, III, and IV Narcotics.

SOURCE: New Orleans Police Department

Exhibit 6. Drug Prices in the New Orleans Area: January–June 2001

Drug	Quantity	Price
Powder cocaine	Gram	$80–$150
	Ounce	$800–$1,200
	Pound	$12,000–$15,000
	Kilogram	$18,000–$25,000
Crack cocaine	Rock	$5–$25
	Gram	$80–$125
	Ounce	$800–$1,200
	Pound	$12,000–$15,000
	Kilogram	$20,000–$28,000
Heroin	Gram	$450–$750
	Bundle	$450–$700
	Ounce	$5,000–$10,000
	Kilogram	$140,000–$175,000
Marijuana	Gram	$100
	Ounce	$125–$168
	Pound	$750–$1,000
	Kilogram	$2,000
Methamphetamine	Gram	$100–$150
	Ounce	$900–$1,500
	Pound	$12,000–$16,000
Lysergic acid diethylamide (LSD)	Dose	$1.50–$8.00
	Sheet	$200–$400

SOURCE: New Orleans Drug Enforcement Administration

Exhibit 7. New Louisiana AIDS Cases by Gender, Though Exposure Category and Age: November 30, 2000 Through November 30, 2001

Exposure Category	Males				Females				Totals			
	2000		2001		2000		2001		2000		2001	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Men/Sex/Men (MSM)	2,057	(48)	2,107	(46)	0	(0)	0	(0)	2,057	(38)	2,107	(37)
Injecting Drug User (IDU)	724	(17)	745	(16)	262	(23)	276	(25)	986	(18)	1,021	(18)
MSM/IDU	440	(11)	447	(9)	0	(0)	0	(0)	440	(8)	447	(8)
Heterosexual Contact	260	(6)	274	(6)	413	(38)	451	(39)	673	(12)	725	(13)
Transfusion/Transplant	23	(<1)	25	(<1)	20	(2)	29	(2)	43	(<1)	54	(<1)
Hemophilia/ Coagulation Disorder	27	(<1)	25	(<1)	1	(<1)	0	(<1)	28	(<1)	25	(<1)
Unknown	786	(17)	920	(20)	356	(35)	416	(34)	1,142	(19)	1,336	(23)
Total Adult Cases	**4,317**	**(100)**	**4,543**	**(100)**	**1,052**	**(100)**	**1,201**	**(100)**	**5,369**	**(100)**	**5,715**	**(100)**
Pediatric Cases	**29**		**30**		**31**		**29**		**62**		**59**	

Age	2000		2001	
	Cases	%	Cases	%
<13	49	(1)	44	(<1)
13–19	20	(<1)	23	(<1)
20–29	485	(9)	468	(8)
30–39	2,065	(38)	2,050	(36)
40–49	1,993	(37)	2,200	(38)
50+	819	(14)	989	(15)
Unknown	0	(5)	0	(7)
Total	**5,431**	**(100)**	**5,774**	**(100)**

SOURCE: Louisiana State Health Department

Drug Use Trends In New York City

Rozanne Marel, Ph.D., John Galea, M.A., Kenneth A. Robertson, M.A., Robinson B. Smith, M.A.[1]

ABSTRACT

The first 6 months of 2001 saw a continuation of the major drug use trends of the past few years. Cocaine indicators in New York City had reached peak levels of deaths, hospital emergencies, arrests, and treatment admissions during the 1990s, but they continue to show declines that began at the end of the decade. Heroin trends, however, which appeared to be leveling off, are mixed; some indicators seem to be showing signs of increasing. Heroin remains available at very high purity levels. Marijuana indicators continue to reach new peaks. Prescription drugs, including medications for HIV infection, continue to be diverted. Ecstasy is widely available throughout New York City, on the street as well as at dance clubs. For AIDS cases in New York City, injecting drugs remains the modal risk factor. The events of September 11 will probably have a profound effect on the New York City drug scene. These changes will be monitored closely in the months ahead.

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 Whites; 27 percent are Blacks; 27 percent are Hispanics of any race; 10 percent are Asians and Pacific Islanders; and fewer than 1 percent are Native Americans, Eskimos, and Aleuts. Nearly 2 million New York City residents are foreign born, and nearly 700,000 legal immigrants became New York City residents between 1990 and 1998. The Dominican Republic is currently the city's largest source of immigrants.

The city remains the economic hub of the Northeast. Its main industries include services and wholesale and retail trade. Of the more than 3.5 million people employed in the city, 20 percent commute from surrounding areas. Overall, the unemployment rate in New York City for October 2001 was 6.2 percent, compared with 5.0 percent in New York State and 5.4 percent in the Nation. According to the Bureau of Labor Statistics, 62,200 jobs were lost in New York between September and October. Of these, 22,800 were in finance, insurance, and real estate; 13,700 were in services; and 11,200 were in trade. Some of this job loss resulted from firms relocating to New Jersey following the September 11 building destruction in New York City. Obviously, the terrorist attacks of September 11 had much more than just an economic impact. The events of September 11 will undoubtedly have a profound effect on the New York City drug scene.

Data Sources

This report describes current drug abuse trends in New York City from about 1990 to 2001. Information is drawn from a wide variety of sources and depends heavily on data from the State Office of Alcoholism and Substance Abuse Services (OASAS), the U.S. Drug Enforcement Administration (DEA), the Substance Abuse and Mental Health Services Administration (SAMHSA)'s Drug Abuse Warning Network (DAWN), the Federal Arrestee Drug Abuse Monitoring (ADAM) program, the New York City Department of Health, and the New York City Police Department (NYPD). The September 11 attacks in New York City affected some of the agencies that serve as sources for this report and caused a delay in reporting.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine and Crack

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In general, cocaine trends continue to show declines, but the drug still accounts for major problems in New York City (exhibit 1).

For the New York City metropolitan area, DAWN estimates for cocaine emergency department (ED) mentions remained relatively stable between 1992 and 1998 (from 20,413 to 19,549), but started to decline in 1999. The estimate for 2000 (14,250) is the lowest annual number since 1990. The rate of cocaine emergencies per 100,000 population in the New York City metropolitan area for 2000 was 166. This represents the lowest level since 1990, when the rate was 164. The 2000 national rate was 71 per 100,000 population; the 1990 national rate was 36.

Primary cocaine treatment admissions to State-funded and nonfunded programs in New York City also have declined over the last 2 years, from 17,572 in 1998 to 14,059 in 2000, a decline of 20 percent. In the first half of 2001, cocaine admissions (7,212) constituted 28 percent of all New York City's 25,889 drug treatment admissions; in 2000, cocaine admissions represented 29 percent of all admissions.

Exhibit 2 shows demographic characteristics of cocaine treatment admissions for the first half of 2001 by the two primary modes of use: smoking crack (representing 65 percent of cocaine admissions) and using cocaine intranasally (representing 32 percent). Those who smoke crack are more likely to be female (39 vs. 26 percent), Black (70 vs. 41 percent), readmissions to treatment (78 vs. 68 percent), and without income (35 vs. 25 percent). They 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 37 percent in the first half of 2001, down slightly from 38 percent in the first half of 2000.

The OASAS Street Studies Unit (SSU) finds cocaine availability and purity relatively stable. Cocaine powder varies in price from $20 to $60 per gram and is packaged in tinfoil, glassine bags, pyramid paper, and crisp dollar bills. Cocaine was also being wrapped in plastic wrap and knotted at both ends. Street researchers report a phenomenon known as "crisscrossing." Users take a line of cocaine in one nostril and a line of heroin in the other with two straws. Then they cross over and do another line. This way they get alternating hits of cocaine and heroin in each nostril.

While cocaine powder is sold by White, Black, and Hispanic males age 16 to 30, crack is generally sold by Black and Hispanic males generally in their teens and early twenties. Some crack dealers in Manhattan are as young as 13. Nevertheless, given the current high purity of powder cocaine, many crack users freebase. Referring to themselves as "chemists," they say if you want to get your money's worth, you cook it yourself. The SSU also reports that young crack smokers sometimes remove half of the tobacco from the front of a cigarette, put crack in the middle, and replace the tobacco. This allows them to hide the crack and smoke in public.

Although $10 is the most popular price for a bag of crack, bags were sold for $5 and even $3 in some parts of the city. The packaging of crack continues to change, with small glassine bags and plastic wrap knotted at both ends replacing plastic vials.

DAWN figures for cocaine-involved deaths have declined steadily since 1995. In fact, the number of these deaths declined 46 percent, from 908 in 1995 to a low of 488 in 1999.

ADAM urinalysis data for 2000 show that arrestees are more likely to test positive for cocaine than for any other drug, and that females are more likely to test positive for cocaine than males. Findings for 2000 show cocaine positives for 49 percent of male and 53 percent of female arrestees.

The DEA reports that prices for cocaine powder are $22,000–$30,000 per kilogram and $800–$1,500 per ounce. To minimize conspicuous traffic, transactions are few but costs are high. The DEA reports that crack sells for about $800–$1,000 per ounce and $20–$30 per gram.

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. More than 82 percent of arrests for cocaine in 1999 involved crack.

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 underscores a serious aspect of the cocaine problem. For several years, the number of women using cocaine during pregnancy had 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 indicators, which appeared to have stabilized, are mixed for this reporting period (exhibit 3). Heroin ED mentions in the New York metropolitan area had been generally increasing between 1990 and 1993, nearly tripling from 3,810 to 11,351. Between 1996 and 1999, however, the number of heroin-involved mentions declined 16 percent, from 11,132 to 9,302. The estimate for 2000 (11,009), however, shows an increase of 18 percent. The New York metropolitan

area recorded a rate of 128 heroin mentions per 100,000 population in 2000, the highest rate since 1996. The estimated national rate was 39 heroin emergencies per 100,000 population.

Primary heroin treatment admissions to all treatment programs in New York City have been gradually increasing; between 1991 and 2000, admissions increased from 15,085 to 21,616, a 43-percent increase over the 9-year period (exhibit 3). Primary heroin admissions constituted 42 percent of New York City's 25,889 drug treatment admissions in the first half of 2001.

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 proportion reporting intranasal use declined slightly, to 60 percent in 1999, 2000, and the first half of 2001. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 37 percent in the first half of 2001.

Exhibit 4 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in the first half of 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 (52 percent) than Black (26 percent) or White (20 percent), usually readmissions 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. 46 percent), and first admissions to treatment (17 vs. 10 percent). In contrast, primary heroin injectors are more likely than intranasal users to be White (32 vs. 12 percent), to report cocaine as a secondary drug of abuse (41 vs. 31 percent), and to have started use before reaching age 20 (60 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 a sizable 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—an increase of 234 percent.

DAWN figures for heroin-involved deaths in the New York City metropolitan area have declined over the last few years, similar to cocaine-involved deaths. In 1999, heroin-involved deaths reached a low point (434), representing a decline of 42 percent from 751 deaths in 1995.

ADAM urinalysis data show fewer arrestees testing positive for opiates than for cocaine or marijuana. Until 2000, female arrestees were more likely than males to test positive for opiates. In 1994, for instance, 30 percent of female arrestees and 19 percent of male arrestees in Manhattan's Central Booking tested opiate-positive. In 2000, 19 percent of females tested opiate positive, compared with 21 percent of males.

Since 1992, the DEA's Domestic Monitor Program has found average heroin purities to be generally above 60 percent. Findings for 2000 show an average purity of 62.9 percent. The associated price is $0.42 per milligram pure heroin. Kilogram prices are $60,000–$80,000 for South American heroin, $65,000–$90,000 for Southwest Asian heroin, and $90,000–$100,000 for Southeast Asian heroin.

The SSU reports concern by users on the street that heroin will be in short supply in New York City because of the terrorist attacks on September 11 and the new security measures that have been and are being established. Certain areas of the city have already reported a shortage of heroin and other drugs. Bags still sell for $10, and the quality is unchanged, but the bags contain less of the drug. The SSU also reports that some addicts fear anthrax will contaminate their drugs. NYPD initiatives aimed at street-level drug sales have been effective in driving most of the heroin dealers indoors. Since the World Trade Center attacks, however, some dealers are reportedly becoming more brazen where there is less police presence.

Heroin dealers range in age from the late teens to the late fifties. Some dealers use teenagers on small bikes to sell their drugs. Trying to avoid monitoring and possible arrest, sellers increasingly shy away from identifying their bags of heroin with a brand name. Some dealers, however, use colored bags to identify themselves as the source.

SSU researchers report that needle sharing appears to be increasing among older heroin injectors. One user said, "Now that people are no longer dying from the virus, it's okay to share your works."

Much like cocaine arrests, heroin arrests peaked in 1989 (n = 28,083), declined for a few years, and then peaked again in 1995 (n = 38,131). 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 in 2000 is somewhat higher than the comparable number of cocaine arrests (n = 31,919).

Marijuana

In New York City, marijuana indicators have been increasing steadily and dramatically (exhibit 5). While stable over the past few years, the total number of marijuana ED mentions—projected from the current sample of hospitals—almost tripled between 1991 (n = 1,196) and 2000 (n = 3,544). In 2000, the rate of marijuana ED mentions for the New

York City metropolitan area was 41 per 100,000 population. The DAWN national estimate was 39 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 2000, from 1,374 to 11,151. The 2000 annual number is the highest ever, and the number for the first half of 2001 (6,582) is the highest for any 6-month period. In 1991, primary marijuana admissions represented about 5 percent of all drug treatment admissions; by the first half of 2001, these admissions represented about 25 percent of admissions to all New York City drug abuse treatment programs.
Exhibit 6 shows demographic characteristics of primary marijuana admissions to all New York City treatment programs in the first half of 2001. The vast majority were male (80 percent); almost 40 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 43 percent of them, and most had some criminal justice status (71 percent).

According to the SSU, marijuana availability and quality continue to increase with new varieties and combinations. Increasing availability, potency, and popularity has led to a disparity in quality and price of marijuana. Many sellers mix low-grade marijuana with other substances to enhance or expand it. It is easy to sell low-grade adulterated marijuana as "good stuff" to new users, especially to youth. On the street, the most popular slang term for marijuana is "trees." Hydroponically grown marijuana, known as "hydro," had commanded a higher price than organic, but "purple haze," an organic marijuana, is now as expensive. Both sell for $700–$800 an ounce. For many teenagers, a blunt and 40 ounces of beer is still the preferred combination.

Generally, bags of marijuana are priced at $10–$50, with "hydro" joints selling for $10 each and blunts selling for $15 each. An SSU researcher reports that "dro" (hydro) is being sold together with a pellet (a small block of dark brown marijuana) for $20 per bag. The street name for this combination is "beef and broccoli." Researchers were also told of dipping marijuana in the water used to cook crack, creating a mixture called "elo," which sells for $10 per bag. Another mixture called "sherm" is marijuana dipped in phencyclidine (PCP).

Arrestees in the ADAM Manhattan 2000 samples were much more likely to test positive for marijuana than for opiates. Unlike gender differences found in most other drug categories, males are much more likely than females to test positive for marijuana. Approximately 41 percent of male and 28 percent of female arrestees tested positive for marijuana. For males, the number of marijuana positives is approaching that for cocaine positives.

According to the DEA, marijuana prices can range from $200 to $1,700 per pound wholesale. The NYPD reports prices as high as $1,000–$5,000 per pound for high-quality commercial marijuana.

In spite of decriminalizing possession of small amounts of marijuana, the NYPD continues to make a record number of related arrests in New York City (exhibit 5). Cannabis-involved arrests had reached a low of 4,762 in 1991, and then increased more than 12 times in the next 9 years to 60,455 in 2000. About 98 percent of these arrests were for misdemeanors, and 33 percent involved persons age 20 or younger. Moreover, cannabis arrests accounted for 45 percent of all drug arrests in New York City in the year 2000, 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 in New York City in 2000 that involved the drug. It is noted, however, that 44 methamphetamine deaths were reported in 1999, compared with 2 in 1998. The SSU continues to report methamphetamine availability in dance clubs and among gay males. The drug is rarely sold on the street.

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 a primary drug of abuse.

Among medical examiner deaths reported by DAWN, diazepam is the leading psychoactive prescription drug detected in drug-involved deaths. Deaths involving diazepam decreased from 104 in 1995 to 30 in 1998, but increased to 38 in 1999.

According to the SSU, a variety of psychoactive prescription drugs are increasingly available on the street, such as amitriptyline (Elavil or "sticks"), alprazolam ("footballs"), clonazepam, clonidine (Catapres), hydrocodone (Vicodin),

and diazepam. However, since the World Trade Center attacks, the price of street pills has doubled in certain areas of the city. The SSU researchers encountered a person selling a bottle of 100 pills (20 milligrams) of OxyContin for $275 on the street, referring to it as "hillbilly heroin." 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. Interestingly, efavirenz (Sustiva), an antiretroviral medication, might have psychoactive properties. One HIV-positive informant confided that if you take a few Sustiva pills and drink a beer, "you don't need to sniff a bag of dope."

Among the variety of drug-dealing roles in the city, there is the "non-control" person who deals in legal pills and medication. Most recently, these dealers have been acquiring and selling medications for HIV infection. They often carry a color chart of medications showing the different brands and prices they will pay for them. Medications are then sold back to pharmacies, sometimes warehoused for future sales and sometimes 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. While PCP ED mentions increased from 1991 to 1993, the number has declined dramatically, from 1,027 in 1993 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 deaths increased from 2 to 11.

In Harlem, PCP sells for $10 per bag and is packaged in small plastic bags. In other parts of the city, PCP is sprayed on mint leaves, which are then packaged and sold in small plastic bags. Dipping is a popular method of using PCP. A menthol cigarette is dipped into "angel dust" liquid, or a blunt is laced with powdered angel dust.

Club Drugs

The SSU continues to report the availability of 3,4-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 dramatically, from 31 in 1998 to 200 in 2000, more than a sixfold increase. The SSU has noted two recent changes regarding the use of MDMA: its move from the clubs to the street and the mixing of MDMA with other substances. It is generally sold in pill form, but in Brooklyn it was reportedly sold in powder form with cocaine powder and smoked in a blunt. The SSU reports that MDMA was mixed with heroin and sold under the brand names "on the ball" and "wombstone." There are also reports that some dealers are selling Excedrin pills as ecstasy because they have an "E" in the center and a split in the back. According to an informant, "In the nightclubs people cannot tell the difference, especially after a few drugs and alcohol are in the system." In some areas of the city, the drug is so popular that dealers sell only MDMA from their houses or apartments. The DEA estimates that an MDMA pill sells for $5–$13 wholesale, while the club price is $25–$38 per pill.

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 and may be mistaken for cocaine powder. 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 epidemic of the acquired immunodeficiency syndrome (AIDS) and its impact on injecting 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 122,758 adult and pediatric AIDS cases reported in New York City through December 2000 represents a rate of more than 1,500 cases per 100,000 New Yorkers. Of New York City's cumulative 120,783 adult AIDS cases, 54,703 (45 percent) involve heterosexual IDUs. Homosexual males account for 37,832 cases (31 percent).

Among heterosexual IDUs who have contracted AIDS in New York City, 75 percent are males and 25 percent are females. About 45 percent of these individuals are age 30–39. Blacks continue to be the modal group, accounting for 47 percent, followed by Hispanics (38 percent) and Whites (14 percent). Among female IDUs alone, Black women remain the majority (53 percent), followed by Hispanic women (33 percent) and White women (13 percent). Female IDUs are also younger than their male counterparts: 65 percent are age 39 or younger, compared with 51 percent of the males.

Of the 1,975 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 injecting drug use.

Overall, reports show that 73,946 New Yorkers have died of AIDS, representing 61 percent of all those who have contracted the disease.

New York State has begun a program to increase the availability of hypodermic needles or syringes, called the Expanded Syringe Access Demonstration Program. This program began on January 1, 2001, and will operate through March 31, 2003. Licensed pharmacies, health care facilities, and health care practitioners may register with the State Department of Health to sell or furnish 10 or fewer hypodermic needles or syringes to persons age 18 or older without a prescription.

The registered facilities and practitioners are also required to provide a safety insert with the hypodermic needles and to cooperate in a program to assure safe disposal of used needles or syringes. An independent evaluation will be submitted to the Governor and the legislature by January 15, 2003, to assess the impact of the program on issues such as needle sharing, substance abuse, and syringe disposal.

For inquiries concerning this report, please contact Rozanne Marel, Ph.D., Director of Data Analysis, Applied Studies, New York State Office of Alcoholism and Substance Abuse Services, 501 7th Avenue, 9th Floor, New York, New York 10018, Phone: (646) 728-4605, Fax: (646) 728-4685, or E-mail: <marelr@oasas.state.ny.us>.

Exhibit 1. Semiannual Cocaine Trends for Selected Indicator Data in New York City by Number: 1990–2001

Year	Semiannual/ Annual Periods	Deaths Involving Cocaine[a]	Cocaine Emergency Department Mentions[b]	Treatment Admissions: Cocaine as Primary Drug of Abuse[c]	Cocaine Arrests[d]	Births to Women Using Cocaine[e]
1990	1		6,178			
	2		6,455			
	Total	857	12,633	11,108*	46,348	2,438
1991	1		7,769	5,314		
	2		8,330	7,232		
	Total	804	16,099	12,546	37,769	2,239
1992	1		9,180	7,753		
	2		11,233	7,224		
	Total	733	20,413	14,977	33,708	1,786
1993	1		10,499	6,978		
	2		10,586	7,219		
	Total	818	21,085	14,197	31,296	1,611
1994	1		10,084	7,794		
	2		10,130	7,613		
	Total	755	20,214	15,407	38,200	1,288
1995	1		9,915	8,371		
	2		9,808	7,836		
	Total	908	19,723	16,207	40,846	1,059
1996	1		11,070	8,561		
	2		10,522	8,817		
	Total	749	21,592	17,378	38,813	1,005
1997	1		10,233	9,048		
	2		9,969	8,401		
	Total	557	20,202	17,449	35,431	864
1998	1		9,989	8,999		
	2		9,560	8,573		
	Total	515	19,549	17,572	35,577	742
1999	1		7,386	8,346		
	2		7,413	7,567		
	Total	488	14,799	15,913	31,781	626
2000	1		6,883	7,337		
	2		7,367	6,722	31,919	490
	Total		14,250	14,059		
2001	1			7,212		

*These data include only admissions to treatment programs that were OASAS-funded. Subsequent years include both OASAS-funded and nonfunded treatment admissions.

SOURCES:
[a]SAMHSA, Drug Abuse Warning Network (DAWN), including New York City, Long Island, and Putnam County
[b]SAMHSA, DAWN, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2000 data are preliminary.)
[c]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[d]New York City Police Department
[e]New York City Department of Health

Exhibit 2: Characteristics of Primary Cocaine Admissions[a] to State-Funded[b] and Nonfunded[c] Treatment Programs in New York City by Mode Of Administration and Percent: January–June 2001

Demographic Characteristic	Total (*N* = 7,212)	Smoking Crack (*n* = 4,683)	Using Cocaine Intranasally (*n* = 2,316)
Gender			
Male	65	61	74
Female	35	39	26
Age			
<26	7	5	13
26–35	33	34	33
>35	59	61	54
(Average age)	(37.3 years)	(37.6 years)	(36.4 years)
Race			
Black	60	70	41
Hispanic	24	18	37
White	14	11	20
No source of income[d]	32	35	25
Some criminal justice status	47	44	54
Readmissions	75	78	68
Age of first use			
<15	6	5	8
15–19	28	24	35
20–29	44	47	40
>29	22	24	17
Secondary drug of abuse			
Alcohol	47	49	45
Marijuana	22	22	24
Heroin	6	6	5

[a]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.
[b]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[c]Nonfunded programs receive funding through sources other than OASAS.
[d]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Exhibit 3. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1990–2001

Year	Semiannual/ Annual Period	Deaths Involving Heroin[a]	Heroin/Morphine Emergency Department Mentions[b]	Treatment Admissions: Heroin as Primary Drug of Abuse[c]	Heroin Arrests[d]	Average Purity of Street Heroin (%)[e]
1990	1		1,930			
	2		1,880			
	Total	557	3,810	11,919*	24,421	(37.0)
1991	1		2,684	7,180		
	2		3,335	7,905		
	Total	582	6,019	15,085	23,622	(50.6)
1992	1		3,879	8,219		
	2		4,503	8,004		
	Total	681	8,382	16,223	23,509	(62.3)
1993	1		5,131	8,369		
	2		6,220	8,620		
	Total	796	11,351	16,989	24,595	(66.1)
1994	1		5,561	9,070		
	2		5,624	9,117		
	Total	612	11,185	18,187	33,206	(63.9)
1995	1		5,288	9,286		
	2		5,440	9,001		
	Total	751	10,728	18,287	38,131	(69.4)
1996	1		5,654	9,161		
	2		5,478	9,617		
	Total	560	11,132	18,778	37,901	(56.3)
1997	1		4,900	10,276		
	2		4,581	10,431		
	Total	519	9,481	20,707	35,325	(62.5)
1998	1		4,613	10,793		
	2		4,605	10,203		
	Total	448	9,218	20,996	37,483	(63.6)
1999	1		4,153	10,690		
	2		5,150	10,189		
	Total	434	9,302	20,879	32,949	(61.8)
2000	1		5,378	10,944		
	2		5,630	10,672		
	Total		11,009	21,616	33,665	(62.9)
2001	1			10,988		

*These data include only admissions to treatment programs that were OASAS-funded. Subsequent years include both OASAS-funded and nonfunded treatment admissions.

SOURCES: [a]SAMHSA, Drug Abuse Warning Network (DAWN), including New York City, Long Island, and Putnam County
[b]SAMHSA, DAWN, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2000 data are preliminary.)
[c]New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[d]New York City Police Department
[e]U.S. Drug Enforcement Administration

Exhibit 4. Characteristics Of Primary Heroin Admissions[a] to State-Funded[b] And Nonfunded[c] Treatment Programs in New York City by Mode Of Administration and Percent: January–June 2001

Demographic Characteristic	Total (*N* = 10,988)	Using Heroin Intranasally (*n* = 6,606)	Injecting Heroin (*n* = 4,029)
Gender			
Male	74	74	74
Female	26	26	26
Age			
<26	8	7	8
26–35	27	29	25
>35	65	64	66
(Average age)	(38.7 years)	(38.5 years)	(39.1 years)
Race			
Black	26	29	20
Hispanic	52	57	46
White	20	12	32
No source of income[d]	25	27	23
Some criminal justice status	37	42	28
Readmissions	86	83	90
Age of first use			
<15	13	11	16
15–19	36	31	44
20–29	35	37	31
>29	17	21	10
Secondary drug of abuse			
Alcohol	12	12	11
Marijuana	7	9	5
Cocaine	34	31	41

[a]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.
[b]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[c]Nonfunded programs receive funding through sources other than OASAS.
[d]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Exhibit 5. Semiannual Marijuana Trends for Selected Indicator Data in New York City by Number: 1990–2001

Year	Semiannual/ Annual Period	Marijuana Emergency Department Mentions[a]	Treatment Admissions: Marijuana as Primary Drug of Abuse[b]	Cannabis Arrests[c]
1990	1	668		
	2	614		
	Total	1,282	1,662*	5,429
1991	1	605	687	
	2	591	687	
	Total	1,196	1,374	4,762
1992	1	896	953	
	2	1,134	1,003	
	Total	2,003	1,956	5,078
1993	1	1,011	1,207	
	2	1,081	1,497	
	Total	2,092	2,704	6,145
1994	1	1,181	2,031	
	2	1,408	1,793	
	Total	2,589	3,824	8,815
1995	1	1,516	2,171	
	2	1,460	2,159	
	Total	2,976	4,330	12,357
1996	1	1,723	2,845	
	2	1,848	3,185	
	Total	3,571	6,030	18,991
1997	1	1,939	3,794	
	2	1,900	3,657	
	Total	3,839	7,451	27,531
1998	1	1,986	4,554	
	2	1,696	4,473	
	Total	3,682	9,027	42,030
1999	1	1,799	5,119	
	2	1,692	5,100	
	Total	3,491	10,219	43,122
2000	1	1,856	5,664	
	2	1,688	5,487	
	Total	3,544	11,151	60,455
2001	1		6,582	

*These data include only admissions to treatment programs that were OASAS-funded. Subsequent years include both OASAS-funded and nonfunded treatment admissions.

SOURCES: [a] SAMHSA, Drug Abuse Warning Network (DAWN), weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties (2000 data are preliminary.)
[b] New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions
[c] New York City Police Department

Exhibit 6. Characteristics of Primary Marijuana Admissions[a] to State-Funded[b] and Nonfunded[c] Treatment Programs in New York City by Percent: January–June 2001

Demographic Characteristic	Percent of All Treatment Programs (*N* = 6,582)
Gender	
Male	80
Female	20
Age at Admission	
<21	38
21–25	25
26–35	23
>36	13
(Average age)	(24.9 years)
Race	
Black	56
Hispanic	31
White	10
No source of income[d]	21
Some criminal justice status	71
Readmissions	46
Age of first use	
<15	51
15–19	40
20–29	8
>29	2
Secondary drug of abuse	
Alcohol	43
Cocaine	12

[a]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.
[b]State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).
[c]Nonfunded programs receive funding through sources other than OASAS.
[d]Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Drug Use In Philadelphia, Pennsylvania

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ABSTRACT

The average number of drugs mentioned in hospital emergency department (ED) cases continued to increase through December 31, 2000. Similarly, the average number of drugs detected in decedents by the medical examiner continued to increase through the first 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. The second highest half-year was the preceding one. Although the rate of cocaine ED mentions per 100,000 population decreased by 17 percent from 1999 to 2000, this was still the most mentioned drug in Philadelphia EDs. In the first half of 2001, 83 percent of the 1,160 cocaine treatment admissions were crack smokers. According to the Drug Enforcement Administration, heroin purity remained high, at 73 percent during 2000. As of June 30, 2001, for the fourth consecutive half-year, heroin/morphine detections in decedents exceeded cocaine detections. The number of deaths with the presence of heroin/morphine increased by 34 percent from the year ending June 30, 2000, to the year ending June 30, 2001. The rate of heroin ED mentions (96) was the highest DAWN rate reported in Philadelphia from 1994 to 2000. The ED rate for marijuana mentions (101) was the highest among CEWG cities. Focus groups reported the use of commercial blunt wrappers made of cigar tobacco leaves as an alternative to buying cigars. Participants also reported increased use of OxyContin and alprazolam (Xanax).

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 since the 1990 census, 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 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) Data. The Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA), provided selected ED mention data from July 1, 1994, to December 31, 2000.
- Treatment Admissions Data. Data on treatment admissions to programs in Philadelphia County were provided by the Pennsylvania Department of Health, Client Information System, for January 1, 1996, through June 30, 2001. (Data from July 1, 2000, are preliminary and subject to revision.)
- Mortality Data. The Philadelphia Medical Examiner (ME) Office provided data on mortality cases with toxicology reports indicating sufficient quantities of drugs to have been a potential factor in deaths from July 1, 1994, through June 30, 2001. (These data include persons who died from the adverse affects of one or multiple drugs, as well as persons who exhibited some substance presence but died from other causes. The Philadelphia ME also distinguishes between persons who appeared to have a lethal reaction to what might be considered a light or moderate amount of drugs and persons whose toxicology reports showed a high level of drugs in their systems.)

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- Arrestee Urinalysis Data. Data on urinalysis results of booked adult arrestees were derived from Arrestee Drug Abuse Monitoring (ADAM) program reports, January 1, 1999, through December 31, 2000.
- Heroin Purity and Price Data. These data were provided by the Drug Enforcement Administration (DEA) for January 1, 1999, through December 31, 2000.
- Acquired Immunodeficiency Syndrome (AIDS) Data. The Philadelphia Department of Public Health's AIDS Activities Coordinating Office provided data on AIDS cases from November 1, 1981, to June 30, 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

In the second half of 2000, the average number of drugs per hospital ED episode rose for the fourth consecutive half-year to the highest reported number, 1.91 drugs per case, and totaled 1.89 drugs for the entire year (exhibit 1). The number of single-drug DAWN ED episodes increased by more than 7 percent from the second half of 1997 to the first half of 1998, but declined more than 12 percent from then until the second half of 2000. Concomitantly, there was an increase of nearly 8 percent in multidrug ED episodes from the latter half of 1997 to the first half of 1998 that has largely been sustained through 2000. "Drug dependence" and "psychic effects" were the two motives for drug use that have substantially increased among DAWN ED cases from 1996 to 2000.

The average number of drugs detected in decedents by the ME increased in the first half of 2001 for the seventh consecutive half-year (exhibit 2). At 2.71 drugs per decedent, this was the highest average on record. Mortality cases with positive toxicology reports increased slightly in FY 2000 (n = 570) and increased by 25.8 percent in FY 2001 (n = 717). Of the 717 deaths in FY 2001, adverse reactions to drugs accounted for 55 percent, overdose for 2 percent, and violence for 16 percent; 26 percent were attributed to other causes.

Of all drug-positive decedents, White males constituted the largest proportion of cases in the last 10 half-year periods through June 2001, accounting for 34–44 percent of all cases. Deaths among Whites constituted the plurality of cases from 1995 through 2000, ranging from 46 to 54 percent of the cases. Males accounted for 73 percent of all deaths with positive toxicology reports in FY 2000, and for 75 percent of the FY 2001 cases. In FY 2000, males accounted for 76 percent of deaths among Whites, 73 percent among African-Americans, 77 percent among Hispanics, and 100 percent among Asians and American Indians. Among females, Whites accounted for the largest number of drug deaths from FYs 1996 through 2000, but African-American females (n = 84) exceeded White females (n = 82) in FY 2001.

The Pennsylvania Client Information System is limited to the identification of a maximum of three substances as drugs of abuse at intake. In the first half of 2001, an average of 2.03 drugs were identified per client at admission to treatment.

Focus groups consisting of drug users who were new to treatment estimated that of the regular drug-using population, 15 percent use just one drug per day, 33 percent use two, 23 percent use three, and 29 percent use four or more different drugs per day. Considering that street-level heroin purity in Philadelphia was the Nation's highest or second highest from 1996 through the end of 2000, negative consequences are likely to be associated with multiple drug use.

Cocaine and Crack

Cocaine/crack remains the major drug of abuse in Philadelphia. The estimated rate of cocaine ED mentions in the Philadelphia primary metropolitan statistical area (PMSA) increased fairly consistently, from 187 cases per 100,000 population in 1994 to 275 cases in 1998, but declined to 260 in 1999 and 216 in 2000 (exhibit 1). Excluding alcohol-in-combination, these rates remained more than twice those for marijuana, the second most mentioned drug. Cocaine ED rates for all age groups in 1998 were the highest since 1993. Estimates in 2000 were lower than in 1999 in all age categories, except those 12 to 17, which increased. Rates for males have declined consistently, from 197 mentions per 100,000 population in the first half of 1998 to 146 in the second half of 2000. Rates for females ranged between 82 and 87 per half-year from the first half of 1998 through the second half of 1999, but declined to 72 per 100,000 population in the first half and 67 in the second half of 2000. Males continued to account for two-thirds or more of all cocaine mentions in the second half of 2000, having constituted at least that proportion since 1990.

Medical examiner data show that cocaine was present in 4 percent more cases in FY 2000 than in FY 1999, and in 31 percent more cases in FY 2001 than in FY 2000 (exhibit 2). Despite these increases, cocaine in proportion to total drug-positive toxicology reports remained stable at 45–47 percent from FY 1998 through FY 2001,

substantially lower than the peak of 67 percent in the first half of 1993.

Cocaine in combination with another drug(s) was found in 70 percent of all ME cocaine-positive cases in FY 2000 and 76 percent of such cases in FY 2001. Heroin/morphine was present in 35 percent of cocaine-positive toxicology reports in FY 2000 and 47 percent of such cases in FY 2001. Cocaine in combination with alcohol remains a significant finding in cocaine-positive toxicology reports. In FYs 2000 and 2001, 37 and 23 percent, respectively, of such reports revealed the presence of alcohol. 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.

Exhibit 3 charts the primary drug of abuse at admission to treatment programs from January 1995 through June 2001. While these data provide useful information on which substances are reported by persons entering the treatment system, they must be viewed with caution because data for the two most recent periods are subject to change. This limitation is related to a change in the client reporting system, which extended the time for submitting completed data files. There is frequently a 1-year delay between a treatment admission and the reporting of that event.

In the preliminary data for the first half of 2001, cocaine as a primary drug accounted for 41 percent of all treatment admissions (excluding alcohol), down from 45 percent in the previous half-year. Cocaine admissions peaked in the first half of 1990, at 76 percent of drug admissions (excluding alcohol).

African-Americans accounted for 83–84 percent of all primary cocaine admissions in each of the half-year periods from June 1994 through June 2001, while Whites constituted 10–11 percent, Hispanics 3–4 percent, and Asians and others 1 percent.

In the first half of 2001, 83 percent of the 1,160 primary cocaine admissions reported smoking the drug, 14 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 the first half of 2001, nearly 81 percent reported smoking the drug; the comparable figure for females was 87 percent.

In 2000, the Philadelphia ADAM site reported that 31 percent of adult male and 41 percent of adult female urine screens were positive for cocaine.

During focus group sessions, former drug users new to formal treatment indicated that they perceived crack to be less potent in spring 2001 than it had been since 1996, but the autumn 2001 groups reported no noticeable difference. Crack is still as easy to acquire as it has been since the beginning of the epidemic 14 years ago.

The predominant form of crack sold in Philadelphia is "ready rock," which sells for $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. Autumn 2001 participants estimated that about 59 percent of powder cocaine buys are for intranasal use, 18 percent are injected straight, and 2 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), or marijuana. Heroin, phencyclidine (PCP), or clonazepam (Klonopin) are used less frequently with the crack. Brand names for crack, reported for the first time by autumn 1997 focus groups, have been consistently reported by focus groups through the autumn of 2001. Still, it is much more common for crack to be sold in colored packets than with brand names or logos. The spring 2001 focus groups continued to report an aging crack-using population, mostly in their twenties or thirties, with fewer new users. The autumn 2001 groups estimated the crack-using population as 50 percent African-American, 35 percent White, 12 percent Hispanic, and 3 percent Asian.

Heroin and Morphine

According to the DEA Domestic Monitor Program (DMP), the street-level purity of heroin in Philadelphia was 73 percent in 2000, the highest of all cities in the program for the fourth consecutive year. The national average for heroin purity ranged from 36 to 42 percent during reporting years. The average price per milligram pure in Philadelphia was 39 cents in 2000—tied for fifth least costly—compared with the national average of 97 cents.

The estimated rate of DAWN ED heroin/morphine mentions per 100,000 population totaled 96 in 2000 (exhibit 1). Rates increased each half-year since the first half of 1998 (34 mentions per 100,000 population) through the second half of 2000 (49 mentions per 100,000 population). The rates for the group age 18 to 25 increased for 6 consecutive half-years, from 75 to 120 cases per 100,000 population from the first half of 1998 to the second half of 2000. The rate for this age group in the second half of 2000 was the highest among all age groups. The rate for the group age 35 and older increased from 26 to 38 cases per 100,000 population from the first half of 1998 to the

second half of 2000.

For the 4 half-years ending in June 2001, positive heroin/morphine toxicology reports ranged from 46 to 51 percent of all cases (exhibit 2). White males accounted for 54 percent of all positive heroin/morphine toxicology reports in the second half of 1999 and for 45 percent in each half of 2000 and the first half of 2001.

In the first half of 2001, heroin/morphine toxicology reports accounted for 57 percent of all 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.

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; and in the first half of 2001, 15 percent were 25 or younger.

During the 3 half-years beginning in January 2000, heroin/morphine alone was identified in 16, 12, and 11 percent of the respective heroin/morphine toxicology reports. Cocaine in addition to heroin/morphine accounted for 36, 45, and 68 percent, respectively, during these periods; 48, 43, and 21 percent of the respective heroin/morphine reports indicated the presence of other drugs through June 2001.

Primary heroin/morphine treatment admissions continue to rank behind those for cocaine and alcohol (exhibit 3), and accounted for 17 percent of all admissions in 2000. During FY 2000 and the first half of 2001, 66 and 65 percent of all heroin/morphine treatment admissions were males.

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 since the first half of 1999 could suggest that users of pharmaceutically produced synthetic opiates have been entering treatment.

In 2000, 12 percent of adult male and 11 percent of female arrestees in the Philadelphia ADAM site tested positive for opiates. Past-30-day use reports revealed that 10 percent of males and 8 percent of females used heroin during that time period.

The autumn 2001 focus group participants identified 51 of the 82 heroin packaging brands identified by the spring 2001 groups. In addition, 18 new brands were identified. The $10 bag remained the standard unit of purchase. The $10 bag usually yields one hit; $5 and $20 bags reportedly remain available. Both men and women continue to report the exchange of unprotected heterosexual and homosexual sex for heroin. Focus groups in autumn 2000 and spring 2001 indicated that new heroin users begin at age 15; the autumn 2001 groups stated that new users begin at age 17. The autumn 2000, spring 2001, and autumn 2001 groups all 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.

Other Opiates

The diversion and misuse of oxycodone products, including OxyContin, continues to receive local media attention. The preliminary DAWN ED numbers for oxycodone cases rose from 28 mentions in 1999 to 195 mentions in 2000, the largest number for DAWN sites; the rate per 100,000 population rose from 0.6 to 4.0 during this same period (exhibit 1). There were 23 positive toxicology ME reports for oxycodone for the 3½ years from July 1994 through December 1997 (exhibit 2). In the subsequent 3½ years, ending June 30, 2001, there were 128 positive toxicology reports for oxycodone

Hydrocodone mentions in mortality cases have also increased (exhibit 2). In the 3½ years from July 1994 through December 1997, there were 17 positive toxicology reports for hydrocodone. In the subsequent 3½ years, ending June 30, 2001, there were 77 positive toxicology reports for hydrocodone.

