



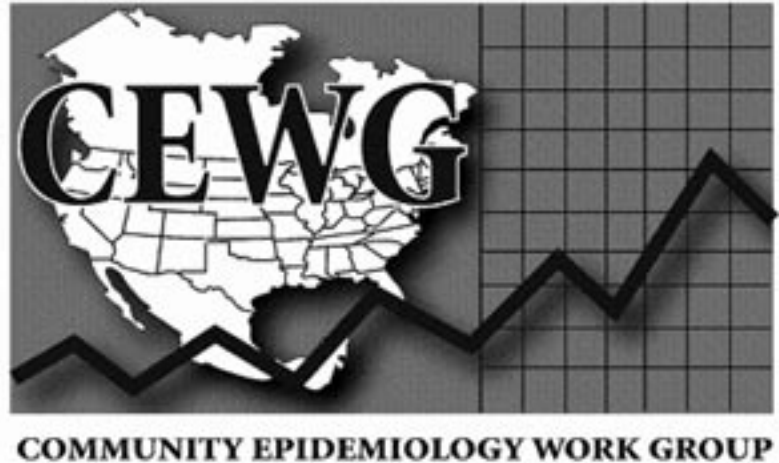
EPIDEMIOLOGIC TRENDS IN DRUG ABUSE

Proceedings of the Community
Epidemiology Work Group

Volume II

June 2008

NATIONAL INSTITUTE ON DRUG ABUSE



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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
Division of Epidemiology, Services and Prevention Research
National Institute on Drug Abuse
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This publication, *Epidemiologic Trends in Drug Abuse, Volume II*, contains the individual

papers presented and data reported at the June 2008 CEWG meeting by representatives from 22 areas in the United States. This publication also includes papers by researchers from Canada, Mexico, and Europe.

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Contents

| | |
|---|----------|
| Foreword | v |
| The CEWG Network: Roles, Functions, and Data Sources | 1 |
| EPIDEMIOLOGY OF DRUG ABUSE: CEWG AREA PAPERS | |
| Albuquerque: Drug Abuse Patterns and Trends in Albuquerque and New Mexico <i>Nina Shah, M.S.</i> | 5 |
| Atlanta: Patterns and Trends of Drug Use in Atlanta <i>Brian J. Dew, Ph.D. and Joshua Castleberry, B.A.</i> | 23 |
| Baltimore/Maryland and Washington, DC Metropolitan Area: Patterns and Trends of Drug Abuse in Baltimore/Maryland and Washington, DC Metropolitan Area: Epidemiology and Trends, 2002–2007 <i>Erin Artigiani, M.A., Cheryl Rinehart, B.A., Lynda Okeke, M.A., Maribeth Rezey, B.A., Margaret Hsu, M.H.S., and Eric Wish, Ph.D.</i> | 34 |
| Boston: Greater Boston Patterns and Trends in Drug Abuse: June 2008 <i>Daniel P. Dooley</i> | 51 |
| Chicago: Patterns and Trends of Drug Abuse in Chicago <i>Wade Ivy, III, M.P.H. and Lawrence Ouellet, Ph.D.</i> | 62 |
| Cincinnati: Drug Abuse Patterns and Trends in Cincinnati, Ohio <i>Jan Scaglione, B.S., M.T., Pharm.D., D.ABAT</i> | 78 |
| Denver: Patterns and Trends in Drug Abuse in Denver and Colorado: January–December 2007 <i>Bruce Mendelson, M.P.A.</i> | 90 |
| Detroit: Drug Abuse in Detroit, Wayne County, and Michigan <i>Cynthia L. Arfken, Ph.D. and Yvonne E. Anthony, Ph.D., M.B.A., M.H.A.</i> | 116 |
| Honolulu: Illicit Drug Use in Honolulu and the State of Hawai'i <i>D. William Wood, M.P.H., Ph.D.</i> | 122 |
| Los Angeles: Patterns and Trends in Drug Abuse in Los Angeles County, California: June 2008 Update <i>Mary-Lynn Brecht, Ph.D.</i> | 137 |
| Maine: Patterns and Trends of Drug Abuse in Maine <i>Marcella H. Sorg, Ph.D., R.N., D-ABFA</i> | 151 |
| Miami: Drug Abuse in Miami/Ft. Lauderdale, Florida: 2007 <i>James N. Hall</i> | 160 |

| | |
|--|-----|
| Minneapolis/St. Paul: Drug Abuse Trends in Minneapolis/St. Paul <i>Carol Falkowski</i> | 178 |
| New York City: Drug Use Trends in New York City <i>Rozanne Marel, Ph.D., John Galea, M.A., and Robinson B. Smith, M.A.</i> | 188 |
| Philadelphia: Drug Use in Philadelphia, Pennsylvania <i>Samuel J. Cutler, Marvin F. Levine, M.S.W., and Roland C. Lamb, M.A.</i> | 204 |
| Phoenix: Drug Abuse Patterns and Trends in Phoenix and Arizona <i>James K. Cunningham, Ph.D.</i> | 216 |
| St. Louis: Patterns and Trends in Drug Abuse in St. Louis <i>Heidi Israel, Ph.D., R.N., L.C.S.W., and Jim Topolski, Ph.D.</i> | 230 |
| San Diego: Drug Use and Abuse in San Diego County, California <i>Robin A. Pollini, Ph.D., M.P.H.</i> | 242 |
| San Francisco: Patterns and Trends of Drug Use in the San Francisco Bay Area <i>John A. Newmeyer, Ph.D.</i> | 256 |
| Seattle: Recent Drug Abuse Trends in the Seattle/King County Area: 2007 <i>Caleb Banta-Green, T. Ron Jackson, Steve Freng, Michael Hanrahan, David H. Albert, John Ohta, Susan Kingston, Richard Harruff, Mary Taylor, Margaret Sookup, Geoff Miller, and Pat Knox</i> | 264 |
| Texas: Substance Abuse Trends in Texas <i>Jane C. Maxwell, Ph.D.</i> | 279 |
| INTERNATIONAL PAPERS | |
| Canada: Trends in Drug Seizures: Health Canada’s Drug Seizure Information <i>Krista Richard, M.A.</i> | 320 |
| Mexico: Update of the Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: 2007 <i>Pablo Kuri, M.D., Hugo López-Gatell, Ietza Bojórquez, M.D., M. Sc., Ph.D., and Mario Cortés, M.Sc.</i> | 321 |
| Europe: Monitoring and Reporting on Drug Use in Europe: An Overview <i>Laurent Laniel, M.A., M.Phil.</i> | 329 |
| PARTICIPANTS | |
| Participant List | 331 |

Foreword

THIS PUBLICATION INCLUDES PAPERS PRE-sented at the 64th semiannual meeting of the Community Epidemiology Work Group (CEWG) held in Bethesda, Maryland, on June 11–13, 2008, under the sponsorship of the National Institute on Drug Abuse (NIDA).

For the June 2008 meeting, CEWG representatives from 22 areas across the Nation prepared 2007 calendar year and/or fiscal year data on patterns and trends in drug abuse in their areas, which were included in their meeting presentations and in their papers contained in this publication. Other presentations contained in this publication focus on drug abuse patterns and trends in Canada (including trends along the U.S.–Canada border), Mexico (including trends along the U.S.–Mexico border), and Europe, as presented by researchers from those areas. The roles and functions of the CEWG are summarized in the next section.

The information published after each CEWG meeting represents findings from CEWG area representatives across the Nation, which are supplemented by national data and by special presentations at each meeting. The information is intended to alert authorities at the local, State, regional, and national levels, and the general public, to current conditions and potential problems so that appropriate and timely action can be taken. Researchers also use the information to develop research hypotheses that might explain social, behavioral, and biological issues related to drug abuse.

Moira P. O'Brien

Division of Epidemiology, Services and Prevention Research
National Institute on Drug Abuse
National Institutes of Health
Department of Health and Human Services

The CEWG Network: Roles, Functions, and Data Sources

THE CEWG IS A UNIQUE EPIDEMIOLOGY NETWORK that has functioned for 32 years as a drug abuse surveillance system to identify and assess current and emerging drug abuse patterns, trends, and issues, using multiple sources of information. The 22 geographic areas represented at the June 2008 CEWG meeting are depicted in the map below.

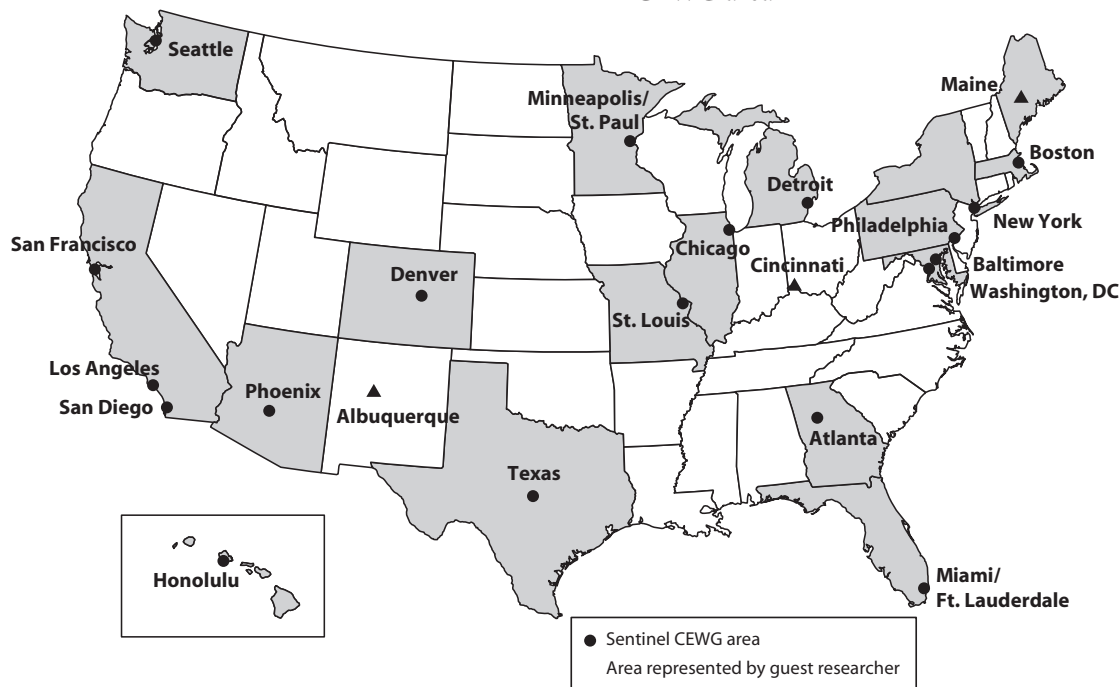
Each data source used by the CEWG provides information about the abuse of particular drugs, drug-using populations, and/or different facets of the behaviors and outcomes related to drug abuse. The information obtained from each source is considered a drug abuse *indicator*. Typically, indicators do not provide estimates of the number (prevalence) of drug abusers at any given time or the rate at which drug-abusing populations may be increasing or decreasing in size. However, indicators do help to characterize drug abuse trends and different types of drug abusers, such as those who have been treated in emergency rooms, have been admitted to drug treatment programs, or have died with drugs found in their bodies. Data on items submitted for forensic chemical analysis

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

Interactive semiannual meetings are a major and distinguishing feature of the CEWG. CEWG representatives and guest researchers present information on drug abuse patterns and trends in their areas through formal presentations, using slides to present graphic data. Time is set aside for question-and-answer periods and discussion sessions. The meetings provide a foundation for continuity in the monitoring and surveillance of current and emerging drug problems and related health and social consequences.

Through the meetings, the CEWG accomplishes the following:

- Dissemination of the most up-to-date information on drug abuse patterns and trends in each CEWG area



- Identification of changing drug abuse patterns and trends within and across CEWG areas
- Planning for followup on identified problems and emerging drug abuse problems

Time at each meeting is devoted to presentations by invited speakers. These special sessions typically focus on the following:

- Presentations by researchers in the CEWG host city
- Presentations by a panel of experts on a current or emerging drug problem identified in prior CEWG meetings
- Updates by Federal personnel on key data sets used by CEWG representatives
- Drug abuse patterns and trends in other countries
- Presentations by other speakers knowledgeable in the selected topic area

The primary data sources used by the CEWG and cited in this report include the following:

- **Treatment data** from State and local sources.
- **Drug Abuse Warning Network (DAWN) emergency department (ED) data** for select CEWG

areas were accessed through *DAWN Live!*, a restricted-access online service administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA).

- **Youth Risk Behavior Surveillance System (YRBSS) data** representing results of the 2007 National Youth Risk Behavior Survey.
- **Automation of Reports and Consolidated Orders System (ARCOS) data** on the flow of DEA controlled substances from their point of manufacture to point of sale or distribution at the dispensing/retail level.
- **Local drug-related mortality data** from medical examiners/coroners (ME/Cs).
- **Forensic laboratory data** provided by National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA) for metropolitan CEWG areas, or in some instances, State or local forensic labs that report to NFLIS.
- **Other data sources** include local law enforcement (e.g., data on drug arrests); local DEA offices; High Intensity Drug Trafficking Area (HIDTA) reports; poison control centers; Help-lines; local and State surveys; and key informants, focus groups, and ethnographers.

EPIDEMIOLOGY
OF
DRUG
ABUSE:

CEWG
AREA
PAPERS

Drug Abuse Patterns and Trends in Albuquerque and New Mexico

Nina Shah, M.S.¹

ABSTRACT

The drug class of prescription opioids (i.e., methadone, oxycodone, hydrocodone) emerged as the leading cause of drug poisoning deaths in New Mexico in 2007, followed by cocaine, heroin, and drug/alcohol combinations. Of note, the poisoning death rates from heroin, cocaine, and methamphetamine were unchanged from 2006 to 2007. In examining prescription drugs from 2006 to 2007, the poisoning death rates from methadone and tranquilizer/muscle relaxants were stable; the death rate from opioids other than methadone increased 40 percent; and the death rate from antidepressants increased 45 percent. Compared with the rest of the State, decedents residing in Albuquerque (Bernalillo County) had higher death rates from heroin (rate ratio [RR]=2.6), cocaine (RR=2.0), methadone (RR=1.9), and drug/alcohol combination overdose (RR=1.8) during 2005–2007. From 2002 to 2006, the largest proportional increase in State-funded treatment admissions was seen for methamphetamine, followed by marijuana. In 2006, one-half of all statewide admissions were for alcohol abuse (n=5,138 of 10,397), followed by abuse of heroin (668), cocaine/crack (651), marijuana (635), methamphetamine (531), other opiates (232), and other amphetamines (209). The number of methamphetamine lab incidents and border seizures declined in recent years statewide, but the burden from methamphetamine abuse remained severe in the southeast region of the State. Items collected

and analyzed by Albuquerque-area forensic labs during 2007 were largely marijuana (31 percent), cocaine (29 percent), and methamphetamine (22 percent). Overall, 21 percent of 3,465 living HIV/AIDS cases in New Mexico have been identified with the risk factors of injection drug use (IDU) or men who have sex with men (MSM) and IDU. In 2007, 76 percent of IDUs living with HIV/HCV co-infection were male, 41 percent were White (non-Hispanic), and 44 percent were Hispanic. Data from the 2007 Youth Risk Behavior Survey continue to show high rates of drug use among New Mexico high school students. Compared with U.S. high school students, New Mexico students reported significantly higher percentages: trying marijuana before the age of 13 (18.2 vs. 8.3 percent); using marijuana on school property (7.9 vs. 4.5 percent); cocaine use in the past month (5.4 vs. 3.3 percent); lifetime use of heroin (5.0 vs. 2.3 percent), methamphetamine (7.7 vs. 4.4 percent), and ecstasy (8.4 vs. 5.8 percent); and ever injecting an illicit drug (3.6 vs. 2.0 percent). The only significant difference found among New Mexico students was higher reported lifetime use of ecstasy among males compared to females (10.7 vs. 5.8 percent).

INTRODUCTION

Drug abuse indicators point to the need to improve the capacity for assessing and monitoring drug abuse and its consequences throughout New Mexico. Epidemiologic work groups can assist local communities and States by providing up-to-date information on drug use patterns and trends. Such information can provide the base of evidence needed by planners, policymakers, and providers to make informed decisions and develop appropriate intervention strategies throughout the State. This report has been generated for the Community Epidemiology Work Group (CEWG) supported by the National Institute on Drug Abuse.

Indicators show that the drug problem in New Mexico is widespread, albeit relatively stable

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for illicit drugs. Prescription drug use, however, is compounding the already severe burden from illicit drugs and deserves particular attention at this time. This report focuses on the most recent data and information available from the Albuquerque area (Bernalillo County) and statewide. Indicator data is also described according to New Mexico Health and Human Services Planning Regions (exhibit 1).