Marijuana

The rate for marijuana ED DAWN mentions in Philadelphia may have peaked in 1999 (114 mentions per 100,000 population); the preliminary estimate for 2000 is 101 mentions per 100,000 population (exhibit 1). This pattern applies to males and females and all age groups except those 12 to 17, whose rate continued to increase, from 183 mentions per 100,000 population in 1999 to 200 mentions per 100,000 in 2000. In 1999 and 2000, the highest

rates by age group were among those 18 and 19, at 308 and 306 mentions per 100,000 population, and those 20 to 25, at 297 and 261 mentions per 100,000.

In 2000, marijuana was the primary drug of 21.7 percent of treatment admissions (excluding alcohol) and 15.7 percent of all admissions (including alcohol) (exhibit 3). Among all admissions, marijuana was mentioned by 16 percent as a secondary drug and by 13 percent as a tertiary drug. In total, 45 percent of all admissions were marijuana users. In the first half of 2001, marijuana was mentioned as the primary, secondary, and tertiary drug of abuse in 14, 11, and 8 percent of treatment admissions, respectively, or 33 percent of total admissions. Males accounted for 77 percent and African-Americans for 70 percent of primary marijuana admissions.

The 2000 ADAM data on adult arrestees indicated that 49 percent of males and 22 percent of females tested positive for marijuana. One-half of males and 31 percent of females self-reported use of marijuana in the past 30 days.

Focus group discussions and outreach workers reported 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). The spring and autumn 2000 groups reported new street names, including “dutchies,” “blizzies,” “stogies,” and “chocolate tide.” The spring 2001 groups added “bizzle,” “Bob Marley,” “chronic,” and “dozier” to the list.

In autumn 2001 focus group sessions, participants, for the first time, mentioned 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 with a sharp object or fingernails, and emptying the contents.

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). According to users new to treatment, the use of PCP-laced blunts remains popular and may still be increasing. “Turbos” (blunts laced with crack) also remain popular. Spring 2001 focus group participants estimated that of all blunts smoked, 47 percent are laced with another drug. The autumn 2001 estimate was 60 percent laced, with PCP being the additive of choice. Blunt users commonly ingest beer, alprazolam, cough syrup, and/or oxycodone (Percocet). Some users like to dip the blunt in honey to add flavor and slow the burn, which is reported as being desirable. Participants in the autumn 2001 focus group also mentioned soaking blunts in vodka or corn liquor.

Other Drugs

Phencyclidine began gaining popularity as an additive to blunts in 1994. Users describe its effects as making one “crazy,” “numb,” “violent,” and “hallucinate.” DAWN ED rates for PCP were 12 per 100,000 population in 1998, 1999, and 2000 (exhibit 1). The number of PCP detections by the ME in decedents in the second half of 2000 (n = 34) was the highest in any half-year on record. In the first half of 2001, the ME detected PCP in 22 decedents.

In 2000, PCP was mentioned as the primary, secondary, or tertiary drug by 3.2 percent of all treatment admissions. During the first half of 2001, PCP was mentioned as the primary, secondary, or tertiary drug of choice by 2.6 percent of treatment admissions. At $5 for a small bottle, PCP is easier to obtain than ever. The more common form of PCP is on mint leaves, but it is also available as a liquid.

Methamphetamine/amphetamine continues to be a relatively minor problem in Philadelphia. The DAWN ED rates per 100,000 population for methamphetamine in Philadelphia were 1 in 1998 and 1999 and 1.4 in 2000 (exhibit 1). DAWN ED amphetamine rates for 1998, 1999, and 2000 were 7.6, 9.3, and 10 per 100,000 population, respectively. Methamphetamine or amphetamine was present in three deaths in the second half of 1999, one in the first half of 2000, four in the second half of 2000, and eight in the first half of 2001 (exhibit 2). Treatment admissions for methamphetamine/amphetamine as primary drug of abuse in the 4 half-years ending June 2001 were 11, 15, 9, and 14, respectively (exhibit 3). Focus group members indicated that methamphetamine is still difficult to obtain, is not sold outdoors, requires a connection, and is decreasing in popularity.

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 (not mentioned above) among decedents from the second half of 2000 to the first half of 2001 include propoxyphene (Darvon), diazepam (Valium), alprazolam (Xanax), oxazepam (Serax), and temazepam (Restoril) (exhibit 2). However, the spring and autumn 2000 and 2001 focus groups reported that alprazolam (Xanax) has overtaken diazepam as the “most popular pill” on the street.

DAWN ED mentions for 3,4-methylenedioxymethamphetamine (MDMA, or “ecstasy”) numbered 19, 27, 89,

and 141, for the 4 years beginning with 1997. 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 three and five decedents, respectively, in the two halves of 2000, and in eight decedents during the first half of 2001. Spring and autumn 2000 focus groups described MDMA as highly potent and used in combination with heroin, alcohol, and/or cough syrup. Spring and autumn 2001 focus groups 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 year, 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.

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. Hospital ED mentions of ketamine numbered 5 in 1999 and 23 in 2000. Ketamine was also identified as a club drug that 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 June 30, 2001, Philadelphia recorded 14,002 cumulative AIDS cases among adults. Among those cases, 5,155 involved injecting drug users (IDUs), in addition to 797 that 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 throughout the 1990s in the percentage of AIDS cases involving the MSM category. However, cases related to injecting drug use or heterosexual contact have been increasing. Injecting drug use was the identified mode of exposure category in more than 36 percent of total AIDS cases reported from November 1981 through June 2001, but it accounted for more than 41 percent of cases identified in the last 12 months of that period. Heterosexual contact is the identified exposure category in nearly 15 percent of all AIDS cases to date, but accounted for a little more than 28 percent of cases identified in fiscal year 2001.

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Exhibit 1. Estimated Rates of Emergency Department Mentions in Philadelphia for Selected Drugs Per 100,000 Population: January 1, 1994, to December 31, 2000

Drugs Mentioned	1994	1995	1996	1997	1998	1999	2000*
Cocaine	187	208	224	239	275	260	216
Alcohol in Combination	137	150	147	160	181	184	171
Marijuana/Hashish	46	67	74	97	112	114	101
Heroin/Morphine	53	84	83	79	73	85	96
Alprazolam	13	19	18	24	21	23	27
PCP/PCP Combinations	10	13	8	10	12	12	12
Oxycodone	0.1	**	0.1	0.3	0.6	0.6	4
Methamphetamine/Speed	2	2	1.4	2.2	1	1	1.4
Average Number of Drugs Mentioned per ED Episode	1.79	1.8	1.79	1.84	1.83	1.87	1.89

* Estimates for 2000 are preliminary and subject to revision.
** Estimate does not meet the DAWN standard of precision.

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Semiannual Mortality Data in Philadelphia with the Presence of Selected Drugs as Detected by Medical Examiner (ME): July 1, 1994, to June 30, 2001

ME Identified Drugs	1994	1995		1996		1997		1998		1999		2000		2001
	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H
Cocaine	183	189	147	133	144	152	132	130	115	130	108	146	165	169
Heroin/Morphine	151	162	156	125	165	178	175	152	119	119	117	151	181	179
Amphetamine/Methamphetamine	5	6	4	7	4	5	7	1	5	9	3	1	4	8
Propoxyphene	16	21	8	14	13	16	26	9	12	12	10	21	18	27
Oxycodone	1	0	2	0	1	7	12	14	15	9	8	23	26	33
Hydrocodone	0	0	1	2	6	4	4	6	9	8	5	11	16	22
Fluoxetine	1	4	3	6	3	5	10	12	12	6	8	8	13	9
Diazepam	38	15	18	18	13	21	28	22	17	24	17	18	16	28
Alprazolam	14	5	3	11	6	9	8	9	10	3	5	9	7	18
Oxazepam	4	0	3	3	6	12	12	9	10	9	2	8	4	8
Temazepam	9	4	1	11	10	14	11	10	9	15	3	13	5	13
Total Deaths with the Presence of Drugs	309	340	292	261	304	296	311	275	259	289	244	326	354	363
Total Drugs Mentioned	691	694	560	522	609	641	635	573	555	641	562	781	864	985
Average Number of Drugs per Death	2.24	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

SOURCE: Philadelphia Office of the Medical Examiner

Exhibit 3. Semiannual Treatment Admissions by Primary Drug of Abuse: January 1, 1995, to June 30, 2001

Primary Drug	1995		1996		1997		1998		1999		2000		2001
	1H	2H	1H	2H	1H	2H	1H	2H	1H	2H	1H*	2H*	1H**
Cocaine	2,726	2,532	2,218	2,045	1,127	1,365	899	1,043	930	1,062	1,003	911	1,160
Alcohol	1,767	2,305	1,639	1,829	768	880	854	623	1,048	895	813	726	1,178
Heroin	1,468	1,552	1,032	1,491	535	1,046	440	480	561	638	439	519	950
Other Opiates	36	44	16	25	21	30	22	26	23	23	23	32	51
Marijuana	412	506	527	490	299	293	314	477	483	379	394	471	554
PCP	44	60	93	90	19	17	16	16	28	21	14	27	31
Other Hallucinogens	13	13	14	8	8	6	3	6	3	6	2	5	3
Methamphetamine/ Amphetamine	30	26	18	23	15	12	13	18	22	11	15	9	14
Benzodiazepines	27	14	21	20	13	13	16	16	33	13	15	12	19
Tranquilizers	6	8	8	14	6	5	3	3	3	1	1	4	1
Barbiturates	10	11	9	16	5	3	5	8	2	6	3	7	6
Other Sedatives/ Hypnotics	4	6	18	13	6	6	6	7	8	10	9	7	10
Inhalants	1	1	3	2	0	0	1	1	0	0	0	3	1
Over-the-Counter	4	0	1	1	3	1	2	5	3	21	4	0	2
Other (Not Listed)	49	120	77	71	34	19	9	8	0	1	25	28	62
Total	6,597	7,198	5,694	6,138	2,859	3,696	2,603	2,737	3,147	3,087	2,760	2,761	4,042

* Revised data.
** Preliminary data, 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: January 1, 1997, to June 30, 2001

Rate of Administration and Gender	1997		1998		1999		2000		2001
	1H	2H	1H	2H	1H	2H	1H	2H	1H
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Smoked									
Male	484 (42.9)	619 (45.3)	399 (44.4)	476 (45.6)	406 (40.3)	591 (48.2)	571 (44.8)	529 (44.3)	545 (47.0)
Female	476 (42.4)	525 (38.5)	352 (39.2)	392 (37.6)	401 (39.9)	461 (37.6)	502 (39.4)	489 (40.9)	420 (36.2)
Intranasal									
Male	92 (8.2)	107 (7.8)	79 (8.8)	89 (8.5)	88 (8.7)	84 (6.9)	94 (7.4)	102 (8.5)	108 (9.3)
Female	41 (3.6)	50 (3.7)	24 (2.7)	46 (4.4)	65 (6.5)	55 (4.5)	60 (4.7)	42 (3.5)	52 (4.5)
Injected									
Male	19 (1.7)	33 (2.4)	23 (2.6)	27 (2.6)	28 (2.8)	18 (1.5)	22 (1.7)	16 (1.3)	20 (1.7)
Female	4 (0.4)	11 (0.8)	7 (0.8)	5 0.5	10 (1.0)	3 (0.2)	8 (0.6)	4 (0.3)	6 (0.5)
Other/Unknown									
Male	8 (0.7)	14 (1.0)	7 (0.7)	3 (0.3)	7 (0.7)	4 (0.3)	9 (0.7)	7 (0.6)	5 (0.4)
Female	3 (0.3)	6 (0.4)	8 (0.9)	5 (0.5)	2 (0.2)	9 (0.7)	9 (0.7)	6 (0.5)	4 (0.3)
Total Male	603 (53.5)	773 (56.6)	508 (56.5)	595 (57.0)	529 (52.5)	697 (56.9)	696 (54.6)	654 (54.7)	678 (58.4)
Total Female	524 (46.5)	592 (43.4)	391 (43.5)	448 (43.0)	478 (4.75)	528 (43.1)	579 (45.4)	541 (45.3)	482 (41.6)
Total	1,127	1,365	899	1,043	1,007	1,225	1,275	1,195	1,160

* Revised data.
** Preliminary data, subject to revision.

Exhibit 5. Semiannual Heroin, Illegal Methadone, and Other Opiate Treatment Admissions in Philadelphia by Route of Administration and Gender: January 1, 1997, to June 30, 2001

Route of Administration and Gender	1997		1998		1999		2000		2001
	1H	2H	1H	2H	1H	2H	1H	2H	1H
	N %	N %	N %	N %	N %	N %	N %	N %	N %
Injected									
Male	233 (43.6)	468 (43.5)	187 (42.5)	192 (40.0)	569 (49.4)	532 (47.3)	434 (41.9)	419 (40.3)	396 (39.6)
Female	118 (22.1)	197 (18.3)	79 (18.0)	90 (18.8)	288 (25.0)	426 (21.9)	185 (17.8)	213 (20.5)	207 (20.7)
Intranasal									
Male	102 (19.1)	265 (24.6)	110 (25.0)	117 (24.4)	158 (13.7)	158 (14.1)	224 (21.6)	182 (17.5)	187 (18.7)
Female	65 (12.1)	114 (10.6)	52 (11.8)	70 (14.6)	95 (8.2)	120 (10.7)	127 (12.2)	135 (13.0)	108 (10.8)
Swallowed									
Male	0 (0.0)	7 (0.7)	2 (0.5)	1 (0.2)	16 (1.4)	16 (1.4)	14 (1.4)	30 (2.9)	34 (3.4)
Female	2 (0.4)	2 (0.4)	2 (0.5)	0 (0.0)	4 (0.3)	15 (1.3)	25 (2.4)	17 (1.6)	18 (1.8)
Smoked									
Male	6 (1.1)	15 (1.4)	4 (0.9)	5 (1.0)	10 (0.9)	17 (1.5)	16 (1.5)	20 (1.9)	22 (2.2)
Female	5 (0.9)	4 (0.4)	1 (0.2)	2 (0.4)	4 (0.3)	10 (0.9)	6 (0.6)	5 (0.5)	4 (0.4)
Other/Unknown									
Male	3 (0.6)	4 (0.4)	2 (0.5)	2 (0.4)	5 (0.4)	7 (0.6)	3 (0.3)	10 (1.0)	16 (1.6)
Female	1 (0.2)	0 (0.0)	1 (0.2)	1 (0.2)	3 (0.3)	3 (0.3)	3 (0.3)	8 (0.8)	9 (0.9)
Total Male	344 (64.3)	759 (70.6)	305 (69.3)	317 (66.0)	758 (65.8)	730 (64.9)	691 (66.6)	661 (63.6)	655 (65.4)
Total Female	191 (35.7)	317 (29.4)	135 (30.7)	163 (34.0)	394 (34.2)	394 (35.1)	346 (33.4)	378 (36.4)	346 (34.6)
Total	535	1,076	440	480	1,152	1,124	1,037	1,039	1,001

* Revised data.
** Preliminary data, subject to revision.

SOURCE: Pennsylvania Department of Health, Client Information System

Exhibit 6. Adult Aids Cases in Philadelphia by Exposure Category: July 1, 2000, to June 30, 2001, and Cumulative Totals Through June 30, 2001

Exposure Category	July 1, 2000, to June 30, 2001		November 1, 1981, to June 30, 2001	
	Number	Percent	Number	Percent
IDU	483	(41.6)	5.155	(36.8)
Men/Sex/Men and IDU	41	(3.5)	797	(5.7)
Men/Sex/Men	306	(26.4)	5.645	(40.3)
Heterosexual Contact	328	(28.3)	2,093	(14.9)
Blood Products	0	(0.0)	92	(0.7)
No Identified Risk Factor	3	(0.3)	220	(1.6)
Total Adult Cases	1,161	(100..0)	14,002	(100.0)

SOURCE: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Drug Abuse Trends in Phoenix and Arizona

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ABSTRACT

In 2000-2001, indicators for cocaine/crack, heroin, marijuana, and other narcotic drugs were unchanged or decreased slightly, except for hydrocodone and oxycodone. ED mentions for methamphetamine rose 27 percent, following 3 years of decline. After a dramatic rise in the number of drug-related deaths in Maricopa County through 2000, it appears that deaths related to most of the major drugs are decreasing for 2001, with the exception of methamphetamine and methamphetamine-in-combination with heroin and/or cocaine. Currently, the drugs of greatest concern in Arizona are methamphetamine, MDMA, and other club drugs (including LSD, PCP, GHB, PMA, and mushrooms). Because of the events of September 11, 2001, law enforcement's investigations and other efforts have been disrupted. Increased seizures of drugs were reported on Native American reservations, especially those contiguous with the Mexican border. A history of injecting drug use was reported as the single largest risk factor in a survey for chronic hepatitis C in Maricopa County.

INTRODUCTION

Area Description

Phoenix, the capital city of Arizona, is located in Maricopa County in the central part of the State. Maricopa County, with slightly more than 3 million residents, is one of the largest metropolitan areas in the Nation and encompasses approximately 2,000 square miles. Among the 20 surrounding cities are Chandler, Glendale, Mesa, Paradise Valley, Scottsdale, and Tempe.

In the past decade, the population of Arizona increased three times faster than that of the rest of the Nation, becoming the place of residence for more than 5.1 million people. The U.S. Bureau of the Census population count was nearly 1.5 million more in 2000 than in 1990. Racial and ethnic minorities accounted for more than one-half of the State's total growth. Minorities now account for 36 percent of the State's 5.1 million people, an 8-percentage point gain from 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. 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.

Data Sources

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

- Maricopa County Medical Examiner (ME) Office. This source provided information on drug-related deaths for January 1989–May 2001.
- Substance Abuse and Mental Health Services Administration (SAMHSA), Drug Abuse Warning Network (DAWN). Data on emergency department (ED) mentions were derived for 2000 from DAWN.
- Arizona Department of Health Services, Division of Behavioral Health. This Division provided total treatment caseload data for the State overall for fiscal year (FY) 2000.
- Treatment and Assessment Screening Center (TASC). TASC treatment data used in this report include the Juvenile Standard and Intensive Probation Program report, April–September 2001, and the Adult Deferred Prosecution Program cumulative report, March 1989–October 2001.
- Terros, Inc. This source provided data on admissions to outpatient detoxification treatment for July 2000–June 2001.
- Arrestee Drug Abuse Monitoring (ADAM) Program. ADAM data were derived from the National Institute of Justice "2000 Annual Report on Drug Use Among Adult and Juvenile Arrestees."

1 The author is affiliated with EMPACT Suicide Prevention Center, Phoenix, Arizona

- Drug Enforcement Administration (DEA). DEA provided the Phoenix office "Trends in Traffic" report for the fourth quarter of FY 2001 and the Domestic Monitor Program Data for 2000.
- Arizona Department of Public Safety (DPS). DPS data were derived from the "Crime in Arizona 2000" annual report.
- Phoenix Police Department (PD) Drug Enforcement Bureau. This source provided data through December 2001.
- Arizona Department of Health Services (DHS), Division of Disease Prevention, Office of Chronic/Infectious Disease. This Office provided data on cases of acquired immunodeficiency syndrome (AIDS) and the human immunodeficiency virus (HIV) infection in Arizona, January 1980–October 2001.
- Arizona Criminal Justice Commission. "A Study of Ecstasy, Club Drugs and Raves in the State of Arizona," Fall 2001, was available from this source.
- U.S. Customs Service. Data from the Customs Service's November 26, 2001, press release were used for this paper.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine and Crack

Forty-three cocaine-related deaths were reported in the first 5 months of 2001. This suggests a significant decline in cocaine deaths, since there were 167 such deaths for the full year in 2000. Cocaine/morphine (23) deaths combined, however, were stable for the same reporting period (exhibit 1).

Cocaine ED mentions gradually increased from 1,067 in 1994 to 1,486 in 1998 to 1,882 in 1999, but they declined slightly in 2000 to 1,778. There was a 67-percent increase over the 7 years (exhibit 2). In Phoenix, the rate of cocaine ED mentions per 100,000 population increased from 54 in 1994 to 85 in 2000. The rate per 100,000 population for females nearly doubled, from 25 in 1994 to 48 in 2000. Of CEWG cities, only Denver (83), Washington, D.C. (72), San Diego (41), and Minneapolis (35) had lower rates of cocaine ED mentions.

The Phoenix ADAM data show that 35 percent of adult male and 32 percent of adult female arrestees tested positive for cocaine in 2000 (exhibit 3a). Tucson ADAM data show that 41 percent of adult male arrestees and 49 percent of female arrestees tested positive for cocaine. Juvenile cocaine-positive screens ranged from approximately 11 percent of Phoenix females and Tucson males to 19 percent of Tucson females (exhibit 3b).

Cocaine treatment admissions to the TASC Adult Deferred Prosecution Program remain nearly unchanged at approximately 30 percent of cumulative treatment admissions since March 1989 (2,856 of 9,624), similar to the three previous reporting periods (exhibit 4a). Admissions for juveniles reporting cocaine use increased from nearly 14 percent to 16 percent from June to September 2001 (exhibit 4b). The Terros outpatient detoxification program reported 13 percent of treatment admissions in 2000 were for primary cocaine abuse. Cocaine abuse admissions declined to 9 percent in 2001.

Powder cocaine is available throughout the Phoenix, Tucson, and Nogales areas of Arizona according to the DEA. Wholesale cocaine is primarily sold in powder form in kilogram and half-kilogram pressed bricks that are wrapped in cellophane and packaging tape.

In Phoenix and the surrounding areas, retail cocaine has historically been sold in gram to ounce quantities. Street-level quantities of cocaine are usually sold in small vials, zip-lock baggies, or folded papers called "bindles." In the second half of 2001, a gram of powder cocaine sold for about $80 in Phoenix, Tucson, Yuma, Sierra Vista/Douglas, and Nogales (exhibit 5). Couriers are used to transport cocaine from Arizona across the country on commercial airline flights. It has been reported that a kilogram of powder cocaine purchased for $14,000 in Tucson is sold for $30,000 in Philadelphia.

In 2001, the DEA reported the purchase of crack cocaine that was a tan color, in contrast to the usual off-white color. The reason for the change in color is unknown; however, it is speculated that it may be related to the use of less water in the processing.

The Arizona Department of Public Safety reported 1,635 arrests for the manufacture and sale of opiates/cocaine in 2000, a decrease of 8.6 percent from 1999, but much less than the number in 1989 (n =2,184). Arrests for possession of opiates/cocaine also declined (exhibit 6).

Heroin/Morphine

Morphine-related deaths reported by the Maricopa County ME steadily increased from 48 in 1997, to 90 in 1998, 106 in 1999, and 137 in 2000 (exhibit 1). It appears that morphine/heroin deaths peaked in 1999 and 2000. Forty-seven deaths were reported in the first 5 months of 2001, indicating a possible decrease for the year. Deaths involving the combinations of heroin and methamphetamine, cocaine and methamphetamine, or all three drugs appeared to be

increasing in 2001.

Heroin ED mentions remained stable at 899 for 2000, compared with 877 for 1999 (exhibit 2). The rate of heroin/morphine ED mentions per 100,000 population for 2000 was 43 in Phoenix. Of the western CEWG cities, only San Francisco and Seattle have significantly higher rates (170 and 128 per 100,000, respectively) than Phoenix.

During 2000, 6.6 percent of adult male arrestees and 6.5 percent of adult female arrestees tested positive for opiates in the Phoenix ADAM site. In Tucson, 8.8 percent of adult males and 17.2 percent of adult females tested positive for opiates (exhibit 3a). In Tucson, 3.7 percent of juvenile females tested opiate-positive (exhibit 3b).

Outpatient opiate detoxification admissions in the Phoenix area remain stable. Data reflected a modest increase from 66 to 70 percent among Terros clients seeking heroin/morphine detoxification. Heroin admissions to the TASC Adult Deferred Prosecutions Program remained stable at 5.5 percent of the cumulative total (531 of 9,624) from March 1989 to September 2001 (exhibit 4a). Among juveniles in TASC in the June and September 2001 quarters, reports of opiate use rose from zero to 4 percent (exhibit 4b).

Black tar heroin remains the most frequently used form of the drug. In the Phoenix and Tucson metropolitan areas, this type of heroin is used by the well-established "traditional" community of heroin abusers. Throughout Arizona, street prices for heroin remain relatively unchanged from previous CEWG reporting periods. In Phoenix from July to October 2001, a gram of heroin sold for $70–$100 (exhibit 5). The DEA reported a heroin purchase in Tucson with a purity level of 65 percent.

The DEA Phoenix Division seized 51.8 kilograms of heroin during FY 2001. In FY 2001, U.S. Customs Service inspectors, special agents, and patrol officers seized a record 240,588 pounds of heroin, cocaine, methamphetamine, and marijuana. The Customs officers seized 116 pounds of heroin, 172 pounds of methamphetamine, 4,794 pounds of cocaine, and 235,506 pounds of marijuana.

The John C. Lincoln Hospital in Phoenix is the only facility in Arizona that provides Ultra Rapid Opiate Detoxification or UROD. This treatment approach allows patients to undergo treatment in 4 to 8 hours while anesthetized. An Arizona State University anthropologist is applying for a Federal grant to study the use of shamanistic healing practices and "drumming" in the treatment of drug addiction.

Other Opiates

DAWN ED data show that hydrocodone and oxycodone mentions have been increasing in Phoenix, although the numbers of mentions are still relatively small. ED mentions for hydrocodone increased 63 percent from 1994 ($n = 27$) to 2000 (44). Acetaminophen-hydrocodone mentions increased 326 percent between 1994 (46) and 2000 (196). ED mentions for oxycodone increased 650 percent from 8 mentions in 1994 to 60 in 2000, while acetaminophen-oxycodone mentions increased 115 percent from 74 in 1994 to 159 in 2000 (exhibit 2).

In FY 2000, approximately 12 percent of statewide treatment admissions were for primary methadone abuse.

The Phoenix DEA Diversion Group reports that the most commonly abused pharmaceutical controlled substances include Vicodin, Lortab, and other hydrocodone products; Percocet, OxyContin, and other oxycodone products; benzodiazepines; and codeine products.

The Phoenix Diversion Group also reported on an ongoing investigation of an OxyContin prescription drug ring in the Phoenix area. Sources report that 40 milligrams of OxyContin sold for $20–$25 per tablet. Percocet sells for $5 per tablet, and Vicodin ES sells for $5 per tablet.

Marijuana

In Phoenix, marijuana ED mentions trended up from 451 in 1994 to 1,073 in 2000, representing a 138-percent increase (exhibit 2). Mentions remained stable between 1999 and 2000. The rate of marijuana ED mentions per 100,000 population increased from only 6 in 1990 to 51 in 2000.

In 2000, 23 percent of adult female arrestees and 34 percent of adult male arrestees in Phoenix tested positive for marijuana. Among Tucson arrestees, 29 percent of females and 45 percent of males tested positive for marijuana (exhibit 3a). Approximately 55 percent of juvenile males and 39 percent of juvenile females in Phoenix tested positive for marijuana (exhibit 3b).

During the period from March 1989 through September 2001, 20.2 percent of the TASC Adult Deferred Prosecution Program clients reported marijuana as their primary drug of choice (exhibit 4a). In the Phoenix juvenile TASC program, the proportion of marijuana admissions increased from 16.4 percent in June 2001 to 21.9 percent in September 2001 (exhibit 4b).

The DPS reported that arrests for marijuana possession rose 118 percent between 1989 and 1999, from 6,178 to 13,516, respectively. Arrests for possession of marijuana increased once again to 14,947 in 2000, an 11-percent increase

from 1999 (exhibit 6).

In Arizona, marijuana prices depend on location, the number of middle persons, and the size of the purchase. There were no reported price changes during the current reporting period. According to intelligence sources, marijuana has been placed in storage facilities at the border in Mexico and Arizona waiting to be transported. It is speculated that traffickers are hesitant to transport large amounts of marijuana at the present time because of the increased security checks conducted on vehicles at the border since September 11, 2001.

The DEA reports that marijuana smuggling onto the Tohono O'Odham Indian Reservation continues to be a major problem. Subterranean corridors such as the Morley Avenue tunnels in Nogales, Arizona, are used to transport marijuana into the State. Passenger vehicles and tractor-trailers are used to smuggle drugs through the six ports of entry along the Arizona/Mexico border. Smuggling also occurs between the ports at points where vehicles can be driven through holes in the border fence, and backpackers, horses, and pedestrian smugglers can cross at any time of the day or night.

Stimulants

After decreasing in the late 1990s, methamphetamine indicators increased in 2000 and continued at a high level in 2001.

The Maricopa County ME reported 51 methamphetamine-related deaths in 1998, 75 in 1999, 105 in 2000, and 49 in the first 5 months of 2001 (exhibit 1). The ME data suggest that the number of deaths associated with methamphetamine will remain high in 2001.

Methamphetamine ED mentions decreased significantly from a peak of 802 in 1994 and 800 in 1997 to 446 in 1998 and 341 in 1999. There were, however, 600 methamphetamine mentions reported in 2000, a 75-percent increase (exhibit 2). Of the CEWG areas included in DAWN, Phoenix ranked third behind Los Angeles (1,375) and San Diego (747) in the number of methamphetamine ED mentions. The Phoenix rate of methamphetamine ED mentions per 100,000 population decreased from 40 in 1997, to 22 in 1998 and 17 in 1999. However, the rate rose to 29 for 2000. During 2000, only San Francisco and San Diego continued to have higher methamphetamine rates per 100,000 population than Phoenix (36 and 31, respectively). Of the Phoenix methamphetamine ED mentions reported by DAWN in 2000, 16 percent reported smoking the drug, 10 percent sniffed/snorted, and 16 percent injected; however, route of administration was unknown for 54 percent.

ADAM juvenile data show that 6 percent of male and 10 percent of female arrestees in Phoenix tested positive for methamphetamine, while in Tucson only 4 percent of females and none of the males tested positive (exhibit 3b). The ADAM adult data presented a contrast, with 9 percent of both males and females in Tucson testing positive for methamphetamine (exhibit 3a). A greater percentage of adult arrestees in Phoenix tested positive for methamphetamine: 19 percent of males and 24 percent of females.

From March 1989 through September 2001, more than one-quarter (n = 2,595) of the treatment admissions in the TASC Adult Deferred Prosecution Program were for methamphetamine abuse (exhibit 4a). Eleven percent of admissions to the TASC Juvenile B Standard and Intensive Program in September 2001 were for methamphetamine (exhibit 4b).

Methamphetamine continues to be widely available throughout most of Arizona in the crude brownish Mexican form. Crude methamphetamine has a purity range of 20–40 percent. "Ice," or glass methamphetamine, has a much higher purity level, 95–99 percent.

There were 377 methamphetamine labs seized in the State during FY 2000 and 370 so far in FY 2001. Lab operators are usually White, independent dealers. Typical labs in Arizona are small and mobile, also known as "box labs," operated by independent cooks. All chemicals and production supplies are kept in a box that can be easily transported in the trunk of a vehicle. This makes it difficult for law enforcement to locate and dismantle methamphetamine labs.

The DEA and Phoenix Police Department report that methamphetamine prices vary depending on location. A kilogram sells for $14,500 in Phoenix 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 basically the same as those reported in prior periods.

Methamphetamine is generally packaged in clear plastic wrap, zip-lock baggies, or in layers of plastic wrap. Pound quantities are wrapped in vacuum-sealed cellophane. The most common shape is sausage-shaped, about 8 to 10 inches long. U.S. Customs Inspectors seized 7 pounds of methamphetamine taped to the bottom of a child car seat in which a 1-year-old was riding.

MDMA ("ecstasy") is readily available throughout Arizona. The drug is usually purchased at raves, bars, and clubs that cater to the college-age population. It has become increasingly acceptable among the mainstream population. Distributors sell the tablet at retail level for $15–$30. Wholesale MDMA prices range in price from $5.50 to $10.50 per pill/tablet.

Although the numbers were relatively small, there was a 280-percent increase of ED MDMA mentions in Phoenix

between 1999 and 2000.

Paramethoxyamphetamine (PMA) is a powerful hallucinogenic stimulant that is cheaper and easier to manufacture than MDMA and is far more dangerous. It can increase heart rate, blood pressure, and body temperature to fatal levels. PMA continues to be found in pills being sold as ecstasy. Many of these pills are stamped with a three-diamond Mitsubishi logo. A popular nighttime deejay died in April from PMA.

In September 2001, a massive rave was held in California, near the Arizona border by Lake Havasu on the Chemehuevi Indian Reservation. The attendance was estimated to be more than 30,000. Five deaths and 61 injuries were reported, but unconfirmed hospital admissions were attributed to the Nocturnal Wonderland rave.

U.S. Customs inspectors, searching the luggage of an individual arriving in Phoenix on a flight from London, discovered 100 pounds of the dangerous drug "khat."

Other Drugs

Several sources reported that various drugs with hallucinogenic properties are readily available throughout the State, including peyote, lysergic acid diethylamide (LSD), phencyclidine (PCP), and ketamine. LSD hits reportedly sell for $4 each for one blotter hit, $3 each for three hits or more, and $140–$150 for one bottle (90 dosage units).

LSD ED mentions increased 229 percent between 1994 (41) and 2000 (135). The number of mentions in 2000, however, reflects a 14-percent decrease from the number in 1999 (156) (exhibit 2).

Reported prices for gamma hydroxybutyrate (GHB) were $5–$10 for one dose (one teaspoon), $425 for 25 pounds, $3,200 for a 55 gallon drum wholesale, and $4,300 for a 55 gallon drum retail.

Carisoprodal (Soma) in combination with other analgesic controlled substances, tramadol (Ultram), and nalbuphine (Nubain), continue to be highly abused prescription-only substances.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV/AIDS

Through October 1, 2001, 7,729 AIDS cases were diagnosed in Arizona (exhibit 7). Of this number, 5,385 (70 percent) were identified in Maricopa County (Phoenix). Maricopa County accounted for 3,630 (72 percent) of the State's 5,009 HIV infection cases.

Among the Arizona AIDS patients since 1981, 72 percent were White, 8 percent were African-American, 17 percent were Hispanic, 3 percent were Native American, and fewer than 1 percent were Asian/Pacific Islander. The modal age range remains at 30–39 years (45 percent, n = 3,517 cases). Of the 7,691 adult/adolescent (excluding pediatric) cases, males account for 91 percent.

Among the male adult/adolescent AIDS patients, 693 (10 percent) were injecting drug users (IDUs) and 816 (12 percent) were homosexual or bisexual IDUs; among the adult/adolescent females, 244 (36 percent) were IDUs. All totaled, injection drug use has been the mode of exposure in 1,753 AIDS cases (23 percent).

Of the individuals with HIV infection, 4,330 were adult/adolescent males and 683 were adult/adolescent females. Among the adult/adolescent cases, 473 (14 percent) of males and 208 (41 percent) of females were IDUs, and 402 (11 percent) of males are homosexual or bisexual IDUs. Thus, in 1,083 HIV cases (25 percent), injection drug use has been the mode of exposure.

Hepatitis C

In the FY 2001 ADHS survey focused on risk factors for chronic hepatitis C in Maricopa County, a history of injection drug use was the most common risk factor; it was reported by 45 percent of respondents.

For a more information on this report, please contact Ilene L. Dode, Ph.D., EMPACT Suicide Prevention Center, Inc., 1232 East Broadway, Suite 120, Tempe, Arizona 85282, Phone: (480) 784-1514, Fax: (480) 967-3528, E-mail: <idode@aol.com>.

Exhibit 1. Annual Number of Drug-Related Deaths in Phoenix, By Drug: 1989–2001

Year	1989	1990	1991	1992	1993	1994[1]	1995[2]	1996	1997	1998	1999	2000[3]	2001[4]
Cocaine	35	24	28	55	27	22	35	16	21	87	215	167	43
Morphine	44	39	33	46	60	52	73	77	48	90	106	137	47
Cocaine/Morphine Combined	8	4	6	21	12	14	27	24	35	65	55	54	23
Methadone/Combined	4	3	2	0	6	8	7	11	14	26	43	37	8
Methamphetamine	8	7	4	15	20	26	50	7	15	51	75	105	49
Propoxyphene/Other Narcotics	2	5	4	0	3	1	2	4	8	20	57	70	14
Barbiturates/Benzodiazepines/ Other	9	6	3	0	0	0	4	16	55	52	41	77	12

[1] Data do not include April, but do include one propoxyphene/morphine death.
[2] Data do not include September.
[3] Data include one death each from PCP, isobutane, and nitrous oxide.
[4] Data include January–May 2001.

SOURCE: Maricopa County Medical Examiner's Office, November 2001

Exhibit 2. Number of Emergency Department Mentions in Phoenix for Selected Drugs, by Year: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
Cocaine	1,067	1,165	1,382	1,334	1,486	1,882	1,778
Heroin/morphine	483	490	635	832	893	877	899
Marijuana/hashish	451	474	610	741	726	1,028	1,073
Methamphetamine	802	777	725	800	446	341	600
LSD	41	54	4	71	99	156	135
PCP	-	23	31	40	46	39	47
MDMA	-	1	-	6	2	20	76
Oxycodone	8	2	6	4	10	38	60
Hydrocodone	27	20	29	35	42	37	44
Propoxyphene	23	15	14	14	28	17	21
GHB	0	0	0	3	2	17	16

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 3a. Percentage of Adult Detainees In Phoenix and Tucson Testing Positive for Selected Drugs: 2000

Drug	Tucson Females	Tucson Males	Phoenix Females	Phoenix Males
Multiple Drug	31.1	28.7	21.2	24.1
PCP	0.0	1.0	1.0	1.7
Methamphetamine	9.0	8.9	24.1	19.1
Opiates	17.2	8.8	6.5	6.6
Marijuana	28.7	45.1	23.3	33.7
Cocaine	49.2	40.8	35.2	31.9
Any Drug	70.5	69.4	66.3	65.1

SOURCE: Arrestee Drug Abuse Monitoring (ADAM) program, NIJ

Exhibit 3b. Percentage of Adolescent Detainees In Phoenix and Tucson Testing Positive for Selected Drugs: 2000

Drug	Tucson Females	Tucson Males	Phoenix Females	Phoenix Males
Multiple Drug	11.1	10.1	11.4	14.3
PCP	0.0	0.0	0.9	1.2
Methamphetamine	3.7	0.0	9.6	5.7
Opiates	3.7	0.6	0.9	1.0
Marijuana	33.0	51.8	38.6	54.9
Cocaine	18.5	11.3	10.5	12.8
Any Drug	44.4	53.6	45.6	59.6

SOURCE: Arrestee Drug Abuse Monitoring (ADAM) program, NIJ

Exhibit 4a. Adult Deferred Prosecution Program Admissions In Phoenix for Selected Drugs by Percent: March 1989–September 2001

Drug	Percent
Cocaine	29.7
Methamphetamine	27.0
Marijuana	20.2
Polydrug	12.6
Opiate Drug	5.5
Denies Drug	5.0

SOURCE: Adult Treatment and Assessment Screening Center (TASC), Deferred Prosecution Program Cumulative Statistical Report

Exhibit 4b. Admissions for Maricopa County TASC Juvenile Standard and Intensive Probation Program* by Quarter and Percent: April 2001–September 2001

Drug	June	September
Alcohol	33.9	43.7
Marijuana	16.4	21.9
Cocaine	13.8	15.9
Polydrug	22.2	0.0
Methamphetamine	11.6	10.6
Inhalants	2.1	4.0
Opiate Drug	0.0	4.0

* Client reports more than one drug preference depending on availability.

SOURCE: Juvenile Standard and Intensive Probation Program, TASC

Exhibit 5. Drug Prices in Arizona: July to October 2001

Drug	Phoenix	Tucson	Yuma	Sierra Vista/Douglas	Nogales
Crack Cocaine				Northern Arizona	
Rock	$17.50–$20	$20	No data	$20–$50	No data
Ounce	$485–$600	$600–$800		None reported	
1/2 kilogram	$7,500–$8,500	N/A		N/A	
Powder Cocaine				Northern Arizona	
Gram	$80	$80	$60–$80	$60–$100	
Eightball	$100–$140	$80–$130	N/A	$120–$200	No data
Ounce	$500–$600	$500–$650	$600–$900	$700–$1,100	
Kilogram	$15,000–$17,000	$15,000–$18,000	$12,000–$15,000 ($11,000-$12,000 in Mexico)	None reported	
Heroin					
A “20” “BB” (80–100 milligrams)	$20	$20–$25	$7–$10	$10–$20	$20
A “paper” (.25 gram)	$20–$30	$20–$25	$25–$40	$75–$100	$100
Gram	$70–$100	$60–$110	$50–$100	$100–$200	$150–$200
Ounce (“piece” 28 grams)	$1,000–$1,500	$1,100–$1,300	$700–$750	$1,600	$1,200–$1,800
Pound (453.6 grams)	$16,000–$18,000	No data	No data	$8,000–$14,000	$28,000–$32,000
Kilogram	$32,000–$40,000	No data	No data	$20,000–$40,000	$30,000–$40,000
Methamphetamine				Northern Arizona	
Gram	$48–$55	$60–$100	$50–$60	$45–$120 (1.3 gm)	
1/4 ounce	$125	$275	No data	$175–$400	
Ounce	$300–$600	$500–$900	$300–$600	$550–$1,000	No data
1/4 pound	$2,200	None reported	$1,700–$2,200	$2,400–$2,600	
Pound	$3,500–$12,000*	$3,800–$6,000	$4,000–$7,000	$6,000	
Kilogram	$14,500	$10,000–$18,000	$8,800–$15,000	$10,000–$18,000	
Marijuana				Northern Arizona	
Ounce	$75–$150	$65–$105	$0–$100	$100–$175	No data
Pound	$150–$750	$400–$800	$200–$400	$750–$1,000	

*Glass methamphetamine 95–99 percent pure

SOURCE: DEA Trends in Traffic, Fourth Quarter 2001

Exhibit 6. Drug Arrests in Phoenix for Manufacturing/Sales and Possession by Percent: 1989 to 2000*

Arrest Charge	1989	1990	1991	1992	1993	1994	1996	1997	1998	1999	2000
Arrests for Manufacturing/Sales											
Opiates/Cocaine	56.0	45.3	49.2	38.5	27.6	21.5	33.0	12.9	33.3	35.4	32.4
Synthetic Narcotics	8.6	9.3	4.9	10.2	13.4	13.1	12.3	14.6	14.2	11.4	10.7
Marijuana	26.4	34.2	33.1	37.3	36.2	30.4	27.6	32.0	20.3	22.7	25.4
Other Drugs—Nonnarcotics	9.1	11.2	12.8	14.0	22.8	35.0	27.1	40.5	32.2	30.5	31.4
Group Total (*N*)	3,900	2,980	3,684	4,026	3,797	4,790	4,865	4,387	5,336	5,056	5,047
Arrests for Possession											
Opiates/Cocaine	27.3	27.8	21.9	18.5	16.1	11.0	13.5	14.5	17.3	17.1	14.7
Synthetic Narcotics	4.8	4.7	6.4	8.7	10.3	10.8	8.8	9.4	9.4	9.7	10.1
Marijuana	51.0	54.7	59.2	62.3	61.7	61.8	63.2	62.2	57.6	56.6	59.3
Other Drugs—Nonnarcotics	16.8	12.8	12.5	10.6	11.8	16.4	14.5	13.9	15.6	16.6	16.9
Group Total (*N*)	12,108	11,067	11,062	11,928	11,871	16,753	20,459	22,467	23,565	23,891	25,632
Total Arrests											
Total Arrests *(N)*	16,008	14,047	14,746	15,954	15,668	21,543	25,324	26,854	28,901	28,947	30,679

* Data for 1995 are unavailable. Data for other years include persons of all ages.

SOURCE: Arizona Department of Public Safety, Crime in Arizona Annual Report 2000

Exhibit 7. Number of Reported Arizona AIDs and HIV Infection Cases and AIDS Case Fatality Percentage by Half-Year Diagnosis: January 1996–September 2001

Time Period		AIDS			HIV Infection	
		Cases	Deaths	Case Fatality Percent	Cases	Additional Positive Anonymous Tests[1]
1996	Jan–Jun	309	91	29	178	199
	Jul–Dec	240	68	28	169	169
1997	Jan–Jun	280	48	17	190	133
	Jul–Dec	229	44	19	146	171
1998	Jan–Jun	241	52	22	153	134
	Jul–Dec	250	49	20	173	154
1999	Jan–Jun	209	30	14	166	162
	Jul–Dec	181	26	14	179	187
2000	Jan–Jun	186	18	10	175	141
	Jul–Dec	150	11	7	196	182
2001	Jan–Jun	145	18	12	126	144
Total (1980–2001)		7,729	4,240	55	5,009	4,260

[1] On March 15, 1989, the option to receive anonymous HIV testing became available.

SOURCE: Arizona Department of Health Services, Division of Public Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services

Patterns and Trends in Drug Abuse: St. Louis

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ABSTRACT

Heroin indicators have levelled off, and methamphetamine is increasingly prominent in most St. Louis indicators, while cocaine retains a strong presence in all indicators. St. Louis and St. Charles County law enforcement personnel are increasingly concerned about methamphetamine use, and methamphetamine labs in rural areas continue to be a problem. Club drugs, such as MDMA, have a reported increasing presence in St. Louis and are the new prevention and law enforcement concern. Marijuana indicators have been trending up in St. Louis for some time. In 2000, the rate of ED marijuana mentions reached 72.2 per 100,000 population, the highest rate ever in this city. Marijuana (primary drug of abuse) treatment admissions more than doubled between 1997 and 2000, rising from 1,573 to 3,231. Marijuana remains a predominant drug of choice. In the St. Louis area, 6,002 cases of HIV and AIDS have been identified through November2001.

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. St. Louis's population has continued to decrease to approximately 350,000, many of whom are indigent and minorities. Although violent crime has generally decreased, it remains high in drug-trafficking areas. St. Louis County, which surrounds St. Louis city, has more than 1 million residents, many of whom fled the innercity. The county is a mix of established affluent neighborhoods and middle and lower class housing areas on the north and south sides of the city. The most rapidly expanding population areas are in St. Charles and Jefferson counties, which have a mixture of classes and mix 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. 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) data—These data were provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Drug Abuse Warning Network (DAWN).
- Treatment data—These data were derived from the Treatment Episode Data Set (TEDS) database. Anecdotal information was provided by private treatment programs in St. Louis County.
- Heroin price and purity information—This information was provided by the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP).
- Drug-related mortality data—These data were provided by the St. Louis City Medical Examiner's Office.
- Intelligence data—The Missouri highway Patrol and the DEA provided intelligence data.
- Human immunodeficiency virus data—The HIV Vaccine Trials Unit at Saint Louis University provided data for this report.
- Additional data were provided by Linda Cottler, Ph.D., of Washington University, who has multiple behavioural research grants.

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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. One hypothesis is that city traffickers deal cocaine and heroin, so methamphetamine is not regularly available to a large group of users.

Heroin of reasonable purity has continued to be available. 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 surrounding counties of St. Louis. The poor city economy continues to foster drug abuse and distribution. A new initiative to demolish or renovate abandoned buildings is underway. Marijuana continues to be a very popular drug of abuse among younger adults. Gangs continue to be involved in violence and the drug trade (both 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 the Drug Abuse Warning Network (DAWN), the rate of cocaine emergency department (ED) mentions per 100,000 population increased dramatically in 1994, and these mentions have remained at a stable level. The rate of ED mentions per 100,000 population in 2000 was 98.4 (exhibit 1).

The St. Louis city/County medical examiner (ME) reported that cocaine-related deaths trended downward from 128 in 1994 to 36 in 2001. Many of the deaths in the late 1990s were overdoses. DAWN ME data corroborate a decreasing trend since 1994.

Cocaine treatment admissions and law enforcement data have stabilized. Treatment admissions were stable between the first halves of 2000 and 2001. Cocaine no longer drives the efforts of St. Louis law enforcement and treatment programs. The Drug Enforcement Administration (DEA)'s emphasis has shifted from cocaine to methamphetamine, club drugs, and heroin.

Law enforcement sources, the DEA, and street informants continued to report high quality, wide availability, and low prices for cocaine. Cocaine is used and most available in the urban areas. Powder cocaine grams sold for $100–$125; purity averaged 77 percent. Crack sells for $300–$400 per gram and $20 per rock on the street corner (exhibit 2). All cocaine in St. Louis is initially in the 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 rural areas was stable at $250.

The continued use of cocaine, particularly crack by urban women, has potentially severe long-term consequences by contributing to the spread of sexually transmitted diseases (STDs) through multiple partners. Numerous small behavioral studies of crack-abusing women have found that crack use is predictive of multiple partners and HIV risk exposure. The STD rate in St. Louis has decreased for men, but remains high for women.

Most cocaine users smoke crack cocaine, though some use powder cocaine. Only injecting drug users (IDUs) who combine cocaine and heroin ("speedball") use cocaine intravenously. Younger users smoke cocaine exclusively. Polydrug use is also evident in the treatment data. The reported use of marijuana, heroin, and methamphetamine in addition to cocaine use suggest this trend will likely continue.

Cocaine use varies by area, and the drug is primarily used in urban areas.

Heroin

Heroin consistently appears in all indicators. Heroin ED mentions rose steadily until 2000 and have now leveled off. ED mentions for the 18–25 and 26–34 age groups significantly increased in the recent reporting periods. Although many heroin abusers have serious medical problems and need detoxification services, they typically do not seek services from the traditional medical model unless faced with life-threatening situations.

Heroin-related deaths reported by the St. Louis city/County ME peaked in 1997 and leveled off in recent years. In 2000, there were 47 heroin-related deaths (exhibit 1). Statewide heroin deaths due to overdose alone were not much higher, because heroin purity and availability is better in the St. Louis area than other cities in Missouri. Many of these heroin deaths involved older, experienced, polydrug-using individuals and 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 to support the trend that heroin use is increasing in the suburbs.

While heroin treatment admissions increased dramatically over the last 4 years (1996−2000), admissions leveled off in the first half of 2001. There were a limited number of admissions to State-funded methadone or

modified medical detoxification programs. 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. Rapid detoxification, using naltrexone (Depade, ReVia), is still a treatment option at private hospitals. About 36 percent of heroin admissions were younger than 25. Of all heroin admissions, 42 percent reported smoking or intranasal use as the primary method of administration. 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 of the reasons for its acceptance is that it does not have to be injected to get the desired effects.

No current ADAM data are available.

Heroin purity increased during the past 2 years, but the latest DEA Domestic Monitor Program (DMP)-reported purity may be less than the level reported previously. A steady supply of Mexican heroin remains available. The DEA's 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 15 percent (exhibit 2).

Most heroin is purchased in aluminum foil. In addition, it is sold in bundles (1/10-gram packages of heroin in plastic wrap and aluminum foil known as "bindles") for $40 (exhibit 2). 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.

Heroin currently costs $2.72 per milligram, while the wholesale price remains at $250–$600 per gram. On street corners, heroin sells for $250 per gram (exhibit 2). Heroin in St. Louis is still among the most expensive in the Nation. Most business is 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 more difficult in this compact, free enterprise distribution pattern. The independent entrepreneur who procures and sells a few ounces of heroin complicates the monitoring of available street-level heroin.

Kansas City's heroin supply differs from that of St. Louis. Most heroin in Kansas City is black tar and is consistently of poor quality (less than 10 percent purity). The gram price for this poorer quality heroin is about the same as the gram price for higher purity heroin in St. Louis. The supply has been consistent during the last 6 months, and a $10 bag of heroin is available. Heroin has also become available in the smaller rural cities of Springfield and Joplin, each of which has a small IDU population using heroin and methamphetamine.

Other Opiates/Narcotics

In 2000, there were 92 ED oxycodone mentions in St. Louis. Oxycodone overdose was suspected in several deaths in Springfield, Missouri. OxyContin abuse remains a concern for treatment and for law enforcement. While prescription practices are closely monitored for abuse and isolated deaths have been reported, no consistent reports are available on the magnitude of this potential problem.

The use of hydromorphone (Dilaudid) remains common among a small population of White chronic addicts. The drug costs $45–$75 per 4 milligram pill. Abuse of oxycodone (Percocet and Percodan) by prescription is growing in popularity. A 40 milligram tablet is common on the street and sells for $25–$40. The DEA reports that injection of a liquid form of oxycodone has been seen in St. Louis.

Marijuana

The rate of ED marijuana mentions per 100,000 population has increased steadily from 37.4 in 1995 to 72.2 in 2000. ED marijuana mentions rose from 1,640 in 1999 to 1,763 in 2000 (exhibit 1).

Treatment admissions more than doubled from 1997 (1,573 admissions) to 2000 (3,231 admissions). Admissions for the first half of 2001 appear to be similar to the trend in 2000. Marijuana, viewed by young adults as acceptable to use, is often combined with alcohol. The younger-than-26 age group accounted for more than 66 percent of primary marijuana treatment admissions in the first half of 2001.

Given the heroin, cocaine, and methamphetamine abuse problems in St. Louis, law enforcement has focused less attention on marijuana abuse. Limited resources require establishing enforcement priorities. Often, probation requires participation in treatment for younger users who do not identify themselves as drug dependent. As a gateway drug to more serious drug abuse, marijuana is being seriously targeted in local prevention efforts and in the educational system.

Marijuana is available from Mexico or domestic indoor grow operations. Indoor production makes 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 eradicate crops. Much of the marijuana grown in Missouri is shipped out of the State.

Stimulants

Methamphetamine, along with alcohol, remain a primary drug 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 from 1.7 per 100,000 in 1996 to 6.6 in 2000. The number of ED methamphetamine mentions increased 56 percent, from 104 in 1999 to 162 in 2000 (exhibit 1). Most of the mentions in 2000 involved males (65 percent), and all were White.

Methamphetamine ("crystal" or "speed") was found at very low levels in city indicators in 1995, but use increased significantly in the last 4 years . In rural areas, methamphetamine appears regularly in the treatment data, while there are a limited number of admissions in St. Louis. Methamphetamine has been identified as a problem in all parts of the State. The street-level distributors in St. Louis deal in cocaine, so amphetamine use is not as widespread in the St. Louis area. While the number of methamphetamine treatment admissions was still relatively low in St. Louis (177 for 2000 and 230 in the first half of 2001), in rural treatment programs methamphetamine was the drug of choice after alcohol. To further support this difference between St. Louis and the rest of the State, a Drug and Alcohol Services Information System (DASIS) report on 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 in admissions statewide.

In 2000, methamphetamine was also detected in a few ME cases in the St. Louis metropolitan area.

The Midwest Field Division of the DEA increased its cleanup of clandestine methamphetamine labs to about 200 in 1999 and 250 in 2000. The intensity of these law enforcement efforts is based on the availability of funds for local police departments to clean up box labs under Community Oriented Policing Service (COPS) funding. Thefts of anhydrous ammonia are being monitored in the rural areas.

Locally produced methamphetamine purity fluctuated between 70 and 80 percent, while methamphetamine from Mexico was only 30 percent pure. In the new methamphetamine scene, Hispanic traffickers, rather than the old network of motorcycle gangs, are the predominant distributors, although individual entrepreneurs are also involved. Shipments from super labs in the Southwest are trucked in via the interstate highway system. Methamphetamine shipments have been seized in the interstate Pipeline program, with purity ranging from 20 to 30 percent. Methamphetamine sells for $700–$1,300 per ounce in St. Louis, and for as little as $37–$100 per gram in some areas (exhibit 2).

Use of methamphetamine and its derivatives have become more widespread among high school and college students, who do not consider these drugs as dangerous as others. Because it is so inexpensive and easy to produce, it is likely that methamphetamine use will continue to spread. Competition between those who import methamphetamine from Mexico and those who locally produced it is likely to affect both price and purity.

Depressants

DAWN ED data reflect few mentions in this category, except for diazepam and lorazepam. There were 184 diazepam mentions and 123 lorazepam mentions in 2000.

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 are polysubstance abusers, so that a particular drug problem is 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. 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 is not seen in quantity, it remains in most indicator data, including ED mentions, police exhibits, and as a secondary drug in ME data. PCP typically sells for $350 per fluid ounce in St. Louis. Most

of the users of this drug in the inner city are African-American. PCP ED mentions have increased from 45 in 1997 to 98 in 2000.

Club Drugs

DAWN ED data show few mentions of methylenedioxymethamphetamine (MDMA) (0.6 in 1999 and 2.1 in 2000) and no mentions of ketamine. Stimulants noted in the city have included methylenedioxyamphetamine (MDA) and MDMA ("ecstasy," "XTC"). MDMA is readily available at "raves" and other dance parties and sells for $20–$30 per tablet. The rave scene has become quite popular in St. Louis, where ecstasy is freely available. Most of the users are teenagers or young adults. Ecstasy use appears to be an even greater problem in Kansas City, according to the DEA. There appear to be two age groups of users: 15–19 and 20–25.

Toxicology reports showing high levels of ecstasy are rare. Most of the reports about high levels of MDMA abuse are anecdotal or are part of a polydrug user's history. Public treatment programs report no admissions for MDMA. The private treatment programs that were queried report MDMA as part of a polydrug abuser's history or in less than 2 percent of their treatment admissions.

As part of a National Institute on Drug Abuse (NIDA)-funded study to test the reliability of the Diagnostic and Statistical Manual of Mental Disorders (DSM) and International Classification of Disease (ICD) substance use disorders, researchers at Washington University in St. Louis are testing a new section of the Substance Abuse Module (SAM) on club drugs. Of the sample of 173 adolescents and young adults, about 30 percent reported using club drugs more than 5 times during their lifetime; of this group, 94 percent reported ecstasy use in the last year, and several reported additional club drugs. More than one-half (57 percent) of these respondents reported that they had continued to use club drugs despite knowledge of their harm. Dr. Linda Cottler has conducted key informant interviews with several high school and college students to gather data on club drugs in St. Louis. A survey of 1,250 students from 1 suburban St. Louis high school showed that 30 percent of the students said someone had approached them offering ecstasy.

Gamma hydroxybutyrate (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. Five deaths were reported in Missouri, and two near-deaths were reported recently in St. Charles County when GHB was used as a "date-rape" drug. GHB is often sold in nightclubs for $5 per capful or $40 per ounce. GHB education efforts are directed towards ED personnel, who often see the users initially. No recent reports of GHB have been noted. Ketamine ("Special K"), a veterinary anesthetic, is known for its hallucinogenic effects. An increase in ketamine robberies from veterinary offices has been reported. Use of ketamine has been acknowledged anecdotally.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Seropositivity among IDUs remains low in St. Louis. However, it is increasing among sexual partners of individuals practicing high-risk modes of exposure. The largest increase is found among young African-American females 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 IDUs (exhibit 3). The largest increase is found among young African-American females through heterosexual contact.

Cumulative acquired immunodeficiency syndrome (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 continue to be represented primarily by MSMs. The number of infected African-Americans is increasing disproportionately among males and females. New peer outreach programs have been started to increase awareness and provide HIV testing at the outreach site. Use of Orasure (saliva test) kits and HIV-positive females trained in risk reduction are two methods being used in these programs.

SPECIAL PROJECTS AND RELATED HEALTH ISSUES

Sexually Transmitted Disease (STD) Rate

St. Louis had a syphilis epidemic in 1993 and 1994. In 1999, St. Louis ranked eighth in the Nation for syphilis cases; third for gonorrhea, with cases remaining at approximately 1,000 per year; and second for chlamydia. A public health initiative that identified case cluster and used geomapping to identify blocks where cases occurred was

implemented. A street outreach effort that involved going block-to-block offering testing and treatment resulted in a major drop in cases. This past year, the city dropped to 51st in the number of identified syphilis cases.

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 in low-risk individuals. Two Phase II trials using a mixture of HIV risk groups and one Phase III trial have been undertaken to date. Plans for another Phase III trial, in which both domestic and international sites will be involved, are underway. A minimum seroincidence of 1.5 is required for a geographic site, and areas with large numbers of high-risk heterosexuals are being identified.

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Exhibit 1. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2000

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine
Deaths				
1996	93	51	NA	9
1997	43	67	NA	11
1998	47	56	NA	9
1999	51	44	NA	4
2000	36	47	NA	4
DAWN ED				
No. of mentions (2000)	2,403	1,111	1,763	162
% change (1999–2000)	+3	+27	+7	+156
Rate/100,000 (2000)	98.4	44.4	72.2	6.6
5-year trend	Stable	Stable	Generally up in younger groups	Significantly up
Treatment (TX)				
% of admits (1H2000)	34.9	13.9	27.5	3.0
% of admits (1H2001)	37.6	12.0	27.4	3.8
ADAM males				
Percent positive (1997)	41.0	10.0	48.0	<1.0
Percent positive(1998)	35.0	11.0	50.0	<1.0
ADAM females				
Percent positive (1997)	53.0	9.0	31.0	2.0
Percent positive (1998)	44.0	5.0	32.0	3.0
ADAM juvenile males				
Percent positive (1997)	2.0	0.0	40.0	0.0
Percent positive (1998)	4.0	1.0	54.0	0.0
ED age (%) (2000)				
12–17	1.4	2.4	14.8	NA
18–34	41.0	49.0	52.6	NA
35+	56.0	47.0	32.6	NA
TX age (%) (1H2001)				
12–17	.4	.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+	61.9	42.1	12.8	35.7
ED gender (%) (2000)				
Male	60.0	62.2	62.4	65.0
Female	40.0	37.8	37.6	35.0
TX gender (%) (1H2001)				
Male	55.6	70.2	77.1	52.6
Female	44.4	29.8	22.9	47.4

SOURCES: SAMHSA Website, TEDS database, DEA, client ethnographic information

Exhibit 2. Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2000

Indicator	Cocaine	Heroin	Marijuana	Methamphetamine and other Drugs
TX race/ethnicity (%) (1H2001)				
White	20.7	35.3	40.3	89.1
African-American	78.2	64.1	58.4	.9
Hispanic	1.7	2.1	1.4	0.0
ED route (%) (1999)			NA	
Smoking	21.0	2.0		NA
Intranasal	5.0	NA		NA
Injecting	3.0	34.0		24.0
Unknown/other	69.0	55.0		70.0
TX Route (%) (1H2001)				
Smoking	87.5	2.5	92.8	28.7
Intranasal	6.6	39.8	.8	25.2
Injecting	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 (1H2001)	HCL $100–$125/g, 77% pure; Crack $20/rock, 50–90% pure	$10/cap, $40/bindle, $2.10/mg, $250–$600/g, 15% pure, Mexican heroin	Sinsemilla $500–$1,200/lb, 20% THC; Imported $2,000−$4,000/lb	Meth $37-$100/g, Mexican (20-30%) and local (70-80% purity); hydromorphone $40–$70/4-mg pill; LSD blotters $2–$4/35 microgram; PCP resurgence resurgence
Qualitative data	Readily available, urban choice	Younger users, 1/3 <25	Readily available, 2/3 in Tx < 25	Club drug gaining presence, rural/suburban users–amphet.
Other data of note	NR	NR	NR	Meth lab seizures plateaued

SOURCE: SAMHSA Website, TEDS database, DEA, client ethnographic information

Exhibit 3. HIV-Positive Text 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	HIV-Positive Test Results			
	Jan 2001–November 2001		Cumulative Through November 2001	
	Number	(Percent)	Number	(Percent)
Exposure category				
Men/sex/men (MSM)	56	(30.0)	1,272	(63.0)
Injecting Drug User (IDU)	6	(3.0)	137	(7.0)
IDU and MSM	1	(1.0)	74	(4.0)
Hemophilia	0	(0.0)	11	(1.0)
Heterosexual	28	(15.0)	320	(15.0)
Blood transfusion	1	(1.0)	5	(0.0)
Perinatal	0	(0.0)	12	(1.0)
Unknown	96	(50.0)	197	(9.0)
Gender and race/ethnicity				
Male				
White	55	(29.0)	756	(38.0)
African-American	77	(41.0)	880	(43.0)
Hispanic	2	(1.0)	17	(1.0)
Other	0	(0.0)	19	(1.0)
Unknown	7	(4.0)	13	(1.0)
Female				
White	7	(4.0)	65	(3.0)
African-American	37	(19.0)	271	(13.0)
Hispanic	0	(0.0)	2	(0.0)
Other	3	(2.0)	5	(0.0)
Age				
<13	1	(1.0)	14	(1.0)
13–19	2	(1.0)	108	(5.0)
20–29	14	(7.0)	676	(33.0)
30–39	20	(11.0)	733	(36.0)
40–49	14	(7.0)	277	(14.0)
50+	2	(1.0)	71	(4.0)
Unknown	135	(72.0)	149	(7.0)
Total	188		2,028	

SOURCE: St. Louis Metropolitan AIDS Program

Exhibit 4. 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	AIDS Cases			
	Jan. 2001–Nov. 2001		Cumulative through November 2001	
	Number	Percent	Number	Percent
Exposure category				
Men/sex/men (MSM)	65	(38.0)	1,040	(26.0)
Injecting Drug User (IDU)	12	(7.0)	85	(2.0)
IDU/MSM	4	(2.0)	61	(2.0)
Hemophilia	0	(0.0)	29	(1.0)
Heterosexual	27	(16.0)	151	(4.0)
Blood transfusion	0	(0.0)	20	(1.0)
Perinatal	0	(0.0)	0	(0.0)
Unknown	61	(37.0)	2,588	(65.0)
Gender and race/ethnicity				
Male				
White	47	(28.0)	1,984	(50.0)
African-American	88	(52.0)	1,531	(39.0)
Hispanic	0	(0.0)	39	(1.0)
Other	2	(1.0)	12	(0.0)
Unknown	0	(0.0)	0	(0.0)
Female				
White	7	(4.0)	95	(2.0)
African-American	24	(14.0)	306	(8.0)
Hispanic	0	(0.0)	4	(0.0)
Other	1	(1.0)	3	(0.0)
Age				
<13	1	(1.0)	17	(0.0)
13–19	3	(2.0)	28	(1.0)
20–29	26	(15.0)	539	(14.0)
30–39	71	(42.0)	1,220	(31.0)
40–49	50	(30.0)	567	(14.0)
50+	17	(9.0)	200	(5.0)
Unknown	1	(1.0)	1,403	(35.0)
Total	169		3,974	

SOURCE: St. Louis Metropolitan AIDS Program

Indicators of Drug Abuse in San Diego County

Michael Ann Haight, M.A.[1]

ABSTRACT

From 1999 to 2000, indicators of drug abuse were, once again, mixed. Total accidental overdose deaths increased a very modest 2 percent from 1999 to 2000, when there were 237 accidental overdose deaths. However, cocaine-, methamphetamine-, and alcohol-related overdoses increased substantially. Total emergency department (ED) mentions decreased 3 percent from 1999 to 2000, and most of the individual drug mentions decreased as well. Methamphetamine was the one exception, increasing 28 percent from 1999 to 2000. Treatment admissions increased slightly over this time period, with marijuana and the 'other' drug category being the primary contributors to the increase. Within the Arrestee Drug Abuse Monitoring (ADAM) program, positive screens among adult arrestees in 2000 decreased for all drugs except marijuana. For juveniles, positive tests for marijuana and methamphetamine decreased in 2000, while positive tests for other drugs were stable. In mid-October 2001, Drug Enforcement Administration (DEA) agents raided and seized a major MDMA ('ecstasy') laboratory in Escondido, a city in North County. The highly sophisticated lab was capable of producing 1.5 million ecstasy tablets a month, with a street value of $20 each. Local media, in late November, reported record increases in seizures of drugs along the California-Mexico border. Enforcement agents participating in an 'Expert Focus Group' reported increases in seizures of precursor chemicals at the border as well.

INTRODUCTION

Area Description

San Diego County is located in the southwestern tip of California. The area encompasses some 4,200 square miles and is home to an estimated 2.9 million inhabitants. Ethnically, the population is diverse, although less so than either Los Angeles or San Francisco. Whites, at 60 percent of the total population, still constitute the majority, with Hispanics a distant second at 25 percent; African-Americans steady at 6 percent; and Asians, Pacific Islanders, Native Americans, and others at 10 percent of the total. The population is relatively young, with 60 percent younger than 40, 25 percent age 40–59, and 15 percent age 60 or older.

San Diego County's southern boundary is the 80-mile U.S.-Mexican border. To the west lies 70 miles of coastline, to the east are mountains, and to the north is a major military base. The coastline and shared border provide opportunities for smuggling drugs into and through the county; the sparsely populated eastern area provides fertile ground for clandestine labs and marijuana cultivation.

Data Sources

This report presents available data from 1995 through 2000, unless otherwise noted. Data compiled for this report are from the following sources:

- Accidental Overdose Deaths. These data were provided by the San Diego County Medical Examiner (ME), 1995–2000. (Limitation: Marijuana is not included.)
- X Emergency Department (ED) Mentions. These data were derived from the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA) for 1995–2000. (Limitations: Routine reports do not include demographics for amphetamine, which is combined with methamphetamine in San Diego reports; alcohol is reported only when combined with other drugs.)
- Treatment Admissions. Treatment data were provided by the San Diego County Alcohol and Drug Data System (SDCADDS), 1995–2000. (Limitations: The system is an admission-based data set; individuals can account for multiple admissions; and local methadone programs under private administration are not included, deflating total opiate admissions.)
- Arrestee Drug Testing. These data were derived from the Arrestee Drug Abuse Monitoring (ADAM) program from the Criminal Justice Research Unit, San Diego Association of Governments (SANDAG),1995–2000. (Limitations: Alcohol is not included.)

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- Price and Purity. This information was obtained from the Narcotics Information Network, March 2001, and from the Domestic Monitor Program (DMP), Drug Enforcement Administration (DEA).
- Acquired Immunodeficiency Syndrome (AIDS) Data. These data were derived from the San Diego County Health and Human Services Agency, "Definitive and Presumptive AIDS Cases Surveillance Survey," October 31, 2001.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine and Crack

The presence of cocaine in accidental overdose (OD) deaths increased from 44 such cases in 1999 to 58 in 2000, a 32-percent increase (exhibit 1). As with most accidental overdose cases, cocaine was seldom the only drug detected in the decedent; it was found combined with many other drugs, most notably heroin and alcohol.

ED mentions of cocaine, conversely, declined 6 percent from 1999 to 2000, when there were 1,002 cocaine mentions. Over the time period 1995 to 2000, however, cocaine ED mentions increased 56 percent. The typical ED mention for cocaine involved a White male between the ages of 30 and 44 years. While Whites constituted 51 percent of 2000 cocaine ED mentions, Blacks, at 29 percent, were overrepresented, as they have been throughout the time period from 1995 to 2000. In addition, over the past 5 years, there has been a steady increase in the number of women who come to the emergency department because of cocaine. In 2000, 40 percent of cocaine ED visitors were women. The majority of cocaine ED visits involved multiple drugs, and the motive for use was "dependence" for 54 percent of the visitors. More than one-half reported that "chronic effects" of the drug was the reason for visiting the emergency department, and more than one-half were treated and released.

In 2000, 1,300 admissions to treatment reported cocaine as the primary drug used, a 4-percent decrease from 1999 and a 3-percent decline from 1995. The typical cocaine admission was a Black male, age 38, who smoked the drug. Slightly more than one-third reported secondary use of alcohol, and almost one-third reported no other drug use. More than 80 percent were unemployed at the time of admission, and almost one-half were referred by the criminal justice system. Nearly 75 percent had at least one prior treatment episode.

Cocaine use in the adult male arrestee population, based on the ADAM study, has declined steadily over the 6-year period under review, falling from 28 percent in 1995 to approximately 19 percent in 2000. With the introduction of random sampling procedures in 2000, the 2000 data cannot be compared with data in prior years. However, the data in exhibit 1 suggest a decline in the percentage of the male (weighted) sample testing cocaine-positive, at 15 percent. Adult females, conversely, fell from 28 percent in 1995 to 17 percent in 1998, then rose to 22 percent in 1999.

In 2000, 26 percent of the (unweighted) female sample tested cocaine-positive. Juvenile arrestee cocaine use has been consistently low over the entire period, with no more than 5 percent of juveniles testing positive during any time period. In 2000, 3 percent of boys and girls tested positive for cocaine. Within the juvenile arrestee population in 2000, cocaine use was more often detected among older youth. No juvenile younger than 15 tested positive for cocaine, and a greater percentage of those age 17 and 18 were positive than those age 15 and 16. While cocaine use among juvenile males was spread across White, Black, and Hispanic ethnic groups, among juvenile females, only White girls tested positive for use of cocaine.

Reports of the price and purity of cocaine remained unchanged from the June 2001 reporting period. Cocaine, particularly crack, is widely available in San Diego County and a 0.1- gram rock costs $10, a price that has been stable over time.

The second meeting of the Expert Focus Group was held in mid-November. Experts reported that there has been an increase in use in middle- and upper-class areas. The users, self-professed "recreational users," contact sellers via cell phones and set a meeting; the drug is delivered via limousine. These purchases were usually relatively small- quantity buys. In Oceanside, a North County city, there is plenty of crack, used alone and with 3,4-methylenedioxymethamphetamine (MDMA or "ecstasy"). According to one expert, Black street gangs from Los Angeles are dealing crack in the city, coming in on the weekend to make their sales. Another expert reported that cocaine use increased in El Cajon, a city in east San Diego County, and that the drug is also being sold there by Black gangs who often use juveniles to make deals. Powder cocaine appeared to be increasing among high school students, particularly in the central beach communities, and was often used with ecstasy.

The first focus group of current injecting drug users (IDUs) was also held in mid-November. These longtime users laughed when asked whether cocaine was making a comeback. From their perspective, crack cocaine has always been readily available, and the majority of them were not personally interested in powder cocaine, except for perhaps the occasional "speedball." They reported widespread availability of crack in all areas of the county, and most saw it as a particularly pernicious drug. One user remarked that, while crack was not physically addicting (because he hadn't experienced withdrawal sickness), it was extremely psychologically addicitive. He stated that once he had one hit, he

wanted another and then another. Others in the 10- person group agreed with him. All shared their shock at seeing children as young as 9 or 10 using crack.

Heroin

Heroin-related accidental overdose deaths spiked slightly in 2000, rising from 116 in 1995 to 126 in 2000, a 9-percent increase (exhibit 2). From 1999 to 2000, there was a 4-percent increase. Heroin was present in more than 50 percent of all accidental overdose deaths and continued its longstanding role as the drug most often detected in accidental overdoses. As with cocaine, heroin was seldom the only drug detected in the decedent, but rather was one of a large array of ingested drugs.

ED mentions for heroin decreased 7 percent from 1999 to 2000, when there were 1,031 mentions. However, from 1995 to 2000, heroin ED mentions rose from 691 to 1,031, a 49-percent increase. In 2000, the typical heroin ED episode involved a White (61 percent) male (71 percent) who was between the ages of 30 and 44 years (45 percent), although close to one-third were 45 or older. The trends for age showed that this population is aging, with the proportion age 45 or older growing from 20 percent in 1995 to 29 percent in 2000. Hispanics were slightly over-represented in this population for most reporting years. In sharp contrast to the cocaine ED visits, heroin visits were most often the result of a single drug episode, with 70 percent of 2000 ED visits involving only the one drug. The vast majority of these visitors (86 percent) reported using heroin because of "dependence" and more than one-half (55 percent) reported "chronic effects" of heroin use as the reason for the ED visit. The majority of patients in all time periods covered in this paper were treated and released.

Primary heroin admissions to publicly funded treatment rose slightly in 2000, to 1,452, continuing a 2-year trend of rising numbers. The typical heroin admission was a White (54 percent) male (67 percent) who injected the drug (84 percent). Although Whites constituted the majority of heroin admissions, Hispanics were overrepresented (35 percent). The median age was 37. Although more than 80 percent of San Diego heroin admissions injected heroin, the number of smokers increased. In 2000, 10 percent reported using that route of administration. Very few reported inhaling. Twenty-eight percent reported cocaine as a secondary drug, 30 percent reported no other drug use, and 18 percent reported using methamphetamine. Almost two-thirds reported some type of legal status at admission, and 39 percent were referred by the criminal justice system. Few (15 percent) were employed, and more than three-quarters reported at least one prior treatment episode.

Within the ADAM study, only 6 percent of adult males tested positive for opiates in 2000. Eight percent of adult women were opiate-positive in 2000. Most of the adult males who were positive for opiates in 2000 were age 36 or older, and for a majority race/ethnicity was unknown. When self-reported 12-month users were asked about the number of days each drug had been used in the past years, heroin users reported 100 days, more than for any drug other than marijuana (104 days). Among the male arrestee population, 87 percent reported prior treatment.

Adult females in ADAM who were positive for opiates in 2000 tended to be White or Hispanic and age 36 or older. When asked about the number of days heroin was used in the past year, women reported 96 days, similar to the number of days reported by men. Eighty-three percent of adult female heroin users reported prior treatment.

Few juveniles in ADAM reported opiate use in 2000; this trend has held steady since the study began. During no time period have more than 2 percent of juveniles tested positive for opiates. The 2000 sample followed the same trend: 2 percent of girls and 1 percent of boys were opiate-positive. Opiate use was concentrated among the older youth: 1.6 percent of males age 15 and 16, and 1 percent of males age 17 and 18. All opiate-positive girls were age 17 and 18. Boys who were positive for opiates were White or Hispanic. Among the girls, only Whites were found positive.

One-tenth of a gram of powder could be purchased in San Diego in 2000 for between $10 and $15; one-fourth of a gram of black tar could be purchased for $5, and 1 gram ranged from $50 to $120. Purity levels ranged from 27–31 percent in gram quantities to 42–68 percent in larger quantities.

Data from the Domestic Monitor Program showed that heroin prices increased slightly from 1999 to 2000, when San Diego, along with San Juan, had the least expensive heroin of any of the DMP cities. In 1999, the price per milligram pure for heroin was 20 cents; by 2000, the price had risen to 29 cents. Purity, conversely, decreased slightly over the same time period, from 56 percent in 1999 to 49 percent in 2000.

Enforcement and treatment experts reported that the increases in heroin use by school students reported in prior years had leveled off or decreased. Experts seemed to believe that the widespread availability of ecstasy and gamma hydroxybutyrate (GHB) has contributed to the decrease in heroin use by adolescents and young adults.

The user's focus group was composed primarily of longtime heroin users. All reported that heroin was widely available and easy to obtain. They said that you could still buy a $10 bag in San Diego as well as a quartito. Their sense is that the quality of the heroin may be a little less than in recent years, but the cost is the same.

Marijuana

Marijuana indicators showed a 4-percent increase in ED mentions from 1999 to 2000 and a 99-percent increase from 1995 to 2000, when there were 955 marijuana mentions (exhibit 3). A typical marijuana ED visitor in 2000 was a White (63 percent) male (65 percent). Although Whites accounted for 50 percent or more of the marijuana ED mentions from 1995 through 2000, the proportion increased from 53 percent in 1997 to 65 percent in 1998. The proportion stayed at those levels over the following years. This population is slightly younger than the cocaine or heroin ED visitor, with 22 percent of 2000 mentions among those age 12–19. There are equal numbers in the age brackets 20–29 and 30–44 years (31 percent), but the 45-and-older group increased from 6 percent in 1995 to 15 percent in 2000. The overwhelming majority of marijuana ED mentions involved multiple drugs. The motive for using marijuana was dispersed over multiple response categories, but the predominant ones were "psychic effects" (31 percent) and "dependence" (34 percent). The drug use motive was unknown for 25–33 percent of the marijuana ED episodes. In 2000, "chronic effects" was given as the reason for coming to the emergency department by 42 percent, followed by "unexpected reaction" (30 percent). "Unexpected reaction," over the period 1995–2000, has been decreasing, while "chronic effects" has been increasing, evidence that this is an aging population with a lengthy history with the drug.

Treatment admissions for marijuana continued to increase in 2000, but showed a slower rate of growth. In 2000, there were 2,447 admissions for primary marijuana use, representing a 15-percent increase from 1999 and a 279-percent increase from 1995. More than three-quarters (77 percent) were male; 39 percent were White, 17 percent were Black, and 35 percent were Hispanic. This is a very young population: 68 percent were younger than 18. Few (25 percent) reported no secondary drug use, and alcohol was the preferred secondary drug for one-half of the marijuana admissions. Fully three-quarters of all 2000 marijuana admissions were referred by the criminal justice system, and an equal percent were admitted under a formal mandate.

Within the ADAM population in 2000, 39 percent of adult males and 27 percent of adult females tested positive for marijuana. Marijuana was the most frequently detected drug for males. More than 50 percent of the adult males in the age groups "younger than 21" and "21–25" tested positive for marijuana. Marijuana was detected within all racial/ethnic groups, although Whites were underrepresented, while Blacks (35 percent), Hispanics (34 percent), and others (17 percent) were overrepresented. Fewer than one-half (48 percent) of the men who reported using marijuana reported prior treatment.

Marijuana-positive ADAM adult females, conversely, were more widely dispersed across the various age groups, although 44 percent of the youngest female arrestees (younger than 21) were positive for marijuana, and 31 percent of those age 21–25 showed recent use. Likewise, marijuana was used among all ethnic groups in the female sample, with 24 percent of Blacks, 32 percent of Whites, 26 percent of Hispanics, and 29 percent of others testing positive for marijuana. Almost one-half of the adult females reported use of marijuana in the past year, and more than one-third (36 percent) reported past-month use. More than one-half (58 percent) of the women who reported marijuana use also reported prior treatment.

Among juveniles in the ADAM program, marijuana is the most frequently detected drug, with 42 percent of boys and 33 percent of girls showing recent use in 2000. Marijuana is the only drug detected among the youngest age group (9–12), but it is clearly used by all age groups and all racial/ethnic groups. Black girls tended to show less use, at 20 percent, than the other ethnic groupings.

Marijuana was widely available in San Diego in 2000; 2- to 1-gram bags can be purchased for $5, and 1 ounce can be bought for $70–$100. At this level, the tetrahydrocannabinol (THC) content ranges from 2 to 3 percent. More potent marijuana is available, but it comes at premium prices. One pound of "BC bud" has a THC content of up to 30 percent and costs $4,000.

Both the expert and user focus groups commented that marijuana use was widespread and somewhat blatant. Those in the users' group expressed their beliefs that marijuana use "doesn't really matter to cops;" they believe that enforcement turns its head the other way for the most part. The expert group, however, sees marijuana as the primary gateway drug for adolescents.

Stimulants

Accidental overdose deaths involving methamphetamine increased 65 percent from 1999 to 2000, when 61 decedents were positive for methamphetamine (exhibit 4). This is the second highest level for the time period 1995–2000. In 1997, there were 62 methamphetamine-related accidental overdoses.

Historically, San Diego has always combined methamphetamine with amphetamine ED mentions; that practice continues. There were 1,641 combined methamphetamine/amphetamine mentions in 2000, a 10-percent increase from

1999 levels and a 48-percent increase from 1995. Unfortuantely, there was no demographic and episode-specific information for methamphetamine.

Methamphetamine accounted for 33 percent of all treatment admissions in 2000, representing 4,507 admissions. The typical primary methamphetamine admission in 2000 was age 34 and a White (59 percent) male (51 percent). Twenty-seven percent reported marijuana as a secondary drug, 24 percent reported alcohol, and 39 percent reported no secondary drug use. The majority (75 percent) were unemployed at admission, and most (58 percent) were referred to treatment by the criminal justice system. More than one-half (57 percent) smoked the drug, 22 percent inhaled it, and 19 percent injected methamphetamine.

Twenty-six percent of adult males in the ADAM project tested positive for methamphetamine in 2000. More use (31 percent) was detected for those age 32–35 than for other age groups, but 20 percent of those under age 21 were also positive for methamphetamine. Use was detected in all racial/ethnic groups, but more Hispanics tested positive (35 percent) than other ethnicities. Eight percent of Blacks were positive for methamphetamine use, reflecting historically low use of methamphetamine within this group. About one-third (31 percent) of adult males in the ADAM sample reported past-year use of methamphetamine, and one-quarter reported past-month use.