Area Description

Since 1989, New Mexico has been among the U.S. States with the highest drug-induced death rates; in 2005, New Mexico ranked second following Utah. New Mexico has a diverse population of 2 million, growing roughly 8 percent since 2000. The demographics are as follows: 49 percent male; 51 percent female; 43 percent White (non-Hispanic); 41 percent Hispanic; 11 percent American Indian; 3 percent African American; and 2 percent Asian or Pacific Islander. The median age is 35.2 years; 26 percent are younger than 18; and 12 percent are age 65 and older. There are four metropolitan statistical areas (MSAs) in the State: Albuquerque, Santa Fe, Las Cruces, and Farmington. The Albuquerque area, which is defined as Bernalillo County for the purpose of this report unless otherwise noted, is the largest urban center, with roughly 628,000 residents and a similar gender and racial/ethnic breakdown as the State.

In 2006, the median income for households in New Mexico was approximately \$41,000. Nineteen percent of New Mexicans (14 percent of Albuquerque-area residents) were living in poverty, compared with 13 percent for the Nation. Twenty-six percent of related children younger than 18 lived below the poverty level, compared with 13 percent of people 65 and older. Fourteen percent of all families, and 37 percent of families with a female head of household and no husband present, had incomes below the poverty level. Due to proximity and familial ties with Mexico, 36 percent of persons in New Mexico speak a language other than English at home, the second highest proportion in the Nation. Roughly one-quarter of

New Mexicans younger than 65 and not in prison or nursing facilities had no health insurance coverage for at least half of 2006.

There are 180 miles of land along the U.S.-Mexico border, generally open desert and uninhabited. Although one of the largest States geographically, the New Mexico population per square mile of land is 16.2, compared with 85.3 for the Nation. A sizable proportion of the State is sparsely populated, and 11 of 33 counties are considered rural/frontier, according to the Office of Management and Budget classification for statistical areas. On average, these rural counties have less than three people per square mile of land. Given this character, law enforcement intelligence suggests that drug traffickers make use of the vast geography and tribal land for transit and refuge.

Data Sources

Information for this report was gathered from the sources listed below:

- **Mortality data** were provided by the New Mexico Office of the Medical Investigator (OMI). The State-centralized OMI is authorized to investigate all deaths in New Mexico that are sudden, unexplained, suspicious, violent, or unattended, with the exception of those that occur on Federal or tribal jurisdictions. However, the OMI is often contracted to investigate some of those deaths as well. Classification for cause of death is determined by board-certified forensic pathologists and is not simply a determination of the presence or absence of a drug in a toxicologic screen. The diagnosis of a drug poisoning death is dependent on results from a full medicolegal investigation, including full autopsy, circumstances of death, scene and medical investigation, information from family/kin, and blood concentration levels of one or more drugs, either with or without alcohol, as determined by the pathologist. Pathologists also classify manner of death based on information from the full investigation. Age-adjusted death rates are presented (age-adjusted to the 2000

U.S. Standard Population) and expressed per 100,000 population.

- **Treatment admissions data** were provided by the Behavioral Health Services Division, New Mexico Human Services Department. This dataset was submitted to the Treatment Episode Data Set (TEDS) system and includes all State-funded treatment admissions in New Mexico for calendar year (CY) 2006, including opiate replacement therapy ($n=10,397$ total admissions; $n=3,090$ drug abuse admissions only). Since this is the first year to examine these data, it is not appropriate to compare prior years. However, New Mexico TEDS was accessed online to compare the number of treatment admissions by the primary substance of abuse for the time period 2002–2006. These data are as of June 2008.
- **Crime lab data** were collected by New Mexico forensic labs and sent to the National Forensic Laboratory Information System (NFLIS). Data were reported for the Albuquerque MSA ($n=1,349$ in 2007).
- **Data on drug price and intelligence** were from the Albuquerque Police Department, Drug Enforcement Administration (DEA), New Mexico Investigative Support Center/High Intensity Drug Trafficking Area (HIDTA), and National Drug Intelligence Center (NDIC)'s *National Illicit Drug Prices*, December 2007.
- **School survey data** were from the 2007 Youth Risk Behavior Survey (YRBS), Centers for Disease Control and Prevention. These data were collected as part of the New Mexico Youth Risk and Resiliency Survey (YRRS). The YRRS is a school-based survey of 9th through 12th graders attending public school in New Mexico. The survey originated from the YRBS, but the New Mexico YRRS includes additional questions on protective factors and resiliency. In this report, percentages and 95-percent confidence intervals are shown in order to compare New Mexico students to U.S. high school students.
- **Data on infectious diseases related to drug use and harm reduction**, including the human

immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and hepatitis C (HCV), were provided by the HIV and Hepatitis Epidemiology Program, New Mexico Department of Health (NMDOH), and the Harm Reduction Program, NMDOH.

DRUG ABUSE PATTERNS AND TRENDS

Heroin

Heroin remains the greatest drug threat in terms of drug abuse and is readily available in Albuquerque and statewide. The most common forms of heroin found in New Mexico are black tar and brown powder from Mexico.

The main metabolites for heroin and morphine are similar. To distinguish heroin poisoning death from prescription morphine poisoning death, heroin-caused poisoning death is diagnosed by the presence of 6-monoacetylmorphine (6-MAM) and/or morphine, in combination with information from the OMI investigation. In general, a heroin-caused death is diagnosed when a lethal blood concentration level for 6-MAM is found. When a morphine blood concentration level is found without the presence of 6-MAM, the OMI may conclude that heroin is the cause of poisoning death after considering all available information (i.e., syringe/heroin at scene, track marks, history of heroin use). The finding of a morphine blood concentration in a decedent is classified as a morphine-caused death if the differentiation between heroin- and morphine-caused deaths is not definitive.

The unintentional heroin poisoning death rate was unchanged from 2006 ($n=106$; 5.5 deaths per 100,000 persons) to 2007 ($n=108$; 5.5 deaths per 100,000) statewide. Since 1998, the heroin poisoning death rate decreased 28 percent (exhibit 2). Compared with the rest of the State, Albuquerque had the highest death rate from heroin during 2005–2007: 10.0 per 100,000 (rate ratio=2.6) (exhibit 3a). The number of deaths

in Albuquerque was stable from 2006 ($n=61$) to 2007 ($n=64$) (exhibit 4).

Heroin was the most commonly reported drug of abuse, excluding alcohol, and accounted for 6 percent of all State-funded treatment admissions ($n=668$) (exhibits 5 and 6). Among these clients, 62 percent were male, and the majority was Hispanic (53 percent) and White non-Hispanic (28 percent). The median age at admission was 35.8 years, and clients had a relatively long duration since first use, a median of 11.0 years. It was not surprising that heroin-using clients reported the most prior treatment episodes—44 percent had at least two prior episodes—compared with other drugs. The vast majority injected the drug (84 percent). Among these primary admissions for heroin abuse, 46 percent reported a secondary substance of abuse ($n=301$), most commonly cocaine/crack.

In early 2008, the price for heroin in New Mexico was lowest in northern New Mexico, where prevalence of use is highest. In Albuquerque, the low end price for a kilogram of black tar/brown powder heroin significantly decreased from \$40,000 in June 2007 to \$33,000 in December 2007. Heroin sold for \$50–\$180 per gram (exhibit 7), \$700–\$1,200 per ounce (increasing from \$500–\$800 per ounce in June 2007), and up to \$40,000 per kilogram in Albuquerque. In Las Cruces, the price of heroin also slightly increased in December 2007: \$100–\$120 per gram (compared with \$90–\$100 per gram in June 2007) and roughly \$40,000 per kilogram.

The NFLIS reported that heroin was detected among 10 percent of Albuquerque forensic lab tests in 2007 (exhibit 8).

The 2007 showed that 5.0 percent (CI=3.9–6.3) of New Mexico students reported lifetime heroin use, compared with 2.3 percent (CI=1.8–2.8) nationally (exhibit 9a). Though not statistically different, male students in New Mexico reported higher rates of lifetime heroin use than female students (6.5 [CI=5.5–7.6] vs. 3.2 [CI=1.8–5.6] percent). New Mexico students ranked third among U.S. high school students for the highest prevalence of lifetime heroin use. New Mexico

students also reported significantly higher rates of ever injecting an illegal drug compared to U.S. students: 3.6 percent (CI=2.9–4.5) vs. 2.0 percent (CI=1.5–2.7).

Cocaine/Crack

Cocaine use is a consistent problem in New Mexico, causing more unintentional poisoning deaths than heroin in 2007. Even so, the statewide cocaine poisoning death was unchanged from 2006 ($n=114$; 5.9 per 100,000 persons) to 2007 ($n=117$; 5.9 per 100,000). The cocaine poisoning death rate increased 34 percent from 1998 to 2007 (exhibit 2). Compared with the rest of the State, the Albuquerque area had the highest death rate from cocaine during 2005–2007: 8.8 per 100,000 persons (rate ratio =2.0) (exhibit 3a). In Albuquerque, the number of deaths also remained stable, at 57 in 2006 and 56 in 2007 (exhibit 4).

In 2006, treatment for cocaine/crack abuse accounted for 6 percent of all State-funded treatment admissions ($n=651$) (exhibit 5). Among these clients, 57 percent were male, 39 percent were Hispanic, and 26 percent were White non-Hispanic. Cocaine/crack was the most common primary drug of abuse among African-American clients entering treatment. The median age at admission was 35.7 years, and clients had the longest duration since first use, a median of 12.3 years. Sixty-one percent of clients reported smoking the drug. Among these primary admissions for cocaine/crack, 42 percent reported a secondary substance of abuse ($n=265$), most commonly alcohol.

Powder cocaine prices have increased in New Mexico. In Albuquerque, the low end price for a kilogram of powder cocaine significantly increased from \$12,000 in June 2007 to \$17,000 in December 2007. Powder cocaine sold for \$80–\$150 per gram (exhibit 7), \$800–\$1,400 per ounce (\$800 per ounce in June 2007), and up to \$19,500 per kilogram in December 2007. In Las Cruces, the price of powder cocaine was \$450–\$500 per ounce, and approximately \$18,000 per kilogram. In 2008, the price for crack was similar across the

State. NDIC reported that the price for a rock of crack in Albuquerque was \$20 in December 2007.

There were 224 kilograms of cocaine seized by Federal law enforcement in 2007, compared with 672 kilograms in 2006. Although cocaine is seized from commercial trucks and public transportation, the most common seizures are 10–50 kilograms concealed in privately owned vehicles crossing the border. Cocaine interdicted in New Mexico is typically destined for Denver, Oklahoma City, Kansas City, and Chicago. The majority of the crack available comes from cocaine hydrochloride (HCl) supplied by Mexican drug trafficking organizations to local distributors, who then convert the powder cocaine into crack.

NFLIS data revealed that cocaine was the second most commonly detected drug among 1,349 forensic lab tests in the Albuquerque MSA in 2007 (30 percent), following marijuana (exhibit 8).

There was a marginally significant decrease for New Mexico students in grades 9–12 reporting cocaine use in the past 30 days (current use), from 7.9 percent in 2005 to 5.4 percent in 2007 (exhibit 9a). Current cocaine use was reported by 6.7 percent of male students and 4.1 percent of female students in the State. New Mexico high school students ranked second among U.S. high school students for the highest prevalence of current cocaine use.

Marijuana

Marijuana is the most prevalent drug in New Mexico. The number of treatment admissions for marijuana abuse increased from 356 in 2002 to 635 in 2006 (exhibit 6). Males constituted the largest proportion of marijuana admissions of all primary drugs in 2006, roughly 70 percent (exhibit 5). Thirty-seven percent of primary marijuana admissions were White non-Hispanic, and 32 percent were Hispanic. Compared with admissions for other drugs, marijuana clients were youngest at first use (median of 15 years) and treatment entry (median of 26.6 years). The

majority of clients admitted for marijuana abuse had no prior treatment history (56 percent). Among these primary marijuana admissions, 42 percent reported a secondary substance of abuse ($n=263$), most commonly alcohol.

Marijuana is the most frequently seized substance; seizures increased 30 percent from 37,889 kilograms in 2006 to 49,515 kilograms in 2007. The drug is generally destined for distribution in eastern markets. The retail price for marijuana was lowest in Las Cruces and highest in northern New Mexico during early 2008. Marijuana prices remained unchanged in Albuquerque from June to December 2007 (exhibit 7). In December 2007, the price for Mexico-produced marijuana was \$100–\$120 per ounce and \$350–\$400 per pound. In Las Cruces, marijuana cost \$80 per ounce and \$225–\$300 per pound, a decrease from June 2007 (\$300–\$400 per pound).

In the Albuquerque MSA, NFLIS data showed that marijuana was the most detected drug (32 percent) among forensic lab tests in 2007 (exhibit 8).

Marijuana is also the most commonly used illicit drug among teenagers. Compared with 2005, marijuana use among students remained at high but stable levels in 2007. Among New Mexico students, 25.0 percent reported current marijuana use, compared with 19.7 percent nationally (exhibit 9b). Compared with U.S. high school students, significantly higher proportions of New Mexico students reported trying marijuana before the age of 13 (18.2 percent vs. 8.3 percent, respectively) and using marijuana within the past 30 days on school property (7.9 percent vs. 4.5 percent, respectively), ranking first among U.S. high school students for both indicators. Though not statistically different, male students in New Mexico reported higher rates than females for current marijuana use (26.2 percent vs. 23.8 percent, respectively), trying marijuana before the age of 13 (20.6 percent vs. 15.4 percent, respectively), and using marijuana on school property (9.5 percent vs. 6.4 percent, respectively).

Methamphetamine

Methamphetamine use is a stable problem in New Mexico, and the poisoning death rate was unchanged from 2006 to 2007 ($n=33$; 1.8 per 100,000). Statewide from 1998 to 2007, the methamphetamine poisoning death rate increased at a slow and steady rate (exhibit 2). Interestingly, the regions with the highest poisoning death rates from heroin and cocaine (Albuquerque and northeast) had the lowest methamphetamine death rates. Compared with the rest of the State, the Albuquerque area had the third highest death rate from methamphetamine during 2005–2007: 1.8 per 100,000 (rate ratio=1.1) (exhibit 3a). In Albuquerque, there were 12 methamphetamine poisoning deaths in 2006 and 2007 (exhibit 4).

In the past 5 years, localized pockets in the northwest (Four Corners) and southeast of the State, bordering Texas, have been identified as areas where the impact from methamphetamine is most severe. Most recently, with targeted resources and increased activity among law enforcement and the community, the northwest region has made considerable strides in combating the consequences of methamphetamine use. However, the problem persists in the southeast area of the State, where the highest methamphetamine death rates were observed during 2005–2007.

The number of treatment admissions for methamphetamine/amphetamine abuse increased from 197 in 2002 to 740 in 2006 (exhibit 6). Treatment for methamphetamine was differentiated from amphetamine in the 2006 data, when methamphetamine abuse accounted for 5 percent of all State-funded treatment admissions ($n=531$) (exhibit 5). In 2006, females accounted for the largest proportion (51 percent) of methamphetamine admissions of all primary drugs. Fifty-five percent of primary methamphetamine admissions were White non-Hispanic, and 21 percent were Hispanic. The median age at admission was 29.1 years, and clients had a median of 8.9 years between first use and treatment entry. Sixty-six percent of clients reported smoking the drug. Among these primary admissions for methamphetamine, 41

percent reported a secondary substance of abuse ($n=220$), mostly marijuana.

In Albuquerque, the price of methamphetamine decreased from June to December 2007 (exhibit 7). In December 2007, powder methamphetamine sold for \$60 per gram, \$500–\$700 per ounce (compared with \$800–\$1,000 per ounce in June 2007), and \$6,000–\$9,000 per pound. In general, retail prices for methamphetamine were highest in southern New Mexico and lowest in northern New Mexico, where heroin and cocaine use are predominant.

Clandestine laboratory seizures in New Mexico dropped (33 in 2006 to 19 in 2007), and Federal seizures of Mexico-produced methamphetamine decreased from 65 kilograms in 2006 to 46 kilograms in 2007. The majority of seized methamphetamine originates in Mexico, but it arrives in New Mexico from distributors in Los Angeles and Phoenix (as part of larger Mexican trafficking organizations). There are also reports that small, clandestine laboratories are moving from urban settings to rural locations of the State.

NFLIS data showed that methamphetamine was detected among 22 percent of Albuquerque MSA forensic lab tests in 2007 (exhibit 8).

The 2007 YRBS showed that 7.7 percent (CI=6.6–9.0) of New Mexico students reported lifetime methamphetamine use, compared with 4.4 percent (CI=3.7–5.3) nationally (exhibit 9a). Male students in New Mexico reported slightly higher rates of lifetime methamphetamine use than female students (8.3 [CI=7.0–9.9] vs. 6.9 [CI=4.8–9.7] percent). New Mexico students ranked third among U.S. high school students for the highest prevalence of lifetime methamphetamine use.