Among female arrestees participating in ADAM in 2000, 29 percent were positive for methamphetamine. More than one-third of the women in the youngest age group (less than 21) tested positive for the drug, as did 40 percent of those age 26–30, 42 percent of those age 31–35, and 19 percent of those older than 35 were also positive for methamphetamine. It was the most frequently detected drug among this population, followed closely by marijuana. More than 60 percent self-reported prior experience with treatment.

More girls (22 percent) than boys (8 percent) in the ADAM juvenile sample were positive for methamphetamine in 2000; however, the sample of females was small (n = 58*)*. There was no methamphetamine use in the youngest group (age 9–12), and only females age 13–14 tested positive. Methamphetamine use was detected in each of the remaining age groups and in all racial/ethnic groupings.

Methamphetamine is available and plentiful. In 2000, 1/10 gram sold for $10 and 1/4 gram for $30. An eightball (1/8 ounce) sold for $100–$125. The purity ranged from 30 to 40 percent, although purity levels as low as 18 percent have been reported.

Enforcement experts reported increased seizures at local ports of entry in 2000 and large increases in the amount of precursor chemicals seized. Imperial County, bordering San Diego County on the east, saw large increases in the theft of anhydrous ammonia during this past year. According to some enforcement experts, so-called "Nazi labs" are predominant in both San Diego and Imperial counties. These are also known as "box labs", because they come in a box and are assembled and disassembled easily. The Nazi method was described as a cold cook method, using lithium from batteries and hydriotic acid. Supposedly this produces small batches of relatively dirty methamphetamine. Purity of methamphetamine has decreased, with some batches only 15 percent pure, but sellers market this methamphetamine as "ice." Frequently, methamphetamine has been cut with agents that make it look pristine; this is then sold as ice. The amount of enforcement activity for methamphetamine is steady or even slightly increased.

Users in the focus group said that the methamphetamine on the streets today is of surprisingly good quality and cheap. Most of this group reported using methamphetamine with heroin in a speedball. Methamphetamine has replaced the powdered cocaine of earlier times. Methamphetamine is preferable to crack because it lasts longer but evidently does not deliver a "high" with the same quality.

Alcohol and Other Drugs

Alcohol

There were 86 accidental overdose deaths in which alcohol was present in 2000, a 46-percent increase from the 1999 number. Alcohol was often found combined with a panoply of other drugs. ED mentions of alcohol combined with other drugs fell from 1,802 in 1999 to 1,622 in 2000, a 10-percent decrease. Admissions to treatment for primary alcohol use decreased slightly in 2000, falling from 3,915 in 1999 to 3,873 in 2000. The primary alcohol user in 2000 was a White (67 percent) male (69 percent) age 35 or older (63 percent). Almost one-half (49 percent) reported no other drug use, but, among those who did use other drugs, 18 percent used marijuana and 17 percent used methamphetamine. Fewer than one-third were referred by the criminal justice system, and two-thirds reported some experience with treatment.

Other Drugs

Other drugs that were frequently in the news in 2000 were MDMA (ecstasy), gamma hydroxybutyrate (GHB), and ketamine ("K," "Special K"). Solid, hard data for local use of MDMA remained difficult to find. Most reports were

based on anecdotal evidence from enforcement and media. One exception to that rule was a recent raid and subsequent seizure of a major ecstasy lab in North San Diego County, the first and only such lab seized in the United States. The lab, under surveillance for some time before the raid, was well hidden behind a revolving bookcase. Anyone visiting the establishment would not have guessed that, behind the bookcase, a clandestine manufacturing operation was underway. Enforcement reported that the lab was highly sophisticated in both production level and overall organization. Reportedly, the lab was capable of producing 1.5 million tablets per month; each tablet had a street value of $20.

The expert focus group members reported that they still believed that ecstasy would be the next epidemic in San Diego. They see use by adolescents and young adults increasing radically. These drugs were regularly spotted in raves, but enforcement was aware that ecstasy, GHB, and lysergic acid diethylamide (LSD) were easily obtained by adolescents and young adults. Proliferation of these drugs is obviously a concern to law enforcement.

When the current users group was asked about ecstasy and other drugs, participants admitted that they were aware of them. However, as one participant said, these were not drugs that would normally be used by hardcore users such as themselves. One of the users offered information about ketamine, saying that his use of the drug resulted in the perception that he was floating. He also said it was "bad stuff" and, if it were used too often, the user wanted to die. He remarked on how cheap it was. According to him, a $30 bottle would produce 5 hits for 10 people.

The user group also discussed phencyclidine (PCP) use by Black teenagers, claiming that such use was widespread. Another respondent mentioned a "shamrock," which is a "sherm" wrapped around a crack rock. One member voiced the wish that OxyContin were more available, saying that it was really good. He told the group how to properly prepare it for injection.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The most current AIDS report showed that, at the end of October 2001, 10,995 cumulative adult, adolescent, and pediatric AIDS cases had been reported in San Diego County. Of these, 10,940 were adults and adolescents. Men having sex with men (MSM) accounted for 76 percent of these cases, injecting drug users (IDUs) for 9 percent, the dual risk category (MSM/IDUs) for another 9 percent, heterosexual contact for 4 percent, and other transmission modes for 2 percent.

The majority of cases were among Whites (66 percent), followed by Hispanics at 20 percent, Blacks at 12 percent, and others at 3 percent.

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Exhibit 1. Cocaine Indicators for San Diego County: 1995–2000

Indicator	1995	1996	1997	1998	1999	2000
Accidental Overdose Deaths *(N)*						
Cocaine ODs	52	57	60	54	44	58
Total ODs	217	228	248	257	232	237
Emergency Department Mentions *(N)*						
Cocaine mentions	644	906	846	971	1,063	1,002
Total mentions	8,183	1,020	11,874	12,190	12,050	11,648
Admissions to County Funded Treatment *(N)*						
Cocaine admissions	1,338	1,397	1,266	1,198	1,358	1,300
Total admissions	10,538	9,629	10,417	12,099	13,197	13,811
Arrestees Testing Positive (%)						
Adult males	28	27	21	19	17	26
Adult females	28	22	22	17	22	15
Juvenile males	4	5	4	4	2	3

SOURCES: San Diego County Medical Examiner Reports, Drug Abuse Warning Network, San Diego County Alcohol and Drug Data Systems, San Diego Association of Governments Criminal Justice Unit

Exhibit 2. Heroin Indicators for San Diego County: 1995–2000

Indicator	1995	1996	1997	1998	1999	2000
Accidental Overdose Deaths *(N)*						
Heroin ODs	116	141	139	138	121	126
Total ODs	217	228	248	257	232	237
Emergency Department Mentions *(N)*						
Heroin mentions	691	981	927	1,010	1,112	1,031
Total mentions	8,183	1,020	11,874	12,190	12,050	11,648
Admissions to County Funded Treatment *(N)*						
Heroin admissions	1,472	1,407	1,338	1,323	1,362	1,452
Total admissions	10,538	9,629	10,417	12,099	13,197	13,811
Arrestees Testing Positive (%)						
Adult males	8	9	8	9	9	5
Adult females	12	10	12	7	11	7
Juvenile males	1	1	2	1	1	1

SOURCES: San Diego County Medical Examiner Reports, Drug Abuse Warning Network, San Diego County Alcohol and Drug Data Systems, San Diego Association of Governments Criminal Justice Unit

Exhibit 3. Marijuana Indicators for San Diego County: 1995–2000

Indicator	1995	1996	1997	1998	1999	2000
Emergency Department Mentions *(N)*						
Marijuana mentions	480	626	970	1,127	922	955
Total mentions	8,183	1,020	11,874	12,190	12,050	11,648
Admissions to County Funded Treatment *(N)*						
Marijuana admissions	646	681	822	1,561	2,119	2,447
Total admissions	10,538	9,629	10,417	12,099	13,197	13,811
Arrestees Testing Positive (%)						
Adult males	35	37	38	37	36	39
Adult females	20	23	24	27	28	27
Juvenile males	48	47	52	49	51	42

Note: Medical Examiner does not test for marijuana.

SOURCES: San Diego County Medical Examiner Reports, Drug Abuse Warning Network, San Diego County Alcohol and Drug Data Systems, San Diego Association of Governments Criminal Justice Unit

Exhibit 4. Methamphetamine Indicators for San Diego County: 1995–2000

Indicator	1995	1996	1997	1998	1999	2000
Accidental Overdose Deaths *(N)*						
Methamphetamine ODs	53	44	62	51	37	61
Total ODs	217	228	248	257	232	237
Emergency Department Mentions *(N)*						
Methamphetamine mentions	685	666	976	721	584	747
Total mentions	8,183	1,020	11,874	12,190	12,050	11,648
Admissions to County Funded Treatment *(N)*						
Methamhetamine admissions	3994	3138	3887	4418	4251	4507
Total admissions	10,538	9,629	10,417	12,099	13,197	13,811
Arrestees Testing Positive (%)						
Adult males	36	30	40	34	27	26
Adult females	41	32	44	35	35	29
Juvenile males	11	9	18	13	16	11

SOURCES: San Diego County Medical Examiner Reports, Drug Abuse Warning Network, San Diego County Alcohol and Drug Data Systems, San Diego Association of Governments Criminal Justice Unit

Patterns and Trends of Drug Abuse in the San Francisco Bay Area

John A. Newmeyer, Ph.D.[1]

ABSTRACT

Indicators of cocaine use declined sharply in the mid-1990s and have remained at a low level since 1997. Heroin indicators suggest that the rebound in use at the end of the 1990s was reversed in 2000. These changes may have resulted from the local street price of the drug, which fell to an all-time low at the end of 1999, followed by a sharp rise. Indicators of marijuana use, including ED mentions and treatment admissions, are up. Methamphetamine indicators suggest a decline in prevalence. The incidence of new HIV infections declined between 1997 and 2001 for heterosexual drug injectors, but increased for gay male and transsexual injectors.

INTRODUCTION

Area Description

The San Francisco Bay Area consists of the counties of 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. African-Americans constitute 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, the costs of rental housing in the Bay Area have risen steeply, especially in San Francisco, Marin, and San Mateo counties. This has caused significant outmigration of lower income people, which may be exerting downward pressure on local drug-use prevalence. However, partly as a result of reverses in high-tech 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 shown below:

- Emergency department (ED) data—The data on drug mentions were obtained from the Drug Abuse Warning Network (DAWN), Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA) for three counties of the San Francisco Bay Area (San Francisco, Marin, and San Mateo Counties) from 1995 through 2000 (exhibit 1).
- Treatment admissions data—These data were available for all five counties of the Bay Area for calendar year (CY) 1999 and FY 2001 (July 2000–June 2001) (exhibit 2). The California Department of Alcohol and Drug Programs (DADP) compiled the data.
- Medical examiner (ME) data—The data on drug mentions for decedents in three of the Bay Area counties (San Francisco, Marin, and San Mateo) were provided by the DAWN ME system for CY 1999, along with comparable data for 1996–98 (exhibit 3). Data for San Francisco County alone were also available for fiscal year (FY) 2000 (July 1999–June 2000) and were compared with those for FYs 1995–99.
- Reports of arrests for drug-law violations and counts of reported burglaries—These data were provided by the San Francisco Police Department (SFPD) for 2000 and (for reported burglaries) the first 9 months of 2001. A comparison was made with similar data for 1996–99.
- Price and purity data—This information was derived from the Drug Enforcement Administration (DEA)'s Domestic Monitor Program (DMP) and pertains to heroin "buys" mostly made in San Francisco County. Data for 2000 were compared with those for 1994–99. Data on trafficking in other drugs was available from the National Drug Intelligence Center's report, "California, Northern and Eastern Districts: Drug Threat Assessment 2000." Those data pertained to periods through the fourth quarter of 1999.

[1] Haight-Ashbury Free Clinics, Inc., San Francisco, California.

- Acquired immunodeficiency syndrome (AIDS) data—These surveillance data through September 2001 were furnished by the San Francisco Department of Public Health (SFDPH) AIDS Office; a comparison was made with similar data for September 2000. Information was also provided by the Urban Health Study, which has conducted HIV serotesting among injection drug users (IDUs) in several Bay Area cities on a regular basis from 1986 through 2001.
- Hepatitis B—These data for San Francisco County were available for 1996 through 2000 and for the first 37 weeks of 2001.
- Ethnographic information—This information was obtained through interviews with treatment program staff and outreach workers in November 2001. Their observations were compared with those they made in May 2001 and November 2000, and pertained mostly to San Francisco County.

DRUG ABUSE TRENDS

Cocaine and Crack

Indicators of cocaine use are mixed. Prevalence evidently declined sharply in the mid-1990s and has remained at a low level since 1997. According to local ethnographic reports, the cocaine scene remains at a low level of activity, compared with its heyday in the late 1980s and early 1990s.

Cocaine ED mentions declined between 1995 and 1998, but were on a slight upward trend in 1999 and 2000 (exhibit 1). Among cocaine ED patients in 2000 whose demography was known, 66 percent were male; 42 percent were Black, 43 percent were White, and 11 percent were Hispanic. In addition, 63 percent were older than 35. These data were compared with similar data from 1995 and 1996, revealing a significant increase in the proportions of Whites and people older than 35, and a decrease in the proportion of Blacks.

The number of cocaine treatment admissions in the five-county Bay Area increased significantly from CY 1994 through CY 1999, then edged downward by 3 percent in FY 2001 (exhibit 2). As a proportion of total admissions, cocaine's share has held at 23 or 24 percent in all the years since 1997. In San Francisco County during FY 2000, 2,650 persons were in treatment for primary cocaine problems. This number has changed little since FY 1995, but is 18 percent below the all-time peak in FY 1993.

Cocaine ME mentions for three counties fluctuated within a narrow range, with no particular trend, between 1996 and 1999 (exhibit 3). Data from San Francisco County for FY 2000 ascribed 95 deaths to cocaine (alone or in combination with other substances), a decline of 5 percent from FY 1998. Of the FY 2000 decedents, 81 percent were male and the median age was just over 40.

A nearby metropolitan ADAM site provided another indicator of drug abuse patterns in the area. In San Jose, 12 percent of adult male arrestees tested positive for cocaine in 2000. This was the lowest percentage of cocaine-positive tests among all of the original 22 ADAM sites; the median cocaine-positive proportion for those sites was 32 percent.

Arrests in San Francisco County in the category dominated by cocaine and methamphetamine numbered 2,182 in 1999, an increase of 45 percent from 1997.

According to the DEA, local kilogram prices of cocaine ranged from $14,000 to $22,000 in late 1999, with a range in purity from 60 to 90 percent.

Heroin

Overall, heroin indicators suggest that a "rebound" occurred at the end of the 1990s, followed by an easing off in 2000. According to ethnographic observers, recent months have seen little change in the local heroin scene. Youth under the age of 25 use the drug, but not in large numbers and not more than they did a year ago.

Heroin ED mentions dropped by 24 percent from 1995 to 1998, increased sharply in 1999, and then declined somewhat in 2000 (exhibit 1). As an overall proportion of ED mentions, the rebound of heroin is prominent: 19 percent in 1998, 24 percent in 1999, and 23 percent in 2000. The demography of the heroin ED patients in 2000 was 67 percent male, 71 percent age 35 or older, 58 percent White, 31 percent Black, and 10 percent Hispanic. Compared with the demographics for 1995 and 1996, the only changes have been an increase in the proportion of patients older than 35 and a slight increase in the proportion of Blacks.

The number of treatment admissions for primary heroin problems in the entire Bay Area fluctuated narrowly during 1994–99, and showed only a 2-percent decline from CY 1999 to FY 2001 (exhibit 2). Heroin accounted for 64 percent of drug admissions in 1994, but for only 54 percent in FY 2001. A total of 5,499 persons were in public treatment in San Francisco County for primary heroin abuse in FY 2000. This is essentially unchanged from the count for FY 1999. FY 1999 figures showed an increase of 35 percent over FY 1998, probably reflecting new funding in that county for "treatment on demand."

In the three-county Bay Area reporting to DAWN, ME mentions of heroin/morphine declined by about one-fourth from 1996 to 1997, remained steady in 1998, then rose by about one-sixth in 1999 (exhibit 3). In San

Francisco County, deaths caused by heroin declined by 8 percent between FYs 1999 and 2000. Of FY 2000 decedents, 87 percent were male and the median age was 40.

Arrests for heroin-related offenses numbered 6,905 in San Francisco County in 1999, in the middle of the 6,546–7,214 range recorded in the 4 years from 1996 to 1999. Burglary is a property crime that presumably reflects the prevalence of heroin users, many of whom support their habits through such crimes. In San Francisco, the number of reported burglaries decreased by 49 percent from 1993 to 1999 (11,164 to 5,670), then rose by 2 percent in 2000. In the first 9 months of 2001, burglaries were reported at a rate 11 percent higher than in 2000.

The DMP tested heroin street buys during 2000. Of the 35 buys, 34 were of Mexican origin. The 2000 samples averaged 16 percent pure and $0.71 per milligram pure, compared with 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 generally Mexican, and the average price increased sharply in 2000. Prices for kilograms of heroin ranged from $18,000 to $80,000 in the San Francisco area, with purity ranging from 20 to 60 percent, according to the DEA.

Other Opiates

Codeine ME mentions in the three-county Bay Area increased somewhat from 1997 to 1999 (exhibit 3). Methadone ME mentions rose from 1997 to 1998, but declined in 1999 to nearly the 1997 level (exhibit 3).

Marijuana

Indicators of marijuana use in the Bay Area are up.

Marijuana ED mentions fluctuated within a fairly narrow range during 1995–99, then rose significantly in 2000 (exhibit 1). Of the marijuana ED patients in 2000, 71 percent were male, 34 percent were older than 35, 67 percent were White, 14 percent were Black, and 12 percent were Hispanic. Compared with 1995–96 ED cases, these were older and more predominantly White.

Some 2,135 persons were in treatment for primary marijuana problems in the Bay Area in FY 1999. This count has been increasing steadily over the past 7 years. Thirty-eight percent of the FY 1999 clientele were White, 35 percent were Black, and 21 percent were Hispanic. Seventy-one percent were male, and the majority were younger than 25.

Arrests for marijuana-related offenses in San Francisco County varied between 1,995 and 2,438 per year during 1993–99, with no particular upward or downward trend.

The San Francisco DEA office reported pound prices for marijuana at about $2,500, with tetrahydrocannabinol (THC) content ranging from 3 to 20 percent.

Stimulants

Overall, methamphetamine ("speed") indicators suggest a decline in prevalence of use. According to ethnographic observers, the speed scene in San Francisco remained active in 2001, but not to the extent seen in the years of peak activity around 1997. Gay men no longer predominated among users.

Methamphetamine ED mentions remained at a high level in 1995 through 1997 then declined more than 40 percent in 1998 through 2000 (exhibit 1). The preferred route of use for many years has been injection: among speed ED cases for whom route was known in 1998, 61 percent injected, 18 percent snorted, and 15 percent smoked. Demography among speed ED mentions remains overwhelmingly male (77 percent) and White (73 percent), but not particularly young (26 percent under 26, 45 percent over 35).

Admissions for primary amphetamine problems in the five-county Bay Area increased by 100 percent between CYs 1994 and 1999, but rose by only 1 percent from CY 1999 to FY 2001 (exhibit 2). In San Francisco, 1,004 individuals were in treatment for primary speed problems in FY 2000. This figure was down by about 9 percent from FYs 1998 and 1999, 2 peak years that followed a sharp rise from FY 1992.

In the three-county Bay Area, ME mentions of methamphetamine/speed rose from 44 in 1996 to 58 in 1999 (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 FY 1995. The count in FY 2000 was down by 65 percent, to 14. Among FY 2000 decedents, 93 percent were male and the median age was 40.

Two nearby metropolises are ADAM sites and may give some indication of the situation in San Francisco. In Sacramento and San Jose, respectively, 28 and 24 percent of adult male arrestees tested positive for methamphetamine in 1999. These were 2 of the 4 highest figures for methamphetamine among adult males for all of the 34 ADAM sites in 1999; only 8 sites, all in Pacific or Mountain States, had methamphetamine-positive rates for males above 10 percent.

The DEA San Francisco office reports pounds of methamphetamine selling at a broad range of prices, from $3,500 to $10,000. Ounce prices ranged from $500 to $1,000.

Depressants

The annual rate of ED mentions for the overall category of benzodiazepines remained steady in 1998 through 2000, at about 40 per 100,000 population. ME mentions of diazepam in the Bay Area fell by one-third between 1996 and 1999, from 49 to 33 (exhibit 3).

Hallucinogens

Lysergic acid diethylamide (LSD) ED mentions showed no particular trend during 1997–2000 (exhibit 1). PCP ED mentions declined from 1997 to 1999, but rose slightly in 2000.

Club Drugs

The presence of 3-4-methylenedioxymethamphetamine (MDMA) continues to increase, according to street-based observers. These observers report that African-Americans smoke the drug with marijuana or mix it into alcoholic drinks, and that prices have declined to $15–$20 per pill. MDMA ED mentions more than doubled between 1999 and 2000 (exhibit 1). Peak levels of ED mentions were reported for two other club drugs (gamma hydroxybutyrate and ketamine) in 2000, the most recent year of observation (exhibit 1). The actual number of club drug ED mentions remains small, however, compared with cocaine or methamphetamine numbers.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Acquired Immunodeficiency Syndrome (AIDS)

San Francisco County had a cumulative total of 27,770 AIDS cases through September 30, 2001, an increase of 576 (2.1 percent) from the total reported through September 30, 2000. Of these cases, 1,899 (6.8 percent) were heterosexual injection drug users (IDUs), an increase of 70 (3.8 percent) in a year. Another 3,437 AIDS cases (12.4 percent) were males with a history of both male-to-male sexuality and injection drug use; this number increased by 3.9 percent in a year. AIDS data on transgender San Franciscans has been collected only since 1996, but the total number of cumulative cases—259—is a surprisingly large portion of an overall male-to-female transgender population estimated at 3,000.

Among San Franciscans diagnosed with AIDS in 1999 through 2001, heterosexual IDUs constituted 17 percent. This proportion was up from 9 percent in 1993–95 and 13 percent in 1996–98. However, the overall case numbers in 1999–2001 were far lower than those in 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 IDUs with AIDS has changed very little in the past 10 years. Among these cases, males account for 70 percent, Blacks for 50 percent, Whites for 35 percent, Hispanics for 12 percent, and Asian/Pacific Islanders for 2 percent. By contrast, among gay/bisexual male IDUs with AIDS, Whites accounted for 72 percent, Blacks for 16 percent, Hispanics for 9 percent, and Asian/Pacific Islanders for 1 percent. The heterosexual IDU demography is like that of heroin users except for the overrepresentation of Blacks, while the gay male IDU demography is similar to that of male methamphetamine users.

Semiannual surveys by the Urban Health Study point to a decline in the HIV-positive prevalence of heterosexual IDUs not in treatment. The prevalence for San Francisco IDUs was just over 9 percent in mid-2001, and has hovered between 9 and 10 percent since 1997; this contrasts with prevalence levels of 11–16 percent in the early and mid-1990s. Prevalence for IDUs in Richmond (Contra Costa County) was 20–25 percent in the early 1990s, 15–18 percent in 1997–99, and only 10 percent in summer 2001. Prevalence in West Oakland was about 15–16 percent in the mid-1990s, about 10 percent in 1997–99, and only 6 percent in summer 2001. Moreover, the incidence of new HIV infections in these three populations now appears to have leveled off at about 0.5 percent per year, compared with an estimated rate of 1.25 percent in the mid-1990s. Certainly the decline in prevalence—at a time when an increasing number of HIV-infected IDUs are on HAART (highly active antiretroviral treatment) and is thus living longer and not being removed from the prevalence numerator—is consistent with very low incidence rates.

By means of a consensus of experts, San Francisco County estimated that 220 IDUs would be newly infected with HIV 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

From 1996 through 2000, reported cases of hepatitis B in San Francisco County did not deviate notably from a pace of about one per week. The pace is slightly higher in 2001, at about four cases every 3 weeks.

Hepatitis C

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 U.S. metropolitan areas.

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Exhibit 1. Annual Emergency Department Mentions for Selected Drugs in San Francisco: 1995–2000

Drug	1995	1996	1997	1998	1999	2000
Cocaine	2,560	2,310	1,979	1,843	1,935	2,054
Heroin	3,113	3,132	2,719	2,360	3,050	2,756
Marijuana	506	424	388	391	469	627
Methamphetamine	1,106	934	1,012	616	554	591
PCP/PCP Combinations	89	158	122	67	62	70
LSD	116	104	73	43	55	67
MDMA	29	32	35	38	47	107
GHB	16	78	83	102	138	151
Ketamine	3	4	1	2	4	14
Total Mentions	**15,527**	**14,213**	**13,491**	**12,525**	**12,702**	**12,171**

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Number of Admissions to Drug Treatment Programs in the San Francisco Bay Area by Primary Drug of Abuse: CY 1999 and FY 2001

Drug	CY 1999 (Jan 1–Dec 31, 1999)	FY 2001 (Jul 1, 2000–Jun 30, 2001)
Cocaine	8,727	8,444
Heroin	19,763	19,371
Amphetamine	4,595	4,643
Total (***N***) (excluding alcohol)	36,069	35,602

SOURCE: California Department of Alcohol and Drug Programs (DADP)

Exhibit 3. Number of Medical Examiner Drug Mentions in San Francisco: CYs 1996–99

Drug	1996	1997	1998	1999
Cocaine	155	127	158	158
Heroin/Morphine	213	160	167	193
Methamphetamine/Speed	44	49	45	58
Codeine	114	108	122	132
Methadone	21	21	32	19
Diazepam	49	48	38	33
PCP/PCP Combinations	3	1	1	3

SOURCE: Drug Abuse Warning Network, annual medical examiner data, SAMHSA

Recent Drug Abuse Trends in the Seattle-King County Area

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ABSTRACT

Heroin use continues to have a significant impact among all the illicit drugs used in the Seattle area. Recent data, however, continue to suggest a downward trend in heroin use. Indicators of cocaine use have shown a resurgence to the higher historical levels after several years of decline. Methamphetamine indicators continue to rise, although at a lower rate than in other areas of the State. Marijuana indicators have increased. The use of club drugs appears to be increasing in certain populations.

INTRODUCTION

Area Description

Located on Puget Sound in western Washington, King County spans 2,130 square miles, of which the city of Seattle occupies 83.8 square miles. The Seattle harbor is the home of the world's 26th busiest container port, handling 1.48 million container units in 2000. The combined ports of Seattle and nearby Tacoma make Puget Sound the second largest combined loading center in the United States, trailing only Los Angeles-Long Beach, California. The ports are among the top 10 combined load centers in the world.

According to the 2000 Census, the population of King County is 1.737 million, an increase of 15.2 percent since 1990. That figure represents 29 percent of Washington State's 5.9 million population. The county's population is 75.7 percent White, 11.3 percent Asian/Pacific Islander, 5.4 percent African-American, 5.5 percent Hispanic, and 0.9 percent Native American or Alaska Native; those reporting two or more races constitute 4.1 percent of the population.

According to the U.S. Census Bureau, the Seattle-Tacoma-Bremerton consolidated metropolitan statistical area ranks 13th in population size for the United States. The area gained 230,000 people over the last decade. During this time period, adjacent Snohomish and Pierce Counties added 255,000 people combined. The combined population of King, Pierce, and Snohomish Counties accounts for 51.6 percent of Washington State's population. Seattle is 113 miles south of the U.S.-Canadian border.

Data Sources

Sources of information for this paper are as follows:

- Arrestee Drug Abuse Monitoring (ADAM) Program. As part of the National Institute of Justice's ADAM program, King County's urinalysis results for 2000 (n = 1,858) and for the first quarter of 2001 (n = 438) are included in the narratives for cocaine, heroin, marijuana, and club drugs.
- Drug Abuse Warning Network (DAWN) Emergency Department (ED) Data. DAWN estimated rates per 100,000 population for ED mentions for selected drugs from 1988 through 2000 were accessed from the Substance Abuse and Mental Health Services Administration (SAMHSA).

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- Washington State Department of Social and Health Services' TARGET. The department has implemented a statewide alcohol/drug treatment activity database system and report-generating software called TARGET. Data are compiled for King County from July 1, 1998, through June 30, 2001.
- Drug Enforcement Administration (DEA). Heroin price and purity data for the United States and Seattle come from the DEA's Domestic Monitor Program (various editions).
- King County Medical Examiner (ME) Database. Automated information about drug-caused deaths in King County has been available since 1983 and are presented by calendar quarter from January 1, 1998, through June 30, 2001. The data include deaths directly caused by licit or illicit drug overdose and excludes 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. Note that more than one drug may be identified per individual drug overdose death, so the number of deaths for all drugs added together will exceed the number of actual deaths. Heroin-related overdose death rates for the past 12 years, through 2000, are also presented.
- United States Customs Service. Data relating to the seizures for all illegal drugs are for January 1, 2001, to June 30, 2001.
- Epidemiology Research Unit. Two longitudinal cohort studies of Seattle area drug injectors funded by the National Institute on Drug Abuse (NIDA) are conducted by Public Health - Seattle & King County (PHSKC). The studies began in 1994 and continue through 2002.
- "HIV/AIDS Epidemiology Report." Data on acquired immunodeficiency syndrome (AIDS) cases (including exposure related to injection drug use) in Seattle-King County, other Washington counties, Washington State, and the United States, are from PHSKC, Washington State Department of Health, and the Federal Centers for Disease Control and Prevention (CDC).
- Key Informant Interviews. Interviews with a variety of drug users and other key informants from treatment centers and street outreach workers provided data for this paper.
- Northwest High Intensity Drug Trafficking Area (NW HIDTA). Pursuant to its designation by the Office of National Drug Control Policy, the NW HIDTA produces a Threat Assessment for the region on an annual basis. Data for 1998 through the first half of 2001 are from all Federal, State, and local law enforcement agencies and narcotics task forces in the region, the Western States Information System (WSIN), and the Washington State Department of Ecology.
- Washington State Alcohol/Drug 24-Hour Help Line (ADHL). ADHL provides confidential telephone-based assistance and guidance for Washington State. Data are presented for the first half of 2001 for calls originating within King County. The data exclude information on alcohol and nicotine, which account for 62 percent of the calls.
- Washington State Department of Ecology (DOE). The DOE provides information about environmental and response costs of illegal drug labs and increases in incidents by county since 1990, and is responsible for handling and disposing of hazardous substances found at illegal drug labs.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine and Crack

Indicators of cocaine use have increased to higher historical levels after several years of decline. The rate of 169 cocaine ED mentions per 100,000 population in 2000 shows a resurgence to the high levels seen in 1997 and in 1994 (exhibit 1). In 2000, 63 percent of ED mentions were male. Of those whose race/ethnicity was known, 50 percent were White, 30 percent were Black, and 4 percent were Hispanic, consistent with previous years. The majority ranged in age from 26 to 44.

Admissions to drug treatment for adults reporting cocaine as their primary drug remained relatively stable between 1998 and the first half of 2001, when they represented approximately 12 percent of all admissions each year. The second half of 2000 and first half of 2001 have seen a slight decline in the ratio of such admissions to the total (exhibit 2).

There were 29 cocaine-involved drug deaths in the first half of 2001 (exhibit 3), accounting for 33.7 percent of all drug-related deaths. This is a decline from 2000, when cocaine was involved in 40.6 percent of all drug-related deaths. Six of the deaths (20.6 percent) in the first half of 2001 involved cocaine alone and constituted 7 percent of the 86 drug-caused deaths. In 2000, cocaine alone was found in 31 (34.8 percent) individuals whose death was cocaine-related. Opiates and ethanol continued to be the most common drugs found in combination with cocaine, consistent with previous years; 15 decedents (51.7 percent) had opiates in their systems, and 9 (31 percent) had ethanol detected at the time of death.

In the first half of 2001, males accounted for 76 percent of the cocaine-related deaths and 83 percent in 2000. Caucasians represented 83 percent of the 29 cocaine-related deaths in the first half of 2001, an increase over previous years. Of the decedents, three (10 percent) were Asians or Pacific Islanders, one was Hispanic, and one was Black, a decline from previous years. Decedents ranged in age from 19 to 62 years, with a mean age of 41.

ADAM data for 2000 are available only for adult males. In 2000, 31.3 percent of male arrestees tested positive for cocaine (n = 1,858). In the first quarter of 2001, 26.4 percent tested positive for cocaine (n = 438).

Price information for "flake" cocaine is limited to the downtown area of Seattle. The basic unit of sale is a "dime bag," meaning $10 for approximately one-quarter of a gram. A weighed gram sells for about $30, and 1/8 ounce for $80–$100. Crack prices have remained relatively stable for the last 4–5 years: 1/10–1/8 gram sells for $20 ("$20 rock"), and 1/5–1/4 gram for $40 ("$40 rock"). These prices are largely unchanged since June 2001, but information from users indicates that purity has declined compared with a year ago. As in the past, Latino gangs control most of the street-level cocaine trade. In contrast to national trends of declining crack use, there are anecdotal reports of an increase in public crack cocaine smoking in the downtown core.

In the first half of 2001, the U.S. Customs Service reported 18 cocaine seizures weighing a total of 223.47 pounds (101.36 kilograms) in the first half of 2001. One other seizure weighed 5,153.97 pounds (2,337.8 kilograms). In terms of weight, this is a significant increase over 2000, when 31 seizures totaled 148.8 pounds (67.5 kilograms).

Cocaine was the most frequently cited illicit drug among those calling the ADHL. The 405 calls represented one-fourth of all drug-related calls made to the help line.

Heroin

Evidence of an increase in heroin use in Seattle and King County was first suggested by a sharp rise in opiate-related deaths in 1995 and 1996 (exhibit 4). This upward trend appears to have peaked in 1998, with a decline in the rate of such deaths per 100,000 population in 1999 and 2000. That decline, which began in the third quarter of 2000, continued into the first half of 2001, reaching the lowest rate in the past 7 years. The decline is attributed to a significant increase in treatment availability in King County.

The number of heroin-related drug-involved deaths investigated by the ME declined to pre-1995 levels. In 1994, the number of heroin-related deaths was 89, increasing to 131 in 1995 and 135 in 1996. The number decreased to 111 in 1997, but rose to 143 in 1998 (exhibit 3). Heroin-related deaths numbered 117 in 1999, 101 in 2000, and only 32 in the first half of 2001, when they represented 37 percent of all drug-related deaths in King County, a decrease from the 45–65 percent level in previous years. Of the 32 heroin-related decedents, 27 (84.4 percent) had one or more drugs in addition to heroin in their systems at the time of death, a slightly higher proportion than in previous years. The majority of the decedents were male (72 percent); 94 percent were Caucasian, 3 percent were African-American, and 3 percent were Hispanic. DAWN reports also indicate that the rate of heroin ED mentions per 100,000 population increased during the same period (1994–99). In 1992 and 1993, the rate per 100,000 was 61 and 94, respectively. From 1994 to 1999, the rate remained between a low of 109 in 1995 and a high of 154 per 100,000 in 1997 (exhibit 1). The rate for 2000 was 126.

Seattle-King County primary heroin treatment admissions numbered 1,389 in 1998, 1,513 in 1999, and 2,102 in 2000 (exhibit 2), representing 20.5 percent of all treatment admissions and an increase of 41.7 percent since 1998. Some of the increase in treatment admissions for heroin use may be attributed to the new mobile methadone program that began enrolling patients in 1999 and a new fixed-site clinic that opened in 2000. Demand for drug treatment remains extremely high. At the Seattle needle exchange program, more than 500 heroin addicts are on a waiting list for methadone treatment vouchers. In the first half of 2001, 951 new clients were admitted for heroin addiction, representing 17 percent of all admissions.

The number of heroin-related calls to the local ADHL was relatively low during the first 6 months of 2001. A total of 117 calls about heroin use were made, representing 7 percent of all drug-related calls during this reporting period.

Seattle-King County ADAM data showed that opiates were present in 11.7 percent of male arrestees (n = 438) for the first quarter of 2001. This compares with a 9.9 percent opiate-positive rate among 1,858 male arrestees tested in 2000. Data from both years suggest that opiate-positives were higher among males arrested for property and drug crimes than among those arrested for violent crimes, domestic violence, or driving while intoxicated. Among male arrestees in both years, opiate-positive rates were lower than those for cocaine (31.3 percent in 2000, 28.4 percent in the first quarter of 2001) and marijuana (37.7 percent in 2000, 41.1 percent in the first quarter of 2001), and roughly equivalent to those for methamphetamine.

Based on 22 samples taken by the DEA Domestic Monitor Program in 2000, heroin purity averaged 21.7 percent, with a price of $1.15 per milligram pure. Those figures compare with the national averages of 36.3 percent

for purity and $0.97 for price. The 2000 purity/price report contrasts with the information on samples reported in 1996, a middle year in the upsurge of heroin indicators in the area. Based on 21 samples that year, purity averaged 21 percent (compared with 36.3 percent nationally), and price per milligram pure was $0.74 ($1.27 national average). The street price for heroin, according to local "street" informants, remained stable at $30–$50 per gram over the 6-month reporting period. Virtually all heroin available in Seattle and King County is Mexican black tar.

The U.S. Customs Service reports seven seizures of heroin from ports of entry in Washington State, totaling 794 grams for the first half of 2001; this amount is down sharply from 2000.

Other Opiates/Narcotics

The number and rate of other opiates/narcotics ED mentions have increased in Seattle since 1998. The numbers of mentions, however, are relatively small. In the first half of 1998, there were 34 such mentions, representing a rate of 1.9 per 100,000 population. In the first half of 2000, there were 73 mentions, representing a rate of 3.7 per 100,000. Reports from the Washington State Department of Social and Health Services (DSHS) indicate a threefold increase in OxyContin prescriptions in the past 3 years, triggering an internal review of OxyContin claims. The rate of ED mentions in 2000 for narcotic combinations, agents that combine a simple analgesic (usually acetaminophen or aspirin) with a narcotic, has increased to the high levels of 1996 and 1994.

The number of deaths related to "other opiates" increased from 34 in 1999 to 80 in 2000. In the first half of 2001, there were 31 drug-related deaths involving opiates other than heroin, (exhibit 3). Of these opiate-related deaths, three involved opiates alone, five involved cocaine, and seven involved alcohol in combination with other substances, including other opiates. In the first half of 2001, 2 decedents had methadone only in their system at the time of death, a decline from 17 cases reported in 1998, 19 cases in 1999, and 24 cases in 2000. Males represented 60 percent of these decedents. Eighty percent were Caucasian, 16 percent were Black, and 1 decedent was American Indian or Alaska Native. Accidents accounted for 80 percent of these deaths, suicides for 8 percent, and unknown causes for12 percent.

Key informants indicated OxyContin sales are limited and a single tablet costs $20. Because of the relatively high cost of OxyContin tablets, street users seek less expensive drugs such as benzodiazepines.

Marijuana

The rate of marijuana ED mentions per 100,000 population was 71.6 in 2000, substantially higher than the 1999 rate of 41.6 (exhibit 1). This represents a 72-percent increase, the largest among the 21 CEWG DAWN reporting cities. Marijuana remains the fourth most commonly mentioned substance in local EDs.

In King County, marijuana (primary drug of abuse) accounted for 11.6 percent of adult admissions and 72.3 percent of youth admissions in 2000. These proportions represent increases from 1999 (7 percent adults and 65 percent for youth). In the first half of 2001, 983 primary marijuana clients were admitted to publicly funded treatment (exhibit 2); 49 percent were youth. Admissions for marijuana (primary drug) have continued to rise each year, from a low of 9 percent in 1994 to 19 percent in the first half of 2001.

In ADAM 2000, 37.7 percent of male arrestees tested positive for marijuana (n = 1,858). For the first quarter of 2001, 41.4 percent tested positive for marijuana (n = 438). The percentages do not appear to reflect any significant changes in marijuana positives since 1999.

During the first half of 2001, a total of 3,432 pounds of marijuana was seized by customs officials at Washington entry points. This is a sharp increase compared with the 2,382 pounds seized in all of 2000. Unlike most other illicit drugs available in King County, marijuana is not readily available as a street drug, and what is available is primarily the lower grade, more commercial product. At present, locally-grown marijuana is the variety of choice in the Seattle-King County area. Sinsemilla, which is generally regarded as more potent (in terms of tetrahydrocannabinol [THC] content), is grown indoors in British Columbia using hydroponic methods and generally passes through the Seattle area en route to destinations further south on the west coast.

The principal areas of marijuana street sales in Seattle are the downtown core around the Pike Place Market, the University District, and parts of the Central District. The main venues for sale and purchase of marijuana (especially higher grades) are known ("house") connections or select coffeehouses and bars.

Marijuana has trended downward in price, but the declines are not nearly as pronounced as those for heroin and cocaine. A gram of sinsemilla, called "bud," sells locally for $15–$25. However, most informants were quick to note that few people, except younger students or street buyers, would purchase a gram of marijuana. Washington-grown marijuana generally sells for $40–$50 per 1/8 ounce. Price breaks occur for larger quantities, with ounces selling for $325–$400, and quarter-pounds for $1,200–$1400. Bulk quantities sell for $4,000–$5,200 per pound and $6,000–$8,000 per kilogram.

There were 354 calls to the ADHL related to marijuana use, representing 22 percent of all drug-related calls. Marijuana is the second most commonly mentioned substance by callers, after cocaine.

Stimulants

DAWN ED mentions for amphetamine and methamphetamine in Seattle-King County during 2000 continued the upward trend since 1999 (exhibit 1), when the rate of mentions per 100,000 population was 27.4 (representing a 51-percent increase from 18.2 per 100,000 in 1999). Overall, amphetamine and methamphetamine continued to rank fifth in ED mentions, behind cocaine, alcohol-in-combination, heroin, and marijuana; this ranking has been maintained for the past 4 years.

In 1996, 3.6 percent of the King County treatment admissions were primary amphetamine abusers. In the first half of 2001, the proportion was 6.9 percent (exhibit 2). While this represents an upward trend from past years, such admissions continue to be surpassed by those for persons reporting alcohol, cocaine, heroin, and marijuana as their primary substance.

In contrast, the total number of calls to the ADHL that originated in King County regarding methamphetamine during the first 6 months of 2001 numbered 227, a decrease from the total of 330 for the same period in 2000. Calls for all stimulants (methamphetamine and amphetamine) represented 22 percent of all drug-related calls.

Three drug-related deaths involved amphetamine/methamphetamine in King County during the first 6 months of 2001 (exhibit 3). It is difficult to note any trend, as the number of such deaths is relatively small and fluctuates quarter to quarter. The number of deaths related to methamphetamine and/or amphetamines decreased since the high point between July 1999 and June 2000, when 19 deaths were reported. Two of the three deaths in the first half of 2001 involved substances in combination with amphetamine and/or methamphetamine. Two of the three decedents were female Caucasians, and one was a male Asian or Pacific Islander. Their ages ranged from 28 to 50, with an average age of 39.

In the first quarter of 2001, 13 percent of male arrestees in Seattle-King County (ADAM) tested positive for methamphetamine, an increase from 9.5 percent in the first quarter of 2000 and the overall level of 9.2 percent for 2000. These data continued an upward trend first reported in 1999, when the proportion for the first quarter was 5 percent, and the overall calendar year percentage was 9 percent. The 2001 data are noteworthy because they represent the first reported quarter during which a higher percentage of male arrestees in Seattle-King County tested positive for methamphetamine than for heroin.

Local prices in Seattle-King County and throughout Washington State have remained stable in spite of increased availability, ranging from $20 to $60 per gram, $350 to $650 per ounce, and $4,250 to $6,000 per pound. Smoking remains the most prevalent route of administration, reported by 40 percent of treatment admissions. More than one-quarter (26 percent) inhaled methamphetamine and 29 percent injected the drug. The proportion of clients (29 percent) who reported injecting methamphetamine in the first half of 2001 was the lowest since1994.

It is estimated that 65–75 percent of the methamphetamine in Washington State is transported from California, Oregon, and Mexico. The U.S. Customs Service reported the seizure of 440 grams of methamphetamine during the first 6 months of 2001 at 5 land route, maritime, and commercial air ports of entry. Ease of access to precursors; the availability of equipment, recipes and locations; and the purity of methamphetamine produced by local clandestine labs contribute to the proliferation of this drug problem. Over one-half of the labs seized to date in 2001 have been the "Nazi" type, 37 percent of which were located in single-family housing and 36 percent in vehicles. The ephedrine extraction, red phosphorous, and other methods constitute the balance of the lab types, which are more commonly found in non-residential structures or settings. The NW HIDTA reported that a total of 281.8 kilograms of methamphetamine were seized in 2000, representing a 52-percent increase from 1999.

Documented lab seizures throughout Washington State numbered 861 through August 2001, surpassing the total of 831 seizures throughout 2000, which in turn represented a 60-percent increase from 1999. It is projected that the total number of lab seizures in 2001 will exceed 1,000, again increasing the number seized compared with the previous year by approximately 30 percent. An additional 459 "dump sites" statewide were identified by the Washington State Department of Ecology, bringing the total number of locations associated with the manufacture of methamphetamine to 1,320 through August 2001. If this rate of seizures continues through the rest of 2001, the statewide total of methamphetamine manufacture-related sites for calendar year 2001 will represent a 35-percent increase from 2000 (which, in turn, will represent an 84-percent increase from 1999).

The documented lab seizures in King County through August 2001 numbered 91 (10.6 percent of the statewide total). The King County total for calendar year 2001 is therefore projected to surpass the 120 labs seized throughout the county in 2000 (a 50-percent increase from 1999) by approximately 15 percent. An additional 86 places were identified as dump sites, for an overall total of 177 locations associated with the manufacture of methamphetamine

identified through August 2001. The calendar year 2001 total may exceed the calendar year 2000 total of 231, which in turn represented a 115-percent increase from 1999.

Depressants

Barbiturates, benzodiazepines, and other sedative/depressant drugs in this analysis include alprazolam (Xanax), butalbital (Fioricet), chlordiazepoxide (Librium), cyclobenzaprine (Flexeril), diazepam (Valium), hydroxyzine pamoate (Vistaril), lorazepam (Ativan), meprobamate (Equanil), oxazepam (Serax), phenobarbital, promethazine (Phenergan), secobarbital (Seconal), temazepam (Restoril), triazolam (Halcion), and zolpidem (Ambien).

Data sources indicate an increase in benzodiazapine use following declines in 1999 and 2000. ED mentions for anxiolytics, sedatives, and hypnotics in 1999 and 2000 are increasing to levels seen in 1994.

In the first half of 2001, 19 deaths were related to sedatives and depressants, representing 22 percent of drug-related deaths. This increase follows a decline in sedative- and depressant- related deaths noted in 1999 and 2000. All sedative- and depressant-related deaths in the first half of 2001 were in combination with multiple substances, including other sedatives or depressants. One-quarter of these sedative/depressant deaths had alcohol identified at the time of death.

Accidents accounted for 68 percent of these deaths, suicides for 21 percent, and undetermined causes for 11 percent. An increase in the percentage of females among decedents was noted: 53 percent were females in the first half of 2001 and all of 2000, compared with an average of 40 percent in prior years. Of the 19 decedents, 16 were Caucasian, 2 were African-American, and 1 was American Indian or Alaska Native, consistent with previous years. The decedents ranged in age from 19 to 74, with a mean age of 44 and a median age of 45; the majority of decedents were between the ages of 37 and 51.

DEA data sources report that local street prices for illegally obtained prescription benzodiazepines (primarily diazepam and clonazepam) remain stable at $1 for 5-milligram tablets and $2–$4 for 10-milligram tablets. Informants describe active street sales of benzodiazepines, especially alprazolam and clonazepam, in the downtown Seattle core.

Depressants were infrequently mentioned in calls to the ADHL, with only seven calls in the first half of 2001. These calls accounted for fewer than 1 percent of those received.

Hallucinogens and Club Drugs

As reported here, hallucinogens include lysergic acid diethylamide (LSD), mescaline, peyote, psilocybin (mushrooms), and phencyclidine (PCP), and "club drugs" as a general term for drugs that are popular at nightclubs and all-night dance parties (trances and raves). Included are the hallucinogens, 3,4-methylenedioxymethamphetamine (MDMA), gamma hydroxybutyrate (GHB), gamma butyrolactone (GBL), and nitrous oxide.

MDMA ED mentions in 2000 (n = 128) increased dramatically, by 300 percent from 1999 (n = 32), and GHB mentions increased by 67.8 percent in the same time period. However, MDMA and GHB each account for fewer than 1 percent of total ED mentions. DAWN reports indicate a 14-percent decrease in the rate of LSD ED mentions per 100,000 population from the previous year, whereas the PCP ED rate spiked sharply in 2000 to 5.9, following an average rate of 2.5 during 1996–99.

In the first half of 2001, the King County ME reported no deaths involving ketamine ("Special K"), GHB, PCP, or LSD, and only one death involving MDMA. Three deaths during this period involved dextromethorphan (DXM), an increasingly popular club drug with particularly dangerous interactions when used in combination with other drugs, especially alcohol. This appearance of DXM in ME reports (substantiated by anecdotal reports) indicate the increasing popularity of DXM (especially in cough syrup form) over the past year.

ADAM data for drugs in this category are limited. No adult male arrestees tested positive for PCP during the first quarter of 2001, although the rate for 2000 was 1.4 percent.

Although King County treatment data are also limited because TARGET does not track such drugs, an ongoing intake survey conducted by one treatment center indicates no significant changes in hallucinogen or club drug use over the past year among youth or adults entering treatment. Calls to the local ADHL concerning these substances remained low during the first 6 months of 2001, with hallucinogens and club drugs accounting for 4 percent (n = 64) of all drug-related calls.

Other information concerning patterns of use of hallucinogens and club drugs remains anecdotal. According to adult and adolescent users, prices for MDMA, GHB, PCP, and ketamine remained stable over the last year (e.g., a 150–250-milligram tablet of MDMA selling for $20–$30). Quality and consistency, however, have become increasingly unpredictable, with many users reporting incidents of unknown or "strange" combinations of drugs

being sold as ecstasy. In the local treatment intake survey, a significantly higher number of respondents reported taking "something other than intended or expected," compared with the same period during the previous year. Mixing club drugs together, either all at once or over several hours, seems to be gaining popularity.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

There are an estimated 12,000–15,000 drug injectors in King County. Injecting drug users (IDUs) constituted 18 percent of cumulative AIDS cases in King County, counting those who are in the dual category of men who have sex with men (MSM) (exhibit 5). The human immunodeficiency virus (HIV) infection status of IDUs entering methadone treatment was monitored in King County from 1988 through 1999. During this time, HIV prevalence among treatment admissions remained low and stable, hovering around 2 percent.

More recent data are available from the Kiwi Study, conducted by the Public Health - Seattle & King County HIV/AIDS Epidemiology Program with funding from the CDC. Kiwi monitors HIV, hepatitis C, and sexual and drug-use behaviors among injectors recently incarcerated in King County Correctional Facilities, including the jail in downtown Seattle and the Regional Justice Center in South King County in the city of Kent. While HIV prevalence at both jail sites remains similar to the trends observed in the 1988–99 blinded drug treatment studies, a number of other differences have been observed.

Surveys were conducted among IDUs booked into the Seattle (n = 345) and Kent (n = 270) jails between November 2000 and August 2001. Those in the Kent jail were younger; less likely to be African-American or Hispanic; and more likely to have completed at least some college or vocational training, be employed, and not receive public assistance. Participants from the jail in Kent tended to have started injecting at a later age and injected less frequently, and their primary injection drug was methamphetamine, compared with heroin and "speedballs" among participants from the jail in Seattle. Hepatitis C prevalence was 52 percent in the Kent facility, compared with 74 percent in the Seattle facility. Only 29 percent of participants from the Kent jail and 41 percent of those from the Seattle jail were aware of their hepatitis C seropositive status. These findings underscore the need for expanded hepatitis C screening and prevention programs for IDUs. The lower seroprevalence in the Kent facility also illustrates an opportunity to intervene before injectors become infected.

Inmate populations at the two facilities also differed in how they access sterile injection equipment. Seventy percent of the Seattle jail participants obtained new syringes from a needle exchange program, and 60 percent listed a needle exchange as their number one source of syringes. In contrast, only 26 percent of the Kent jail participants obtained new syringes from a needle exchange, and 17 percent listed a needle exchange as their number one source of syringes. The pattern for how these two populations obtained needles from needle exchanges contrasts with the pattern for obtaining needles from pharmacies. One-half of the Kent jail participants got their new syringes from pharmacies; pharmacies were the primary source for 39 percent of Kent participants. However, among Seattle jail participants, 37 percent obtained new syringes from pharmacies, and pharmacies were the primary source of syringes for 13 percent of them.

Bolstered by these findings, the observed differences in hepatitis C prevalence rates, and the desire to maintain HIV rates at or below current levels, Public Health - Seattle & King County has inaugurated a partnership program with a number of local pharmacies to expand IDUs' access to syringes through pharmacy sales. Nonprescription pharmacy sale of syringes is legal in Washington State and is promoted by the State Board of Pharmacy as a control measure for blood-borne infections. King County's Expanded Syringe Access Campaign is being evaluated through a grant from the Association of Schools of Public Health. Evaluation results will be reported in a future issue of the Drug Use Trends Report.

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Exhibit 1. Seattle-King County Estimated Rates of ED Mentions Per 100,000 Population by Drug: 1988–2000

Drug	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Alcohol-in-Combination	89	88	67	82	99	101	152	122	114	157	115	115	161
Cocaine/Crack	90	98	44	63	80	96	157	116	114	150	125	130	169
Heroin/Morphine	43	52	35	44	61	94	113	109	130	154	127	128	126
Marijuana/Hashish	14	16	13	16	19	22	47	53	48	87	49	42	72
Methamphetamine/ Speed	9	12	3	5	6	10	16	14	10	25	14	18	27

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Half-Yearly Demographic Trends in Alcohol/Drug Treatment Admissions in Seattle-King County: July 1998–June 2001

Client Profiles	Jan-Jun 1999		Jul-Dec 1999		Jan-Jun 2000		Jul-Dec 2000		Jan-Jun 2001*	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Admissions	4,664	(100)	4,469	(100)	4,582	(100)	5,678	(100)	5,566	(100)
Gender										
Male	3,024	(65)	2,931	(66)	3,003	(66)	3,807	(76)	3,701	(67)
Race/Ethnicity										
Native American	376	(8)	355	(8)	362	(8)	448	(8)	427	(8)
African-American	1,017	(22)	961	(22)	981	(21)	1,098	(19)	1,056	(19)
White	2,786	(60)	2,643	(59)	2,709	(59)	3,571	(63)	3,429	(62)
Other	485	(10)	510	(11)	530	(12)	561	(10)	654	(11)
Age										
< 14	88	(2)	50	(1)	63	(1)	45	(1)	52	(1)
14–18	908	(20)	850	(19)	953	(21)	827	(15)	918	(16)
19–20	132	(3)	111	(2)	133	(3)	197	(3)	153	(3)
21–40	2,345	(50)	2,213	(49)	2,231	(49)	2,771	(49)	2,775	(49)
41–65	1,177	(25)	1,233	(28)	1,196	(26)	1,820	(31)	1,660	(30)
65 +	14	(<1)	12	(<1)	6	(<1)	18	(<1)	8	(<1)
Route of Administration										
Oral	2,147	(46)	1,963	(45)	1,895	(41)	2,486	(44)	2,445	(44)
Smoking	1,489	(32)	1,377	(31)	1,557	(34)	1,527	(29)	1,620	(29)
Inhaling	20	(<1)	18	(<1)	20	(<1)	9	(<1)	11	(<1)
Injecting	851	(18)	891	(20)	927	(20)	1,385	(24)	1,285	(23)
Other	157	(3)	131	(3)	183	(4)	171	(3)	205	(3)
Primary Drug										
Alcohol	2,014	(43)	1,922	(43)	1,779	(39)	2,304	(41)	2,292	(41)
Amphetamines	247	(5)	236	(5)	299	(6)	381	(17)	385	(7)
Cocaine	601	(13)	573	(13)	583	(13)	628	(11)	594	(11)
Hallucinogens	15	(<1)	10	(<1)	19	(<1)	13	(<1)	17	(<1)
Heroin	725	(16)	788	(18)	834	(18)	1,268	(22)	1,176	(21)
Marijuana	911	(20)	875	(20)	1,011	(22)	947	(17)	983	(18)
Other	91	(2)	65	(1)	57	(1)	137	(1)	119	(1)

* Counts for the first half of 2001 are preliminary because of delays in data entry.

SOURCE: Washington State TARGET data system—Structured Ad Hoc Reporting System

Exhibit 3. Quarterly Number of Identified Drugs in Drug-Caused Deaths in Seattle-King County: January 1, 1998–June 30, 2001

Drug(s) Identified[1]	1998				1999				2000				2001	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Cocaine	9	18	19	23	21	21	24	10	26	25	15	23	16	13
Heroin/Morphine	16	40	48	39	26	35	35	21	31	35	16	19	17	15
Other Opiates	7	18	16	7	8	16	5	5	13	13	11	12	17	14
Amphetamines[2]	1	0	0	2	1	1	7	5	2	5	1	3	2	1
Sedatives/ Depressants	12	13	11	15	4	9	4	7	7	7	10	4	11	8
Alcohol	8	33	26	26	18	13	17	19	20	22	19	15	10	9
Antidepressants	8	16	13	9	6	8	10	10	9	15	9	15	13	14
Actual No. of Drug Deaths	**39**	**63**	**67**	**53**	**42**	**61**	**57**	**45**	**61**	**69**	**44**	**45**	**47**	**39**

[1] More than one drug may be identified per individual drug overdose death. Table excludes poison-related deaths.
[2] The amphetamines identification category includes methamphetamine.

SOURCE: King County Medical Examiner

Exhibit 4. Rate Per 100,000 Population of Heroin-Involved Deaths in Seattle-King County: 1989–2000

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
3.6	3.3	2.7	3.7	5.3	5.7	8.2	8.2	6.7	8.8	7.0	5.7

SOURCE: King County Medical Examiner

Exhibit 5. Demographic Characteristics of Reported AIDS Cases in Seattle-King County, Other Washington Counties, Washington State, and the United States: Cumulative Through June 20, 2001[1]

Case Numbers and Deaths	King County		Other WA Counties		Washington State		United States[1]	
Cumulative Cases	6,270		3,419		9,689		774,467	
Cumulative Deaths	3,627		1,813		5,440		448,060	
Number Currently Living with AIDS	2,643		1,606		4,249		326,407	
Case Demographics (last 3 years)	King County[2]		Other WA Counties[2]		WA State[2]		United States[3]	
Characteristic	**Number**	**(%)**	**Number**	**(%)**	**Number**	**(%)**	**Number**	**(%)**
Gender								
Male	602	(88)	424	(83)	1,026	(86)	101,319	(76)
Female	79	(12)	84	(17)	163	(14)	32,058	(24)
Age								
<13	1	(<1)	1	(<1)	2	(<1)	822	(1)
13–19	1	(<1)	5	(1)	6	(1)	931	(1)
20–29	82	(12)	68	(13)	150	(13)	17,358	(13)
30–39	323	(47)	206	(41)	529	(44)	55,729	(32)
40–49	203	(30)	144	(28)	347	(29)	40,725	(31)
50–59	62	(9)	64	(13)	126	(11)	13,270	(10)
60+	9	(1)	20	(4)	29	(2)	4,542	(3)
Race/Ethnicity								
White	445	(65)	359	(71)	804	(68)	42,619	(32)
Black	143	(21)	65	(13)	208	(17)	62,493	(47)
Hispanic	69	(10)	55	(11)	124	(10)	26,340	(20)
Asian	13	(2)	10	(2)	23	(2)	1,139	(1)
Native American	11	(2)	11	(2)	22	(2)	554	(<1)
Unknown	0	(0)	8	(2)	8	(1)	236	(<1)
Exposure Category								
Male-male-sex	419	(62)	231	(45)	650	(55)	46,162	(35)
Injecting drug user	63	(9)	90	(18)	153	(13)	31,655	(24)
IDU and male-male-sex	63	(9)	36	(7)	99	(8)	8,455	(6)
Heterosexual contact	67	(10)	62	(12)	129	(11)	23,097	(17)
Hemophilia	2	(<1)	2	(<1)	4	(<1)	505	(<1)
Transfusion	3	(<1)	4	(1)	7	(1)	571	(<1)
Mother at risk/has AIDS	1	(<1)	1	(<1)	2	(<!)	798	(1)
Undetermined/other	63	(9)	82	(16)	145	(12)	22,138	(17)
Total Cases (last 3 years)	681	(100)	508	(100)	1,189	(100)	133,381	(100)

[1] U.S. data include cases reported as of 12/31/00, the most recent date for which these data are available.
[2] King County and Washington State data include cases reported between 7/1/98 and 6/30/01.
[3] U.S. data are for cases reported to CDC between 1/1/98 and 12/31/00. Section totals may differ slightly because of missing demographic information.

SOURCES: Washington State Department of Health and Centers for Disease Control and Prevention

Substance Abuse Trends in Texas

Jane Carlisle Maxwell, Ph.D.[1]

ABSTRACT

Twenty-one percent of the adults who entered treatment programs in 2001 reported crack cocaine as their primary drug of abuse. The proportion of White and Hispanic crack admissions totaled 50 percent, as African-American crack admissions declined. Powder cocaine inhalers tend to be Hispanic, and injectors tend to be White. Deaths due to cocaine continue to increase, and cocaine is the drug, after marijuana, for which arrestees are most likely to test positive. In Dallas, the rate of emergency department (ED) cocaine mentions per 100,000 population (87.3) remained high. Cocaine abuse 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 in Texas secondary schools, particularly by younger students, declined between 1998 and 2000, but binge drinking and driving while under the influence remain problematic. In the 2000 Texas adult survey, 16 percent of respondents reported past-year problems with alcohol. Heroin addicts entering treatment are primarily injectors, and they are most likely to be Hispanic or White males. In Dallas, the rate of ED heroin mentions per 100,000 population increased from 17.4 in 1999 to 19.1 in 2000. The rate was only 10.3 in 1994. The percentage of arrestees testing positive for heroin remains mixed, and overdose deaths in 2000 decreased from 1998. The purity of Mexican heroin is increasing and price is dropping, but availability varies around the State. Of the synthetic opiates, hydrocodone is a much larger problem in Texas than oxycodone. In Dallas, hydrocodone ED mentions increased significantly between 1994 and 2000. Codeine cough syrup continues to be reported as a drug of abuse. In 2001, 75 percent of youths entering treatment in Texas reported marijuana as their primary problem drug. The Dallas ED rate per 100,000 population for marijuana admissions was 49.0 in 2000, more than double the rate (20.0) in 1994 and above the average in the DAWN national sample. Availability is high. The prevalence of marijuana use by students declined slightly between 1998 and 2000, but use by adults increased between 1996 and 2000. Use of marijuana joints dipped in embalming fluid that can contain PCP ("fry") continues, with cases seen in ED, treatment, arrestee, and death data. Widely available throughout the State, methamphetamine and amphetamine are a problem particularly in rural areas. Poison control center cases, ED mentions, overdose deaths, and treatment admissions are rising, but levels in Texas are much lower than in other Western States. Alprazolam (Xanax) mentions increased in emergency departments and Department of Public Safety lab reports. Club drug use continues to spread, with those who began using them several years ago now appearing in treatment centers. Ecstasy cases continue to rise at poison control centers, emergency departments, and treatment centers. 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. The proportions of AIDS cases due to injecting drug use and to heterosexual route of transmission are increasing, as are the proportions of females and persons of color. The proportion of needle users entering treatment continues to decrease.

INTRODUCTION

Area Description

The population of Texas in 2000 was 20,851,820, with 56 percent White, 12 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 northward for distribution through Dallas/Fort Worth and Houston. In addition, drugs move eastward from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth. A major problem is that Mexican pharmacias 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

[1] The author is affiliated with the Gulf Coast Addiction Technology Transfer Center, Center for Social Work Research, The University of Texas at Austin.

heroin and cocaine via commercial cargo vessels, and the international airports in Houston and Dallas/Fort Worth are major gateways 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 December 2001 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/subabusetrends.html and at the Web page of the Gulf Coast Addiction Technology Transfer Center at http://wnt.cc.utexas.edu/~slaf405/attc.htm.

Data were obtained from the following sources:

- Price, purity, trafficking, distribution, and supply—This information was provided by quarterly 2001 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the Drug Enforcement Administration (DEA).
- Treatment data—TCADA's Client Oriented Data Acquisition Process (CODAP) provided data on clients at admission to treatment in TCADA-funded facilities from first quarter 1983 through October 31, 2001; however, only partial data have been available for Dallas County 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—Data on drug overdose deaths through 2000 came from death certificates from the Bureau of Vital Statistics of the Texas Department of Health. Analysis of inhalant deaths is from Jane Maxwell, "Deaths Related to the Inhalation of Volatile Substances - Texas, 1988–1998." *American Journal of Drug and Alcohol Abuse*, Vol. 27, 689−697, 2001.
- Emergency department (ED) mentions—Mentions of drugs in Dallas-area emergency departments through 2000 came from the Drug Abuse Warning Network (DAWN) of the Substance Abuse and Mental Health Services Administration (SAMHSA).
- Drug use by arrestees—The Arrestee Drug Abuse Monitoring (ADAM) program of the National Institute of Justice provided information for 2000 for Dallas, Houston, Laredo, and San Antonio. The 2000 findings for females are comparable with earlier years; the male findings are weighted and represent probability based sampling, so they are not comparable with earlier years. However, the 1991–99 data are presented to provide a view of the trends for those years.
- Student substance use—Data came from TCADA's *2000 Texas School Survey of Substance Abuse: Grades 7–12* by Liang Liu and Jane Maxwell, which is 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, which is available at http://www.tcada.state.tx.us/research/adultsurveys.html.
- Poison Control Center data—The Texas Department of Health provided data from the Texas Centers for 1998, 1999, 2000, and three quarters of 2001.
- Drugs identified by lab tests—The National Forensic Laboratory Information System reported data collected by all of the Texas Department of Public Safety (DPS) labs for 1998 through September 30, 2001.
- Acquired immunodeficiency syndrome (AIDS) data—The Texas Department of Health provided annual and year-to-date AIDS data for the period ending June 30, 2001.

DRUG ABUSE 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 reported lifetime and 5.4 percent reported past-month use. Use of crack was lower, with 2.6 percent of nonborder students reporting lifetime and 0.7 percent reporting past-month use; 3.6 percent of border students reported lifetime and 1.3 percent reported past-month use (exhibit 1). 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 that 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 (from 1.4 to 1.9 percent) was statistically significant. The levels of crack cocaine use did not change between 1996 and 2000 (2 percent reported lifetime and 0.1 percent reported past-month use).

Texas Poison Control Centers reported 357 misuse or abuse cases involving cocaine in 1999, 1,252 in 2000, and 622 through the third quarter of 2001. In 2001, the average age of these cases was 30 years, and 60 percent were male.

Exhibit 2 shows that while the rate of cocaine ED mentions per 100,000 population in the Dallas DAWN data was lower in 2000 than in the peak year of 1998, it was still higher than in earlier years. In 2000, 2,180 cocaine ED mentions were reported. Of these, 51 percent were age 18–34 and 44 percent were 35 and older; 64 percent were male, 39 percent were White, 41 percent were African-American, and 17 percent were Hispanic. In 2000, the rate of cocaine ED mentions per 100,000 was higher in Dallas (87.3) than in the DAWN national sample (70.7).

Cocaine (crack and powder) accounted for 28 percent of all adult admissions to TCADA-funded treatment programs in 2001. 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 constituted 7 percent of adult admissions to treatment. They are younger than crack abusers (31 vs. 36 years) and more likely to be male and White. Those who inhale (as opposed to smoking or injecting cocaine) are the youngest, the most likely to be Hispanic, and the most likely to be involved in the criminal justice or legal systems.

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 Hispanic treatment admissions reporting powder cocaine as their primary drug of abuse increased from 23 to 38 percent, while the proportion remained at about 48 percent for Whites, and declined from 28 to 8 percent for African-Americans (exhibit 3). Similarly, between 1993 and 2001, the proportion of crack cocaine admissions dropped from 75 to 50 percent for African-Americans, while it increased from 20 to 36 percent for Whites, and from 5 to 12 percent for Hispanics. Of the new powder cocaine admissions in 2001, 44 percent were Hispanic, compared with 33 percent of those who had been in treatment before. Some 16 percent of the new crack admissions were Hispanic, compared with 10 percent of those previously treated.

Powder cocaine was the primary drug of abuse for 6 percent of youths entering treatment during 2001, while crack cocaine accounted for 2 percent of youth admissions. Of the youth powder cocaine admissions, 76 percent were Hispanic and 23 percent were White (exhibit 4); of the crack cocaine admissions, 66 percent were Hispanic and 26 percent were White.

The proportion of arrestees testing positive for cocaine has decreased from the peak periods in the early 1990s in Dallas, Houston, and San Antonio. Particularly significant is the fact that 45 percent of males and 22 percent of females in 2000 in Laredo tested positive for cocaine, which shows the extent of the cocaine problem on the border (exhibit 5). In addition, the 2000 ADAM reports showed that in Laredo and San Antonio, a disproportionate percentage of male arrestees age 31–35 tested positive for cocaine, while in Dallas and Houston, arrestees 36 and older were overrepresented. In Dallas, Houston, and San Antonio, African-American males were the most likely to test positive for cocaine.

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 2000. Of these decedents, 46 percent were White, 23 percent were Hispanic, and 30 percent were African- American; 75 percent were male.

In 2001, cocaine accounted for 37 percent of all items examined by the DPS labs.

According to the DEA, powder cocaine was abundant in the second half of 2001, especially in ounce and gram quantities at the retail level. Intelligence suggests that while street-level and multikilogram quantities of cocaine are readily available, drug-related activity on the border decreased after September 11, 2001. Traffickers are said to be stockpiling drugs on the Mexican side of the border.

The DEA reports that crack cocaine is even more readily available in areas throughout the State, with increased use by Whites. In addition, use of crack has reportedly increased in African-American and Hispanic neighborhoods. A rock of crack costs $10–$100, with $10 being the most common price. An ounce of crack cocaine costs $400–$600 in Houston, $500–$2,800 in Dallas, $550–$750 in Longview, $600–$800 in Beaumont, $600–$850 in Amarillo, $650–$850 in Lubbock, and $759–$1,000 in Fort Worth.

Depending on location in the State, a gram of powder cocaine sells for $50–$100. A gram costs $50–$100 in Dallas; $80–$100 in Houston; and $100 in Alpine, Amarillo, and Lubbock. An ounce ranges between $400 and $1,200. An ounce costs $400–$550 in Laredo, $400–$650 in Houston, $500–$1,200 in Dallas, $600 in Alpine, $600–$800 in McAllen, $600–$1,000 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–$22,000 in Texas.

Street outreach workers in Austin report that Kool-Aid is again being used to break down crack cocaine for injection and also that crack is being cut with ether, in addition to baking soda, to give a "bell-ringing" effect.

Heroin

Between 1998 and 2000, the proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 to 1.6 percent, and the proportion reporting past-month use dropped from 0.7 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 increased in recent years. In 1998, there were 168 abuse or misuse exposure calls involving heroin, compared with 231 in 1999, 265 in 2000, and 153 through the third quarter of 2001. Of the cases in 2001, the average age was 34, and 80 percent were male.

The rate of heroin ED mentions per 100,000 population has been increasing to near the peak levels of 1997–98 (exhibit 2). The rate of ED mentions per 100,000 population was lower in Dallas (19.1) than in the DAWN national sample (38.3). In 2000, 478 mentions of heroin or morphine were reported in Dallas emergency departments. Of these patients, 52 percent were age 18–34, 45 percent were older than 35, and 2.9 percent were 6–17. Fifty-nine percent of all the patients were White, 26 percent were African-American, and 13 percent were Hispanic; 69 percent were male.

Heroin treatment admissions have also been gradually increasing. Heroin ranks third after alcohol and cocaine as the primary drug for which adult clients are admitted to treatment. 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 6). 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 between first use and seeking treatment is 8 rather than 15 years for injectors. This shorter lag period means that, contrary to street rumors that "sniffing or inhaling is not addictive," inhalers seek treatment much more quickly than needle users.

Since 1996, the proportion of Hispanics entering treatment for a primary problem with heroin has increased. In 2001, 45 percent of heroin treatment admissions were Hispanic, 37 percent were White, and 7 percent were African-American (exhibit 3). First admissions were less likely to inject heroin (87 percent) than readmissions (91 percent).

In 2001, only 2 percent of all adolescent admissions to TCADA-funded treatment programs reported a primary problem with heroin. Of these youths, 94 percent were Hispanic (exhibit 4).

The percentage of adult male and female arrestees testing positive for opiates remained at low levels in 2000, except for the increased positives among females in Laredo (exhibit 7). The ADAM 2000 data showed that the males most likely to test positive for heroin were younger than 21 in Dallas, age 21–25 in Houston, younger than 21 and 26–30 in Laredo, and 36 and older in San Antonio. In Dallas, White males were more likely to test positive for heroin, while in Houston and San Antonio, African-Americans were most likely to test positive.

The number of deaths in which heroin or other narcotics were detected 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 proportion of items identified as heroin by DPS labs has remained consistent at 1–2 percent over the years.

The availability of heroin varies around the State. It is reportedly more available in Houston and Laredo, readily available in Alpine, at the same levels as in past years in Midland and Fort Worth, more expensive in Dallas, and widely available in Tyler, Longview, Lubbock, and Amarillo.

The predominant form of heroin in Texas is black tar. The cost of an ounce of black tar heroin has widened. Depending on the location, it sells for $10–$20 per capsule, $100–$350 per gram, $800–$4,800 per ounce, and $35,000–$50,000 per kilogram. In the Dallas area, purity is 7–10 percent per capsule, 10–64 percent per ounce, and 16–20 percent per kilogram.

Mexican brown heroin costs $10 per capsule, $110–$300 per gram, and $600–$3,000 per ounce. Colombian heroin sells for $2,000 per ounce and $75,000–$80,000 per kilogram in the Dallas area, and purity ranges between 74 and 89 percent. Southwest and Southeast Asian heroin were not reported as available in the last half of 2001.

The DEA's Domestic Monitor Program provides data on heroin purity and price, and the origin of retail-level heroin available in the major metropolitan areas of the Nation. Over time, the purity of heroin has increased, while the price has dropped.

Other Opiates

Other opiates include methadone, codeine, hydrocodone (Vicodin, Tussionex), carisoprodol (Soma), oxycodone (OxyContin, Percodan, Percocet-5, and Tylox), propoxyphene (Darvon), hydromorphone (Dilaudid), morphine, meperidine (Demerol), and opium.

The 2000 Texas adult survey found that in 2000, lifetime use of other opiates was 4.4 percent and past-month use was 0.5 percent. In comparison, in 1996, lifetime use was 3 percent and past-month use was 0.2 percent. The increase in past-year use (0.6 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 it in the past year. Lifetime use of hydrocodone was 0.7 percent and past-year use was 0.4 percent.

Hydrocodone is a larger problem than oxycodone in Texas. There were 1,866 cases of intentional misuse or abuse of hydrocodone in 2000 and 964 in the first three quarters of 2001. In comparison, the Texas Poison Control Centers reported 62 cases of oxycodone or OxyContin misuse or abuse in 2000, and 77 in the first three quarters of 2001. There were also 24 cases of abuse or misuse of methadone in 1999, 64 in 2000, and 30 in the first three quarters of 2001. Dallas-area ED mentions of hydrocodone have increased over the years; the increase between 1994 and 2000 was statistically significant. Oxycodone was mentioned 13 times in 2000.

Three percent of all adults who entered treatment during 2001 used opiates other than heroin. Of these, 43 used illegal methadone and 1,087 used other opiates. Admissions who reported a primary problem with illicit methadone were more likely to be male (51 percent), and they had an average age of 34 years. Their race/ethnicity was as follows: White (79 percent), African-American (5 percent), and Hispanic (9 percent). Nine percent were homeless. Their average annual income was $5,472, 19 percent were employed, and 37 percent were referred by the criminal justice system. Forty-two percent had been in treatment before. Those with problems with other opiates had different demographics: 56 percent were female, their average age was 36, and 83 percent were White. Thirty-six percent had been in treatment before, and 8 percent were homeless. Their average income was $5,317. Seventeen percent were employed, and 33 percent were referred by the criminal justice system.

Between 1999 and 2000, oxycodone-related deaths increased from only 8 to 20, deaths involving hydrocodone increased from 25 to 52, and those involving methadone increased from 36 to 62.

According to DEA reports, hydrocodone, promethazine with codeine, and other codeine cough syrups, as well as benzodiazepines such as alprazolam, are the most commonly diverted drugs in the Houston area. Hydrocodone products, benzodiazepines, and Ritalin and its generic form, methylphenidate, are the most commonly diverted controlled substances within the Dallas area.

In the Dallas-Fort Worth Field Division, hydromorphone (Dilaudid) sells for $20–$80 per tablet, carisoprodol (Soma) for $4 per tablet, and hydrocodone for $4–$7 per tablet. OxyContin sells for $15–$30 per tablet, and methadone for $10 per tablet. In Houston, promethazine or phenergan with codeine sells for $75–$100 for 4 ounces, $125 for 8 ounces, and $1,600 for a gallon.

Abuse of codeine cough syrup continues, with rap songs such as "Sippin' on Syrup," "Sippin' Codeine," "Syrup and Soda," and "Syrup Sippers" promoting the practice.

DPS labs reported examining 479 hydrocodone exhibits in 1999, 629 in 2000, and 307 through October 2001. In comparison, exhibits involving oxycodone numbered 36 in 1999, 72 in 2000, and 42 through October 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 nine and ten (exhibit 8).

In comparison, 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 age 35 and older. The increase in past-year use between 1996 (6 percent) and 2000 (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 (through the third quarter), 192 such cases were reported. There were an additional 121 cases in

2000 and 92 in 2001 of misuse or abuse of marijuana in which terms such as "formaldehyde," "fry," "amp," or "PCP" were also mentioned.

The rate of marijuana ED mentions per 100,000 population in Dallas is increasing, but it has not reached the peak level of 1998, although the rate of mentions per 100,000 in 2000 was higher in Dallas (49.0) than in the DAWN national sample (39.0). There were 1,225 mentions of marijuana in 2000. Twenty-three percent of the patients were 17 or younger, 55 percent were 18–34, and 22 percent were 35 or older. Forty-seven percent were White, 36 percent were African-American, and 11 percent were Hispanic.

Marijuana was the primary drug problem for 10 percent of adult admissions to Texas treatment programs in 2001. The average age of adult marijuana clients continues to increase: it was 24 in 1985 and 27 in 2001.

The proportion of adolescents admitted for a primary problem with marijuana was 75 percent of all admissions in 2001, compared with 35 percent in 1987. In 2001, 71 percent of these adolescents were Hispanic, 26 percent were White, and 21 percent were African-American (in 1987, 7 percent were African-American) (exhibit 4).

The percentage of arrestees testing positive for marijuana remains high (exhibit 9). In all four reporting cities, male arrestees younger than 21 were most likely to test positive for marijuana. In San Antonio, White males were most likely to test positive for marijuana, while in Dallas and Houston, African-Americans were most likely to test positive.

Cannabis was identified in 35–36 percent of all the exhibits analyzed by DPS labs in 1999, 2000, and three quarters of 2001.

The Dallas DEA reports that marijuana is readily available. Supplies of home-grown marijuana are expected to be more plentiful due to heavy rainfall. Marijuana is also reported as readily available in the Houston District. In the El Paso area, commercial grade Mexican marijuana is the most common type. 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 $180–$200 in Laredo, $350–$500 in Houston, $500–$700 north of the Border Patrol checkpoints in the Alpine area, and $300–$800 in the Dallas area.

Street outreach workers in Austin report that "dip," a mixture of phencyclidine (PCP), formaldehyde, and rocket fuel is being used to soak joints to produce an intense high.

All the adolescent indicators of lifetime marijuana use by adolescents have risen since 1992: Texas secondary school survey data, adolescent admissions to treatment for a primary problem of marijuana, the proportion of adolescent drug arrests for marijuana, and adolescent ED mentions in Dallas. However, there was a slight decline in lifetime use as reported in the statewide school surveys between 1998 and 2000.

Stimulants

Stimulants in this category include amphetamines, methamphetamines, over-the-counter medicines containing ephedrine, and prescription drugs such as methylphenidate (Ritalin) when taken for nonmedical reasons. Stimulants were the third most frequently used illicit drug among secondary students in Texas, after marijuana and cocaine. Lifetime use of stimulants was 7 percent in 2000, and current use was 3 percent.

Among Texas adults in 2000, 12 percent reported lifetime use and 1 percent reported past-month use of stimulants in 2000. In comparison, in 1996, lifetime use was 10 percent and past-month use was 1 percent. The difference in past-year use from 1996 to 2000 (1.1 to 1.9 percent) was statistically significant.

In 2000, 207 cases of abuse or misuse of stimulants (e.g., amphetamines, methamphetamines) were reported to Texas Poison Control Centers. In the first three quarters of 2001, 279 such cases were reported. In addition, 112 cases involving the intentional misuse or abuse of Ritalin were reported in 2000, and 79 were reported in the first three quarters of 2001. The average age of these cases in 2001 was 22.

The rate of amphetamine ED mentions per 100,000 population in 2000 was higher in Dallas (14.0) than in the DAWN national sample (6.9), while the rate per 100,000 for methamphetamines was 5.4 in Dallas and 5.5 in the DAWN national sample. Of the methamphetamine patients, 62 percent were male and 90 percent were White; 59 percent were age 18–34 and 36 percent were 35 and older. The number of methamphetamine mentions in 2000 (135) is below the peak in 1995 (exhibit 10). The number of amphetamine mentions, however, was at an all-time high in 2000.

Methamphetamines and amphetamines account for 7 percent of adult admissions in 2001 to date; this is an increase from 5 percent in 2000. The average client admitted for a primary problem with stimulants is aging. In 1985, the average age was 26; in 2001, it was 31. The proportion of White clients has risen from 80 percent in 1985 to 92 percent in 2001, while the percentage of Hispanics has dropped from 11 to 5 percent and the percentage of African-Americans has dropped from 9 to 2 percent. Unlike the other drug categories, more than one-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 11).

Clients who have been in treatment before are more likely to inject methamphetamines or amphetamines (66 percent) than are first-time admissions (53 percent). In addition, readmissions are more likely to be female (54 percent), compared with new admissions (50 percent).

The proportion of arrestees testing positive for amphetamines in ADAM is low. In both Dallas and Houston, male arrestees who were 36 and older and who were White were most likely to test positive for methamphetamines.

There were 17 deaths in which amphetamines or methamphetamines were mentioned in 1997, 20 in 1998, 21 in 1999, and 39 in 2000. Of the 2000 decedents, 51 percent were male. The average age was 36.8, and 87 percent were White, 8 percent were Hispanic, and 5 percent were African-American.

Methamphetamine and amphetamine accounted for 12–15 percent of all items examined by DPS labs between 1998 and 2001. DPS labs in 1999 reported identifying 4,801 substances that were methamphetamine, compared with 6,474 in 2000 and 3,203 through October 2001. They also identified 890 amphetamine items in 1999, compared with 567 in 2000 and 322 to date in 2001.