Ecstasy

In 2007, 8.4 percent of New Mexico students reported lifetime ecstasy use, significantly higher than students nationally (5.8 percent). This was the only drug for which male students in New Mexico reported significantly higher rates of lifetime use

than female students, 10.7 percent vs. 5.8 percent, respectively.

Methadone and Other Prescription Opioids

Prescription opioid use has emerged as a major problem in New Mexico. In 2006, oxycodone was the most widely available opioid analgesic in New Mexico (14,341 grams per 100,000 persons), followed by hydrocodone (7,965 grams per 100,000 persons), morphine (7,456 grams per 100,000 persons), and codeine (6,468 grams per 100,000 persons), in terms of retail distribution. Oxycodone and hydrocodone products were identified by the DEA as being among the most commonly abused and diverted pharmaceuticals in New Mexico.

The prescription opioid poisoning death rate in New Mexico increased roughly 200 percent during 1998–2007 (exhibit 10). Schedule II opioids other than methadone (oxycodone, morphine, meperidine, hydromorphone, and fentanyl) increased at the fastest pace over these years. The highest death rate in 2007 was found for Schedule III/IV opioids, 5.5 per 100,000 persons.

In 2006, treatment for prescription opiate abuse represented 2 percent of all State-funded treatment admissions ($n=232$) (exhibit 5). Among these clients admitted for primary prescription opiate abuse, 58 percent were male, 45 percent were Hispanic, and 41 percent were White non-Hispanic. These clients were oldest at first use, a median of 24 years, but they had the shortest time between first use and treatment entry, a median of just 6.3 years. These clients also reported the lowest prevalence of secondary substance use, 26 percent ($n=60$), and alcohol was most commonly reported.

Preliminary statewide data from the 2007 New Mexico YRRS showed that 11.7 percent of high school students reported using a prescription painkiller “to get high” in the past month. Because this question was asked for the first time in 2007, future surveys should be used to compare trends in prescription opioid abuse among youth.

Methadone

Methadone-caused deaths were analyzed separately from those caused by prescription opioids because of the former’s dual medical purpose in pain management and opiate replacement therapy. The statewide methadone poisoning death rate was relatively stable from 2006 ($n=57$; 2.9 per 100,000 persons) to 2007 ($n=62$; 3.0 per 100,000). Statewide, since 1998, methadone poisoning deaths increased roughly 40 percent (exhibit 2). During 2005–2007, Albuquerque had the highest death rate from methadone, as in prior years: 3.8 per 100,000 (rate ratio=1.9, relative to the rest of the State) (exhibit 3b). Compared with a prior New Mexico study of persons dying from methadone poisoning during 1998–2002, preliminary analyses of methadone-caused deaths during 2003–2007 suggest that decedents were slightly older and death was caused more often by methadone in combination with other prescription drugs, without illicit drugs.

Prescription Opioids Other Than Methadone

The statewide poisoning death rate from opioids other than methadone increased 40 percent from 2006 ($n=124$; 6.3 per 100,000 persons) to 2007 ($n=176$; 8.8 per 100,000). Since 1998, the death rate from opioids other than methadone increased roughly 350 percent (exhibit 2). During 2005–2007, the Albuquerque area had the highest death rate from opioids other than methadone: 8.4 per 100,000 (RR=1.5, relative to the rest of the State) (exhibit 3b). In Albuquerque, the number of deaths caused by these drugs increased from 28 in 2005, to 47 in 2006, and 86 in 2007 (exhibit 4).

Notably, the finding of illicit drugs causing death in combination with prescription opioids other than methadone significantly increased from 31 percent in 2006 to 47 percent in 2007. The number of poisoning deaths caused by heroin plus prescription opioids other than methadone (with or without other substances) increased from 23 in 2006 to 54 in 2007. Poisoning deaths caused

by cocaine plus a prescription opioid other than methadone (with or without other substances) increased from 22 in 2006 to 42 in 2007 (data not shown).

It is important to be aware that qualitative research conducted on drug users in New Mexico found that alcohol and marijuana use are a normalized routine in daily life, as is the practice of self-medication with prescription drugs. Most users would describe themselves as “clean,” despite consuming these substances regularly. Drug users often complain of comorbid conditions and chronic, debilitating physical health conditions that underlie their decisions to use illicit and prescription drugs. Knowledge of this perspective is crucial, since the increase in prescription drug poisoning deaths from 2006 to 2007 was actually due to an increase in deaths caused by the combination of illicit and prescription drugs. Overdose prevention education should be targeted to concurrent users of illicit and prescription drugs.

Other Prescription Drugs

The poisoning death rate from the large class of *tranquilizers and muscle relaxants* (i.e., benzodiazepines) remained unchanged from 2006 ($n=90$; 4.5 per 100,000 persons) to 2007 ($n=91$; 4.5 per 100,000). The poisoning death rate from these drugs increased twofold from 1998 to 2007 (exhibit 2). The Albuquerque area had the second highest death rate from tranquilizers/muscle relaxants during 2005–2007: 4.8 per 100,000 (RR=1.3, relative to the rest of the State) (exhibit 3b). The northeast region had the highest death rate from these drugs (5.6 per 100,000). In Albuquerque, the number of deaths caused by tranquilizers/muscle relaxants increased from 20 in 2005 to 38 in 2007 (exhibit 4).

The poisoning death rate from the class of *antidepressants* (i.e., heterocyclic, SSRI) increased from 2006 ($n=37$; 1.9 per 100,000 persons) to 2007 ($n=55$; 2.8 per 100,000). The poisoning death rate from these drugs doubled from 1998

to 2007 (exhibit 2). Albuquerque had the second highest death rate from antidepressants during 2005–2007: 2.3 per 100,000 (rate ratio=1.2, relative to the rest of the State) (exhibit 3b), while the southeast region had the highest death rate (2.9 per 100,000).

Amphetamine abuse accounted for 2 percent of all State-funded treatment admissions ($n=209$) (exhibit 5). Fifty-five percent of these clients were male; compared to other primary drugs, the largest proportion of White non-Hispanic clients was found in this group (59 percent). Thirty-four percent of clients admitted for amphetamine abuse reported secondary substance use ($n=72$), largely of marijuana.

Mexican pharmacies along the border region, where medications can be sold over-the-counter, continue to be a popular source of prescription drugs in New Mexico. Although some proportion of prescription drugs obtained in this way may not be diverted, prescription drug smuggling from Mexico is likely a primary avenue for illegal distribution of these medications in New Mexico.

Unintentional Drug Poisoning Deaths

In 2007, the statewide unintentional drug poisoning death rate was 18.1 per 100,000, a nominal increase from 17.2 per 100,000 in 2006. Deaths from illicit drugs remained stable (10.0 deaths per 100,000 in 2006; 10.4 per 100,000 in 2007), while the death rate from prescription drugs increased from 10.1 per 100,000 in 2006 to 12.9 per 100,000 in 2007. The latter increase was driven by a 39-percent increase in deaths from prescription opioids other than methadone. The unintentional drug poisoning death rate in Albuquerque also remained stable in 2006 and 2007, 23.7 per 100,000, and 24.8 per 100,000, respectively. Compared with other regions of the State, Albuquerque had the highest death rate from heroin, cocaine, methadone, and drugs/alcohol. The southeast area had the highest death rate from methamphetamine (2.9 per 100,000).

INFECTIOUS DISEASES RELATED TO DRUG USE AND INJECTION DRUG USE TRENDS

As of December 2007, there were 3,465 living HIV and AIDS cases in New Mexico. Exposure categories for all New Mexico cases of HIV and AIDS combined were as follows: men who have sex with men (MSM) (60.8 percent), injection drug user (IDU) (10.2 percent), MSM and IDU (10.6 percent), heterosexual contact (9.6 percent), no identified risk (7.8 percent), pediatric (0.6 percent), and other exposure (0.5 percent). Breakdowns by gender are presented in exhibit 11. There were 207 IDUs with HIV/HCV coinfection in the State. Most were male (76 percent) and 30–49 years old (77 percent); 44 percent were Hispanic; and 41 percent were White (non-Hispanic). Forty-three percent were residents of the Albuquerque area.

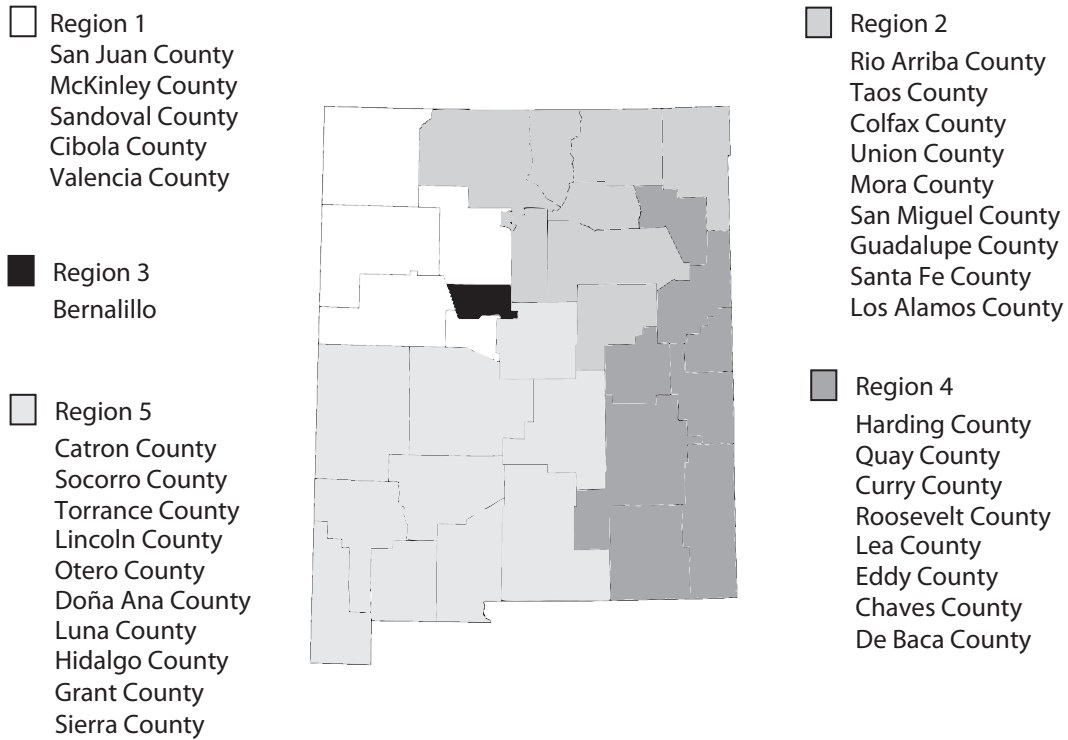
It is estimated that roughly 25,000 IDUs are living in New Mexico, according to a synthetic methodology based on national adult lifetime drug injection prevalence from the National

Survey on Drug Use and Health (1.6 percent) and adjusted for local social indicator and infectious disease incidence data.

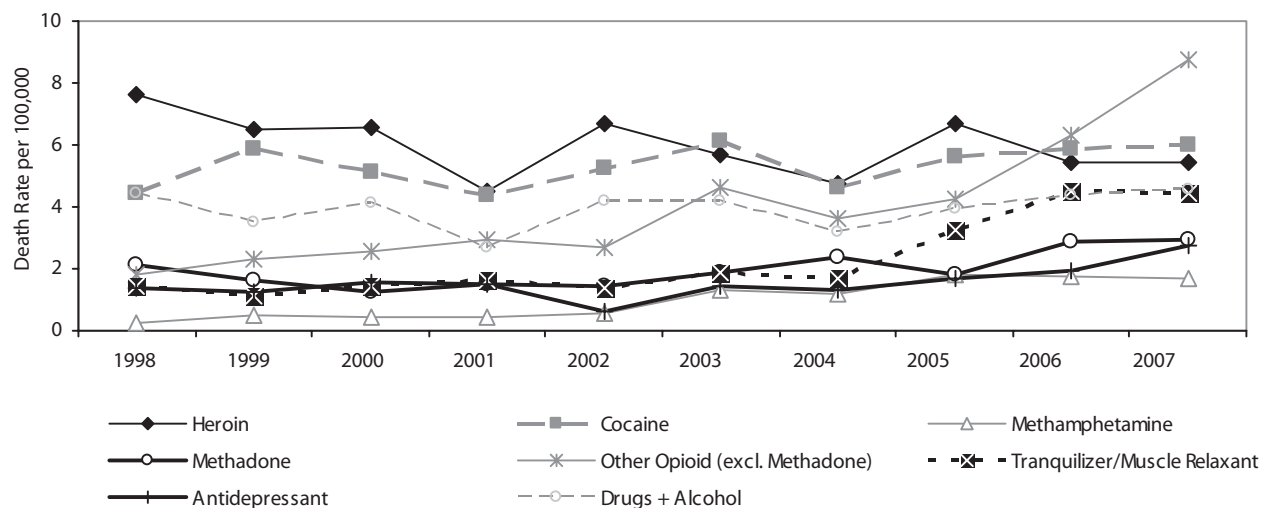
The NMDOH maintains the statewide syringe exchange program. In addition, this program also provides overdose prevention trainings and naloxone prescription for heroin users and their families and friends. This is important since research in New Mexico has shown that overdoses are familiar occurrences and many are “handled at home” by family and friends. The program also provides community health and social service referrals; health education and disease prevention information; acute-detoxification; and in some locations, primary medical care.

For inquiries concerning this report, please contact Nina G. Shah, M.S., Drug Use Epidemiologist, Epidemiology and Response Division, New Mexico Department of Health, 1190 St. Francis Drive, N1100, Santa Fe, NM 87502, Phone: 505-476-3607, Fax: 505-827-0013, E-mail: nina.shah@state.nm.us.

Exhibit 1. New Mexico Health and Human Services Planning Regions



SOURCE: New Mexico Department of Health

Exhibit 2. Unintentional Drug Poisoning Death Rates¹ in New Mexico: 1998–2007

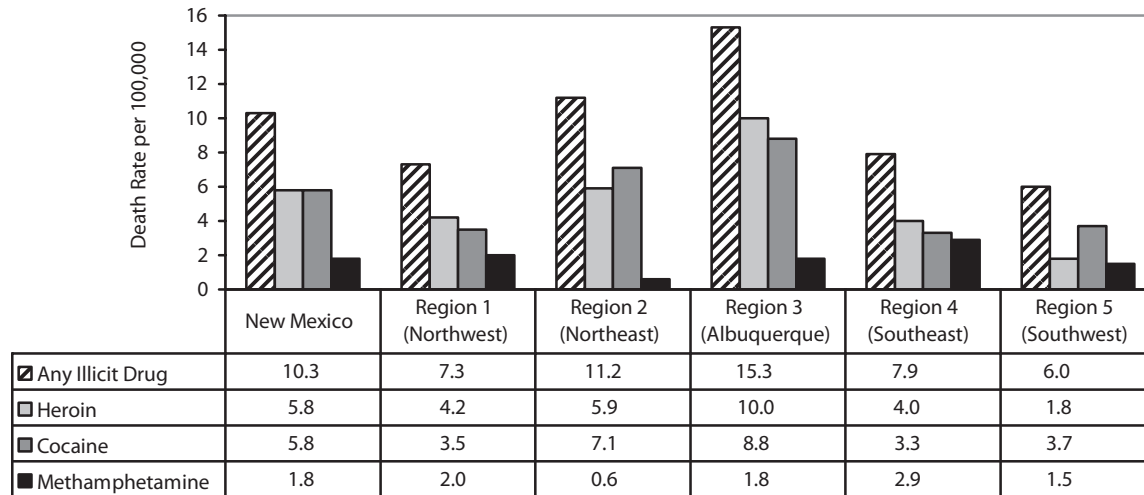
| Age Adjusted Death Rate ¹ per 100,000 Persons | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------------------|
| Drug Category ² | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total Deaths (N) |
| Heroin | 7.6 | 6.5 | 6.6 | 4.5 | 6.7 | 5.7 | 4.8 | 6.7 | 5.5 | 5.5 | 1,097 |
| Cocaine | 4.5 | 5.9 | 5.1 | 4.4 | 5.3 | 6.1 | 4.6 | 5.6 | 5.9 | 6.0 | 979 |
| Methamphetamine | 0.2 | 0.5 | 0.4 | 0.4 | 0.6 | 1.3 | 1.2 | 1.8 | 1.8 | 1.8 | 187 |
| Methadone | 2.1 | 1.6 | 1.2 | 1.5 | 1.4 | 1.9 | 2.4 | 1.8 | 2.9 | 3.0 | 371 |
| Other Opioid (Excl. Methadone) | 1.8 | 2.3 | 2.5 | 3.0 | 2.7 | 4.6 | 3.6 | 4.3 | 6.3 | 8.8 | 755 |
| Tranquilizer/Muscle Relaxant | 1.4 | 1.1 | 1.5 | 1.6 | 1.3 | 1.9 | 1.7 | 3.3 | 4.5 | 4.5 | 433 |
| Antidepressant | 1.4 | 1.3 | 1.6 | 1.5 | 0.6 | 1.5 | 1.3 | 1.7 | 1.9 | 2.8 | 288 |
| Drugs and Alcohol | 4.5 | 3.5 | 4.1 | 2.7 | 4.2 | 4.2 | 3.2 | 3.9 | 4.4 | 4.6 | 716 |
| Any Illicit Drug | 9.1 | 9.3 | 8.8 | 7.2 | 9.6 | 10.1 | 7.8 | 10.8 | 10.0 | 10.4 | 1,713 |
| Any Rx Drug | 4.6 | 4.6 | 4.5 | 5.2 | 4.5 | 7.1 | 6.1 | 7.2 | 10.1 | 12.9 | 1,258 |
| Total | 12.5 | 12.4 | 12.5 | 11.5 | 13.8 | 16.6 | 14.4 | 16.2 | 17.2 | 18.1 | 2,703 |

¹All rates are age-adjusted to the 2000 U.S. Standard Population.