Local labs are using the "Nazi method," which includes ephedrine or pseudoephedrine, lithium, and anhydrous ammonia, or the "cold method," which uses ephedrine, red phosphorus, and iodine crystals. The "Nazi method" is the most common method used in north Texas. Before these methods became common, most illicit labs used the "P2P method," which is based on 1-phenyl-2-propanone. The most commonly diverted chemicals are 60-milligram pseudoephedrine tablets such as Xtreme Relief, Mini-Thins, Zolzina, Two-Way, and Ephedrine Release.

According to the DEA, amphetamines and methamphetamines are highly available at the retail level, and Mexican methamphetamine is available in multipound quantities. Methamphetamine is primarily distributed and used in the rural areas. The price for a pound of methamphetamine in the Houston area is $6,000–$8,000, and an ounce sells for $500–$800. In Laredo, a pound costs $4,500. In the north Texas region, a pound of domestic methamphetamine sells for $5,000–$10,000, an ounce sells for $400–$1,000, and a gram costs $70–$100. A pound of Mexican methamphetamine sells for $5,800–$9,000.

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 (Xanax), flunitrazepam (Rohypnol), clonazepam (Klonopin or Rivotril), flurazepam (Dalmane), lorazepam (Ativan), and chlordiazepoxide (Librium and Librax). Rohypnol is discussed separately in the Club Drugs section of this report.

The 2000 adult survey reported lifetime depressant 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 (1 percent to 1.8 percent) was statistically significant.

Alprazolam ED mentions in Dallas continue to rise, while the number of mentions for diazepam have been decreasing over time. The trend for clonazepam is less clear.

One percent (402 clients) of the adults entering treatment in 2001 had a primary problem with barbiturates, sedatives, or tranquilizers. The average age was 34, and 65 percent were female; 88 percent were White, 6 percent were Hispanic, and 2 percent were African-American. Thirty-seven percent were referred by the criminal justice system, 13 percent were employed, and the average annual income was $5,390.

Benzodiazepines are the depressant drugs most often identified in ADAM. Positive findings for the four Texas cities ranged from 3 to 8 percent in 2000. For barbiturates, positives ranged from 0 to 3 percent.

Alprazolam, clonazepam, and diazepam are among the 10 most commonly identified substances according to DPS lab reports, although none of them accounts for more than 2 percent of all items examined in a year. In 2000, this amounted to 600 alprazolam, 524 diazepam, and 486 clonazepam samples out of a total of 46,658 items analyzed by DPS labs. Note that the proportion of alprazolam exhibits is increasing, while the proportions of diazepam and clonazepam exhibits are decreasing.

Both Houston and Dallas DEA offices 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")—Previously, the term "ecstasy" was used synonymously with the drug MDMA because almost all of the ecstasy tablets contained MDMA. Increasingly,

tablets sold as ecstasy have contained other substances. Many of these tablets do not contain MDMA. For example, tablets containing PCP and methamphetamine reportedly have been sold as 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 110 in three quarters of 2001. The average age was 21 years, and 57 percent were male.

The rate of MDMA ED mentions per 100,000 population in Dallas in 2000 was 1.0, compared with 0.8 for the DAWN national sample. The number of MDMA mentions peaked in Dallas in 2000 (exhibit 12).

Adult admissions for a primary, secondary, or tertiary problem with ecstasy increased from 45 in 1998 to 97 in 1999 to 141 in 2000 to 200 through October 2001. Of the 2001 admissions, the average age was 25; 78 percent were White, 12 percent were African-American, and 6 percent were Hispanic; 65 percent were male; 53 percent were referred by the criminal justice or legal system; and 17 percent were employed.

Among adolescents, there were 18 admissions in 1998, 17 in 1999, 58 in 2000, and 75 through October 2001 who had a primary, secondary, or tertiary problem with ecstasy. The average age of the 2001 admissions was 15.9, 84 percent were male, and 81 percent were referred by the juvenile justice system. Sixty-one percent were White, and 20 percent were Hispanic.

In 1999, two deaths in Texas involved MDMA. One death occurred in 2001.

DPS labs identified MDMA as the substance in 102 exhibits in 1999, 373 in 2000, and 259 through three quarters of 2001. Methylenedioxyamphetamine (MDA) was identified in 31 exhibits in 1999, 20 in 2000, and 10 in 2001 to date.

According to the DEA, MDMA is becoming even more available in Texas. Single dosage units of MDMA sell for $10–$40 in Dallas and $25–$30 in Houston, Galveston, and McAllen.

Benzylpiperazine (BZP) and 3-trifluoromethylphenylpiperazine (TFMPP), neither of which is scheduled, are being sold as ecstasy. DPS labs identified one item as BZP in 2000, and 8 in 2001. The Austin Police Department laboratory identified three items as BZP in 2001.

Gamma Hydroxybutyrate (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 108 through the third quarter of 2001. In 2001, the average age was 25 years and 62 percent were male. Sixty-three percent of the cases in 2001 were from the Dallas-Fort Worth Metroplex.

Exhibit 12 shows the overall increases in GHB ED mentions in the Dallas area, with the peak in 2000. In 2000, the rate of GHB mentions per 100,000 population was 3.0 in Dallas; only San Francisco had a higher rate, at 5.0 per 100,000.

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, compared with 12 in 2000, and 15 in 2001 to date. In 2001 the average age was 27, 67 percent were female, and 80 percent were White. Twenty percent were employed, and 33 percent were involved with the criminal justice or legal system. No adolescents were admitted to treatment in 2001 for a problem with GHB.

In 1999, three deaths involved GHB, compared with 5 in 2000. Eighty percent of the decedents were White, and 80 percent were female. 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.

DPS labs identified 116 items as GHB or GBL in 1999, 52 in 2000, and 16 in 2001 to date. Thirteen of the 16 items were identified in the DPS lab in the Dallas area, which shows, along with the overdose deaths and poison control center calls, the prevalence of GHB in this area compared with the rest of the State.

The DEA reports that GHB is becoming more available because of the ease of converting GBL into GHB. More labs are being seized in 2001. A dose of GHB costs $5–$10 in Houston and Lubbock and $20 in Dallas. A gallon costs $500–$900 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.

Callers reported 7 cases of ketamine misuse to Texas Poison Control Centers in 1999, 28 in 2000, and 22 in three quarters of 2001. The average age was 21, and 71 percent were male.

DPS labs identified 25 substances as ketamine in 1999, 41 in 2000, and 32 through third quarter 2001.

The Houston DEA office reports that ketamine is widely available in clubs and at raves. In Brownsville, 10 milliliters of liquid ketamine, which yields 0.95 grams of powder, sells for $21.

Lysergic Acid Diethylamide (LSD)—The 2000 Secondary School Survey found that 5.4 percent of students surveyed 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 57 in 2001. The average age in 2001 was 18.5 years. In addition, 197 cases of intentional misuse or abuse of hallucinogenic mushrooms were reported in 2000, compared with 66 in three quarters of 2001. The average age in 2001 was 22 years.

There were 64 LSD ED mentions in Dallas in 2000; the peak was 133 in 1995 (exhibit 12).

In 2000, 316 adults were admitted to treatment in Texas with a primary, secondary, or tertiary hallucinogen problem, as were 253 through October 2001. The average age of these individuals was 27. Sixty-three percent were male, 62 percent were White, 26 percent were African-American, and 10 percent were Hispanic. Twenty percent were employed, and 54 percent were in the criminal or legal system. Twenty-five percent of these adult clients had a primary problem with a hallucinogen. Another 25 percent had a primary problem with marijuana and a secondary problem with a hallucinogen. In comparison, 320 youths were admitted to treatment in 2000 with a primary, secondary, or tertiary hallucinogen problem, as were 145 through October 2001. The average age was 15.8 years, and 83 percent were males. Sixty-one percent were White, 30 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, followed by hallucinogens.

Two deaths in 1999 involved LSD. Both were White males, and their ages were 15 and 25. No LSD deaths were reported in 2000.

DPS labs identified 405 substances as LSD in 1999, 234 in 2000, and 55 through October 2001. The percentage of exhibits identified as LSD has 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 sells for $160–$180 a bottle in Houston.

Phencyclidine (PCP)—In 2000, 121 confirmed PCP cases in which terms such as “fry” and “amp” were mentioned were reported to the Texas Poison Control Centers; 92 such cases were reported through third quarter 2001.

The rate of PCP ED mentions per 100,000 population in Dallas rose to 4.8 in 2000, above the estimated rate of 2.2 in the DAWN national sample. As exhibit 12 shows, there were 95 mentions in 1999 and 120 in 2000.

Adult admissions to treatment with a primary, secondary, or tertiary PCP problem have been increasing. Some 102 PCP abusers were admitted in 1998, 125 in 1999, 174 in 2000, and 135 in 2001 through October. Of these clients in 2001, 84 percent were African-American, 66 percent were male, the average age was 23, and 63 percent were involved in the criminal justice system. Twenty-four percent were employed, 13 percent were homeless, and the average income was $2,586. While 56 percent reported a primary problem with PCP, another 28 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.

Sixty-two adolescent clients were admitted for a primary, secondary, or tertiary PCP problem in 1998, 118 in 1999, 76 in 2000, and 57 through October 2001. Of the 2001 admissions, 86 percent were male. Forty-nine percent were African-American, 35 percent were Hispanic, and 14 percent were White. Their average age was 15.9 years. Ninety-five percent had been referred to treatment or were involved in the juvenile justice system. Marijuana was the primary drug of abuse for 74 percent of the clients, and PCP was the primary drug for 21 percent.

DPS labs identified 77 substances as PCP in 1999, 100 in 2000, and 68 through October 2001. There was a slight annual increase in the proportion of all exhibits that DPS identified as PCP over the last 4 years.

The DEA reports a significant increase in PCP use in the Dallas area. It is selling for $500 per ounce and $10 per dose in Dallas, and for $26,000_$28,000 per gallon 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 data show that students from the border area were three to four times more likely to report Rohypnol use than those living elsewhere in the State (13 vs. 3 percent lifetime, and 4 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 76 in three quarters of 2001. Of the 2001 cases, the average age was 17 and 55 percent involved females. Sixty-eight percent of the cases were reported in counties bordering Mexico.

In 2000, the rate of Rohypnol ED mentions in Dallas was 0.1 per 100,000 population, which was identical to the rate for the DAWN national sample. As exhibit 12 shows, mentions of Rohypnol have dropped since 1995.

Adults admitted into treatment with a primary, secondary, or tertiary Ropypnol problem numbered 87 in 1998, 130 in 1999, 74 in 2000, and 55 in 2001 to date. Of the adult clients in 2001, 76 percent were Hispanic and 16 percent were White; 76 percent were male and the average age was 27, which is much younger than most adult clients entering treatment (overall average age is nearly 35 years). Only 24 percent were employed, 67 percent were involved with the criminal justice or legal system, and the average annual income at admission was $4,160.

In 1998, 160 youths were admitted to treatment with a primary, secondary, or tertiary Rohypnol problem; 234 were admitted in 1999, 250 in 2000, and 262 in 2001 to date. Of the 2001 admissions, 71 percent were male, the average age was 15.4 years, and 95 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 18 to date in 2001.

Dextromethorphan (DXM)—School personnel in Texas report problems with the abuse of dextromethorphan, especially as an ingredient in Robitussin-DM, Tussin, and Coricidin HBP Cough and Cold Tablets. These substances, which can be purchased over the counter, can produce hallucinogenic effects if taken in large quantities.

Poison control centers reported 433 confirmed exposures to Coricidin in 2000 and 188 through three quarters of 2001. The average age of the cases in 2001 was 15.7, and 66 percent were male.

DPS labs identified 12 substances as dextromethorphan in 1999, 34 in 2000, and 6 through October 2001.

Inhalants

The characteristics of inhalant abusers vary by the data source. The 2000 TCADA 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. This decrease in inhalant use as students age may result partially from 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 2000 reported 29 cases of intentional misuse or abuse of Freon; the average age was 24 years. There were 10 cases of intentional misuse or abuse of lighter fluid, with an average age of 19, as well as 6 cases of misuse of products like White-Out, with an average age of 14. Automobile-related products were also misused, with 77 cases of intentional gasoline misuse or abuse (average age of 24) and 31 cases of misuse of carburetor cleaner, starter, or transmission fluid, etc. (average age of 25). There were 17 cases of intentional misuse of glue (average age of 16), as well as 105 cases of intentional misuse or abuse of paint (average age of 26) and 44 cases of intentional misuse or abuse of aerosols (average age 25).

Among ED mentions for major inhalant categories from 1994 to 2000, mentions of embalming fluid may well be related to the use of this substance (with or without dissolved PCP) as a dip for marijuana cigarettes.

Inhalant abusers accounted for 1 percent of the admissions to adolescent treatment programs in 2001 (exhibit 4). The youths entering treatment tended to be male (73 percent) and Hispanic (73 percent). The overrepresentation of Hispanic youths is due to the fact that TCADA has developed and funded programs targeted specifically to this group. Only 0.2 percent of adult admissions were for a primary problem with inhalants (exhibit 3).

Texas death data also indicate 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. 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, carburetor cleaner, or products such as Liquid Paper), and 17 percent mentioned alkyl benzenes (toluene or rubber cement).

In 2000, there were 12 deaths involving 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.

Alcohol

Alcohol is the most prevalent drug of use and abuse in Texas. The *1998 Texas School Survey of Substance Abuse: Grades 7–12* found that 72 percent of surveyed students had ever drunk alcohol, and 38 percent had drunk it in the last month. In 2000, 71 percent had ever drunk alcohol and 36 percent had used it in the past month. Students

on the border in 2000 reported higher levels of use, with 74 percent having ever drunk alcohol and 41 percent having drunk it in the past month.

Heavy consumption of alcohol and binge drinking, defined as drinking five or more drinks at one time, are of concern. In 2000, about 17 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 14–15 percent reported binge drinking of wine coolers and liquor. This pattern increased with grade level, with 27 percent of seniors reporting binge drinking of beer and 22 percent reporting binge drinking of liquor. The percentage of students who normally drank five or more beers decreased between 1988 and 2000, while the percentage of students who reported binge drinking of wine or wine coolers has fallen from the peak in 1994 but still is higher than in 1988. The percentage of binge drinking of hard liquor has remained relatively stable since 1994.

In the 2000 school survey, 26 percent of seniors admitted they had driven a car after having had "a good bit to drink" at least once in the past year. Among seniors, 18 percent had driven in this condition 1–3 times, 4 percent had done so 4–9 times, and another 4 percent had done so 10 or more times. In comparison, 18 percent of seniors reported having driven when they were high on drugs. Among seniors, 11 percent had done so 1–3 times, 3 percent had done so 4–9 times, and another 5 percent had done so 10 or more times during the past year.

The 2000 Texas adult survey found that 66 percent of Texas adults reported having drunk alcohol in the past year. In 1996, 65 percent reported past-year drinking. In 2000, 17 percent reported binge drinking, and 6 percent reported heavy drinking in the past month. Some 15.7 percent of all adults reported problems with alcohol use in the past year in 2000; 16.8 percent reported past-year problems in 1996. In comparison, 5.2 percent of adults in 2000 and 4.1 percent of adults in 1996 reported past-year problems with the use of drugs.

Over the years, the number of ED mentions per 100,000 population of alcohol in combination with other drugs in Dallas has risen, although the most recent rates are below the peak of 83.0 in 1998.

In 2001, 37 percent of adult clients admitted to publicly funded programs had a primary problem with alcohol (exhibit 3). They were the oldest of the clients (average age of 38); 62 percent were White, 21 percent were Hispanic, and 14 percent were African-American; 70 percent were male. Their annual income level, at $6,660, was second only to that of cocaine clients. In terms of polydrug use, 48 percent used only alcohol, 17 percent had a secondary drug problem with marijuana, 14 percent had a problem with crack cocaine, and 11 percent had a problem with powder cocaine.

Among adolescents, alcohol accounted for 8 percent of all treatment admissions (exhibit 4). Some 72 percent were male; 62 percent were Hispanic, 29 percent were White, and 8 percent were African-American. Seventy-five percent were involved with the juvenile justice or legal systems.

Far more persons die as an indirect result of alcohol than from the direct result of alcohol or drugs or the indirect result of drugs. Direct deaths are those in which the substance, alcohol or drugs, caused the death. Indirect deaths are those in which the death was actually caused by something else, such as a car wreck or a violent crime, but alcohol or drugs were involved.

More Texans are arrested for public intoxication than for any other substance abuse offense, although the arrest rate per 100,000 is decreasing.

AIDS AND DRUG ABUSE

The proportion of adult and adolescent AIDS cases related to injecting drug use rose from 16 percent in 1987 to 26 percent through June 2001. In 1987, 4 percent of the cases were injecting drug users (IDUs), and 12 percent were exposed through male-to-male sex and injecting drug use. In 2001, of the cases for which mode of exposure is known, 19 percent were IDUs, and 7 percent participated in male-to-male sex and were also IDUs. The proportion of cases resulting from heterosexual contact rose from 1 percent in 1987 to 22 percent in 2001.

In 1987, 3 percent of the AIDS cases were females older than 12; in 2001, 22 percent were female. In 1987, 12 percent of the adult and adolescent cases were African-American; in 2001, 41 percent were African-American. The proportion of White males has dropped, while the proportions of African-Americans and Hispanics have increased.

The proportion of adult needle users entering TCADA-funded treatment programs decreased from 32 percent in 1988 to 23 percent in 2001. Heroin injectors are most likely to be older, and nearly two-thirds are people of color, while injectors of stimulants and cocaine are far more likely to be White.

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Exhibit 1. Percentage of Border and Non-Border Secondary Students Who Had Ever Used Powder Cocaine and Crack, by Grade: 2000

Grade	Cocaine		Crack	
	Border	Non-Border	Border	Non-Border
Grade 7	4	3	2	2
Grade 8	8	6	4	3
Grade 9	14	7	5	2
Grade 10	17	9	4	2
Grade 11	19	13	3	3
Grade 12	20	12	3	2

SOURCE: TCADA 2000 Texas School Survey of Substance Abuse: Grades 7B12

Exhibit 2. Dallas DAWN ED Mentions of Cocaine and Heroin per 100,000 Population by Age and Gender: 1989–2000

Age/Gender	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Cocaine												
Total	59.1	45.4	56.9	52.9	57.7	61.5	61.6	58.3	73.6	106.0	85.6	87.3
Age Group												
12–17	33.3	20.9	20.2	16.0	21.2	18.8	20.6	35.0	33.7	65.8	46.3	36.4
18–25	140.9	102.5	116.9	106.3	109.1	100.5	105.5	92.0	155.5	192.3	139.9	130.4
26–34	115.1	94.9	119.7	106.2	112.2	141.6	121.9	117.1	132.8	192.4	152.9	171.7
35 and older	24.7	19.4	30.3	32.9	39.3	39.3	46.9	43.2	54.7	83.7	74.7	75.8
Gender												
Male	76.6	58.0	69.0	69.1	72.4	75.2	79.3	77.8	97.1	142.2	112.0	114.9
Female	42.3	32.8	45.3	37.3	43.1	48.4	44.0	38.8	51.1	70.9	60.5	60.5
Heroin												
Total	14.1	14.0	10.2	11.9	12.7	10.3	11.2	13.8	20.9	20.5	17.4	19.1
Age Group												
12–17	-	-	-	1.0	2.0	2.7	-	9.9	-	6.8	7.1	5.8
18–25	16.6	15.8	12.8	11.9	13.1	14.3	16.2	30.8	60.4	55.0	45.3	49.1
26–34	27.2	26.1	16.8	22.9	15.9	13.2	15.8	17.3	24.7	24.0	19.4	22.9
35 and older	11.6	13.0	10.4	11.8	16.0	11.9	12.2	11.8	15.0	18.0	15.6	17.2
Gender												
Male	19.4	19.0	12.4	18.1	16.9	14.7	15.1	19.0	33.3	27.4	22.4	27.1
Female	8.9	9.2	8.2	5.6	8.8	5.7	7.4	8.9	9.0	13.9	12.4	11.4

SOURCE: Drug Abuse Warning Network

Exhibit 4. Characteristics of Youth Clients at Admission to TCADA-Funded Treatment Programs: January–October 2001

Primary Drug	Percent Black	Percent White	Percent Hispanic
Total	17.7	26.7	54.1
Heroin	0.0	5.8	94.2
Alcohol	7.7	29.0	62.1
Amphetamines	0.0	90.8	6.7
Cocaine (powder)	0.0	22.7	75.5
Marijuana/hashish	21.4	26.2	71.1
Inhalants	7.3	17.1	73.2
Ecstasy	15.4	69.2	7.7
Steroids	0.0	50.0	50.0
Rohypnol	0.0	1.4	95.9

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

Exhibit 5. Arrestees Testing Positive for Cocaine: 2000

Site	Males	Females
Dallas	28	24
Houston	32	32
Laredo	45	22
San Antonio	20	NR*

* NR = Not reported.

SOURCE: Arrestee Drug Abuse Monitoring Program

Exhibit 6. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem with Heroin by Route of Administration: January–October 2001

Characteristic	Inject	Inhale	Total
Number of Admissions	3,115	191	3,480
Percent of Heroin Admissions	90	5	100
Lag-First Use to Treatment-Years	15	8	14
Average Age	36	30	38
Percent Male	69	59	68
Percent African-American	6	26	7
Percent Anglo	36	29	37
Percent Hispanic	47	34	45
Percent Criminal Justice-Involved	33	26	32
Percent Employed	14	14	14
Percent Homeless	14	6	13
Average Income	$3,807	$5,009	$3,966

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

Exhibit 7. Arrestees Testing Positive for Opiates: 2000

Site	Males	Females
Dallas	3	5
Houston	7	3
Laredo	10	7
San Antonio	10	NR

* NR = Not reported

SOURCE: Arrestee Drug Abuse Monitoring Program

Exhibit 8. Texas Secondary Students Who Had Used Marijuana in the Past Month, by Grade and Percent: 1988–2000

Grade	1988	1990	1992	1994	1996	1998	2000
Grade 7	8	5	4	6	9	7	6
Grade 8	12	6	4	11	14	12	10
Grade 9	11	8	8	14	19	17	14
Grade 10	12	8	8	14	18	19	16
Grade 11	14	10	9	14	19	19	19
Grade 12	14	12	8	14	19	19	20

SOURCE: TCADA 2000 Texas School Survey of Substance Abuse: Grades 7–12

Exhibit 9. Arrestees Testing Positive for Marijuana: 2000

Site	Males	Females
Dallas	36	21
Houston	36	27
Laredo	19	17
San Antonio	41	NR*

* NR = Not reported.

SOURCE: Arrestee Drug Abuse Monitoring Program

Exhibit 10. Dallas DAWN ED Mentions of Stimulants: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
Methamphetamine	152	203	115	159	186	100	135
Amphetamine	92	133	120	263	336	307	351

SOURCE: Drug Abuse Warning Network

Exhibit 11. Characteristics of Adult Clients Admitted to TCADA-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamine by Route of Administration

Characteristic	Smoke	Inject	Inhale	Oral	Total
Number of Admissions	398	1,186	256	159	2,021
Percent of Stimulant Admissions	20	59	13	8	100
Lag-First Use to Treatment-Years	9	12	8	10	11
Average Age	29	31	29	33	31
Percent Male	47	46	54	51	48
Percent African-American	2	2	1	6	2
Percent Anglo	90	95	89	81	92
Percent Hispanic	7	2	6	11	5
Percent Criminal Justice-Involved	44	52	49	47	50

SOURCE: Texas Commission on Alcohol and Drug Abuse (TCADA), Client Oriented Data Acquisition Process (CODAP)

Exhibit 12. Dallas DAWN ED Club Drug Mentions: 1994–2000

Drug	1994	1995	1996	1997	1998	1999	2000
GHB	11	37	60	72	160	156	169
Ketamine	2	1	4	3	0	3	10
LSD	107	133	84	77	93	105	64
MDMA	21	57	20	17	15	24	71
PCP	27	65	26	36	62	95	120
Rohypnol	1	14	-	13	7	5	4

SOURCE: Drug Abuse Warning Network

Patterns and Trends Of Drug Abuse in Washington, D.C.

Alfred Pach, Jerry Brown, Marianna Toce, James Hendrickson, Felicia Cerbone[1]

ABSTRACT

Trends for cocaine and marijuana remain steady overall, although a number of indicators show signs of decline. Heroin indicators 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 characterize 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, ED 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, D.C., 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 11th, 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 residents live in the northwest quadrants of the city, while the African-American and poorer populations reside in the eastern quadrants of the city. The ethnoracial composition of the District is 60 percent African-American, 30 percent White, 7 percent Hispanic, and 3 percent Asian/Pacific Islander.

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, while the number of Asians and Hispanics grew by 38.6 percent and of 37.4 percent, respectively.

The Washington, D.C. metropolitan region remained in relatively good economic health during early 2001, which may be attributed to a combination of high-income service employment and government spending, as well as an established technology industry that has attracted many young and skilled workers. Several major national publications and corporations cited the District's emergence as a financial center this past year, including *Newsweek*, *Black Enterprise Magazine*, the Progressive Policy Institute, and Aetna Financial Services (Mayor's Office press release, July 26, 2001). In addition, *Black Enterprise Magazine* selected the city as the second best U.S. city to live in, and *Fortune* magazine named the District the fourth-best American city for business (after New York, San Francisco, and Chicago). Kmart, Giant Food, and Home Depot are slated to open new stores in an economically disadvantaged District neighborhood in summer 2002.

Crime index indicators continued to show declines in 2001. Official index offenses reported by the Metropolitan Police Department fell from a high of 68,146 in 1993 to 41,946 in 1999. Preliminary data indicate that these trends continued into 2000 and the first half of 2001. Uniform Crime Reports data show that violent crimes are down across all indicators in the District with the exception of forcible rape, which rose 14.5 percent. Crimes such as murder, robbery, and aggravated assault are occurring with less frequency.

During late 2000 and early 2001, law enforcement became increasingly coordinated and continued to pursue drug trafficking organizations aggressively. In the Washington, D.C., mayor's proposed budget for fiscal year (FY) 2001, $4.4 million was earmarked for additional police officers and 1,000 new drug and alcohol treatment slots.

Data Sources

- Emergency department (ED) data—These data were derived through first half of 2001 from the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA).

[1] The authors are affiliated with the National Opinion Research Center of the University of Chicago, Washington, D.C.

- Drug-related deaths—These data were derived from the DAWN annual medical examiner (ME) data for 1999.
- Treatment data—Data were obtained through June 2001 on characteristics of admissions to publicly funded treatment programs in Washington, D.C.
- Arrests and crime data, law enforcement action—These data were derived from the Metropolitan Police Department (MPD) crime statistics and press releases pertaining to law enforcement action through June 2001, http://www.mpD.C.org/frame.htm; MPD Central Crime Analysis Unit, tables on Arrests by Sex for Adults and Juveniles through 2000.
- Urinalysis data—The District of Colombia Pretrial Services Agency provided data on adult and juvenile arrestee urinalysis results through August 2001.
- Drug prices and trafficking trends—This information was obtained from the Drug Enforcement Administration (DEA), Washington Field Division and Domestic Monitor Program "Quarterly Trends in the Traffic Washington Division, Third Quarter, FY 2001"; "Quarterly Price List, Third Quarter Fiscal Year 2001"; drug seizure data through August 2001; DMP data through third quarter 2001.
- Trafficking data—These data were derived from the Washington-Baltimore High Intensity Drug Trafficking Area (HIDTA) "2001 Threat Assessment," available at http://www.whitehousedrug_policy.gov; "Washington Baltimore 2002 Threat Assessment."
- General information on drug use—This information was derived from the Office of National Drug Control Policy (ONDCP) reports "Pulse Check: Trends in Drug Abuse Mid-Year 2000," and "Washington, D.C., Profile of Drug Indicators," http://www.whitehousedrugpolicy.gov; District of Columbia, Department of Health, Addiction, Prevention and Recovery Administration, A 2000 Household Survey on Substance Abuse: Summary of Findings September 2001; Drug Early Warning System, Ecstasy in Maryland, "Center for Substance Abuse Research", University of Maryland, August 2001.
- Acquired immunodeficiency syndrome (AIDS) data—These data were provided through the District of Columbia Department of Health, Administration for HIV/AIDS, District of Columbia HIV/AIDS Epidemiologic Profile 2001.
- Census Data—District of Columbia census information was derived from the **"**Council of the District of Colombia; 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/ww.planning.D.C.gov/documents/single_race.shtm.
- Ethnographic research—Qualitative data were collected on price, purity, and social aspects of drug use through interviews with law enforcement, D.C. city administration officials, and local experts.
- Media reports through November 2001—These included the *Washington Post*, http://www.washingtonpost.com; press releases from the District of Columbia Mayor's Office: News website, http://washingtonD.C./gov/mayor/news/release.asp?id=209,D.C. (11/07/01).

DRUG ABUSE PATTERNS AND TRENDS

The number of DAWN ED episodes and mentions for all drugs combined did not change significantly between 1999 and 2000. The actual rate of drug episodes dipped slightly, from 265.8 to 262.0, as did mentions, from 437.7 to 412.6. Of the 20 CEWG areas in DAWN, the District ranked 18th in the rate of cocaine mentions per 100,000 (72), 13th for heroin (50), and 12th for marijuana (64). Other metropolitan areas in the southeastern and mid-Atlantic States have significantly higher rates of cocaine and/or heroin abuse than marijuana.

Between 1999 and 2000, the number of admissions among publicly funded drug treatment providers in District remained stable, at 4,693 and 4,526 admissions, respectively. Data for the first half of 2001 indicate a comparable number of admissions (2,400). However, there appears to be a difference in the primary drugs reported by treatment admissions. Most notable is the dramatic decline in the number of primary marijuana admissions, which dropped from 16 to 11 percent of all admissions between 1999 and 2000, respectively to only 8 percent in the first half of 2001. Primary cocaine admissions also declined, from 48 to 45 percent between 1999 and 2000, and to 43 percent of all admissions in the first half of 2001. Heroin admissions, on the other hand, increased, from 37 to 44 percent of all admissions between 1999 and 2000, respectively, and to 48 percent in the first half of 2001.

According to DAWN ME data, total drug abuse deaths in Washington, D.C., declined 15 percent between 1998 and 1999, in sharp contrast to the 15-percent overall increase among other metropolitan areas. The most notable decline in the District was for adults age 26–34, for whom the number of drug abuse deaths declined by more than half (53 percent, from 49 to 23 cases), down to less than 10 percent of all ME cases. This age group's representation has been declining since 1994, when there were 67 such cases, comprising 28 percent of all drug abuse deaths. In addition, the number of female drug abuse decedents declined by one-quarter in 1999, reversing the spike between

1997 and 1998. For individual drugs, the most notable declines include cocaine (12 percent) and heroin (12 percent), also representing a return to 1997 levels.

District arrest data indicate a 16-percent increase in the number of drug-related arrests among adults between the first half of 2000 and the first half of 2001. However, the District of Columbia Pretrial Services Agency, which tests adult arrestees for cocaine, opiates, and phencyclidine (PCP), reported that the proportion of adult arrestees testing positive for any drug has fluctuated little, typically falling between 43 and 46 percent from 1996 through the first three quarters of 2001.

Cocaine and Crack

ED cocaine mentions declined between 1999 and 2000. The rate of ED mentions per 100,000 population dropped modestly from 81 in 1999 to 72 in 2000, characterized by fewer African-Americans, males, and individuals age 30–34 presenting at area EDs (exhibit 1). In addition, even though far fewer ED admissions typically reported taking a drug for its psychic effects than reported motives such as dependence and suicide, there was a striking 61-percent increase ED admissions between 1999 and 2000, driven primarily by cocaine users, suggesting shifting usage patterns.

Cocaine treatment admissions were largely unchanged between the first halves of 2000 and 2001 (exhibit 2). Males continued to feature prominently in treatment, their proportion rising slightly from 60 to 64 percent of all primary cocaine admissions. African-Americans continued to comprise 96 percent of cocaine admissions. Most admissions were 35 and older, although there was a slight increase from 69 to 74 percent. Most cocaine admissions continued to report smoking the drug.

According to ME data, the number of deaths associated with cocaine decreased slightly between 1998 and 1999, from 121 to 106.

Information from the District of Columbia Pretrial Services Agency suggests little change in cocaine use in recent months. The percentage of juvenile arrestees testing positive for cocaine remained less than 10 percent for all of 2000 and the first three-quarters of 2001 (exhibit 3). Adult urinalysis results tell a similar story, with about 35 percent of adult arrestees testing positive in this time period. Arrest data provided by the Washington, D.C., metropolitan police department correspond with trends in the pretrial data, with about 39.5 percent of all drug arrests being cocaine-related in the first halves of 2000 and 2001. However, the total number of cocaine-related arrests increased modestly during these time periods, from 3,351 to 3,890.

Interviews with users and retailers of powder cocaine revealed continued availability and use in the bar/club scene in District, and its near disappearance from street markets. Ethnographic study respondents reported that powder cocaine is used by members of Washington's professional class in nightclubs and dance party settings within straight and gay scenes in certain affluent neighborhoods, especially in the northwest quadrant of the city. In addition, cocaine was reported to be available in nearby Maryland counties, where it is consumed at clubs and in private residences in informal social gatherings, following club attendance such as "after-hours parties". Among professional Whites in the District, powder cocaine is most commonly snorted; however, it is occasionally applied to a cigarette and smoked, known as a "California cocktail."

Ethnographic data suggest that cocaine powder typically sells at a variety of weights and prices. Common retail amounts are "grams," which contain approximately one gram of powder cocaine and cost $50–$100, and eightballs, which contain approximately 3.5 grams of cocaine and sell for $90–$200. DEA data suggest that street prices for eightballs were somewhat higher, ranging from $150 to $335 at the beginning of 2001; however, ethnographic respondents indicated that the price of retail powder cocaine is influenced by the types of contacts available to users.

Because of crack cocaine's association with violence and desperate behavior in Washington, D.C.'s disadvantaged communities, crack is viewed in a negative light and is not considered popular among new drug users. Although anecdotal reports suggest that crack cocaine is occasionally used by Whites in the Dupont Circle and Adams Morgan neighborhoods, this drug is also eschewed by middle-class users of other illicit substances because of its higher addiction potential.

Nevertheless, crack abuse remained a prominent problem in the northeast and southeast quadrants of Washington in late 2001. Ethnographic data suggest that crack is used predominantly by African-Americans and other disadvantaged minorities in the District. Based on ethnographic data, intravenous injection of crack remains common in the District, as powder cocaine has become increasingly rare. Prices range from $10–$20 for a rock of crack cocaine to $125–$130 for eightballs. Ethnographic reports indicate that larger retail units, such as "working fifties," are rarely sold, partly because of the declining purity of street crack.

Although occasionally sold by street dealers in outdoor settings in upper income neighborhoods, retail trafficking in crack is primarily confined to housing projects, street corners, and open air markets in low-income areas. Crack cocaine is often trafficked by loosely affiliated criminal organizations known as "crews." Typically

comprised of young men, crews are often involved in the sale of crack, marijuana, and, increasingly, heroin. These organizations may employ a sophisticated division of labor and have a reputation for violence. Ethnographic sources have recently reported that such crews have begun using attack dogs for intimidation and security purposes.

Regional trafficking patterns for crack and powder cocaine remained steady from 2000 through the first half of 2001, with local couriers bringing the drug from other cities, or nonlocal suppliers setting up temporary "shop" in Washington for distribution. Traffickers use a variety of methods to transport powder cocaine, including rail, bus, and motor vehicles equipped with secret compartments. DEA and ethnographic sources show that much of the powder cocaine found in the Washington, D.C., metropolitan area is supplied by Dominican organizations in New York City. Because sentencing disparities discourage the possession and distribution of large amounts of crack, the bulk of the drug consumed in the metropolitan area is brought into the city as powder cocaine and then converted. Since crack is more lucrative than powder cocaine, crack is also being produced and sold in larger, wholesale quantities.

Heroin

Between 1999 and 2000, the number of DAWN heroin ED mentions increased from 1,771 to 1,946, or about 10 percent, while the rate of mentions per 100,000 population rose from 46 to 50 (exhibit 1). The number of mentions increased across the board, although the most notable increase was seen for males, at 13 percent

The District reported 1,159 primary heroin admissions to publicly funded treatment programs in the District during the first half of 2001, up from 1,029 in first half of 2000. Heroin continued to be the primary drug in nearly one-half of the admissions, surpassing cocaine in this reporting period (exhibit 2). The vast majority of these admissions were African-American, male, and age 35 or older. Also consistent with previous years, cocaine (including crack) was reported as the secondary drug of abuse by more than one-half of this population.

In 1999, heroin/opiates was identified through toxicology screens in 103 deaths reported by DAWN medical examiners in the Washington, D.C., area, a 12-percent decrease from 1998. Similar to the trends in the rest of the ME panel, heroin was the drug most frequently reported after cocaine, comprising 43 percent of total drug-related deaths.

Urinalysis results from the District of Columbia Pretrial Services Agency indicate that the percentage of adult arrestees testing positive for heroin and other opiates has remained relatively steady since 1992. In the first halves of 2000 and 2001, heroin accounted for 13 and 15 percent of District arrests, respectively. Possession with intent to distribute was the most commonly reported charge. There were no arrests for 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.

Data from the DEA's 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 significantly lower than the national average of 36 percent. The DMP price per milligram of pure heroin during the first half of 2001 averaged $1.05, a decrease of $0.31 from the first half of 2000. Across the District, heroin sells on the street for about $10 per bag and $120B$150 per gram (40B90 percent purity). Finally, there were 771 heroin seizures (1,227 grams seized) in the first 11 months of 2000.

Ethnographic data continue to suggest that heroin use has remained stable, and the drug continues to be readily available throughout the city, even as purity fluctuates from week to week. As reported 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 22 and 27 years of age, while other data indicate that these young drug users are increasingly combining heroin with alcohol and other substances. HIDTA findings suggest that competition is flourishing among dealers for these new users.

Street-level heroin continues to be marketed and distributed in open air drug markets, which are typically in close proximity to public housing. An estimated 20–25 of these markets exist in the District, with some located along city borders to make heroin more accessible to suburban users. As in previous years, the great majority of the region's drug distribution groups are crews of young men ranging in age from their early twenties to mid-thirties. The ready availability of heroin has led to competition among street dealers, who now label their packages to identify their products (e.g., White Dragon, No Limit, The Real One, 1B5B0). According to the DEA, most of the heroin sold in the District originates in South America.

Outreach workers report that street-level heroin is primarily sold in $8, $10, and $20 bags called joints or billies. Small-time dealers (jugglers) purchase 10 packs (bundles) for $75–$90 Heroin that is reputedly unaltered (bone), typically favored by intranasal users, can be purchased for $30–$70 per bag; purity levels of these will fluctuate from 40 to 80 percent.

Other Opiates/Narcotics

Opiates such as oxycodone, (Percocet, Percodan), Tylenol with codeine, and, occasionally, hydromorphone (Dilaudid) can be purchased near methadone clinics throughout the city. Addicts misuse these and other pills to ease the symptoms of opiate withdrawal and to heighten the effects of heroin.

The number of ED mentions for the opiates hydrocodone and oxycodone (OxyContin) are small, although they have been increasing in the District, as in most areas of the United States. The number of oxycodone mentions increased 48 percent from 21 to 31 cases, while the number of hydrocodone mentions rose from 4 to 7.

The illegal use of OxyContin, the time-release version of the painkiller oxycodone, has spread to the District and surrounding suburbs. According to the HIDTA 2001 OxyContin Report, the illegal use of this drug is a "substantial threat" to Washington, D.C., residents, as well as a "major concern to law enforcement and health care professionals." According to an official of DEA's regional drug diversion program, OxyContin abuse has increased dramatically and the drug continues to be very, very accessible. In the District, it is available near methadone clinics and sometimes in street drug markets. Since 1998, this synthetic opiate has been linked to at least 43 deaths in southwest Virginia, although no OxyContin-related deaths have yet been reported in the Washington, D.C., metropolitan area.

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.

Federal Bureau of Investigation (FBI) investigations in the Washington Field Office have identified a number of individuals selling OxyContin around methadone clinics in the northeast area of the District. Also, numerous dealers are reportedly operating in open air drug markets outside of local fast food restaurants. 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. On the street, OxyContin sells for 10 times its pharmacy price, often running as high as $40.00 per tablet ($1 per milligram).

Marijuana

DAWN data indicate that ED marijuana mentions associated with remained steady over the last few years in the District; for 2000, the rate of mentions per 100,000 population was 63.8 (exhibit 1). The number of ED marijuana mentions among youth age 12–17 declined steadily from 19 percent in 1995−1996 to 12 percent in 2000, although the decrease between 1999 and 2000 was not significant. The number of ED marijuana mentions associated with dependency declined a full 50 percent between 1998 and 2000. There were no ME reports of marijuana-related drug abuse deaths in 1998 or 1999.

Data from publicly funded treatment centers show a continued decrease in persons reporting marijuana as their primary drug. Between 1999 and 2000, the total number of marijuana admissions declined 36 percent, from 747 to 479. Marijuana admissions as a portion of total admissions have likewise decreased, from 16 percent of drug-related admissions in 1999 to 11 percent in 2000, and down to only 8 percent in the first half of 2001 (exhibit 2). However, the District appears to be witnessing an increasing proportion of persons of Hispanic descent reporting marijuana as their primary drug of abuse. In 1999, this group comprised only 2 percent (n = 15) of all treatment admissions for this drug. This increased to 6 percent (n = 29) in 2000 and 13 percent (n = 25) for the first half of 2001. These numbers are small, however, and should be interpreted cautiously. The percentage of Hispanics in treatment for other major drugs during 1999, 2000, and the first half of 2001 has remained at, or under, 1 percent. Finally, cocaine crack continues to grow in popularity as the most frequently cited secondary drug among primary marijuana admissions. About one-fifth of marijuana admissions reported cocaine/crack as their secondary drug in the first half of 2001, up from 11 percent in 2000 and only 8 percent in 1999.