²Data are not mutually exclusive, where a drug caused a death either alone or in combination with other substances.

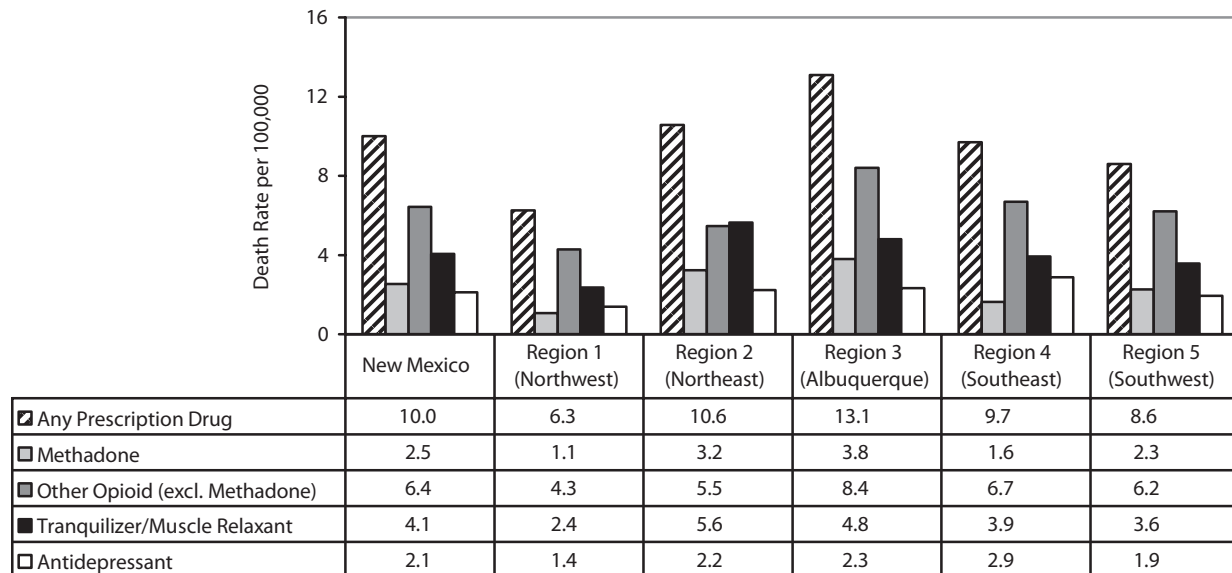
SOURCE: New Mexico Office of the Medical Investigator

Exhibit 3a. Unintentional Poisoning Death Rates¹ by Types of Illicit Drugs, New Mexico and Regions: 2005–2007



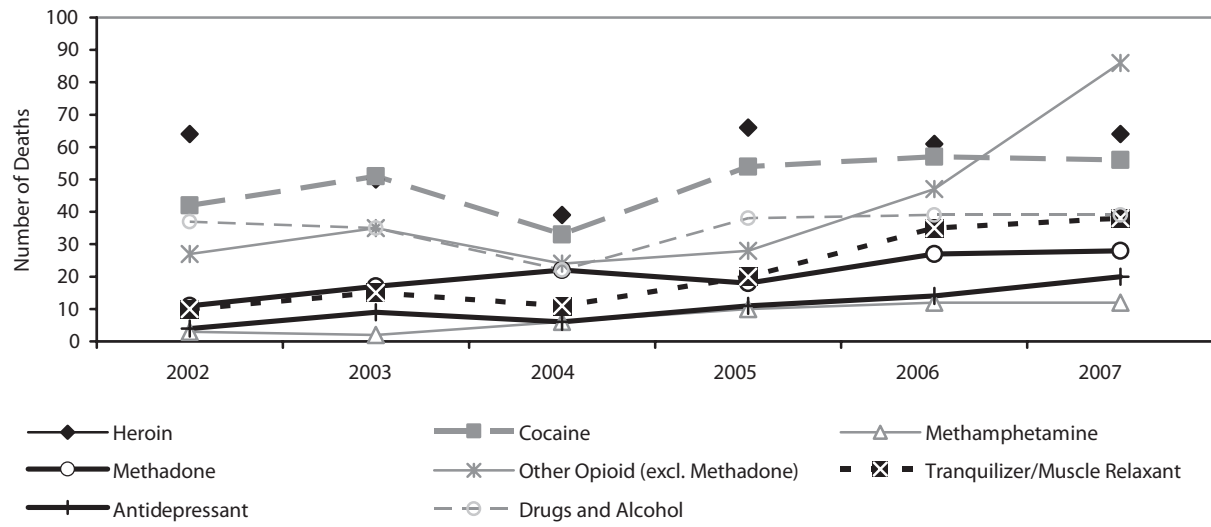
¹All rates are age-adjusted to the 2000 U.S. Standard Population.
SOURCE: New Mexico Office of the Medical Investigator

Exhibit 3b. Unintentional Poisoning Death Rates¹ by Types of Prescription Drugs, New Mexico and Regions: 2005–2007



¹All rates are age-adjusted to the 2000 U.S. Standard Population.
SOURCE: New Mexico Office of the Medical Investigator

Exhibit 4. Number of Unintentional Drug Poisoning Deaths in Albuquerque, New Mexico: 2002–2007



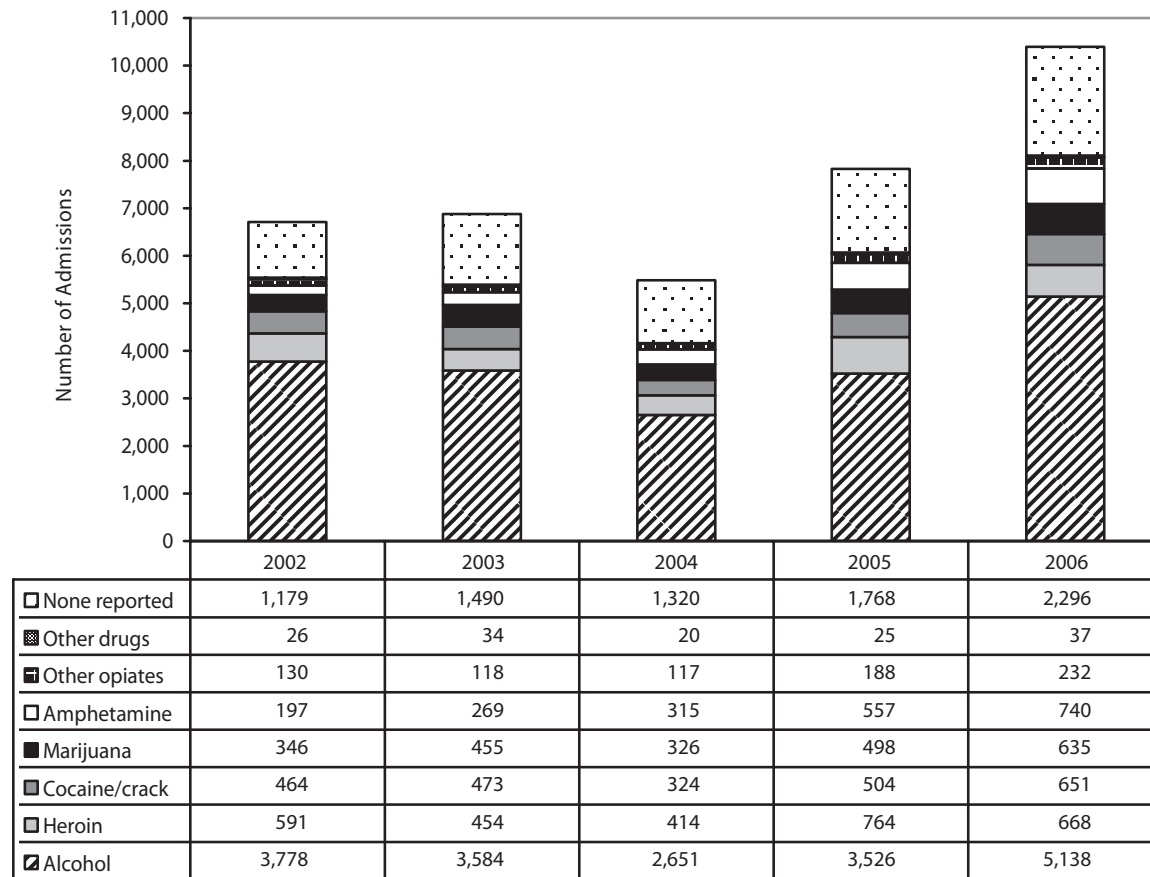
SOURCE: New Mexico Office of the Medical Investigator

Exhibit 5. Characteristics of State-Funded Substance Abuse Treatment Admissions in New Mexico, by Primary Substance of Abuse (Percent): 2006

| | Heroin | Cocaine/ Crack | Marijuana | Metham- phetamine | Other Opiates | Amphet- amine | All Admissions | Drug Abuse Admissions Only |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------------------|
| Gender | | | | | | | | |
| Male | 62.3 | 57.4 | 68.9 | 48.6 | 57.7 | 54.5 | 66.2 | 59.5 |
| Female | 37.7 | 42.6 | 31.1 | 51.4 | 42.3 | 45.5 | 33.8 | 40.5 |
| Race/ethnicity | | | | | | | | |
| White | 27.7 | 26.0 | 36.7 | 54.8 | 41.4 | 58.8 | 31.7 | 37.7 |
| Non-Hispanic | 53.4 | 39.0 | 31.8 | 20.7 | 45.3 | 22.0 | 31.9 | 35.6 |
| Hispanic | 2.7 | 1.2 | 9.0 | 3.0 | 0.9 | 1.9 | 13.4 | 3.6 |
| American Indian | 2.3 | 13.8 | 7.2 | 4.9 | 3.0 | 2.0 | 4.7 | 6.1 |
| Other | 13.8 | 20.0 | 15.3 | 16.6 | 9.4 | 15.3 | 18.3 | 17.0 |
| Unknown | | | | | | | | |
| Median age at admission (IQR)¹ | 35.8 (26.0, 46.4) | 35.7 (28.0, 43.4) | 26.6 (21.4, 35.0) | 29.1 (24.7, 38.1) | 34.8 (27.7, 45.7) | 29.9 (25.2, 38.4) | 36.5 (27.1, 45.9) | 31.7 (24.9, 42.3) |
| Median age of initiation (IQR)¹ | 19 (16, 25) | 20 (16, 26) | 15 (13, 16) | 19 (16, 23) | 24 (17, 31) | 19 (16, 25) | 16 (14, 19) | 18 (15, 24) |
| Median years since first use (IQR)¹ | 11.0 (4.6, 22.9) | 12.3 (6.7, 20.3) | 11.3 (7.1, 19.0) | 8.9 (4.4, 14.7) | 6.3 (3.5, 12.8) | 6.8 (4.4, 13.9) | 16.8 (8.8, 27.8) | 10.4 (5.3, 19.5) |
| Age grouping | | | | | | | | |
| 0-17 | 0 | 1.2 | 1.7 | 0.2 | 0.4 | 0 | 0.4 | 0.7 |
| 18-25 | 17.7 | 23.8 | 46.1 | 33.9 | 17.2 | 34.0 | 21.1 | 28.9 |
| 26-35 | 33.6 | 26.1 | 29.3 | 35.6 | 35.8 | 35.9 | 26.9 | 31.4 |
| 36 and older | 48.7 | 48.9 | 22.8 | 30.3 | 46.6 | 30.1 | 51.6 | 39.0 |
| Number of prior treatment episodes | | | | | | | | |
| 0 | 26.0 | 35.6 | 55.6 | 46.2 | 41.6 | 50.2 | 44.9 | 41.0 |
| 1 | 29.5 | 28.3 | 25.4 | 24.7 | 31.6 | 27.3 | 24.0 | 26.7 |
| 2 or more | 44.3 | 36.1 | 19.0 | 29.1 | 26.8 | 22.5 | 31.1 | 32.3 |
| Route of administration | | | | | | | | |
| Oral | 1.3 | 2.6 | 3.6 | 3.1 | 69.6 | 7.1 | 67.6 | 9.2 |
| Smoking | 9.3 | 60.8 | 93.4 | 65.7 | 5.1 | 60.3 | 18.3 | 51.4 |
| Sniffing/ Inhalation | 5.1 | 30.8 | 2.2 | 8.7 | 2.3 | 10.9 | 3.9 | 10.8 |
| Injection | 83.8 | 5.1 | 0.7 | 21.4 | 13.1 | 21.1 | 9.7 | 27.2 |
| Other | 0.5 | 0.7 | 0.2 | 1.1 | 9.8 | 0.6 | 0.5 | 1.3 |
| Secondary drug use | 46.2 | 41.9 | 41.7 | 41.4 | 26.1 | 34.4 | 27.4 | 41.1 |
| Most common secondary substance | cocaine/ crack | alcohol | alcohol | marijuana | alcohol | marijuana | marijuana | alcohol |
| Total Admissions (n) | 668 | 651 | 635 | 531 | 232 | 209 | 10,397 | 3,090 |

¹IQR: 1st and 3rd interquartile range.

SOURCE: Behavioral Health Services Division, New Mexico Human Services Department, as of June 2008

Exhibit 6. Number of Treatment Admissions by Primary Substance of Abuse¹: New Mexico, 2002–2006

¹Amphetamine includes methamphetamine.

SOURCE: TEDS, as of June 2008

Exhibit 7. Retail Drug Prices¹ in Albuquerque and Las Cruces, New Mexico: June and December 2007

| Drug | Albuquerque | | Las Cruces | |
|--------------------------|--------------------|--------------------------------------|------------------|-------------------------------|
| | June 2007 | Dec. 2007 | June 2007 | Dec. 2007 |
| Powder Cocaine | \$800 / oz | \$80–\$150 / g \$800–\$1,400 / oz | | \$450–\$500 / oz |
| Crack | \$50 / 3 rocks | \$20 / rock | \$60 / 3 rocks | |
| Heroin (BT) | \$500–\$800 / oz | \$50–\$180 / g \$700–\$1,200 / oz | \$90–\$100 / g | \$100–\$120 / g |
| Marijuana (MX) | \$300–\$400 / lb | \$100–\$120 / oz \$350–\$400 / lb | \$300–\$400 / lb | \$80 / oz \$225–\$300 / lb |
| Methamphetamine (MX, LP) | \$800–\$1,000 / oz | \$60 / g \$500–\$700 / oz | \$1,000 / oz | |

¹BT=black tar heroin; MX=Mexico produced; LP=locally produced.