The District of Columbia Pretrial Services Agency reports that the percentage of youth testing positive for marijuana increased slightly each year between 1995 and 1999, from 58 to 64 percent (exhibit 3). However, more recent data appear to show a decline, with a return to 58 percent for the first three quarters of 2001. Marijuana is by far by the most common drug for which juvenile arrestees test positive; only rarely is cocaine or PCP found without also a positive result for tetrahydrocannbinal (THC).

Marijuana continues to be widely available in the District, and according to the DEA it is the most commonly seen drug in the metropolitan area. Although the degree of availability has fluctuated over the last couple of years, there appeared to be no change overall between 1999 and 2000. Likewise, marijuana prices have remained stable. Ethnographic and law enforcement sources state that marijuana has grown in popularity in the District; nevertheless, recent indicators show that its use has remained steady overall and declined among youth in particular. Users tend to be younger, African-American, male, and from lower socioeconomic groups.

An increasing proportion of the marijuana in Washington, D.C., is grown locally (e.g., in indoor locations and on Maryland's Eastern Shore), though large amounts of commercial-grade marijuana are still imported from southwestern States. Jamaican drug trafficking groups are involved in the importation and distribution of the drug to the area. The two most commonly found types of indoor-grown marijuana are hydro, which refers to plants grown in water (hydroponically), and kind bud (or bud, KB), which is grown with enhanced soil and lighting. Both hydro and kind bud are considered high-potency marijuana, and although they are not new types of marijuana, they are only recently becoming visible in the District. Ethnographic sources identified particular varieties of marijuana plants that are potent and popular, including northern lights, from Canada and Alaska; Jamaican, from Jamaica; and bubble gum, from Tennessee. Other popular types that have been reported include blueberry and white widow. Finally, hashish is reportedly difficult to find here.

Marijuana users in the District will often smoke the plant in the form of blunts, which are large amounts of marijuana rolled in a hollowed out cigar wrapper. This method has been particularly popular among young adults for at least the last several years in the District, as has the practice of adding other drugs such as PCP and small rocks of crack cocaine inside the tobacco wrapper. Users may also dip the blunt into a liquid solution of crack and/or heroin. Clubgoers reportedly tend to use the more potent types of marijuana with drugs such as 3,4-methylenedioxymethamphetmine (MDMA), lysergic acid diethylamide (LSD), and methamphetamine.

The DEA Washington Field Division reported that the pound price of commercial grade marijuana was $700–$1,400 in the first and second quarters of calendar year 2001, comparable to the $600–$1,300 reported in the third quarter of calendar year 2000. A pound of hydro or kind bud, depending on quality, currently costs between $1,200 and $6,000. Dime bags of kind bud and hydro go for $10–$20 apiece, and commercial grade will sell for $5–$10. Commercial grade blunts cost $10–$20. An ounce of commercial grade runs about $100, and an ounce of hydro or kind bud sells for $480. D.C. prices tend to run higher than those in other cities in the region.

Marijuana seizure data from fiscal year (FY) 1999 to FY 2001 show a substantial decline in the amount of the drug seized recently. According to data from the Washington Field Division of
the DEA, 1,151.5 kilograms of marijuana were seized in FY 1999; this number declined to 823.1 kilograms in FY 2000, and to only 237.5 kilograms for the first 11 months of FY 2001 (2001 data are preliminary).

In mid-2000, legislation was passed that both increased the maximum penalties and made distribution or intent to distribute more than one-half pound of marijuana a felony in the District; while formerly this offense had up to a 1-year jail term, it now carries a 5-year sentence. The earlier penalties encouraged some dealers to sell only marijuana, turning handsome profits with little risk. Furthermore, both marijuana users and dealers from outside the city often came into town to conduct these transactions. While it will be some time before we know the effects of this law on the availability or selling practices of the drug, we did see a substantial decrease between 1999 and 2000 in the number of arrests for possession with intent to distribute marijuana, and there was a moderate decrease in arrests for distribution (with no real change in the number of arrests for possession). There have also been reports of increasing violence among marijuana dealers in the District, indicating that competition among dealers may be increasing.

The violence surrounding the marijuana trade in the District has been highlighted recently in the press. For example, in August 2001, the front page of *The Washington Post* told the story of a Northern Virginia drug ring of suburban teenagers and young adults that had recently been disbanded. An investigation into the death of a Secret Service agent's son uncovered that he had been receiving shipments of hundreds of pounds of marijuana from the West Coast and thousands of ecstasy pills from New York City; his operation had sold an estimated $10 million worth of marijuana and ecstasy young to residents across the region over the previous year. There has also been extensive news coverage over the summer and fall months of 2001 regarding the criminal trial of the now-defunct Southeast Washington drug gang known as the K Street Crew. In what has been called the longest trial in U.S. District Court history, all six former members face life in prison without parole. According to *The Washington Post*, prosecutors claimed they killed 18 people, of whom 7 were potential trial witnesses. The gang specialized in marijuana sales, distributing more than 1,000 kilograms of marijuana over a 7-year period in the District. Prosecutors estimated that the gang netted about $14 million in profits before they were shut down in 1998.

Stimulants

The use of amphetamine-type substances, such as methamphetamine, is not a major problem in Washington, D.C., according to most data sources. However, institutional and surveillance reports for 1999, 2000, and 2001 suggest the growing use and availability of methamphetamine. Ethnographic reports indicate that methamphetamine is used alone or in combination with alcohol, marijuana, powder cocaine, and MDMA among men who have sex with other men (MSMs); club attendees; and young, heterosexual, white-collar professionals. Ethnographic reports indicate that methamphetamine use may be increasing at dance and music venues that are part of the rave/club subculture. The drug is also used privately in recreational and occupational activities, as well as in sexual engagements, especially among MSMs. Another ethnographic report supports earlier observations that greater numbers of users in the club scene are injecting methamphetamine, a phenomenon known locally as "pointing."

For a number of years, most methamphetamine indicators have shown few problems associated with this drug. ED methamphetamine mentions in the District have been low. Yet, the 62 mentions in 2000 were nearly twice the number reported in 1999 (33). This represents a 5-year peak for ED methamphetamine mentions in District. There were five methamphetamine-related deaths reported for 1999, an increase over single deaths reported in 1998 and 1997.

There were 16 primary methamphetamine treatment admissions during the first half of 2001, compared with only 3 during the first half of 2000. All of these admissions were White, and most were male. However, there were more younger admissions in the first half of 2001. Of the three admissions that were reported in the first half of 2000, one was age 25–34 and two were 35 or older. Of the 16 admissions that were reported in the first half of 2001, 2 were age 18–24, 7 were age 25–34, and 7 were age 35 and older. While it is too early to tell whether this shift is an artifact of the small numbers, the ethnographic data suggest an increase in methamphetamine use in the younger rave/club subculture.

Third-quarter 2001 DEA reports indicate that prices for methamphetamine have been steady over the year. During the recent reporting period, methamphetamine sold for $100 per gram, compared with $150 in 2000 and $50–$100 the second half 1999. Ounces were available for $2,700 throughout 2001, which is comparable with the $2,400–$2,800 cost of an ounce of methamphetamine in 2000. Nevertheless, this is a marked increase over the $1,600–$2,000 per ounce price in the latter half of 1999. Pounds of methamphetamine sold for $13,000 in nearby Shenandoah Valley, Virginia, compared with $25,000–$28,000 in urban areas of Virginia and Maryland. Shenandoah Valley is known for Mexican methamphetamine trafficking, which may account for the differences. Ethnographic reports indicate that prices in the club scene in Washington, D.C., remain stable at $60 for a quarter gram and $600 for an eightball (3.5 grams).

There are a number of gradations in the quality of methamphetamine, largely related to the substances and techniques used in the manufacturing process. During summer 2001, ethnographic reports in the District described methamphetamine as being of low quality; the drug, one informant said, had become "as dirty as the Hudson River." Dealers were reportedly cutting the drug with Epsom salts to simulate the burning sensation of high-quality methamphetamine. However, by fall, high-quality methamphetamine was again available on the streets in the popular forms known as glass and hydro.

Through the first 11 months of 2001, DEA reports indicate that there were 30.6 dosage units of methamphetamine seized in Washington, D.C., compared with only 1.3 dosage units in 1999 and 11.2 in 1998. These increases correspond with increases in ED mentions and treatment admissions, suggesting a general rise in the availability and use of methamphetamine in the District.

Hallucinogens

Ethnographic reports continue to suggest use of LSD within the District; however, informants cite it as not that easy to find. According to these sources, as well as the DEA, LSD is most commonly sold in the form of blotter acid sheets of paper soaked in LSD, imprinted with designs or artwork, and perforated into quarter-inch square individual doses. This type of LSD is available by the tab, in "sheets"(100 tabs), and in "cubes" (10 sheets). Squares or tabs of perforated LSD paper are often imprinted with a pattern (a recent ethnographic account mentioned faces of green aliens) and packaged in small Ziplock bags. In addition, liquid LSD is becoming increasingly available on the retail level, and DEA agents have encountered LSD in crystal form within the past year. Liquid LSD is ingested by either placing a drop of the drug on a piece of candy or sugar cube, or by dropping the drug directly onto the tongue. In the liquid form, LSD is carried in breath drop or eye drop bottles.

LSD is mostly used by high school aged to college aged individuals in connection with area raves, concerts, and night clubs in the District. LSD is commonly classified alongside the various club drugs. DEA investigations also cite accounts of young adults and club-goers practicing "candy flipping," the term for mixing ecstasy and LSD.

The total number of LSD-related ED mentions in the District dropped from 87 to 45 between 1999 and 2000. This continues years of decline. Between 1994 and 2000, there was a 73-percent reduction in the number of cases reported, from 168 to 45. The rate per 100,000 population declined by half between 1999 and 2000, from 2.2 to 1.1.

The DEA quotes LSD prices during the first two quarters of FY 2001 at approximately $3–$7 per dose, and ethnographic interviews indicated a cost of $800 per sheet. There were three LSD seizures reported in the District during 1999 and four during the first 10 months of 2000. Local sources of supply tend to be in nearby college towns, while wholesale suppliers are often associated with the rave or club scenes in New York City. Additionally, the DEA has identified California-based suppliers of the drug and seized some shipments of LSD from Oregon that were on unperforated and unmarked sheets of paper.

Between 1994 and 1999, the total number of PCP-related ED mentions in the District substantially declined, falling from 1,301 to 176. However, mentions increased significantly in 2000, climbing to 317. Likewise, the rate of PCP mentions per 100,000 population rose from 4.5 to 8.1 between 1999 and 2000 (exhibit 1).

Only 1 percent of treatment admissions to publicly funded treatment programs in the District were for primary PCP abuse. 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 90s, peaking at 14 percent in 1995. The percentage then declined until 1998, dipping to only 2 percent. However, more recently the percentage of adult arrestees testing PCP-positive has been steadily increasing again. During 2000, the percentage of adult arrestees testing PCP-positive (9 percent) was nearly back to its 1994 level. When broken down by quarter, the percentage of positive arrestees increased from 7 percent in the first quarter of 2000 to 10 percent in the first quarter of 2001. The percentage of adults testing PCP-positive slightly increased between the first, second, and third quarters of 2001, rising from 10 to 13 to 14 percent, respectively.

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, though this is still far lower than the 18 percent testing positive 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 in the first quarter of 2000. During the second and third quarters of 2001, 15 percent of juveniles tested positive.

DEA investigations corroborated ethnographic reports that PCP is generally combined with marijuana locally. Within the District, PCP is used primarily by young African-American males and lower to lower-middle income Whites, who sometimes have ties to motorcycle gangs. However, recent DEA intelligence indicates an expanding user base for the drug in connection with the city's rave scene. Washington, D.C., police reported one large seizure of pink "Pikachu" (Pokeman character) pills that contained PCP or a combination of ecstasy and PCP. 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 remained stable at $700–$950 per ounce during the second and third quarters of fiscal year 2001. The price appears to have increased when compared with the past few years; during 1998, 1999, and the fourth quarter of FY 2000, PCP was available for approximately $350 an ounce. Ethnographic data indicate that PCP is most commonly marketed on the street as a marijuana—PCP combination, which is sold in aluminum foil packages for $15–$25. In some sections of the city, $50 packages known as "lids" can be purchased. According to ethnographic reports, PCP is available on the street in liquid form known as "water." "Dippers," or tobacco cigarettes dipped into liquid PCP, sell on the street for $25 each. Dippers are extremely potent, such that

more than one person can get high from one cigarette. They are used primarily by men and women in their late teens and early twenties and are most prevalent in the southeast quadrant of D.C.

DEA data indicate that the number of PCP seizures more than doubled between 1999, when there were 39 PCP seizures, and the first 10 months of 2000, when 74 seizures were reported. 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

The most striking feature of the club drug scene in the District is the continuing increase in MDMA use and availability. Until recently, MDMA was synonymous with the term "ecstasy" but, increasing, more substances are being included in the tablets and pills sold as ecstasy. In the District ecstasy is colloquially referred to as "pills" or "rolls." Ecstasy pills and capsules are sold under a wide variety of brands, such as "Pikachus," "Igloos," and "Mercedes."

MDMA ED mentions in the metropolitan area tripled in the last couple years, from 23 mentions in 1998 to 73 in 2000. Ethnographic data likewise suggest that use of MDMA has continued to increase in the second half of 2001. It is not surprising, then, that both ethnographic and publicly available information suggest that retail trafficking in MDMA increased in 2001, with dealers of other drugs acting to capitalize on the growing demand for ecstasy. A recent investigation into an ecstasy trafficking ring in northern Virginia revealed an extensive and highly organized group of middle class White traffickers estimated to have sold at least $10 million worth of MDMA and marijuana in the late 1990s.

Retail prices for one pill of ecstasy can range from $20–$35, although users report that $20 is the most common price to pay for a single ecstasy pill. Ethnographic data also indicate that a "10 pack," a retail unit containing 10 ecstasy pills, is commonly sold for $150–$200. Nevertheless, numerous ethnographic sources suggest that the purity of ecstasy declined during the second half of this year. In the words of an experienced club attendant, "It's not like back in the day ... it's not good anymore."

While not as prevalent as MDMA, the surgical anesthetic ketamine (or "K") remained a common intoxicant in the nightclub and dance scenes in Washington, D.C., in late 2001. Ketamine is typically sold in a "20 bag," containing one-eighth of a gram of powdered ketamine, for $20, or in a "50 bag," containing approximately three-eighths of a gram of powdered ketamine, for $50. The drug is also available in bottles; the liquid form may be injected or converted to a powder by boiling. Ethnographic respondents indicate that intramuscular injection of liquid ketamine is preferred, because of the drug's fast-acting nature. Injection may be increasing at "after-hours" parties and other alternative venues.

Finally, limited use of gamma hydroxybutyrate (GHB) has also been reported among club-goers and young professionals in the second half of 2001. The drug continues to have an unsafe reputation; according to one local resident, GHB is far too strong and "makes one out of control." In addition, the DEA reports that 2CB (a synthetic hallucinogen often mixed with other drugs) could be sporadically found in local bars and nightclubs. In addition, polydrug use remains a common feature among club drug users in the District. For example, local users will ingest ecstasy in conjunction with marijuana, LSD, and ketamine. Ethnographic reports indicate that flunitripine (Rohypnol) is not available in Washington's nightclub and bar scenes at the moment.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Washington, D.C., continues to be a major AIDS epicenter; the metropolitan area had the fifth highest number of AIDS cases in the United States by the end of June 2000 (22,321). In the District of Columbia proper, the Centers for Disease Contral and Prevention (CDC) reported 13,040 cumulative AIDS cases (12,968 adult/adolescent and 172 pediatric) through the end of 2000. The AIDS epidemic has had a clearly disproportionate impact on the residents of the District of Columbia. For example, between July 1999 and June 2000, the rate of AIDS cases per 100,000 population was 189.4 for the District, compared with only 15.5 for the entire United States. 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 cases in the District, 82 percent have been men and 49 percent are deceased. African-Americans comprise 75 percent of the District's reported AIDS cases, 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 (MSMs). However, the proportion of cases attributable to injection drug use is growing. Among cases reported between 1998 and 2000, 29 percent were attributed to injection drug use. Cumulative data for 1996B2000 indicate that while only 2 percent of White males with AIDS reported injection drug use as their primary exposure mode, about 30 percent of African-American males did so. In addition, diagnosed AIDS cases among African-American injection drug users (IDUs) have increased faster among men than among women. Nevertheless, since 1999, IDU cases have remained stable, which may be indicative of a relative increase.

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 two fold increase for males and females since 1987. A major shift in the epidemic toward people of color and injection drug users is reflected in cases from 1998 through 2000, in which African-Americans constitute 97 percent of male, and 99 percent of female, injection drug use cases.

Mirroring trends across the United States, there has been a decrease in AIDS-related deaths in District because of the widespread introduction 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 1997–1998, the rate of deaths from AIDS in the District was seven times higher than the national rate; this high rate of deaths in D.C. may be related to a comparatively lower use of HAART among a major proportion of injection drug users with human immunodeficiency virus (HIV) or AIDS. In a community-based epidemiologic and ethnographic longitudinal study recently conducted among IDUs in the District it was found that 70 percent of HIV-positive injection drug uses 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 co-pathogens that increasingly complicate the treatment of HIV for injection drug uses–notably, the hepatitis B virus (HBV) and hepatitis C virus (HCV). Because of similar transmission routes, the incidence of co-infection with HCV is increasing among injection drug uses who are HIV positive. In the District, the 1999 rate per 100,000 population for acute hepatitis A was 11.3. During hepatitis screening in February through May 2001, at the District of Columbia Addiction Prevention and Recovery Administration (APRA), 343 chronic hepatitis C cases were reported. According to APRA, the highest number of cases with HCV were among injection drug uses. HIV and hepatitis C co-infection is high among injection drug uses.

SPECIAL STUDY: EFFECTS OF THE TERRORISTS' ATTACK ON WASHINGTON, D.C., DRUG USE

The Washington, D.C., metropolitan area was one of the targets of the terrorist attacks on September 11, 2001. It was also affected by the terrorists' attack on the World Trade Centers in New York. The ramifications of these attacks influenced a number of aspects of illicit drug use. Preliminary analysis of information collected from drug users, drug treatment participants, counselors and administrators, outreach workers, and police indicate that the attacks affected various overlapping domains of drug abuse: drug availability, drug use, police presence, drug treatment and recovery, and drug users' resources.

Drug Availability

On the street, heroin and crack cocaine availability diminished with some variation by location. In the 3−4 weeks following the attacks, there were fewer dealers in certain street drug market areas, and the drugs were not as plentiful as before the attacks. Furthermore, drug quality declined and prices slightly rose. In the club scene marijuana, MDMA, methamphetamine, and cocaine were not as readily available, although there seems to have been little effect on the quality of these drugs. It has been suggested that this is the result of heightened security on many forms of public transportation (e.g., airplanes, buses, trains, trucks) that disrupted trafficking patterns.

Drug Use Behavior

Drug use behavior was affected with employed drug users buying more drugs at less frequent intervals during the initial 3−4 weeks after the attacks because of fears that drug supplies may become scarce. Especially in the first few days after the attack, street-level heroin users would buy as much of a supply as they could and go inside to use them. Some users mentioned that they used drugs to relieve anxiety. Crack users drug patterns did not seem to be affected, except that for a few weeks when the drug was harder to find.

Police Presence

Following the attacks, police were initially on high alert and visibly traveled through drug-using communities, though they did not stop. In the next few weeks, their presence in drug-using communities greatly diminished. It was either non-existent or, when police did come on the street, it was to break up crowds, rather than to arrest users or dealers. It appears that police were sent to guard strategic and vulnerable sites around the District (e.g. water reservoirs, monuments, Government buildings). This led to a flourish of activity within drug markets, with many users congregating on the streets.

Treatment

Patients in detoxification and inpatient and outpatient drug treatment were anxious and fearful following the attacks. Though feelings varied, there were palpable tensions in the atmosphere and between patients in many programs. Treatment staff were concerned because anxiety and fears are often key emotions in relapse, so they conducted special group sessions to allay fears. Patients were concerned for their families' safety and for the danger of further terrorist attacks. They were also concerned that government programs may be cut and jobs lost, which would affect their transition to social functioning. For these reasons some patients were anxious and reluctant to leave programs, while others, especially those in their twenties, were afraid of being drafted.

Resources

For some drug users, resources were affected by the attacks in various ways. A number of drug addicts employed in hotel or airport businesses were laid off. For drug users who relied on people in these positions, their resources became less available. For drug users who steal and barter merchandise, security was heightened at various stores, which made stealing and the movement of goods in the underground economy more difficult. On the other hand, a number of prostitutes mentioned that they had an increase in customers following the attacks and were able to increase their use of drugs.

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Exhibit 1. Rates of DAWN ED Mentions per 100,000 Population for Selected Drugs in Washington, D.C.: 1996–2000

Drug	1996	1997	1998	1999	2000
Cocaine	104	85	97	81	72
Heroin/Morphine	41	45	55	46	50
Marijuana/Hashish	59	63	62	65	64
PCP/PCP Combinations	9	6	4	5	8

SOURCE: Drug Abuse Warning Network, SAMHSA

Exhibit 2. Primary Treatment Admissions* for Major Drugs in Washington, D.C.: 1997–June 2001

Drug	1997	1998	1999	2000	1H 2001
Cocaine	37.0	46.0	47.0	45.0	42.8
Heroin	32.0	35.0	37.0	44.0	48.3
Marijuana	12.0	18.0	16.0	11.0	8.3
Stimulants	0.0	0.0	0.0	0.3	0.7

*Includes alcohol.

SOURCE: Publicly funded treatment programs in Washington, D.C.

Exhibit 3. Percent of Juvenile Arrestees Testing Positive for Selected Drugs in Washington, D.C.: 1995–2000

Drug	1995	1996	1997	1998	1999	2000
Marijuana	58	62	63	63	64	61
PCP	18	7	7	3	7	10
Cocaine	4	6	6	8	7	6

SOURCE: District of Columbia Pretrial Services Agency

EPIDEMIOLOGY OF DRUG ABUSE:

INTERNATIONAL PAPERS

Drug Use in Edmonton (2000)

Cameron Wild, Ph.D.[1]

ABSTRACT

Edmonton, Alberta, is a new participant in the Canadian Community Epidemiology Network on Drug Abuse. Data from several sources show that alcohol is the most frequently used drug in the area. Cocaine accounts for the second largest group in treatment and is the drug of choice among injection drug users. Injection drug use is the most common risk factor for contracting HIV. In 1999, Streetworks exchanged 823,664 clean needles and served 6,245 clients. Among street youth, alcohol and marijuana are the most frequently used drugs.

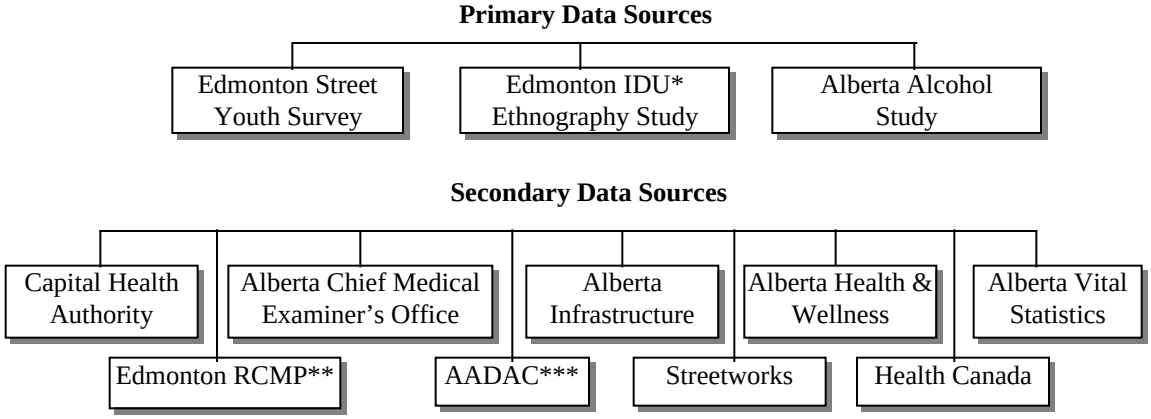
INTRODUCTION

Background

This is the first site report for Edmonton, Alberta, a new participant in the Canadian Community Epidemiology Network on Drug Use (CCENDU). By facilitating data standardization and linkages between local organizations interested in licit and illicit substance abuse, the Edmonton CCENDU site attempts to improve stakeholder agencies' abilities to respond to substance use effectively. This fact sheet compiles prevalence, law enforcement, treatment, morbidity, and mortality data related to substance use in Edmonton, the Capital Health Authority (CHA)[2], and occasionally, Alberta.

Data Sources

As graphically depicted below, two main sources of data were used: primary data sources (specific research projects collecting information on drug use in Edmonton) and secondary data sources (administrative data collected by stakeholder agencies) (exhibit 1). Data from these sources were divided into two categories: (1) information on individual drugs (alcohol, opioids, cocaine and other stimulants, cannabis, sedative-hypnotics, and other drugs and drug combinations), and (2) additional information on drug use among special populations.



*Injection drug use
** Royal Canadian Mounted Police
*** Alberta Alcohol and Drug Abuse Commission.

[1] The author is affiliated with the Centre for Health and Promotion Studies and the Department of Public Health Sciences, University of Alberta. To receive a copy of the *Drug Use in Edmonton (2000): A CCENDU Report*, e-mail the author at cam.wild@ualberta.ca.

[2] The Capital Health Authority (CHA) delivers health services to Region 10, which includes the City of Edmonton, St. Albert, Strathcona County, the City of Leduc, and Leduc County and surrounding municipalities (a population of 827,507).

HIGHLIGHTS

Alcohol is the most frequently used drug among both Edmontonians and Albertans. Alcohol use is clearly the greatest contributor to morbidity and mortality in the Edmonton area. In a telephone survey conducted in spring 2001, 81 percent of Capital Health Authority residents had consumed alcohol at least once in the previous 12 months. The majority of adult clients receiving substance abuse treatment in AADAC programs (63.5 percent) in 1998 were seeking treatment for alcohol use (exhibit 1). Nearly 24 percent of adolescent AADAC clients reported alcohol as the drug most frequently used in past year. Alcohol was involved in two fatal motor vehicle collisions in Edmonton in 1999. The Capital Health Authority reported 175 alcohol- and drug-related deaths in 1999. Most of the alcohol- and drug-related hospital and emergency department admissions were related to alcohol use.

Data suggest that there is a substantial supply of cocaine in Edmonton, but little is known about user demographics and consumption patterns. Cocaine was the second largest drug treatment group at AADAC, as it was the drug most frequently used by 14.5 percent of adult AADAC clients and 9.2 percent of adolescent clients in 1998. In the fiscal year (FY) 1998–1999, 64.3 percent of AADAC clients that were new or chronic injection drug users used cocaine. Six percent of street youth in Edmonton reported using cocaine or crack in a 3-month period prior to 1999. Cocaine abuse accounted for 2.6 percent of all drug-related emergency department visits in 1999.Cocaine-related deaths and inpatient hospital admissions were too few to report. The majority of drug charges from 1996 to 1999 were for cocaine trafficking, and a sizable amount of cocaine has been seized, peaking at $1.5 million in 1999. However, cocaine possession charges were minimal, with three RCMP charges in 1999. This number is probably artificially low since it does not reflect cocaine charges by Edmonton Police Services.

Cocaine is the drug of choice among IDUs seeking treatment in Edmonton (exhibit 2). The relative frequency of injection required to maintain a “high” increases the risk of sharing needles and engaging in other behaviours that can transmit the human immunodeficiency virus (HIV), hepatitis, or other blood-borne pathogens. Of the 74 newly identified cases of HIV in the Edmonton area in 1999, injection drug use was the most common risk factor cited for contracting the virus (60 percent involved IDU alone, IDU and sex trade, or an IDU partner). Injection drug use was identified as the primary or secondary factor in 79.8 percent of the Hepatitis C cases reported in the CHA in 1999.

Streetworks provides clean needles as part of its comprehensive harm reduction programs. Streetworks’ busiest year was 1999, when the program served 6,245 clients, distributed 827,300 needles, and exchanged 823,664 clean needles.

The Edmonton Street Youth Survey provided some information about substance use among this population. In Edmonton, 299 street youth participated in the survey. Alcohol and cannabis were the most common drugs used by street youth. In the 3 months prior to survey, 81.9 percent of the youth reported using alcohol and 71.2 percent marijuana or hashish; 6.0 percent, 3.0 percent, and 2.0 percent of the participants used cocaine, lysergic acid diethylamide (LSD), or ecstasy, respectively. Most street youth surveyed (84.6 percent) had never injected drugs. While just over one-half (56.6 percent) of the respondents reported drinking on three occasions or less per month, almost the same proportion (55.5 percent) reported binge drinking three times a month or less, suggesting that those who drink alcohol usually binge.

Thirty-five conversational interviews have been conducted as part of the Edmonton IDU Ethnography Study. Initial results indicated that some of the issues that IDUs face are familiar (i.e., poverty, homelessness, lack of employment, or inability to gain employment), while others are unique. For example, reasons for initiating drug use varied widely from person to person and cannot be easily generalized. Almost every individual interviewed had some form of criminal record. These criminal records are debilitating for many, as they deny access to legal employment, thereby necessitating generation of street income and creating a sense of fear and insecurity that makes them reluctant to seek health services (e.g., for fear of being charged). The cyclic effect of self-medicating with illegal drugs for physical injuries and psychological conditions becomes apparent, as the violence, emotional and physical stress, and injury associated with street and illegal drug involvement can further the need for self-medication.

FUTURE DIRECTIONS

Currently, there is little information available on the use of club or designer drugs in Edmonton. Staff hope to collaborate with Edmonton Police Services in future years to obtain more information about designer drugs, as well as drinking and driving in Edmonton (24-hour suspensions and charges). Future reports will continue to track emerging themes from the IDU Ethnographic Study and provide more reliable information on problem drinking from the Alberta Alcohol Survey.

Exhibit 1. Drugs Most Frequently Used by Adult AADAC Clients in the Edmonton Area by Percent: 1998

Alcohol	Cocaine/ Amphetamines	Cannabis	Heroin/ Opiates	Sedatives/ Hypnotics	Talwin/ Ritalin	Inhalants/ Hallucinogens	Other/ None
64.2	15.5	8.1	6.2	2.2	0.8	0.4	2.6

SOURCE: Alberta Alcohol and Drug Abuse Commission

Exhibit 2. Drugs Most Frequently Injected in the Past Year by AADAC Clients in Edmonton—Chronic and New Users by Percent: 1998–99

Cocaine	Heroin/ Opiates	Talwin/ Ritalin	Amphetamines	Sedative/ Hypnotics	Inhalants Hallucinogens	Other
64.3	21.7	8.6	4.2	0.7	0.0	0.5

SOURCE: Alberta Alcohol and Drug Use Commission

Highlights from the 2001 Ontario Student Drug Use Survey

Edward M. Adlaf[1]

ABSTRACT

Findings from the Ontario Student Drug Use Survey in 2001 show that alcohol, cannabis, and cigarettes were the drugs most likely to have been used in the past year by 7th–13th graders. There were significant declines from 1999 in use of cigarettes, solvents, and LSD. However, several drugs were significantly more likely to be used by Ontario students in 2001 than in 1993, including alcohol (and binge drinking), cannabis, solvents, ecstasy, PCP, hallucinogens, and cocaine, and use of any illicit drug rose from 18.5 to 33.2 percent of Ontario students. A comparison of the 2001 Ontario data with data from Monitoring the Future (MTF) Study show that Ontario 10th and 12th grade students were more likely than those in the United States to report ever using alcohol and hallucinogens other than LSD, while American 10th graders were more likely than Ontario 10th graders to report lifetime use of amphetamines and tranquilizers.

INTRODUCTION

Canada, unlike the United States, does not have a national survey, such as the Monitoring the Future (MTF) Study, to assess alcohol and other drug use among school students. The longest ongoing student survey in Canada is the *Ontario Student Drug Use Survey* (OSDUS), which has been conducted every 2 years since 1977 (Adlaf and Paglia, 2001). Ontario, with a population of about 12 million, is the most populous of the 10 Canadian provinces and represents almost 40 percent of the Canadian population, including adolescents. In this paper, highlights of the 2001 cycle of the OSDUS are described and comparisons are made with selected data from the 2001 MTF Study (Johnston, O'Malley, and Bachman 2002). Trends in Ontario student drug use are also presented, beginning with 1991.

THE OSDUS SURVEY

The 2001 OSDUS cycle, which employed a two-stage cluster design (school, class), included 4,211 7th–13th graders from 41 school boards and 106 schools; the 1999 OSDUS cycle included 4,894 students from 38 school boards and 111 schools. (Currently, students in Ontario spend 5 years in secondary school before proceeding to university.) Student completion rates for the 2001 and 1999 surveys were 71 and 76 percent, respectively. Reasons for non-completion included absenteeism (about 13 percent) and absence of parental consent (about 16 percent). Self-administered questionnaires were administered by staff of the Institute for Social Research, York University, on a classroom basis.

The past-12-month prevalence rate was defined as follows: for tobacco, the use of more than one cigarette, excluding trying a cigarette; for alcohol, any use excluding a sip; and for other drugs, any use at least once. Binge drinking refers to consuming five or more drinks on a single occasion during the 4 weeks before the survey.

All estimates were weighted, and variance and statistical tests were corrected for the complex sample design. To assess statistical significance of differences in percentages between years, 95 percent confidence intervals around the difference P1-P2 were assessed.

Findings

Exhibit 1 shows the percentage of students in 2001 reporting the past-year use of various drugs. For the total sample, the widely used drugs were alcohol (65.6 percent), followed by cannabis (29.8 percent), cigarettes (23.6 percent), and hallucinogens such as mescaline and psilocybin (11.4 percent). The remaining drugs were used by 6 percent or fewer of the students. Statistical analyses indicated gender differences for seven measures: females reported higher rates of stimulant use, while males reported higher rates for six indicators (heavy drinking, cannabis, glue, methamphetamine, lysergic acid diethylamide [LSD], and hallucinogens). Not surprisingly, 17 measures showed significant differences according to grade level of student. With the exception of inhalants, showing greater use among younger students, drug use was lowest among 7th graders and highest among 11th graders.

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Exhibit 2 presents trends in past-year drug use among students in grades 7, 9, 11, and 13 between 1991 and 2001 and changes in drug use among students in grades 9 through 13 between 1999 and 2001 (right hand columns 14 and 15).

As shown in exhibit 2, between 1999 and 2001, the past-year use of three drugs decreased significantly: cigarettes from 29.2 percent to 23.6 percent; solvents from 7.1 percent to 5.7 percent; and LSD from 6.8 percent to 4.5 percent. Despite these declines, however, there was no significant decrease in the percentage of students using *any* illicit drug during the year prior to survey (33.5 percent in 2001 vs. 33.6 percent in 1999).

The data in exhibit 2 also indicate that despite the halt in the upward trend in drug use between 1999 and 2001, several drugs, including the following, remained significantly higher in 2001 than in 1993: alcohol (62.6 vs. 56.5 percent); binge drinking (25.3 vs. 17.7 percent); cannabis (28.6 vs. 12.7 percent); solvents (5.9 vs. 2.3 percent); ecstasy (MDMA) (6.0 vs. 0.6 percent); phencyclidine (PCP) (2.4 vs. 0.6 percent); hallucinogens (10.3 vs. 3.1 percent); and cocaine (3.8 vs. 1.5 percent). In addition, the percentage reporting any illicit drug use was higher in 2001 than in 1993 (33.2 vs. 18.5 percent), as was the percentage using four or more drugs (14.0 vs. 8.0 percent). The only drug to show a significant decline during this period was the use of LSD, which dropped from 6.9 percent in 1993 to 3.3 percent in 2001.

Exhibit 3 presents a comparison of lifetime drug use between the 2001 cycles of the OSDUS and the MTF for both 10th and 12th graders. Ontario students, especially 10th graders were more likely than American students to drink alcohol (81.6 vs. 70.1 percent). A more striking difference was the use of hallucinogens other than LSD such as mescaline and psilocybin, which was higher among 10th and 12th grade Ontario students (16.1 vs. 4.0 percent and 25.4 vs. 7.0 percent, respectively). Two other differences show that lifetime use of amphetamines and tranquilizers were higher among American than Ontario 10th graders (16.0 vs. 9.2 percent and 8.1 vs. 3.0 percent, respectively).

Conclusions

These brief results demonstrate the usefulness of cross-national monitoring and comparison. The overall trends in student drug use between the two countries generally share similar temporal change and there is no evidence of trends lagging in Ontario. The results also suggest the need for further study on the higher rate of hallucinogen use in Ontario.

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Exhibit 1. Past-Year Drug Use Among Ontario Students by Total, Gender, Grade, and Percent: *OSDUS* 2001

Drug	Total	Gender		Grades						
		Males	Females	G7	G8	G9	G10	G11	G12	G13
Alcohol	65.6	66.3	65.0	36.1	52.0	60.9	76.8	81.0	80.0	86.2
Cannabis	29.8	33.7	26.0	5.1	12.0	28.8	39.0	45.7	43.5	43.9
Cigarettes	23.6	23.3	23.8	5.0	10.7	23.4	29.9	35.8	36.3	29.3
Hallucinogens	11.4	13.2	9.6	0.9	3.8	9.7	15.2	19.2	20.5	14.4
NM Stimulants	6.4	4.8	8.0	1.9	3.3	5.5	7.8	10.3	10.4	7.4
Ecstasy (MDMA)	6.0	6.7	5.4	0.9	3.0	7.2	6.8	9.5	9.2	6.8
Solvents	5.7	5.5	6.0	9.7	9.3	7.6	3.8	2.3	3.9	S
LSD	4.5	6.0	3.1	0.9	2.5	4.6	8.0	5.0	7.8	1.4
Cocaine	4.3	4.6	3.9	2.4	3.2	3.2	6.5	7.0	3.5	2.6
NM Barbiturates	3.9	3.5	4.3	2.3	3.0	2.9	8.1	2.9	4.0	2.0
Methamphetamine	3.8	5.0	2.7	1.2	1.4	3.7	6.8	4.9	5.0	2.5
Glue	3.0	3.7	2.3	3.9	5.7	3.8	2.7	1.2	1.8	S
Rohypnol	2.9	3.3	2.6	1.6	2.6	5.2	3.0	1.2	5.4	0.9
PCP	2.7	3.2	2.2	0.8	1.2	3.8	3.7	2.9	4.4	1.3
NM Tranquillizers	2.2	2.8	1.7	0.6	2.1	1.4	2.7	3.3	4.2	1.9
Crack Cocaine	2.0	2.4	1.6	0.5	1.7	3.7	1.4	2.6	2.9	0.5
GHB	1.2	1.7	0.8	0.6	S	1.2	3.6	S	1.2	0.9
Heroin	1.0	1.4	0.7	0.9	0.9	2.2	1.2	0.5	S	S
Ice	0.6	0.7	S	0.6	1.0	S	0.6	1.2	S	0.5
Any illicit (incl can.)	33.5	35.6	31.4	10.6	15.9	35.3	41.3	48.7	43.6	44.5
Any illicit (excl can.)	19.7	20.7	18.8	7.1	11.1	21.3	23.1	28.2	26.8	22.3

S = Estimate suppressed due to low stability.

SOURCE: OSDUS, Centre for Addiction and Mental Health

Exhibit 2. Percentage Using Drugs *at Least Once* During the Past 12 Months, Grades 7 to 13, 1991–2001*

Year (N)	Grades 7-9-11-13							Grades 7–13
	1991 (3,945)	1993 (3,571)	1995 (3,870)	1997 (3,990)	1999 (2,868)	2001 (2,326)	1999 (4,894)	2001 (4,211)
Tobacco (95% CI)	21.7 ±1.4	23.8 ±2.5	27.9 ±1.7	27.6 ±1.6	28.3 (24.8, 32.1)	22.3 (18.9,26.0)	29.2 (26.8,31.8)	** 23.6 (20.9,26.5)
Alcohol	58.7 ±3.1	56.5 ±2.6	58.8 ±2.1	59.6 ±2.8	65.7 (62.5, 68.8)	62.6 (58.6,66.5)	67.5 (65.2,69.7)	65.6 (62.8,68.4)
Cannabis	11.7 ±1.6	12.7 ±1.3	22.7 ±2.7	24.9 ±1.6	29.2 (25.6, 33.1)	28.6 (25.0,32.5)	29.3 (26.9,31.8)	29.8 (27.2,32.6)
Glue	1.1 ±0.3	1.6 ±0.4	2.4 ±0.4	1.5 ±0.3	3.8 (3.0, 4.9)	2.6 (1.9, 3.6)	3.6 (3.0, 4.4)	3.0 (2.4, 3.8)
Other Solvents	1.6 ±0.4	2.3 ±0.6	2.9 ±0.5	2.6 ±0.6	7.3 (6.0, 8.9)	5.9 (4.7, 7.4)	7.1 (6.1, 8.2)	* 5.7 (4.8, 6.8)
Barbiturates (NM)	2.2 ±0.5	3.0 ±0.5	2.7 ±0.6	2.5 ±0.5	4.4 (3.1, 6.0)	2.6 (1.9, 3.6)	4.4 (3.5, 5.6)	3.9 (3.1, 4.8)
Heroin	1.0 ±0.3	1.2 ±0.5	2.0 ±0.6	1.8 ±0.3	1.7 (1.2, 2.4)	1.2 (0.8, 1.7)	1.9 (1.5, 2.4)	1.0 (0.7, 1.4)
Methamphetamine ("Speed")	1.8 ±0.7	2.0 ±0.4	4.6 ±1.2	3.6 ±0.6	5.1 (3.4, 7.6)	3.1 (2.4, 4.1)	5.3 (4.2, 6.8)	3.8 (3.1, 4.8)
Stimulants (NM)	4.0 ±0.9	5.4 ±1.0	6.3 ±1.0	6.6 ±0.8	7.6 (6.0, 9.6)	6.0 (4.8, 7.4)	7.8 (6.7, 9.1)	6.4 (5.4, 7.5)
Tranquillizers (NM)	1.6 ±0.4	1.1 ±0.4	1.6 ±0.5	1.7 ±0.3	2.4 (1.4, 4.1)	1.7 (1.1, 2.7)	2.4 (1.7, 3.4)	2.2 (1.6, 3.0)
LSD	5.2 ±1.0	6.9 ±1.3	9.2 ±2.1	7.6 ±0.8	6.5 (4.8, 8.9)	3.3 (2.4, 4.4)	6.8 (5.6, 8.2)	** 4.5 (3.6, 5.6)
Other Hallucinogens	3.3 ±0.6	3.1 ±0.8	7.6 ±1.9	10.1 ±1.2	13.6 (10.7, 17.1)	10.3 (8.6, 12.4)	13.8 (12.0,16.0)	11.4 (9.9, 13.0)
Cocaine	1.6 ±0.4	1.5 ±0.4	2.4 ±0.4	2.7 ±0.3	4.1 (2.8, 5.9)	3.8 (3.0, 5.0)	3.7 (2.8, 4.8)	4.3 (3.5, 5.2)
PCP	0.5 ±0.2	0.6 ±0.3	1.7 ±0.8	2.0 ±0.6	3.2 (2.3, 4.4)	2.4 (1.8, 3.2)	3.0 (2.4, 3.8)	2.7 (2.1, 3.5)
Crack	1.1 0.3	1.0 0.3	1.7 0.3	2.2 0.6	2.3 (1.6, 3.3)	2.1 (1.5, 2.9)	2.4 (1.8, 3.1)	2.0 (1.5, 2.6)
Ice	0.8 ±0.6	1.2 0.6	1.1 0.5	†	1.5 (0.6, 3.6)	0.5 (0.2, 1.4)	1.4 (0.8, 2.5)	0.6 (0.3, 1.0)
Ecstasy	†	0.6 0.4	1.8 0.8	3.1 1.3	4.8 (3.0, 7.5)	6.0 (4.9, 7.3)	4.4 (3.2, 6.0)	6.0 (5.1, 7.2)
GHB	-	-	-	-	-	-	-	1.2 (0.8, 2.0)
Rohypnol	-	-	-	-	-	-	-	2.9 (1.9, 4.6)
Any illicit, includes cannabis	15.7 ±1.5	18.5 ±2.3	28.4 ±3.6	29.5 ±2.5	32.9 (29.0, 36.9)	33.8 (29.4,37.2)	33.6 (30.8,36.4)	33.5 (30.4,36.7)
Any illicit, excludes cannabis	9.9 ±1.6	13.2 ±2.0	18.5 ±3.2	18.2 ±2.2	21.0 (17.6, 25.0)	19.3 (17.0,21.9)	21.9 (19.5,24.4)	19.7 (17.6,22.0)

Notes: (1) ± entries are 95 percent confidence intervals; (2) 1999 vs. 2001 significant differences, * p<.05, **p<.01; (3) † estimate suppressed or less than 0.5 percent; (4) 1977–2001 estimates are based on G7,9,11 and 13 students; (5) estimates for "any illicit drug" exclude glue, solvents, and medical drug use in each year, and are based on random half samples in each year from 1991 to 2001. The 2001 estimates also exclude ice, gamma hydroxybutyrate (GHB), and Rohypnol (flunitrazepam).

SOURCE: OSDUS, Centre for Addiction and Mental Health

Exhibit 3. Percentage of 12th Graders and 10th Graders Reporting Lifetime Drug Use: MTF vs. OSDUS, 2001

Drug	12th-Graders			10th Graders		
	MTF	OSDUS	(CI)*	MTF	OSDUS	(CI)*
Alcohol	79.7	85.7	(77.191.5)	70.1	81.6	(77.984.7)
Cannabis	49.0	49.9	(38.361.6)	40.1	42.6	(38.347.0)
Amphetamines	16.2	13.7	(9.120.2)	16.0	9.2	(7.1–11.7)
MDMA	11.7	11.3	(7.217.4)	8.0	8.6	(6.4–11.5)
LSD	10.9	10.7	(6.616.8)	6.3	9.0	(6.7–12.0)
Other hallucinogens	7.0	25.4	(19.333.1)	4.0	16.1	(12.7–20.2)
Tranquillizers	9.2	5.0	(2.49.8)	8.1	3.0	(1.8–5.0)
Cocaine	8.2	6.1	(3.410.6)	5.7	7.4	(5.2–10.5)
Methamphetamine	6.9	9.0	(6.113.1)	6.4	7.8	(5.6–10.8)
Crack	3.7	4.0	(2.37.1)	3.1	2.6	(1.5–4.5)

*Note: entries in parentheses are 95 percent confidence intervals

SOURCE: Monitoring the Future (MTF) Study (Johnston, O'Malley, and Bachman) and OSDUS, Centre for Addiction and Mental Health

Update of the Epidemologic Surveillance System of Addictions (SISVEA) Mexico: January–June, 2001

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ABSTRACT

Data for this report were gathered through Mexico's Epidemiologic Surveillance System of Addictions from treatment centers, juvenile detention centers, and medical examiners for the first half of 2001. Among 5,905 patients in government treatment centers (GTCs) and 5,536 patients in nongovernment treatment centers (NGCs), cocaine was the drug most likely to be used currently (42.6 percent of GTC and 30.5 percent of NGC patients). Marijuana was the second most frequently reported current drug of abuse among GTC patients (20.0 percent) and ranked third among NGC patients (14.9 percent). Heroin was reported as a current drug of abuse by 17.5 percent of NGC patients but only by 2.2 percent of GTC patients. Inhalants accounted for 11.7 percent of current drug reports among NGC patients. Approximately 90 percent of GTC and NGC patients were male and the majority used more than one drug. Marijuana (41.1 percent) and cocaine were the most frequently used drugs among juvenile arrestees. Medical examiners reported that alcohol was associated with 81.3 percent of drug-related deaths.

INTRODUCTION

The Epidemiologic Surveillance System of Addictions (SISVEA) of Mexico, created in 1990, is the product of the collaboration among different government and nongovernment agencies and has provided periodic and timely information on tobacco, alcohol, and medical and illegal drug use. The 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.

SISVEA was initiated 10 years ago with only six cities, all located at the northern border of Mexico. Currently SISVEA gathers information from 25 cities. One-half of the cities are located along the border; the others are in metropolitan and recreational areas. The system has evolved and now collects information on five indicators from different sources.

Data for each of the following indicators are derived by SISVEA from a variety of sources:

- Treatment data. These data cover user characteristics and consumption patterns associated with the first drug used as well as the primary current drug upon treatment entry. The data are provided by government treatment centers (GTCs) (Centers of Juvenile Integration) and nongovernment treatment centers (NGCs) in SISVEA cities.
- Emergency room (ER). These data include mentions on morbidity or accidents associated with drug consumption. Mentions represent patients who visit the hospital who may not be intoxicated at the time of arrival.
- Law enforcement data. These data include monthly information on routes of illegal drug traffic, seizures of illicit drugs, eradication of illicit crops, and the price of drugs.
- Drug consumption data. These data are gathered for the general population and specific risk groups.

DATA SOURCES FOR THE REPORT

Data for the first half of 2001 are presented on the following indicators:

- Treatment data—These cover characteristics and consumption patterns related to the first drug of use and primary current drug of use among GTCs and NGCs in the participating SISVEA cities.
- Arrestee data—This information was gathered from juvenile detention centers.
- Medical examiner (ME) data—These data cover drug-related deaths including accidental or violent deaths (homicides oar suicides) in which drug abuse may be the direct cause or a contributing factor in the death.

DRUG ABUSE PATTERNS AND TRENDS

Marijuana

GTCs.

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According to GTC data for the first half of 2001, most marijuana users were male (91.2 percent); 29.4 percent were age 15–19, 48.1 percent had only a middle school education, 61.7 percent were single, and 54.6 percent were members of a middle-low socioeconomic group (exhibit 1). The age of onset for 90.8 percent of marijuana users occurred between the ages of 10 and 19. More than one-half (54.2 percent) reported daily use. Marijuana ranked second as the drug of first use (19.4 percent) and second as a primary current drug of use (20.0 percent) (exhibit 2).

Natural history data on GTC patients show that 11.5 percent used only marijuana (monodrug users) at treatment entry; 88.5 percent used a second drug, usually cocaine (31.6 percent) or alcohol (27.4 percent) (exhibit 3). Of the multiple drug users, 77.3 percent advanced to a third drug, usually cocaine (30.3 percent), alcohol (17.9 percent), inhalants (15.8 percent), or crack (5.5 percent).

NGCs

According to data gathered from NGCs in the first half of 2001, marijuana was used mostly by males (95.8 percent); 27.0 percent were age 20–24, 44.6 percent had an elementary school education, and 57.3 percent were single (exhibit 4). The age of onset for marijuana use among 51.1 percent of these patients was between 10 and 14, and 80.3 percent of this group reported daily use. Marijuana ranked second as the drug of first use among 26.4 percent of the NGC patients in the first half of 2001; as a current primary drug, it ranked fourth (14.9 percent) (exhibit 5).

The natural history of marijuana consumption reported by NGC patients shows that 15.2 percent at treatment entry used only marijuana, the remaining 84.8 percent had progressed to use of a second drug, primarily cocaine (26.3 percent) or inhalants 22.1 percent (exhibit 3). Of the multiple drug users, 75.7 percent were using a third drug, mainly cocaine (31.0 percent), heroin (19.1 percent), or inhalants (11.9 percent).

Information from the Juvenile Detention Centers shows that 41.1 percent of the 3,655 juveniles arrested during first half of 2001 used marijuana (exhibit 6). Most of this population were male (97.6 percent); 55.9 percent had an elementary school education, 47.9 percent were subemployed, 38.7 percent had tattoos, and 32.2 percent were gang members. Nearly one-third (32.5 percent) of this group's offenses were committed while intoxicated; 42.8 percent of the offenses were robberies.

ME data indicated that 6.2 percent of drug-related deaths reported were associated with marijuana. This decedent group was primarily male (97.5 percent); 26.2 percent were age 25–29 and 23.8 percent were 40 or older (exhibit 7). The main causes of death in these cases involved firearms (42.9 percent) and intoxication (16.7 percent). Most deaths occurred on the street (64.3 percent) or at home (23.8 percent).

Inhalants

GTCs

Inhalant users attending GTCs were mostly male (86.5 percent), and more than one-third (36.9 percent) were age 15–19. More than one-half (58.0 percent) had only a middle school education, 74.6 percent were single, and 55.6 percent were members of a middle-low socioeconomic group (exhibit 1). Most began using inhalants between the ages of 10 and 14 (62.1 percent); 48.5 percent used an inhalant weekly, and 30.8 percent used daily. Inhalants ranked third as the most frequently reported drug of onset (12.5 percent) and also as the current drug of use (11.7 percent).

Natural history data on inhalant use among GTC patients show that 23.9 percent used only inhalants upon treatment entry; 76.1 percent were using a second drug, mainly marijuana (41.2 percent) or alcohol (21.5 percent). Of these multiple drug user users, 77.5 percent used a third drug, usually marijuana (26.3 percent), cocaine (24.5 percent), alcohol (18.5 percent), or crack cocaine (4.2 percent) (exhibit 8).

NGCs

Of the 712 NGC patients who used inhalants, most were male (91.7 percent); 30.5 percent were between the ages of 15 and 19, 56.5 percent had an elementary school education, and 70.7 percent were single (exhibit 4). More than one-half began using inhalants between age 10 and 14 (57.8 percent), and 79.8 percent reported daily use. Inhalants ranked third (13.0 percent) as drug of onset and fifth (9.3 percent) as a primary current drug among NGC clients (exhibit 5).

Natural history data on NGC inhalant users show that 65.7 percent had progressed to using a second drug, usually marijuana (48.6 percent), alcohol (18.6 percent), or cocaine (9.5 percent). Of these multiple drug users, 77.3 percent used a third drug, mainly cocaine (26.0 percent), marijuana (20.8 percent), alcohol (14.8 percent), or heroin (12.3 percent) (exhibit 8).

According to Juvenile Detention Centers, 19.6 percent of the arrestees used inhalants (exhibit 6). Most were male (94.6 percent), had an elementary school education (62.9 percent) and were subemployed (53.7 percent). Also, 42.6 percent had tattoos, and 40.9 percent belonged to a gang. A sizable minority (41.9 percent) committed the offense while intoxicated. Robbery was the most common offense (43.6 percent).

Alcohol

GTCs

Of the 5,905 patients attending treatment in GTCs in the first half of 2001, 2,016 were primary alcohol abusers. Of these, 88 percent were male, 27 percent were age 15–19, and 23 percent were age 20B24 (exhibit 1). Nearly one-half (45.6 percent) had a middle school education, 58.4 percent were single, and more than one-half (57.5 percent) were members of a middle-low socioeconomic group. Nearly one-half (49.6 percent) began using alcohol between the ages of 15 and 19; 55.0 percent reported weekly use, and 27.6 percent reported using alcohol 1–3 times per month. Alcohol ranked first as the most commonly reported drug of onset (34.4 percent) and fourth (8.6 percent) as the primary current drug among GTC patients (exhibit 2).

Among GTC patients whose first drug of use was alcohol, 95.7 percent used a second drug, usually marijuana (28.6 percent), cocaine (28.1 percent), or tobacco (21.9 percent). Of this multiple drug-using group, 74.3 percent reported using a third drug, usually cocaine (36.0 percent), marijuana (28.3 percent), or inhalants (10.9 percent) (exhibit 9).

NGCs

Most of the 1,797 NGC patients who abused alcohol were male (91.4 percent) (exhibit 4). More than one-third (34.5 percent) were age 35 or older, 35.7 percent had only a middle school education, and 44.5 percent were single. Nearly one-half (47.2 percent) began using alcohol between the ages of 15 and 19; 42.3 percent reported daily use, and 39.7 percent used alcohol once a week. Alcohol ranked first as the drug of onset (32.6 percent) and third as a current drug (16.3 percent) among NGC patients (exhibit 5).

Natural history data on these NGC alcohol abusers show that 23.2 percent used only alcohol. The remaining 76.8 percent used a second drug, typically marijuana (42.8 percent), cocaine (30.2 percent), or tobacco (10.7 percent); 64.6 percent of the multiple drug users progressed to a third drug, usually cocaine (40.2 percent), marijuana (20.3 percent), or inhalants (10.2 percent) (exhibit 9).

Among juvenile arrestees, 17.4 percent reported use of alcohol (exhibit 6). This group was primarily male (95.9 percent); 47.1 percent had an elementary school education, 44.1 percent were subemployed, 25.5 percent had tattoos, and 28.7 percent were gang members. Nearly one-third of these juveniles (32.7 percent) committed the offense while intoxicated. Robbery (43.2 percent) was the most common offense among this group.

According to ME data, alcohol was associated with 81.3 percent of the deaths reported in the first half of 2001. Most of these decedents were male (94.4 percent), and 40.1 percent were 40 or older (exhibit 7). The main cause of death was asphyxia (16.1 percent), followed by being run over (15.4 percent). The most common place where these deaths occurred was at home (32.8 percent) or on the street (32.0 percent).

Cocaine

GTCs

Cocaine users at GTCs in the first half of 2001 were mostly male (88.4 percent). More than one-third (34.2 percent) were age 15–19, 52.3 percent were middle school graduates, 57.0 percent were single, 27.9 percent were married, and more than one-half (52.1 percent) were members of a middle-low socioeconomic group (exhibit 1). Nearly one-half (46.9 percent) initiated cocaine use between the ages of 15 and 19, and more than three-quarters used cocaine either once a week (46.9 percent) or daily (31.2 percent). Among GTC patients, cocaine ranked fourth as the first drug of use (12.3 percent) and first as the current drug (42.6 percent) (exhibit 2).

Natural history data on cocaine use among GTC patients show that 50.1 percent used only cocaine upon entering treatment; the rest were using a second drug, usually marijuana (29.4 percent), alcohol (27.9 percent), or crack (17.6 percent). Of this multiple drug-using group, 47.5 percent used a third drug and changed or combined it with alcohol (28.0 percent), marijuana (19.4 percent), or tobacco (12.4 percent) (exhibit 10).

NGCs

Among cocaine users in NGCs, 88.0 percent were male, 25.7 percent were age 20–24, 42.8 percent had a middle school education, and 50.3 percent were single (exhibit 4). Many (41.7 percent) started using cocaine between the ages of 15 and 19; 59.6 percent reported daily use, and 30.4 percent reported weekly use of cocaine. Cocaine ranked fourth as the drug of onset among 10.3 percent of the NGC patients and first as the current drug of use (30.5 percent) (exhibit 5).

Natural history data on cocaine abuse among these NGC patients show that 49.6 percent used only cocaine; 50.4 percent used a second drug, mainly marijuana (35.6 percent), alcohol (28.1 percent), or heroin (11.6 percent). Of this

multiple drug-using group, 44.5 percent used a third drug, usually alcohol (21.5 percent), marijuana (17.7 percent), or inhalants (13.8 percent) (exhibit 10).

Juvenile Detention Centers reported cocaine use among 23.6 percent of the young arrestees (exhibit 6). Most were male (94.8 percent); more than one-half had an elementary school education (54.1 percent) and were subemployed (50.2 percent). Sizable minorities had tattoos (38.8 percent) or were gang members (35.1 percent). One-third of the arrestees committed the offense under intoxication. Robbery was the most common offense (53.9 percent).

Heroin

GTCs

Among the heroin users in GTCs, most were male (83.3 percent); one-half were age 15–19, had middle school education, and were single; 60.0 percent belonged to a low socioeconomic group (exhibit 1). The age of onset for one-half of these heroin users occurred between the ages of 15 and 19; 80 percent reported daily use. Of the 5,905 patients attending GTCs during first half of 2001, only 0.1 percent reported heroin as drug of onset. As the primary drug, heroin ranked fifth (2.2 percent).

NGCs

Heroin patients in NGCs were primarily male (91.2 percent); 30.7 percent were age 35 or older, 57.9 percent had only an elementary school education, and 53.1 percent were single (exhibit 4). The age of first use of heroin among 36.3 percent of these patients was between 15 and 19; 99.1 percent reported daily use.

Between 1994 and 2000, heroin as the drug of onset had been increasing among NGC patients; however, in the past year, there was a slight decline (2.1 percent); nevertheless, heroin ranked second as the current drug of use among NGC patients (17.5 percent) (exhibit 5).

Information from the Juvenile Detention Centers shows that 0.6 percent of the 3,655 juveniles arrested during first half of 2001 used heroin (exhibit 6). Most of this group were male (90.5 percent); 52.4 percent had a middle school education, 47.6 percent were employed, 60.0 percent had tattoos, and 40.0 percent were gang members. One-fifth of the offenses among the group were committed while intoxicated. Robbery was the most common offense (71.4 percent).

CONCLUSIONS

- SISVEA has increased its coverage three times during the last 9 years. One-half of the cities in SISVEA are at the northern border of Mexico.
- The types of drugs mentioned in this report have varied across the different information sources:
  - Marijuana and alcohol have increased in Juvenile Detention Centers.
  - Alcohol is most often implicated in drug-related deaths reported by medical examiners.
  - At GTCs, marijuana has increased slightly as the primary drug of abuse. While cocaine as drug of onset has not increased, 42.6 percent of GTC patients reported cocaine as their primary drug.
  - NGC data show a slight decrease in heroin as a drug of onset. As a primary current drug, 17.5 percent of patients sought treatment for heroin use; this represents a decrease. In the first-half of 2001, cocaine ranks first as the current drug of use among GTC patients.

Exhibit 1.Demographic Characteristics of GTC Patients* in Mexico by First Drug of Use and Percent: January–June 2001

Characteristic	Total	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
Number	(5,905)	(1,140)	(733)	(2,016)	(782)	(6)
Percent	100.0	19.3	12.4	34.1	13.2	0.1
Gender						
Male	87.3	91.2	86.5	88.0	88.4	83.3
Female	12.7	8.8	13.5	12.0	11.6	16.7
Age						
19 and younger	31.6	35.1	59.4	32.9	39.8	50.0
20–24	21.5	22.2	15.8	23.0	25.5	16.7
25–29	17.3	18.1	11.3	19.9	19.5	16.7
30–34	10.5	13.1	7.4	12.4	8.8	16.7
35 and older	10.1	11.6	6.0	11.8	6.3	0.0
Schooling						
Elementary school	18.0	19.9	29.1	15.5	10.7	33.3
Middle school	49.3	48.1	58.0	45.6	52.3	50.0
High school	22.4	22.7	7.9	26.5	26.6	16.7
College studies	4.9	4.9	1.1	6.3	4.0	0.0
No formal education	0.4	0.5	0.6	0.1	0.5	0.0
Other	4.9	3.8	3.4	5.9	5.9	0.0
Marital Status						
Single	62.4	61.7	74.6	58.4	57.0	50.0
Married	23.1	22.8	12.2	26.6	27.9	16.7
Living together	9.2	9.0	8.6	9.0	10.6	16.7
Divorced	1.4	2.4	0.5	1.6	1.4	0.0
Widowed	0.2	0.1	0.3	0.2	0.1	0.0
Other	3.7	4.1	3.8	4.0	2.9	16.7
Socioeconomic Level						
High, middle-high	17.2	15.3	6.7	20.0	19.3	0.0
Middle-low	55.3	54.6	55.6	57.5	52.1	20.0
Low	21.9	24.9	34.4	17.3	22.2	60.0
Middle	5.6	5.1	3.3	5.2	6.4	20.0
Age of Onset						
9 and younger	3.1	2.1	5.1	2.4	0.5	0.0
10–14	44.6	42.6	62.1	41.6	18.9	33.3
15–19	42.9	38.2	30.3	49.6	46.9	50.0
20–24	6.1	5.5	1.8	5.3	18.2	0.0
25–29	2.0	0.9	0.6	0.9	9.5	16.7
30–34	0.8	0.6	0.1	0.1	3.8	0.0
35 and older	0.5	0.1	0.0	0.1	2.2	0.0
Frequency						
Daily	37.5	54.2	30.8	15.7	31.2	80.0
Once a week	41.1	29.8	48.5	55.0	46.9	20.0
1-3 Times per month	19.0	13.6	16.6	27.6	18.7	0.0
1-11 Times per year	2.3	2.4	4.1	1.7	3.1	0.0

*Excludes 1,228 patients in other drug categories.

SOURCE: Governmental treatment centers

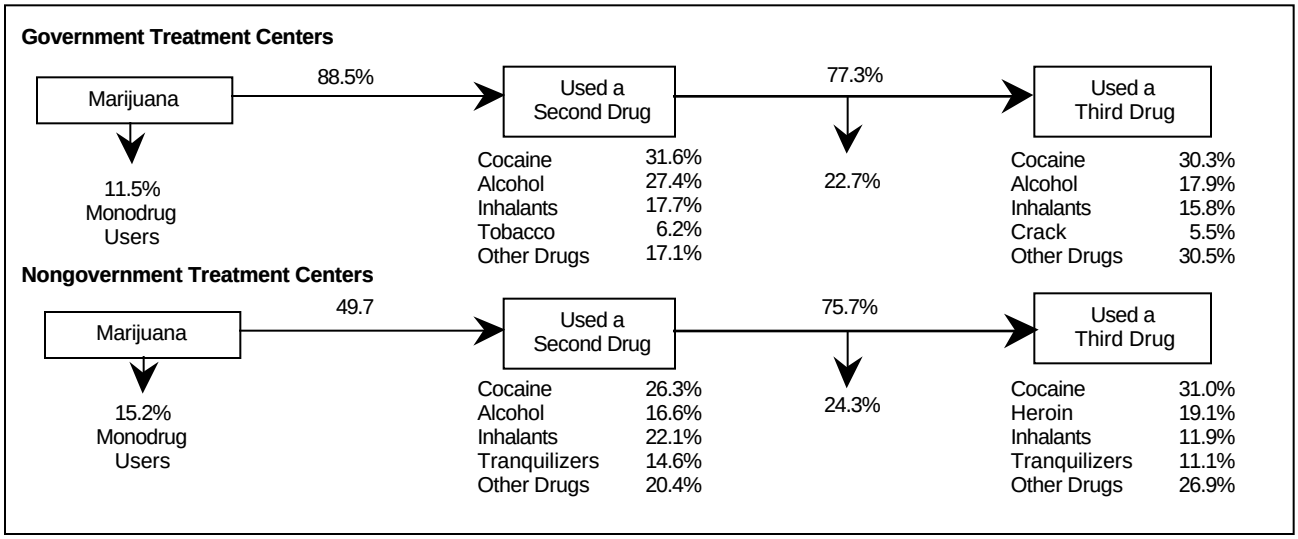
Exhibit 2. Comparison Between Drug of First Use and Current Drug Among GTC Patients in Mexico: 1991–June 2001

Year	Cocaine	Heroin	Marijuana	Inhalants	Alcohol
1991					
First drug	0.9	0.4	39.3	30.2	17.4
Current drug	7.8	1.8	20.1	27.6	12.6
1992					
First drug	1.0	0.7	39.1	27.1	20.4
Current drug	9.7	2.6	25.8	25.4	11.5
1993					
First drug	2.4	0.8	40.9	24.4	19.4
Current drug	15.4	2.9	27.3	20.2	10.0
1994					
First drug	3.9	0.6	39.1	23.2	20.0
Current drug	22.2	4.0	21.7	20.0	8.7
1995					
First drug	5.6	0.4	40.6	23.4	17.8
Current drug	21.0	3.8	21.2	18.4	11.0
1996					
First drug	5.8	0.6	38.5	20.1	22.7
Current drug	25.7	4.0	20.4	16.1	8.0
1997					
First drug	8.5	0.4	33.4	19.8	25.3
Current drug	29.9	3.6	16.5	16.5	8.1
1998					
First drug	12.8	0.2	29.2	17.5	26.1
Current drug	39.6	2.7	14.3	13.4	8.2
1999					
First drug	13.3	0.2	24.0	16.5	29.2
Current drug	39.2	3.2	22.1	16.4	9.5
2000					
First drug	12.7	0.2	21.3	14.0	32.1
Current drug	43.1	4.0	18.6	13.6	7.2
2001*					
First drug	12.3	0.1	19.4	12.5	34.4
Current drug	42.6	2.2	20.0	11.7	8.6

* First half

SOURCE: SISVEA—Government treatment centers

Exhibit 3. Natural History Of Marijuana Use Among GTC And NGC Patients in Mexico: January–June 2001



SOURCE: SISVEA—Government and nongovernment treatment centers

Exhibit 4.Demographic Characteristics of NGC Patients* by First Drug of Use and by Percent: January–June 2001

Characteristic	Global	Marijuana	Inhalants	Alcohol	Cocaine	Heroin
Number	(5,536)	(1,456)	(712)	(1,797)	(575)	(114)
Percent	100.0	26.4	13.0	32.6	10.3	2.0
Gender						
Male	91.5	95.8	91.7	91.4	88.0	91.2
Female	8.5	4.2	8.3	8.6	12.0	8.8
Age						
19 and younger	22.4	22.9	38.3	14.1	26.6	7.0
20–24	23.1	27.0	24.2	17.9	25.7	19.3
25–29	18.5	20.0	19.6	16.6	20.7	24.6
30–34	14.2	14.4	9.5	16.9	13.8	18.4
35 and older	21.9	15.7	8.4	34.5	13.1	30.7
Schooling						
Elementary school	38.6	44.6	56.5	38.4	25.9	57.9
Middle school	37.0	39.2	31.8	35.7	42.8	27.2
High school	20.5	12.9	7.0	31.5	27.6	7.9
College studies	0.2	0.1	0.0	0.5	0.2	0.0
No formal education	2.7	2.3	3.5	2.9	1.6	6.1
Other	1.0	1.0	1.3	1.0	1.9	0.9
Marital Status						
Single	53.5	57.3	70.7	44.5	50.3	53.1
Married	25.2	18.4	11.8	34.4	27.4	24.8
Living together	10.5	13.3	8.8	8.7	11.3	10.6
Divorced	4.0	2.9	1.3	5.9	3.9	7.1
Widowed	0.6	0.1	0.1	0.7	1.1	0.9
Other	6.2	8.0	7.2	5.7	6.1	3.5
Age of Onset						
9 and younger	4.7	4.5	9.6	3.8	1.1	0.0
10–14	41.7	51.1	57.8	37.0	15.2	9.8
15–19	40.8	38.9	29.0	47.2	41.7	36.3
20–24	7.5	4.0	3.0	8.0	19.9	25.5
25–29	2.6	1.2	0.3	1.7	10.9	9.8
30–34	1.6	0.3	0.1	1.2	6.4	9.8
35 and older	1.2	0.1	0.1	1.0	4.8	8.8
Frequency						
Daily	66.3	80.3	79.8	42.3	59.6	99.1
Once a week	23.2	13.3	14.0	39.7	30.4	0.9
1–3 times per month	7.2	3.9	2.7	14.1	6.5	0.0
1–11 times per year	3.2	2.5	3.5	3.9	3.4	0.0

*Excludes 882 patients in other drug categories.

SOURCE: Nongovernment treatment centers

Exhibit 5.Comparison Between First Drug of Use and Current Drug Among NGC Patients: 1994–June 2001

Year	Cocaine	Heroin	Marijuana	Inhalants	Alcohol
1994					
First drug	3.4	1.2	32.7	16.3	36.4
Current drug	18.7	6.2	14.1	12.3	24.0
1995					
First drug	4.3	2.6	37.8	16.5	31.3
Current drug	22.4	17.3	11.1	10.4	15.5
1996					
First drug	6.1	6.1	41.1	13.4	23.7
Current drug	16.0	23.3	13.6	10.0	15.0
1997					
First drug	4.2	7.5	39.7	11.0	22.9
Current drug	14.2	37.0	12.9	8.3	14.1
1998					
First drug	6.0	5.4	38.0	10.0	26.7
Current drug	17.8	43.9	8.7	6.8	11.4
1999					
First drug	7.5	2.5	30.9	8.7	33.4
Current drug	26.3	26.9	12.4	6.8	14.1
2000					
First drug	6.9	2.2	31.5	8.2	33.1
Current drug	25.3	24.0	13.9	5.1	15.3
2001*					
First drug	10.3	2.0	26.4	13.0	32.6
Current drug	30.5	17.5	14.9	9.3	16.3

* First half

SOURCE: SISVEA—Nongovernment treatment centers

Exhibit 6.Social Characteristics and Type of Offense Committed Among Drug-Using Juvenile Arrestees in Mexico by Percent: January–June 2001

Total (N = 3,655)	Marijuana (n = 1,501)	Inhalants (n = 718)	Alcohol (n = 635)	Cocaine (n = 862)	Heroin (n = 21)
Male 93.7	Male 97.6	Male 94.6	Male 95.9	Male 94.8	Male 90.5
Elementary school 50.3	Elementary school 55.9	Elementary school 62.9	Elementary school 47.1	Elementary school 54.1	Elementary school 52.4
Subemployed 36.2	Subemployed 47.9	Subemployed 53.7	Subemployed 44.1	Subemployed 51.2	Subemployed 47.6
Tattoo 24.3	Tattoo 38.7	Tattoo 43.6	Tattoo 25.5	Tattoo 38.8	Tattoo 60.0
Belong to a gang 22.3	Belong to a gang 32.2	Belong to a gang 40.9	Belong to a gang 28.7	Belong to a gang 33.1	Belong to a gang 40.0
Offense under intoxication 20.9	Offense under intoxication 32.5	Offense under intoxication 41.9	Offense under intoxication 32.7	Offense under intoxication 33.0	Offense under intoxication 20.0
Frequent Offenses					
Robbery 44.2	Robbery 42.8	Robbery 43.6	Robbery 43.2	Robbery 53.9	Robbery 71.4
Against health 18.7	Against health 33.2	Against health 27.1	Against health 18.2	Against health 31.1	Against health 9.5
Drug/ consumption 7.0	Drug/ consumption 10.0	Drug/ consumption 12.9	Drug/ consumption 7.4	Drug/ consumption 6.4	Drug/ consumption 4.8
Arm bearing 5.9	Arm bearing 6.2	Arm bearing 5.4	Arm bearing 7.4	Arm bearing 5.1	Arm bearing 4.8
Others 12.1	Others 8.7	Others 9.4	Others 12.4	Others 9.1	Others 9.5

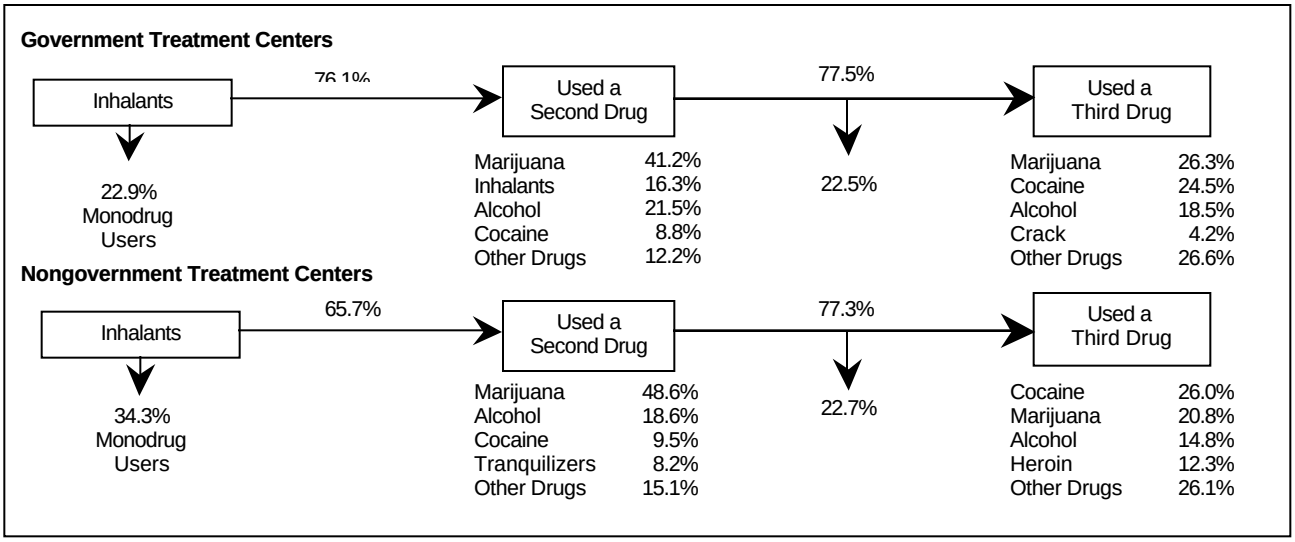
Exhibit 7.Type Of Death Under Intoxication of Drugs in Mexico by Percent: January–June 2001

Characteristic	Total	Alcohol	Marijuana	Opioids
Number	(675)	(549)	(42)	(31)
Gender				
Male	92.4	94.4	97.5	90.0
Female	7.6	5.6	2.5	10.0
Age				
19 and younger	8.9	8.0	11.9	6.5
20–24	13.1	12.8	11.9	6.5
25–29	14.7	12.9	26.2	32.3
30–34	13.4	13.3	11.9	12.8
35–39	11.9	12.9	14.3	19.4
40 and older	38.1	40.1	23.8	22.6
Cause of Death				
Run over	13.1	15.4	4.8	0.0
Traffic accident	11.6	13.9	0.0	0.0
Fall	4.7	5.4	2.4	0.0
Electrocuted	0.3	0.2	2.4	0.0
Burned	0.5	0.6	0.0	3.2
Beaten	3.5	3.7	2.4	9.7
Asphyxia	16.1	16.1	9.5	9.7
Crushed	0.5	0.4	2.4	0.0
Firearm	15.0	11.5	42.9	0.0
Steelknife	3.8	3.7	11.9	0.0
Intoxicated	12.3	9.4	16.7	67.7
Other	19.0	19.8	4.7	9.7
Place of Death				
Traffic	18.5	21.3	4.8	0.0
Home	34.4	34.8	23.8	35.5
Street	35.7	32.0	64.3	61.3
Public baths	0.0	0.0	0.0	0.0
Recreational areas	2.0	2.2	0.0	0.0
At work	0.8	0.7	0.0	0.0
Service areas	1.8	1.7	0.0	0.0
Other	6.9	7.2	7.1	3.2

N = 3,310
*Opium, morphine, and heroin.

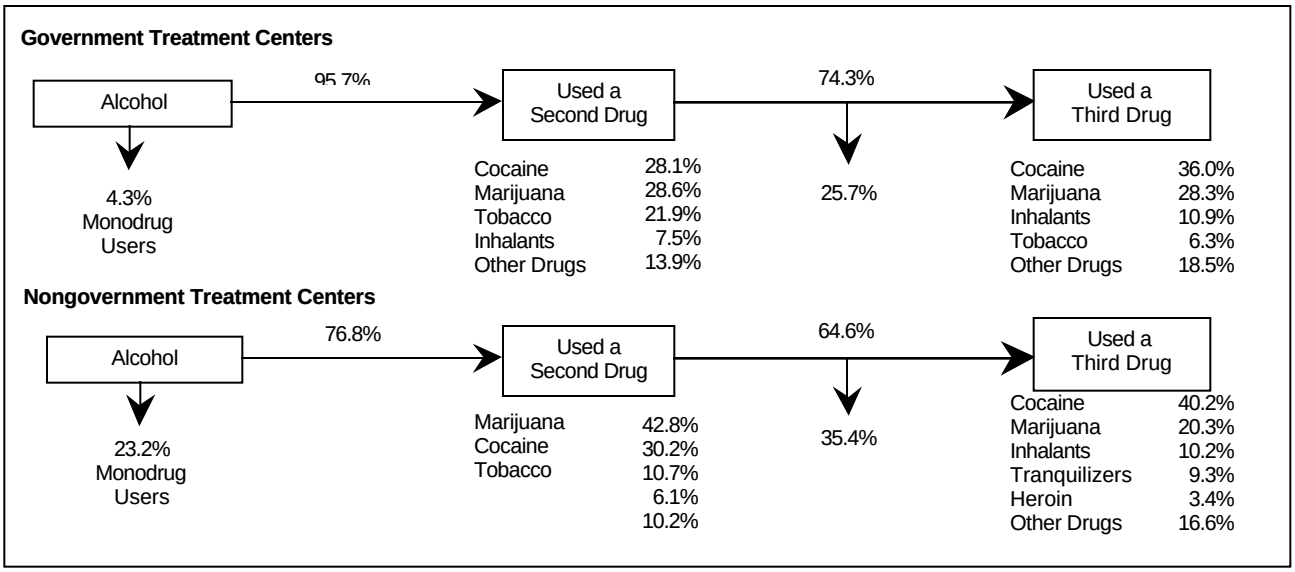
SOURCE: SISVEA—Medical Examiners

Exhibit 8.Natural History of Inhalant Use Among GTC and NGC Patients in Mexico: January–June 2001



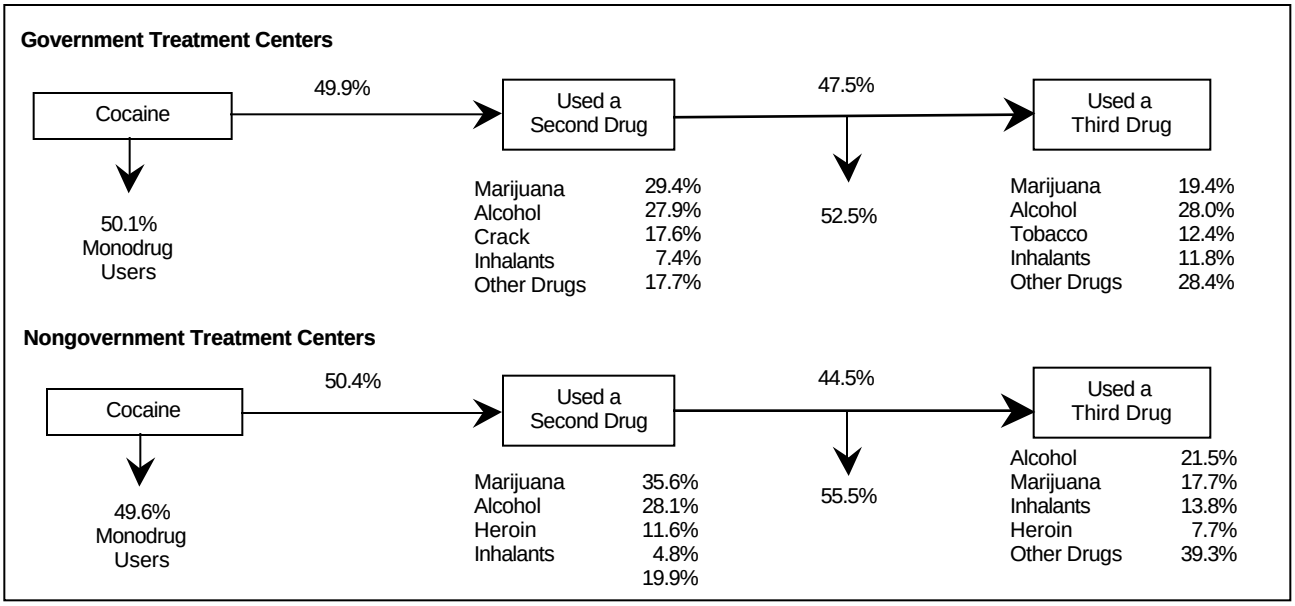
SOURCE: SISVEA—Government and nongovernment treatment centers

Exhibit 9.Natural History of Alcohol Consumption Among GTC and NGC Patients in Mexico: January–June 2001



SOURCE: SISVEA_Government and nongovernment treatment centers

Exhibit 10. Natural History of Cocaine Consumption Among GTC and NGC Patients in Mexico: January_June 2001



SOURCE: SISVEA_Government and nongovernment treatment centers

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