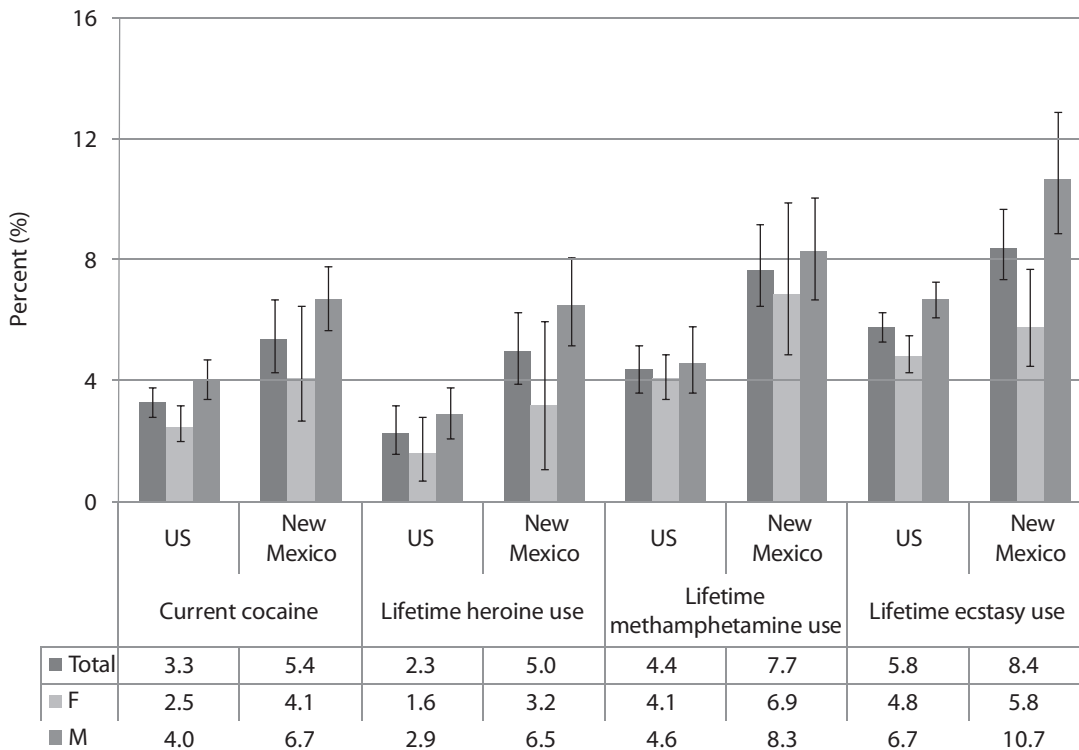
SOURCE: NDIC

Exhibit 8. Number and Percentage of Selected Items Analyzed by Forensic Labs, Albuquerque Metropolitan Statistical Area: 2007

| Drug | Number of Items | Percent of Total Items |
|----------------------------------|-----------------|------------------------|
| Cannabis | 433 | 32 |
| Cocaine | 409 | 30 |
| Methamphetamine | 302 | 22 |
| Heroin | 130 | 10 |
| Other (i.e., Prescription Drugs) | 75 | 6 |
| Total | 1,349 | 100 |

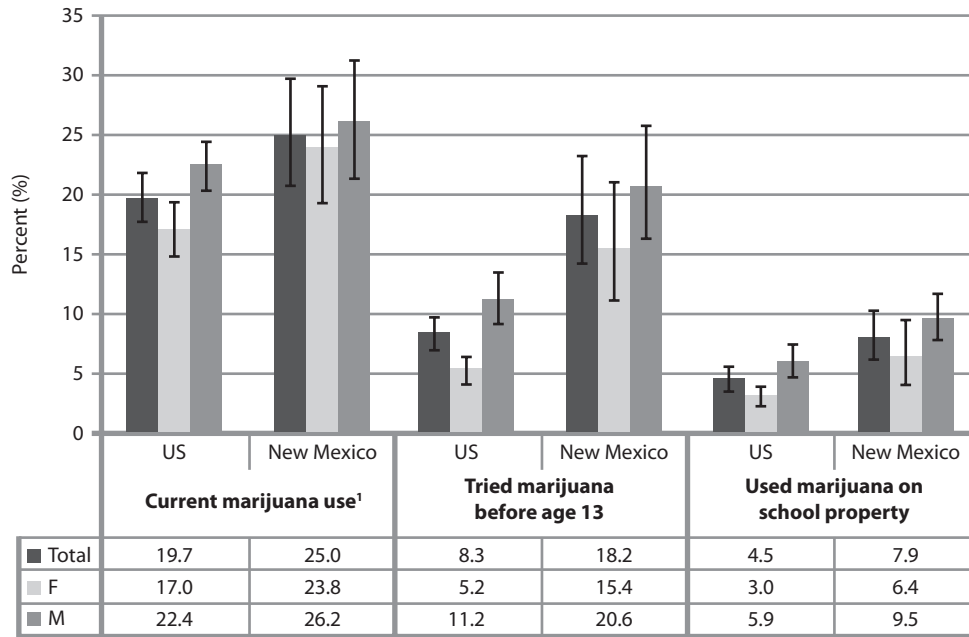
SOURCE: NFLIS

Exhibit 9a. Current Cocaine Use and Lifetime Heroin, Methamphetamine and Ecstasy Use Among Students in Grades 9–12 in New Mexico and the United States: 2007



SOURCE: 2007 YRBS

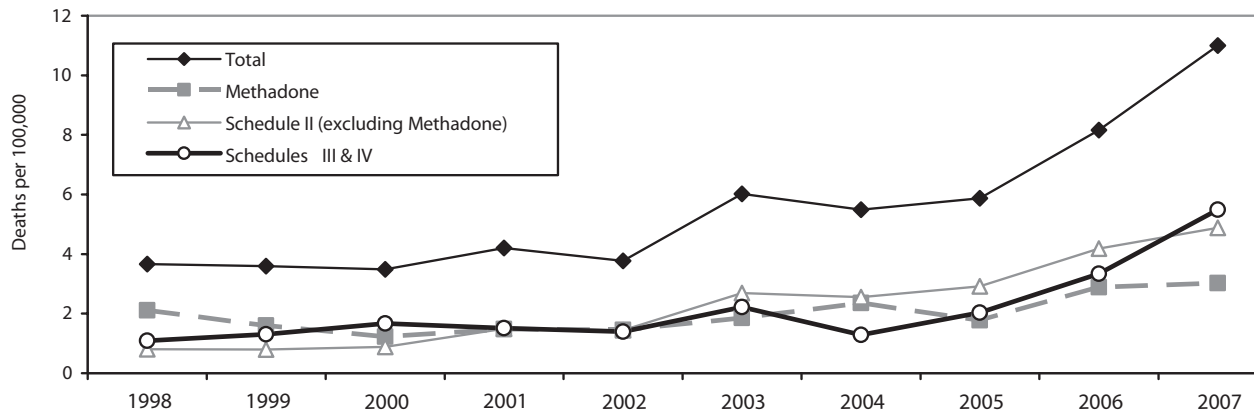
Exhibit 9b. Marijuana Use among Students in Grades 9–12, New Mexico and the United States: 2007



¹Within 30 days prior to survey.

SOURCE: 2007 YRBS

Exhibit 10. Unintentional Prescription Opioid¹ Poisoning Death Rates² in New Mexico, by Controlled Substance Schedule: 1998–2007



¹Schedule II opioids other than methadone were oxycodone, fentanyl, hydromorphone, morphine, oxymorphone, levorphanol, and meperidine. Schedule III/IV opioids were propoxyphene, codeine, dihydrocodeine, hydrocodone, and pentazocine. These drugs are not mutually exclusive, where a prescription opioid may have caused overdose death alone or in combination with other substances.

²All rates are age-adjusted to the 2000 U.S. Standard Population.

SOURCE: New Mexico Office of the Medical Investigator

Exhibit 11. Persons Living with HIV and AIDS in New Mexico, by Gender and Mode of Exposure, as of December 2007

| Mode of Exposure ¹ | Males | | Females | | Total | |
|-------------------------------|--------------------------|---------|--------------------------|---------|--------------------------|---------|
| | Total HIV and AIDS Cases | Percent | Total HIV and AIDS Cases | Percent | Total HIV and AIDS Cases | Percent |
| MSM | 2,105 | 69.0 | --- | 0.0 | 2,105 | 60.8 |
| IDU | 241 | 7.9 | 111 | 26.8 | 352 | 10.2 |
| MSM/IDU | 367 | 12.0 | --- | 0.0 | 367 | 10.6 |
| Heterosexual | 111 | 3.6 | 220 | 53.1 | 331 | 9.6 |
| Other | 9 | 0.3 | 9 | 2.2 | 18 | 0.5 |
| Pediatric | 14 | 0.5 | 8 | 1.9 | 22 | 0.6 |
| No Identified Risk | 204 | 6.7 | 66 | 15.9 | 270 | 7.8 |
| Total | 3,051 | 100.0 | 414 | 100.0 | 3,465 | 100.0 |

¹MSM=Men who have sex with men. IDU=Injection drug user. Heterosexual=For males: heterosexual contact with a female known to be HIV-positive, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. For females: heterosexual contact with a male known to be HIV-positive, bisexual, an injecting drug user, or a hemophiliac/blood product or organ transplant recipient. Other=Hemophilia patient/blood product, organ transplant recipient, occupational exposures, and other nonoccupational exposures to blood. Pediatric=perinatal cases in children resulting from vertical transmission from an HIV-positive mother and cases involving the previously defined risk factors (i.e., hemophilia, or nonoccupational exposure to blood). No Identified Risk=no reported history of exposure at the time of report date.

SOURCE: HIV & Hepatitis Program, New Mexico Department of Health

Patterns and Trends of Drug Use in Atlanta

Brian J. Dew, Ph.D., and
Joshua Castleberry, B.A.¹

ABSTRACT

Cocaine, marijuana, and methamphetamine remained the dominant drugs of abuse in the metropolitan Atlanta area in 2007. Cocaine remains Atlanta's primary illicit drug concern, and was the most mentioned drug among treatment admissions, prison admissions, and in National Forensic Laboratory Information System's (NFLIS's) drug seizure data. In 2007, more than one-half of all treatment admissions were for cocaine, either as a primary or secondary drug. Treatment admissions indicated that Atlanta's cocaine users continue to be predominantly African American, male, and older than 35. Nearly 8 out of 10 of all cocaine users who entered treatment preferred to smoke the drug, a proportion that has remained stable in the last 5 years. Drug surveillance organizations (the National Drug Intelligence Center—NDIC and the Drug Enforcement Administration—DEA) reported intermittent decreases in cocaine supply for Atlanta in 2007. This reduced supply did impact the local cocaine market; the wholesale, midlevel, and retail price of powder cocaine increased and purity levels decreased. However, no changes in the price or purity levels of crack/cocaine were reported in Atlanta. Ethnographic reports indicate that current cocaine supply has returned to pre-2007 levels. Law enforcement officials suggest the wholesale trafficking of cocaine has begun a shift from Cobb and Gwinnett Counties to southern counties such as Clayton and Fayette. Marijuana remained the most commonly used illicit substance in Atlanta. Ethnographic reports suggested that supply for marijuana was easily

available, and price levels for Mexican-grown marijuana remained stable. However, the supply of BC Bud and hydroponic marijuana increased, thereby driving retail prices down. Local indoor cultivation of more potent hydroponic marijuana increased in 2007 due to drought-like conditions throughout Georgia. Indicators were stable with regard to methamphetamine. In 2007 local law enforcement officials identified methamphetamine as the drug most responsible for property crime in 15 of 18 jurisdictions. Statewide, methamphetamine lab incidents were the lowest since 2002. Indicators suggested a growing level of methamphetamine use among African Americans and Latinos. Ethnographic reports indicated the purity levels of ice declined in 2007. Heroin indicators were mixed, with the drug's use still concentrated in Atlanta's Bluff district. The use of South American (SA) heroin appeared stable in 2007. Ethnographic reports indicated the emergence of high-grade Mexican black tar and brown powder. The Georgia Medical Examiner's Office reported that prescription benzodiazepines were second only to cocaine in the number of statewide postmortem specimens that tested positive for a particular drug. Alprazolam remained the most popular benzodiazepine in Atlanta, especially among White women and young adults (age 18 to 25), followed by diazepam. Multiple indicators showed that hydrocodone was the most commonly abused narcotic analgesic in Atlanta, followed by oxycodone. Drug indicators suggest that the use of MDMA has increased in the last 18 months, nearing use rates similar to 2001. In Atlanta, Asian drug trafficking organizations (DTOs) controlled the transportation of MDMA from Canada and distributed it at the wholesale level. MDMA use in Atlanta was most popular among suburban White high school students and young adults and urban African American high school students and adults. In 2007, the wholesale (\$3–\$9) and retail (\$20–\$25) costs per MDMA tablet remained stable. Ethnographic reports indicated that MDMA was often mixed with methamphetamine prior to arriving in Atlanta.

¹The authors are affiliated with Georgia State University in Atlanta, Georgia.

INTRODUCTION

Area Description

The metropolitan Atlanta area is located in the northwest corner of Georgia and includes 28 of the State's 159 counties. The metropolitan area comprises more than 6,100 square miles, or 10.5 percent of Georgia's total size. Currently, Georgia is the 10th most populous State in the Nation. From April 2000 to December 2006, the State's population grew 4.1 percent, ranking third among all States in terms of growth percentage.

With an estimated 5 million residents, the metropolitan Atlanta area includes nearly 53 percent of the State's population of nearly 9.4 million residents (U.S. Census Bureau, 2006). The Atlanta metropolitan area ranks ninth among the Nation's major population centers. The city of Atlanta, with a population of approximately 486,000, represents 9.8 percent of the overall metropolitan population (American Community Survey, 2003). The city is divided into two counties, Fulton County and DeKalb County, which include 19.2 and 14.5 percent of the metropolitan population, respectively.

There are demographic differences between the city of Atlanta and the larger metropolitan area, which more closely reflects the State as a whole. African Americans are the largest ethnic group within the city (55.7 percent), followed by Whites (37.2 percent), Hispanics (5.9 percent), and Asians (1.9 percent). When examining the overall metropolitan Atlanta area, those numbers reverse. Whites account for the majority (56.2 percent), followed by African Americans (29.8 percent), Hispanics (10.1 percent), and Asians (3.6 percent). Per capita family income in 2006 for the city of Atlanta was higher, at \$42,779, than in the metropolitan area, at \$33,897. The poverty rate inside the city was 23.5 percent, compared with only 10.1 percent in the metropolitan area. The housing vacancy rate outside the city (9.4 percent) was much lower than in the city (17.2 percent).

In 2007, the Georgia Bureau of Investigation (GBI)'s statewide drug enforcement efforts

were led by three regional drug offices (Savannah, Macon, and Canton) and 13 multijurisdictional task force programs. As of December 2007, there were 36 existing drug courts in Georgia (of these, 26 were for adult felony drug offenses and 10 were for juvenile drug offenses). Two adult felony drug courts were located in the city of Atlanta. In 2006, 37 percent of those on probation in Georgia, 23 percent of prisoners, and 40 percent of parolees, had been convicted of a drug-related offense.

Additional factors that influence substance use in the State:

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

DATA SOURCES

Principal data sources for this report included the following:

- **Drug abuse treatment program data** came from the Georgia Department of Human Resources, for primary drugs of abuse among clients admitted to Atlanta's public drug treatment programs from 2000 through December 2007. Data for nonmetropolitan Atlanta counties of Georgia were also reported.
- **Crisis and access line call data** were provided by the Georgia Department of Human Resources and represent the number of telephone calls from persons seeking information about and/or admission to Georgia's public substance abuse treatment centers. Data, obtained from June 2006 through June 2008, is classified by drug type.
- **Drug-related prison admissions data** came from the Georgia Department of Corrections and represent individuals who entered the prison or jail system due to drug possession from calendar year (CY) 2004 through CY 2007.
- **Drug price, purity, and trafficking data** were provided by the Drug Enforcement Administration (DEA), the National Drug Intelligence Center (NDIC), and the Office of National Drug Control Policy (ONDCP). Information on the price, purity, and source of several drugs was provided by the DEA's Domestic Monitor Program (DMP) and local law enforcement officials. Additional information came from *Narcotics Digest Weekly* published by the NDIC. Other data were from the Atlanta High Intensity Drug Trafficking Area (HIDTA) Task Force, a coordination unit for drug-related Federal, State, and local law enforcement agencies.
- **Forensic drug analysis data** came from the National Forensic Laboratory Information System (NFLIS) and represent evidence in suspected drug cases throughout metropolitan Atlanta that were tested by the Georgia Bureau

of Investigation (GBI) Forensic Laboratory in 2007.

- **State drug-related mortality data** was obtained from the Georgia Medical Examiner's Office. Data representing the number of postmortem specimens that tested positive for a particular drug were collected from FY 2001 through FY 2007.
- **Ethnographic information** was collected from local drug users and drug researchers and was used for several purposes: to corroborate the epidemiologic drug indicators; to signal potential drug trends; and to place the epidemiologic data in a social context.
- **Acquired immunodeficiency syndrome (AIDS) data** came from the Department of Human Resources, Division of Public Health, and represent AIDS cases in Georgia and a 28-county Atlanta metropolitan area from January 1981 through February 2006. Additional information was provided by the Centers for Disease Control and Prevention (CDC).

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

In 2007, cocaine continued to be the most mentioned primary and secondary drug of choice for individuals seeking assistance at publicly funded treatment centers in metropolitan Atlanta. However, the number of primary admissions in metropolitan Atlanta for cocaine ($n=2,281$) in this period reflected a continuing downward trend (exhibit 1). From 2000 to 2002, approximately one-half of all primary treatment admissions in metropolitan Atlanta were cocaine-related. The percentage of cocaine-related admissions into Atlanta's public substance abuse treatment facilities decreased to 42.8 percent in 2003, 39.5 percent in 2004, 37.2 percent in 2005, and 34.2 percent in 2006. In 2007, cocaine admissions were 25.6 percent of the total number of primary admissions. Yet an additional 26.4 percent of admissions

reported cocaine as a secondary drug of choice, bringing the total percentage of primary and secondary cocaine-related treatment admissions to over 50 percent. Ethnographic reports indicated that cocaine users were likely to overstate primary alcohol abuse during treatment entry/screening due to a greater likelihood of inpatient admission associated with alcohol dependence compared with cocaine dependence. The ratio of men to women in treatment for cocaine was 1.2 to 1, a ratio that was lower than 1.4 to 1 found in 2006, and 1.5 to 1 in 2005. Whereas the percentage of African Americans entering treatment for cocaine-related issues was down 10 percent in 2007 to 66 percent, the percentage of White users increased nearly 8 percent, the largest gain in over 8 years. Clients older than 35 accounted for the lowest number of both metropolitan and nonmetropolitan cocaine admissions (66 and 68 percent, respectively) in over 20 years. In metropolitan Atlanta, smoking continued to be the most preferred route (75.4 percent), followed by inhalation (20.4 percent), injection (1.4 percent), and oral consumption (2.5 percent).

According to the DEA, Atlanta HIDTA, local law enforcement officials, and key street informants, cocaine remained readily available in Atlanta, although sporadic gaps in supply were reported in 2007. Atlanta was a growing distribution hub for surrounding states and Europe, and also served as part of a smuggling corridor along the East Coast. Powder cocaine and crack dominated the Georgia drug scene. Multiple law enforcement officials and ethnographic reports indicated that nearly 90 percent of Atlanta's crack/cocaine was locally converted from powder cocaine in the metropolitan Atlanta area. The primary sources for cocaine were Texas and California. HIDTA intelligence analysts implicated Mexico-based drug trafficking organizations, whose members blend within enclaves of Hispanic workers. According to HIDTA and NDIC, cocaine prices remained relatively stable in Atlanta. Powder cocaine typically sold for \$40–\$120 per gram. Crack rocks sold for as little as \$3, but typically were priced between \$10 and \$15.

The *Georgia Threat Assessment* (DEA, 2008) reported that other than marijuana, crack was the most available drug in Atlanta. Officials estimated that 75 percent of all drug-related arrests involved crack/cocaine. Powder cocaine availability at the retail level in Georgia was limited, except in large cities such as Atlanta. NFLIS reported that cocaine accounted for 56.1 percent of confiscated substances in suspected drug cases that were tested in forensic laboratories in 2007 (exhibit 2).

In FY 2007, cocaine was indicated in 8.4 percent ($n=382$) of all Georgia's postmortem specimens tested by the Georgia State Examiner's Office, down from 10 percent in 2006, 9.4 percent in 2005, 9.2 percent in 2004, and 10.2 percent in 2003.

In 2007, Cobb County led among prison admissions for cocaine possession ($n=311$), followed by Fulton ($n=198$), Clayton ($n=152$), and DeKalb ($n=112$) Counties. The numbers of prison admissions for select metropolitan Atlanta counties were consistent with reports from law enforcement and ethnographic efforts that suggested the emergence of cocaine distribution in the Southern counties of metropolitan Atlanta.

Heroin

Heroin abuse indicators in Atlanta during 2007 remained low compared with other metropolitan areas. Public substance abuse treatment admissions, drug-related deaths, and ethnographic data obtained through corroboration with local street outreach workers suggested that heroin use was stable, yet the type of heroin available in metropolitan Atlanta may have changed.

In 2007, treatment admissions for individuals who reported heroin as their primary drug of choice accounted for 2.8 percent of all treatment admissions in the State; these admissions were mostly concentrated in metropolitan regions. Nearly 3 percent of metropolitan Atlanta admissions were for heroin compared with 1.3 percent in nonmetropolitan areas (exhibit 1). Compared to 2006, heroin-related treatment admissions for metropolitan Atlanta declined by nearly 20

percent. Admission ratios for men were higher (2.2 to 1) than those of women in metropolitan regions, with a nonmetropolitan ratio of 1.3 to 1 male to female treatment admissions. Whites slightly outnumbered African Americans (172 to 150) among metropolitan Atlanta treatment admissions in 2007. Outside metropolitan Atlanta, Whites constituted an overwhelmingly high percentage (81 percent) of heroin-related treatment admissions, followed by African Americans (17 percent) and Hispanics (4.6 percent). The percentage of heroin treatment admissions age 35 and older, in both metropolitan (61.4 percent) and nonmetropolitan (69.4 percent) Atlanta, was the lowest in over 10 years. The 18-percent increase in young adult users (age 18 to 25) was consistent with reports from street outreach workers indicating heroin's rise in popularity among this age group. Nearly two out of three heroin treatment admissions preferred to inject the drug, followed by inhalation (26.9 percent), oral use (4.6 percent), and smoking (2.6 percent). Most heroin users admitted to treatment in Georgia did not report having a secondary drug of choice, although metropolitan users were overall more likely than nonmetropolitan users to report alcohol (39.3 percent) and cocaine (27.2 percent) as their secondary drug of choice. In 2007, the Georgia Department of Public Health estimated the rate of heroin addicts in Atlanta to be 159 per 100,000 population (n =approximately 7,000).

The NDIC's *Georgia Threat Assessment* (October 2007) reported that heroin availability in metropolitan Atlanta was stable, and that the city remained a high traffic area for heroin distribution. The majority of heroin available in Atlanta was South American, followed by heroin from Southwest Asia. However, law enforcement officials reported greater amounts of Mexican brown powder heroin in Atlanta, which was likely a result of increasing Mexican drug trafficking efforts for methamphetamine and cocaine. Ethnographic interviews with active heroin users, conducted in May 2008, indicated a local rise in Mexican black tar heroin supply that was perceived by users to be "more pure" than both South

American and Southwest Asian heroin. The DEA (September 2007) reported that average purity of South American heroin was 41.3 percent and cost an average of \$2.01 per milligram (exhibit 3). Law enforcement groups, including HIDTA and the DEA, reported local heroin was supplied via sources in Chicago, New York, and the southwest border, and that there was increased Hispanic involvement in trafficking. Reports from outlying metropolitan Atlanta counties suggested an increase in heroin traffic in their jurisdictions. Approximately 1 percent (n =103) of NFLIS-tested drug items seized tested positive for heroin in 2007 (exhibit 2).

Law enforcement groups, including HIDTA and the DEA, reported that Mexican criminal groups were primarily responsible for the trafficking of South American heroin in Georgia. These groups used commercial and private vehicles to bring the drugs into the State. Heroin also entered the State through Colombian and Nigerian groups that transported the drug via airline couriers. Additionally, NDIC and the DEA reported that Dominican criminal groups drove heroin into Georgia from New York and Philadelphia. Some of that heroin was sold in Atlanta, but the majority of the drug was shipped elsewhere.

Other Opiates/Narcotics

For the first time in 6 years, 2007 metropolitan Atlanta treatment data for other opiates/narcotics were available for primary and secondary drug abuse categories. Hydrocodone accounted for 0.7 percent of primary treatment admissions, followed by oxycodone (0.6 percent). Continuing a stable trend, other opiates accounted for approximately 2–3 percent of secondary drugs abused statewide. The use of opiates as a secondary abuse category was cited more often in nonmetropolitan areas (2.8 percent) than in metropolitan Atlanta (1.2 percent).

According to NFLIS data, oxycodone and hydrocodone each accounted for approximately 1–3 percent of lab identifications of drugs seized by law enforcement in 2007 (exhibit 2). OxyContin®,

the most widely recognized oxycodone product, is a growing drug threat in Georgia, according to the DEA. Twenty-milligram tablets sold on the illegal market for \$5–\$10 in 2007. Citing increases in supply of illegal OxyContin® on the street and the rise of the Internet as a supply source, this price represented a sharp decline from the average CY 2005 price of \$20. Hydrocodone (Vicodin®) and hydromorphone (Diludid®) were also abused in Atlanta, where 20-milligram tablets typically sold for \$5–\$10. These drugs are typically obtained by “doctor-shopping,” purchasing from dealers, and/or ordering via the Internet.

Up nearly 80 percent from the previous year, hydrocodone was indicated in 6.2 percent ($n=304$) of all Georgia’s postmortem specimens tested by the State Examiner’s Office. This percentage continued a 5-year upward trend. In 2007, oxycodone was indicated in 4.8 percent of all statewide post-mortem specimens, a 120-percent increase from the previous year.

Marijuana

Ethnographic sources consistently confirmed that marijuana was the most commonly abused drug in Atlanta. Most epidemiological indicators showed an upward trend in marijuana use.

Nearly 21 percent of public treatment admissions in 2007 in metropolitan Atlanta were for those who considered marijuana their primary drug of choice (exhibit 1). Male admissions were nearly double those of females in metropolitan Atlanta (1.7 to 1), with the gap widening in non-metropolitan regions (1.9 to 1). The proportion of African Americans who identified marijuana as their primary drug of choice was slightly lower than in the previous year (53.8 compared with 56 percent in 2006) (exhibit 4). Younger users of marijuana were seeking treatment at higher rates than in previous years, with persons under the age of 26 accounting for nearly two-thirds of all admissions. Alcohol was the most popular secondary drug of choice for marijuana users, followed by cocaine and methamphetamine for

both metropolitan and nonmetropolitan Atlanta admissions.

Marijuana, which was readily available in Atlanta and the rest of Georgia, retailed for between \$5 and \$50 per gram, domestic, and between \$5 and \$25 per gram, Mexican. Atlanta served as a regional distribution center for marijuana. Most of the marijuana in Georgia came from Mexico, although locally grown marijuana was also on the market. Colombian and Jamaican marijuana were purportedly present but less available. Mexican drug cartels were the primary transporters and wholesale distributors of Mexican-grown marijuana. Local gangs (African American and Hispanic) and local independent dealers (African American and White) were the primary resale distributors. Drought-like conditions throughout 2007 decreased the availability of domestic marijuana, thereby causing more fluctuation in price than in previous years.

The NFLIS report for CY 2007 indicated that 2.2 percent of all drug-related items confiscated tested positive for marijuana (exhibit 2). However, these results may be skewed due to recent changes in statewide drug testing for marijuana and therefore might not accurately reflect the prevalence of the drug’s use. According to *The Georgia Governor’s Task Force on Drug Suppression*, 58 percent of Georgia’s 159 counties were reported as significant locations for marijuana cultivation.

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

Stimulants

Over the past 5 years, methamphetamine use increased faster than any other illicit substance in both metropolitan and nonmetropolitan areas. Law enforcement efforts to stop the spread of this drug involved seizures and closures of clandestine laboratories. Methamphetamine became an increasing threat in the suburban areas because

of the drug's price and ease of availability, and it was replacing some traditional drugs as a less expensive, more potent alternative. Moreover, there are growing concerns over the dangers the drug poses from: frequent media reports; recent strengthening of criminal penalties for the manufacture, transfer, and possession of methamphetamine; and the statewide illegalization of transporting materials used in its production. Methamphetamine is not only a party drug, but it is also used for weight loss or as a way to keep up with demanding work schedules, especially among women.

After the first year-over-year decrease in methamphetamine-related primary treatment admissions in multiple years, the percentage of methamphetamine admissions increased once again to 9.0 percent in 2007. In 2005, 11.4 percent ($n=1,062$) of public treatment admissions reported methamphetamine as the primary drug of choice, compared with 8.5 percent ($n=680$) in 2004, 5.1 percent (543) in 2003, and 3.1 percent (377) in 2002 (exhibit 1). In 2007, the proportion of admissions for methamphetamine in nonmetropolitan Atlanta was over 15 percent.

The percentage of women in metropolitan Atlanta who reported to treatment for methamphetamine-related causes decreased to 61.5 percent, down from the previous 2 years, when women represented nearly 7 out of 10 treatment admissions. In treatment centers outside metropolitan Atlanta, the percentage of women entering treatment increased in 2007 (78 vs. 69 percent in 2006). Most users were White; in fact, Whites accounted for 95 percent of treatment admissions in metropolitan Atlanta during 2007. The proportion of African Americans remained low (2.1 vs. 2.8 percent in 2006). Proportions of Hispanic users have remained stable since 2004. Treatment admissions for methamphetamine were more evenly distributed in various age groups than in previous years. Nearly 30 percent of methamphetamine admissions were under the age of 26; 35.6 percent were between the ages of 26 and 34; and 33.6 percent were over the age of 35. From 2003 through 2006, more than 80 percent of

statewide treatment admissions were older than 35. Metropolitan Atlanta treatment admissions were most likely to smoke methamphetamine (63.5 percent), followed by snorting (14.2 percent), and injecting (10.3 percent). Compared to 2006, these results reflected a 7-percent increase among individuals preferring to smoke and a 22-percent increase among persons preferring to inject methamphetamine.

According to the DEA and HIDTA, methamphetamine popularity continued to rise, in part because of its low price and availability. In 2007, methamphetamine's retail price in Atlanta was \$100–\$120 per gram, \$750–\$1600 per ounce, and \$7,500 per pound.

Law enforcement officials reported that methamphetamine emerged as the primary drug threat in suburban communities neighboring Fulton and DeKalb counties (exhibit 5). The Atlanta HIDTA task force found that over 68 percent of participating law enforcement agencies identified methamphetamine as posing the greatest threat to their areas. In 2007, methamphetamine accounted for 21.2 percent of NFLIS tests of seized drugs and ranked second behind only cocaine (exhibit 2). The HIDTA task force seized more methamphetamine in 2007 than in previous years. HIDTA investigators also reported an increase among African Americans using methamphetamine in Atlanta. Ethnographic data from Atlanta-area drug research studies among methamphetamine users supported this trend.

Depressants

The use of depressants, especially benzodiazepines, was on the rise in Atlanta (exhibit 2). The most commonly abused benzodiazepine was alprazolam. Less than 1 percent of those admitted for drug treatment chose benzodiazepines as their primary drug of choice, and less than 2 percent choose benzodiazepines as secondary or tertiary drugs of choice. However, Medical Examiner reports for these drugs continued to increase.

The treatment data from publicly funded programs included depressants such as barbiturates

and benzodiazepines only as secondary and tertiary drug choices for 2007. In metropolitan Atlanta, nearly 1 percent of primary heroin and methamphetamine users chose benzodiazepines as a secondary drug choice. These percentages were consistent with the figures from the previous 5 years.

In 2007, alprazolam was indicated in 9.2 percent ($n=450$) of all Georgia's postmortem specimens tested by the State Medical Examiner's Office. This proportion represented a 300-percent increase from the previous year (9.2 vs. 3.1 percent). In 2002, alprazolam was indicated in 3.3 percent of statewide postmortem specimens, followed by 4.8 percent in 2003, 5.2 percent in 2004, and 5.8 percent in 2005.

The DEA considered benzodiazepines and other prescription depressants to be a growing threat in Georgia. The pills were widely available on the street or via the Internet. Their abuse exceeded that of oxycodone and hydrocodone. According to the NDIC and DEA, local dealers tended to work independently and typically sold to "acquaintances and established customers." These primarily White dealers and abusers stole prescription pads, robbed pharmacies, and attempted to convince doctors to prescribe the desired pills.

Hallucinogens

The epidemiological indicators and law enforcement data did not indicate much hallucinogen use in Atlanta. Despite these data, there was an increase in ethnographic reports of phencyclidine (PCP) use in the past 12 months, especially in combination with marijuana and ecstasy. In 2007, there was only one report for PCP among primary treatment admissions.

In 2007, hallucinogens were listed 17 times as a secondary or tertiary drug of choice in metropolitan Atlanta. "Other hallucinogens" were listed 18 times as a secondary drug of abuse and 17 times as a tertiary drug in nonmetropolitan areas. These secondary and tertiary data indicated

consistent use of hallucinogens compared with previous years.

In 2007, LSD accounted for only 0.03 percent of drugs analyzed by NFLIS (exhibit 2). The DEA reported an increase in the availability of LSD, especially among White traffickers/users between age 18 and 25. LSD was usually encountered in school settings and was imported through the U.S. Postal Service.

Club Drugs

While so-called club drugs—methylenedioxy-methamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), and ketamine—appeared relatively infrequently in epidemiological data, ethnographic and sociologic research suggested continued frequency in use, particularly among metropolitan Atlanta's young adult population. Atlanta serves as a distribution point for MDMA to other U.S. cities. According to the NDIC, most of the MDMA available in Georgia is produced in northern Europe and flown into major U.S. cities or produced in Canada and transported into the Southeast, including Atlanta. Results from drug-related seizure data indicated that in 2007, MDMA accounted for 5.8 percent of substances tested in suspected drug cases (exhibit 2); this was nearly equal to the percentage reported in 2006 (5.7 percent). The emergence of MDMA use in Atlanta's African American community was supported by treatment data and ethnographic reports. In 2007 all 11 public treatment admissions for MDMA were African American. Results from ethnographic reporting found higher demand for MDMA in African American young adults (18–25), especially in those persons associated with Atlanta's hip-hop culture. Methylenedioxyamphetamine (MDA) accounted for another 0.4 percent. The drug retailed at \$15–\$25 per tablet, although ethnographic data indicated that many users bought ecstasy in bulk. Users reported that bulk ecstasy rates were \$5–\$10 per pill.

The NDIC reported the primary distributors and abusers of GHB were White young adults, especially gay males. The HIDTA Atlanta Division

reported that in 2007, liquid GHB sold for \$500–\$1,000 per gallon and \$15–\$20 per dose (one dose is usually the equivalent of a capful from a small water bottle).

INFECTIOUS DISEASE RELATED TO DRUG ABUSE

Georgia continued to be ranked eighth in the Nation for cumulative reported AIDS cases. A cumulative total of 29,716 adult/adolescent AIDS cases were reported in Georgia through 2006. Of

the cumulative cases in Georgia, 66 percent were African American, 31 percent were White, 3 percent were Hispanic, and 81 percent were male. The city of Atlanta constituted nearly 58 percent of the State's cumulative AIDS cases.

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Exhibit 1. Percentages of Primary Treatment Admissions in Atlanta: 2002–2007

| Drug | CY 2002 | CY 2003 | CY 2004 | CY 2005 | CY 2006 | CY 2007 |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Cocaine/Crack | 43.1 | 42.8 | 39.5 | 37.2 | 34.2 | 25.6 |
| Heroin | 7.6 | 6.3 | 5.6 | 5.0 | 4.9 | 2.8 |
| Marijuana | 18.7 | 20.0 | 21.7 | 20.9 | 20.9 | 21.0 |
| Methamphetamine | 3.1 | 5.1 | 8.5 | 11.9 | 7.7 | 9.0 |
| Other Drugs ¹ | 21.3 | 25.8 | 24.6 | 25.0 | 32.4 | 41.6 |
| Total Admissions (n=) | (7,909) | (7,178) | (7,996) | (9,320) | (9,125) | (8,938) |

¹ Includes "alcohol-in-combination."

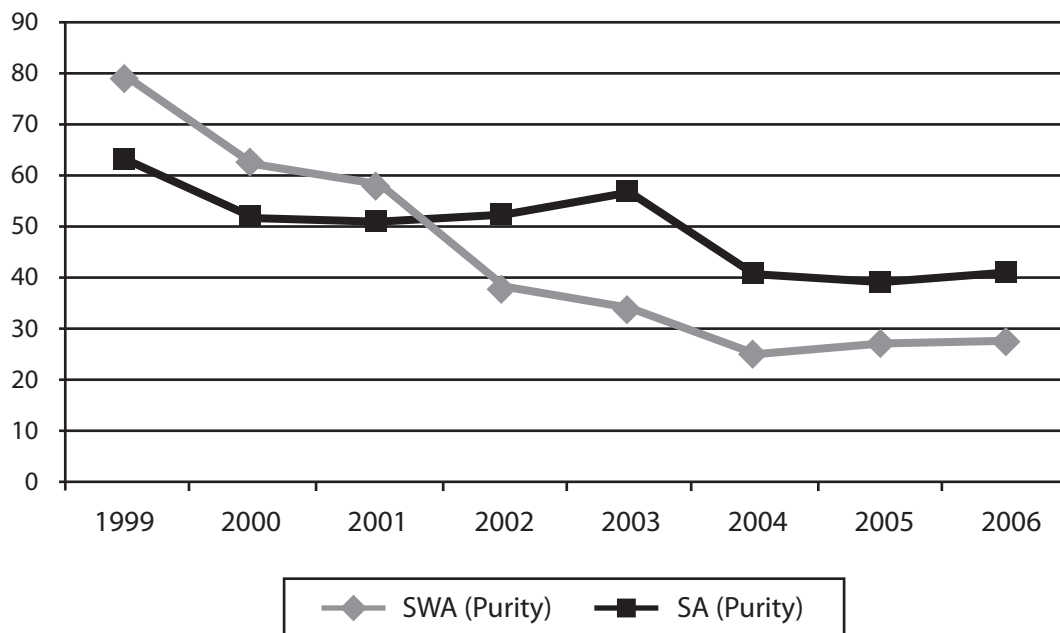
SOURCE: Georgia Department of Human Resources

Exhibit 2. Number of Analyzed Items and Percentage of All Items Tested in Atlanta: 2007

| Drug | Number | Percent |
|--------------------|---------------|--------------|
| Cocaine | 8,193 | 56.1 |
| Methamphetamine | 3,097 | 21.2 |
| MDMA/MDA | 846 | 5.8 |
| Alprazolam | 496 | 3.4 |
| Hydrocodone | 400 | 2.7 |
| Cannabis | 314 | 2.2 |
| Oxycodone | 258 | 1.8 |
| Carisoprodol | 111 | 0.8 |
| Methadone | 108 | 0.7 |
| Heroin | 103 | 0.7 |
| Other ¹ | 76 | 5.4 |
| Total | 14,601 | 100.0 |

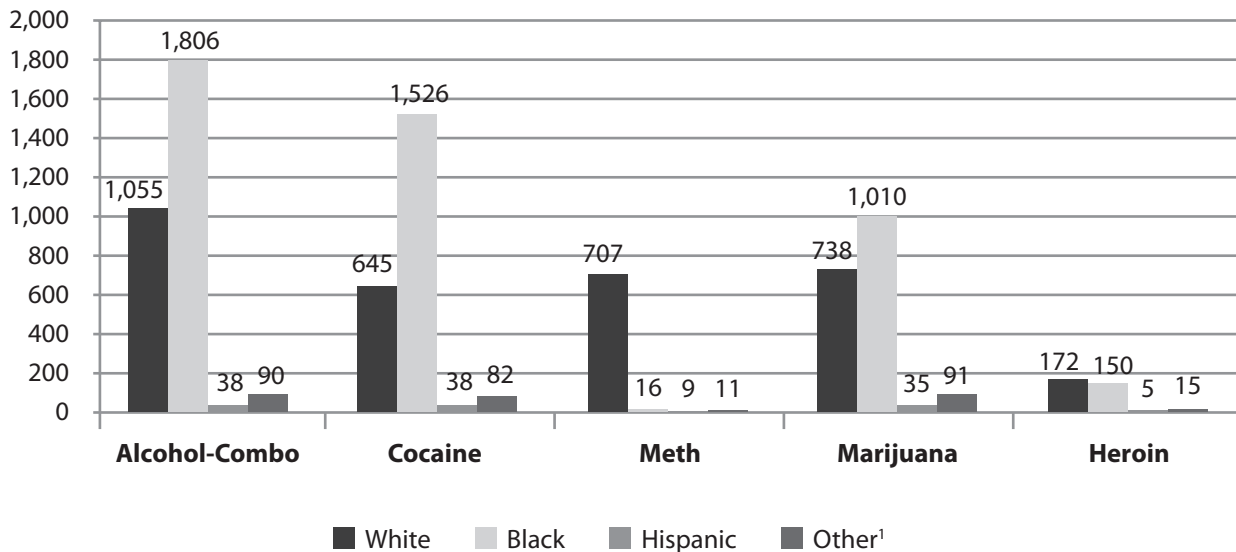
¹Includes clonazepam, morphine, codeine, psilocin, noncontrolled nonnarcotic drug, methylphenidate, ketamine, gamma-hydroxybutyrate, hydromorphone, 1-(3-trifluoromethylphenyl)-piperazine, lorazepam, and lysergic acid diethylamide.
SOURCE: NFLIS, DEA

Exhibit 3. Purity Levels of Southwest Asian (SWA) and South American (SA) Heroin Samples From Atlanta: 1999–2006



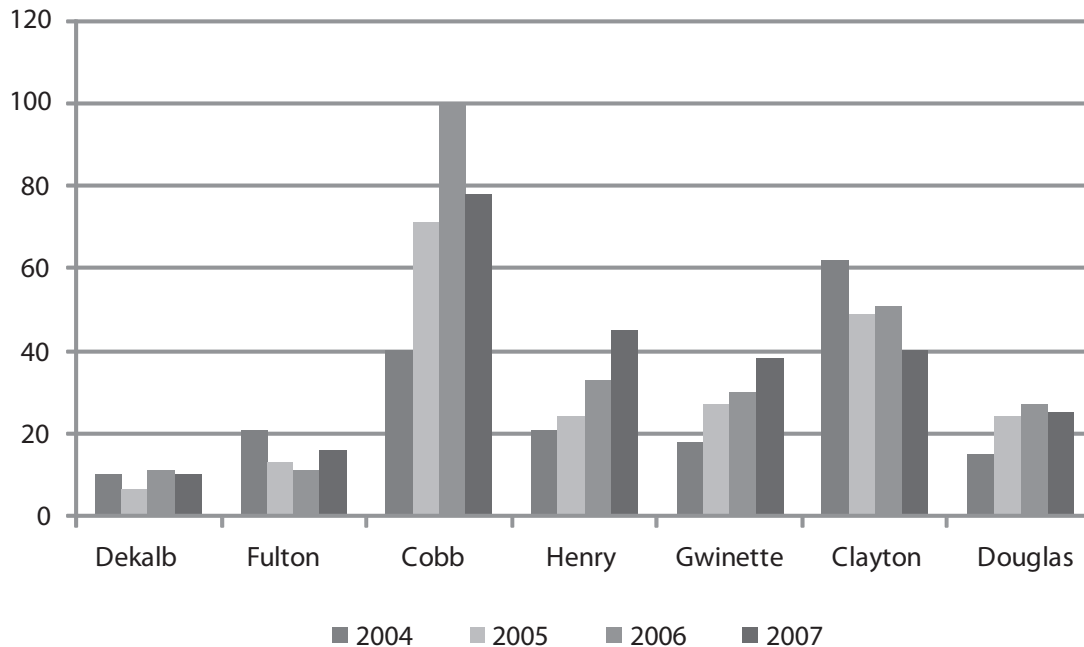
SOURCE: DEA

Exhibit 4. Metropolitan Atlanta Public Substance Abuse Treatment Admissions, Selected Drugs by Race: January–December 2007



¹Other Category includes: Asian, American Indian, Multicultural, and other race.
 SOURCE: Georgia Department of Human Resources

Exhibit 5. Prison Admissions Related to Possession of Methamphetamine for Select Metropolitan Atlanta Counties (2004–2007)



SOURCE: Georgia Department of Corrections

Patterns and Trends of Drug Abuse in Baltimore/Maryland and Washington, DC Metropolitan Area: Epidemiology and Trends, 2002–2007

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ABSTRACT

Throughout the Washington, DC, and Maryland region, cocaine, marijuana, and heroin continued to be the primary drug problems from 2002–2007, but the misuse of prescription drugs appeared to be increasing. While other parts of the country have seen shifts in the use of methamphetamine, its use remained low throughout Maryland and Washington, DC, and was confined to isolated communities in the District of Columbia (DC). The percentage of adult and juvenile offenders in DC testing positive for amphetamines remained considerably lower than for other drugs, although data suggested that use of amphetamines was increasing. Regionwide, IDU (injection drug use)-related new HIV cases decreased through 2006. IDU-related new AIDS cases also decreased in Maryland, but they fluctuated in DC.

In Washington, DC, in 2006 and 2007, cocaine/crack, marijuana, and heroin continued to be the primary illicit drug problems. The use of phencyclidine (PCP) continued to fluctuate, and cocaine remained one of the most serious drugs of abuse, as evidenced by the fact that more adult arrestees tested positive for cocaine than for any

other drug. In 2007, 37 percent of adult arrestees tested positive for cocaine, and about 1 in 10 tested positive for opiates and/or PCP. In addition, more seized items tested positive for cocaine (45 percent) in calendar year (CY) 2007 than for any other drug, as reported by the National Forensic Laboratory Information System (NFLIS). Overdose deaths were also more likely to be related to cocaine (66 percent) than to any other drug in 2006. During 2007, juvenile arrestees were more likely to test positive for marijuana (54 percent) than for any other drug. The percentage of juveniles testing positive for marijuana increased slightly (from 49.8 to 54.4 percent) during each of the past 3 years, but the percentages testing positive for cocaine (3.5 to 2.8 percent) and PCP (3.4 to 2.6 percent) remained about the same. During the first 2 months of 2008, however, the percentage of juveniles testing positive for marijuana appeared to have leveled off.

In Maryland, primary admissions to certified treatment programs increased 1.5 percent from 2006 to 2007, and most frequently involved alcohol, heroin, marijuana, crack, and other cocaine. Cocaine and marijuana also accounted for three-quarters of the positive items tested through NFLIS. Narcotics were the most frequently identified drugs in drug abuse deaths in 2006, and nearly one-half of the deaths occurred in Baltimore City.

INTRODUCTION

For the first time, this article addresses drug trends in both Maryland and Washington, DC. It is organized to provide area descriptions and drug use overviews of both Maryland and DC in this Introduction section. For each drug assessed in the Drug Abuse Patterns and Trends section, a regionwide overview is provided, followed by data specific to each jurisdiction.

¹The authors are affiliated with the Center for Substance Abuse Research, University of Maryland, College Park, Maryland. Some background material was taken from prior CEWG reports.

Area Description

Washington, DC, a 68-square mile area, shares boundaries with the States of Maryland and Virginia. The Nation's Capital is home to approximately 581,530 people residing in eight wards; 20.2 percent live below the poverty level, and 63.6 percent are in the labor force (U.S. Bureau of the Census, 2006 estimate). The northwest part of the city tends to be home to residents who are wealthy and White, while the northeast and southeast sections tend to be home to residents who are poor and Black. Slightly more females than males live in DC, and the majority of the District's population are Black (55 percent). However, the number of Blacks residing in the District decreased approximately 14 percent in the 1990s, while the numbers of Asians and Hispanics increased (U.S. Bureau of the Census, 2000 Census; *Washington Post*, May 17, 2007). The population of the District is slightly older than the Nation's population. One in five residents are younger than 18, and slightly more than 12 percent are age 65 and older. More than one-third (39.1 percent) of adults age 25 or older have at least a bachelor's degree (District of Columbia Epidemiological Outcomes Workgroup—DCEOW—Profile 2008).

The State of Maryland is home to approximately 5,296,486 people residing in 24 jurisdictions. The State has slightly more females than males, and the majority of the State's population are White (64.0 percent). Approximately 27.9 percent of Maryland's population are Black, 4.3 percent are Hispanic or Latino, and 4.0 percent are Asian. As in the District, data from the 2000 census reveal several key demographic changes in Maryland since 1990. Maryland's total population increased 11 percent from 1990 to 2000. Minority populations in the State increased sharply during this time, while the White population remained about the same. Increases were noted among the Black population (24 percent), Asians (51 percent), and Hispanics (82 percent).

Approximately three-quarters (74.4 percent) of the State's population are age 18 and older, comparable to the national average of 74.3 percent.

Approximately 11.3 percent of Maryland's population are 65 and older, slightly lower than the national average. More than three-quarters (83.8 percent) of the State's residents are high school graduates or higher, and nearly one in three (31.4 percent) have a bachelor's degree or higher—an education level higher than that of the Nation's general population.

Drug Use Overview

Washington, DC: According to the National Survey on Drug Use and Health (NSDUH) annual State averages for 2005/2006, an estimated 53,000 DC residents age 12 or older reported past-month illicit drug use; 288,000 reported past-month drinking; and 135,000 reported past-month binge drinking. Between one-quarter and one-third of the drinkers were underage (12 to 20), and 16–22 percent binged.

Maryland: In Maryland, an estimated 287,000 residents age 12 or older reported past-month illicit drug use; 2,453,000 reported past-month drinking; and 933,000 reported past-month binge drinking. More than one in five (2–29 percent) of the drinkers and 13–18 percent of bingers were underage (Substance Abuse and Mental Health Services Administration—SAMHSA, Office of Applied Studies—OAS, NSDUH 2005–2006).

Although DC residents age 12 or older were more likely than those in nearby Baltimore, Maryland, to report past-year alcohol dependence, the percentages of residents reporting drug dependence were fairly similar.

The Washington/Baltimore High Intensity Drug Trafficking Area (W/B HIDTA) has been monitoring drug threats in the Maryland/Washington, DC/Virginia region since 1994. Current primary drug threats include crack and other cocaine, heroin, and pharmaceuticals. The first three have been identified as primary threats for many years, but pharmaceuticals have been listed for only the second year. Other secondary threats include phencyclidine (PCP), methylenedioxymethamphetamine (MDMA), and methamphetamine. HIDTA task forces have identified 326

drug trafficking organizations (DTOs) trafficking these drugs in the region (an increase from 194 in 2005). The majority of these DTOs operate in multiple States and are African American, Caucasian, Mexican, or Jamaican. More than half of these DTOs traffic cocaine/crack, one in five traffic marijuana, and 15 percent traffic heroin.

Information from the W/B HIDTA suggests that Maryland and DC have a wide variety of drug transportation options, including an extensive highway system, two major airports, and rail and bus systems. While W/B HIDTA information suggests that traffickers use all of these options extensively, the region appears to be a secondary drug distribution center; most drugs intended for distribution in Maryland or DC are distributed first to larger cities, such as New York and Miami (W/B HIDTA 2009).

Alcohol abuse costs Maryland and the District approximately \$4.1 billion per year, and illicit drug use costs about \$2.7 billion per year. In fiscal year (FY) 2005, Washington, DC, spent approximately \$360 million to address the problem. Currently, approximately 49 treatment programs, 20 publicly funded prevention programs, 11 recovery clubs, and 727 weekly recovery meetings are based in the District. In contrast, there are more than 1,400 licensed alcohol retailers and more than 1,100 issued tobacco licenses in DC. In Maryland, the FY 2009 budget for the Alcohol and Drug Abuse Administration (ADAA) is approximately \$144 million. In FY 2006, 260,500 individuals received prevention services at 517 recurring Maryland programs, and 47,527 patients were admitted to ADAA-funded treatment programs (*Outlook & Outcomes 2006*, an annual publication of the Maryland ADAA). Approximately 562 treatment programs are currently listed on the ADAA Web site.

Data Sources

A number of sources were used to obtain comprehensive information regarding drug use trends and patterns in Maryland and Washington, DC. Data for this report were obtained from the

sources listed below. In addition, interviews were conducted with a sample of substance abuse professionals in the fields of criminal justice, public health, and education.

- **Test results on drug items analyzed** by local crime labs were obtained from the NFLIS for CY 2007 (exhibit 1).
- **Drug-related death data** for 2006 were obtained from the 2006 Annual Reports prepared by Maryland's and the District's Offices of the Chief Medical Examiner (OCME). Exhibits 2a, 2b, and 2c show the number of deaths by drug in 2005 and 2006 in Maryland and DC, and the number of drug-positive cases by drug in DC for 2006.
- **Student survey data** were adapted by the Center for Substance Abuse Research (CESAR) from the 2007 Maryland and DC Public Schools Youth Risk Behavior Survey (YRBS). Exhibits 3a and 3b compare student drug use in DC and Baltimore.
- **Arrestee urinalysis data** were provided by the District of Columbia Pretrial Services Agency for adult and juvenile arrestees from 1984 through February 2008 (exhibits 4a, 4b, 5a, and 5b).
- **Treatment data** for Maryland were provided by the Maryland ADAA (exhibit 6).
- **Drug prices and trafficking trends** were obtained from the Department of Justice, Drug Enforcement Administration (DEA), *National Illicit Drug Prices December 2007*, the W/B HIDTA 2007 and 2008 Threat Assessment reports, and the *Threat Assessment and Strategy for Program Year 2009*.
- **Census data** for Maryland and DC were derived from the U.S. Census Bureau. Additional information for DC came from the "Council of the District of Columbia; Subcommittee on Labor, Voting Rights, and Redistricting; Testimony of the Office of Planning/State Data Center on Bill 14-137, The Ward Redistricting Amendment Act of 2002."

- **Additional information** came from several sources. Data on the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) were provided by the Maryland and DC HIV/AIDS Administrations; retail distribution data were derived from the DEA's Automation of Reports and Consolidated Orders System (ARCOS); and other data or information were derived from the Maryland and DC Epidemiological Outcomes Workgroups State profiles (exhibits 7a, 7b, 8a, and 8b). Drug Scan results came from a regional study conducted by CESAR with funding from the W/B HIDTA.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine, particularly in the form of crack, remained the most serious drug of abuse in the District, accounting for more adult arrestee positive drug tests than any other drug, as well as more deaths than any other drug. It also continued to be a primary concern in Maryland. Although the DEA reported a decrease in availability in early 2007, distribution appears to have returned to normal levels (W/B HIDTA 2009). According to the National Drug Intelligence Center (NDIC), the cost of crack and other cocaine in the region has remained stable in recent years. In DC, in 2007, powder cocaine sold for \$23,000–\$27,000 per kilogram wholesale and approximately \$1,000 per ounce midlevel. Crack sold for the same price ranges wholesale and midlevel for \$10–\$20 per rock, or \$100 per gram, retail. In Baltimore City and County, powder cocaine sold for about the same (\$20,000–\$30,000 per kilogram wholesale and \$800–\$1,200 per ounce midlevel), and crack sold for slightly more (\$1,000–\$1,200 midlevel and \$20–\$40 per rock retail). NFLIS data for CY 2007 showed that 45 percent of analyzed drug items in the District and 41 percent in Maryland tested positive for cocaine, more than for any other drug (exhibits 1a and 1b). Items in DC were

nearly twice as likely to test positive for cocaine as items in Baltimore City.

Cocaine-caused overdose deaths in the District totaled 75 in 2006, more than deaths caused by any other drug (exhibit 2a). The number of cocaine-positive cases (177) was surpassed only by alcohol-positive cases in the District in 2006 (205) (exhibit 2b). Nearly all of the driving under the influence (DUI) cases analyzed by the OCME tested positive for at least one drug. Approximately 1 in 10 of these cases was positive for cocaine. Baltimore accounted for nearly one-half of the 718 drug abuse deaths in Maryland in 2006, and more than one-third (36.8 percent) of these deaths statewide involved cocaine (exhibit 2c). There were nearly three times as many drug-caused deaths in Baltimore as in DC. The number of cocaine-related intoxication deaths in Baltimore more than doubled in one year, from 64 in 2005 to 136 in 2006. There were 444 drivers involved in fatal crashes in Maryland in 2006 (720 deaths), and more than one-half (52 percent) were under the influence of alcohol or drugs. The Maryland OCME, however, does not identify specific drugs.

The results of the District's 2007 YRBS data indicated that 6.2 percent (CI=4.6–8.4) of public school students in grades 9–12 reported lifetime use of any form of cocaine, about the same as in 2003 (exhibit 3a). Significantly more District students than Baltimore students reported lifetime cocaine use (6.2 [CI=4.6–8.4] vs. 2.0 [CI=1.3–3.2] percent); 5.5 percent (CI=3.7–8.3) of Maryland students reported lifetime cocaine use, about the same as in 2005.

In the District, reports from the Pretrial Services Agency indicated that the percentages of both adult and juvenile arrestees testing positive for cocaine decreased from 2006 to 2007, and these appeared to continue to decrease in 2008 (from 41.0 to 37.2 percent for adults, and from 3.4 to 2.8 percent for juveniles) (exhibits 4a to 5b).

For Maryland, primary admissions to certified Maryland alcohol and drug abuse treatment programs decreased 9.5 percent from 2004 to 2006 but increased slightly (1.5 percent) in 2007.

Admissions for crack and other cocaine remained about the same (exhibit 6). These admissions tended to cluster in 12 jurisdictions in southern Maryland, the Eastern Shore, and the Baltimore metropolitan area, where 35 percent or more of the drug mentions at entry to treatment were cocaine/crack in 2006.

Heroin

Heroin represented one of the three leading drug problems in Maryland and the District, along with cocaine and marijuana. In general, heroin was a bigger problem in Baltimore, while cocaine was a bigger problem in the District. Drug costs in these cities reflected this assessment. Crack sold for slightly less in DC, while heroin sold for slightly less in Baltimore. The NDIC reported that heroin prices remained stable: \$85,000–\$110,000 per kilogram wholesale; \$3,700–\$4,000 per ounce midlevel; and \$150–\$200 per bundle retail in DC. In Baltimore City and County, heroin prices were lower: \$80,000–\$110,000 per kilogram wholesale; \$2,550–\$3,900 per ounce midlevel; and \$90–\$120 per gram or \$10 per capsule retail.

NFLIS data for CY 2007 showed that approximately 10 percent of analyzed drug items in DC and 20 percent in Maryland tested positive for heroin, making it the third most frequently found drug in the region (exhibits 1a and 1b). The percentages of items in Baltimore and DC testing positive for heroin were nearly the same (11.1 and 9.5 percent, respectively).

The number of overdose deaths involving heroin/morphine in the District increased from 43 in 2005 to 50 in 2006; heroin/morphine was the second most likely drug to cause an overdose death (exhibit 2a). Heroin/morphine was the third most frequently found drug in all drug-positive cases in Washington, DC, in 2006 ($n=98$) (exhibit 2b). Nearly three-quarters (70.1 percent) of the drug abuse deaths in Maryland involved narcotics (exhibit 2c). There were nearly four times more heroin-related intoxication deaths in Baltimore City than in DC in 2006 (184 v. 50). These deaths increased 14 percent in Baltimore in 2006 after

decreasing steadily from 2002 to 2005 (from 276 to 161).

The results of the District's 2007 YRBS indicated that 5.4 percent (CI=3.8–7.7) of public school students in grades 9–12 reported lifetime use of heroin, about the same as in 2003 (exhibit 3a). Significantly more District students (5.4 percent; CI=3.8–7.7) reported lifetime heroin use than Baltimore students (1.8 percent; CI=1.1–2.8); 2.4 percent (CI=1.4–4.0) of Maryland students reported lifetime heroin use, about the same as in 2005.

As with cocaine, reports from the Pretrial Services Agency in the District indicated that the percentage of adult arrestees testing positive for opiates remained about the same from 2001 through 2007. In 2007, 9.1 percent of adult arrestees tested positive for opiates; 9.1 percent also tested positive during the first two months of 2008 (exhibits 4a and 4b). Juvenile arrestees were not tested for opiates during this time period.

Heroin continued to be the most frequently used illicit drug among Maryland treatment admissions (exhibit 6). Primary admissions for heroin to certified Maryland alcohol and drug abuse treatment programs remained about the same in 2007 as in 2006. These admissions were highest in the Baltimore metropolitan area in 2006. Nearly two-thirds of Baltimore City drug mentions involved heroin. In the surrounding jurisdictions, more than one-quarter involved heroin.

Other Opiates/Narcotics

Drug overdose deaths in DC involving methadone and oxycodone decreased slightly in 2006 (exhibit 2a). Thirty-four drug-positive cases involved methadone, and 14 of these cases were classified as overdose deaths (exhibits 2a and 2b). Twenty-three cases were oxycodone positive, and five of these were classified as overdose deaths. Eighteen cases were codeine positive (three were overdoses), and eight were hydrocodone positive. In Baltimore City, the opposite trend occurred. Methadone-related intoxication deaths increased

steadily, from 15 in 1999 to 69 in 2006; codeine/oxycodone/hydrocodone-related deaths increased from 2 to 12; and fentanyl-related deaths increased from 1 to 12.

Oxycodone, methadone, hydrocodone, and buprenorphine combined to account for approximately 2 percent of analyzed drug items reported to NFLIS in 2007 in DC and in Maryland. In Baltimore, approximately twice as many items tested positive for these drugs as in DC (4.25 vs. 2.17 percent).

DEA's ARCOS reports showed that the retail distribution of oxycodone, methadone, and buprenorphine in DC and Baltimore City increased sharply from 2000 to 2006 (exhibits 7a and 7b). Oxycodone and codeine were two of the top three drugs distributed in these cities during this time. Oxycodone was distributed in far higher quantities in both cities than other opiates. Oxycodone distribution increased from 31,963.5 grams in 2000 to 55,860.7 grams in 2006 in DC, and from 141,802.5 grams in 2000 to 255,713.0 grams in 2006 in Baltimore City.

In Maryland, primary admissions for other opiates to certified drug and alcohol treatment programs increased 22 percent, from 3,369 in 2006 to 4,453 in 2007 (exhibit 6). These admissions tended to cluster in the Baltimore metropolitan areas outside of the city and in rural western Maryland, where 6 percent or more of the drug mentions at entry to treatment were other opiates in 2006. Oxycodone mentions were more widespread, with two-thirds of Maryland's jurisdictions reporting that 6 percent or more of drug mentions were oxycodone in 2006.

Marijuana

Marijuana was widely available in the District and Maryland, but local production was limited. No indoor grows were dismantled in 2007 (W/B HIDTA 2009). Commercial-grade and high-grade marijuana were available for wide-ranging but relatively stable prices. Wholesale prices ranged from \$1,000–\$1,600 per pound commercial grade

to \$3,000–\$5,000 per pound for BC bud or hydro; retail prices were \$10–\$20 per gram.

NFLIS data for CY 2007 showed that approximately 30 percent of analyzed drug items in DC and 34 percent of Maryland items tested positive for marijuana, which made marijuana the second most frequently found drug (exhibits 1a and 1b). In Baltimore City, marijuana was the most frequently found drug, with more than one-half of the items (53 percent) testing positive.

The results of the 2007 YRBS indicated that alcohol and marijuana were the two most frequently reported substances by public school students. More than 40 percent of public school students in grades 9–12 in DC and Baltimore City used marijuana at least once in their lives; 1 in 10 first used marijuana before age 13. Approximately one in five students reported using marijuana at least once in the past month. More than one-third (36.5 percent; CI=31.3–42.0) of Maryland students reported lifetime marijuana use (data not shown). Significantly more DC students than Baltimore students reported alcohol use or driving under the influence (exhibit 3b).

No marijuana-involved deaths were reported by the District's CME in 2005 or 2006, but marijuana was the most frequently found illicit drug in DC DUI cases testing positive for illicit drugs. Marijuana was found in nearly one-fourth (23 percent) of these cases (data not shown).

The DC Pretrial Services Agency does not test adult arrestees for marijuana, but marijuana was the most frequently found drug among juveniles. The proportion of juveniles testing marijuana positive decreased steadily from 1999 through 2004 (from 63.5 to 49.0 percent) and then began to increase (exhibits 5a and 5b). Approximately 54 percent tested positive in 2007, and 53 percent were marijuana positive during the first two months of 2008.

Primary marijuana admissions to Maryland treatment programs increased 4.7 percent, from 9,950 in 2006 to 10,413 in 2007 (exhibit 6). These admissions tended to cluster in 12 jurisdictions in southern Maryland and the Eastern Shore, where

44 percent or more of the drug mentions at entry to treatment were marijuana in 2006.

Phencyclidine (PCP)

According to the W/B HIDTA, no major labs that manufacture PCP have been found in the Washington/Baltimore region since 2002, but the drug's availability may be increasing in the District. Law enforcement recently rated PCP as a secondary threat, given its fluctuations in use (as demonstrated by DC Pretrial Services urinalysis results). Treatment, prevention, and education professionals interviewed as part of the Regional Drug Scan also shared this concern. Contacts in DC tended to rate PCP as a greater threat than those in Maryland. PCP can be used alone or in combination with other drugs, most often marijuana.

NFLIS data for 2007 showed that 5 percent of analyzed drug items tested positive for PCP in DC, making it the fourth most frequently found drug after cocaine, marijuana, and heroin (exhibit 1a). However, very few (.09 percent) items in Baltimore City, and only 0.2 percent of items in Maryland, were positive for PCP.

Thirty-three PCP positive deaths occurred in DC in 2006, slightly fewer than in 2005 (exhibit 2b). However, no overdose deaths in DC involved PCP. Fifteen percent of the DUI cases in DC were positive for PCP.

Data from the DC Pretrial Services Agency showed a rise in PCP use among adult arrestees, from the low single digits in the late 1990s to the mid-teens in 2002 and 2003 (exhibits 4a and 4b). Positive tests for PCP among adults declined, in 2004 to 6.2 percent, but they increased to 9.2 percent in 2006. The percentage held stable in 2007 and in the first two months of 2008 (9.4 and 8.8 percent, respectively). Trend data from 1987 to the present indicated that PCP use among the juvenile arrestee population fluctuated greatly between 1987 and 2004 and then leveled off at approximately 2 to 3 percent each year (exhibits 5a and 5b).

Primary treatment admissions involving PCP in Maryland—though much lower than those for

other drugs—increased 17.4 percent, from 340 in 2006 to 399 in 2007 (exhibit 6).

Methamphetamine/MDMA

Abuse of methamphetamine did not appear to be a major problem in DC or Maryland. There were no drug overdose deaths due to either methamphetamine or MDMA/methylenedioxyamphetamine (MDA) from 2004 to 2006 in the District. However, 11 decedents tested positive for MDMA and 10 tested positive for methamphetamine at the time of their deaths in the District in 2006 (exhibit 2b).

The W/B HIDTA and other members of the DC Epidemiological Outcomes Workgroup have reported in the past that methamphetamine use is established in the homosexual community in the District. Although methamphetamine continues to be ranked as a secondary threat in the 2009 threat assessment, very little is said about the drug. Substance abuse professionals surveyed in 2008 from the District were more likely to rate methamphetamine as a threat than professionals in Maryland or Virginia. However, none of these professionals felt that methamphetamine was likely to become a primary drug of abuse.

NFLIS data for 2007 showed that slightly more items testing positive for methamphetamine and MDMA/MDA were found in the District than in Baltimore (1.74 vs. 0.04 percent and 4.23 vs. 0.62 percent, respectively). In Maryland, approximately 1 percent of the items tested were positive for methamphetamine or MDMA/MDA. The NDIC reported that powder methamphetamine sold for \$100–\$150 per gram retail in 2007 in DC and for \$115 per gram in Baltimore. MDMA pills sold for approximately twice as much in DC (\$20–\$25) as in Baltimore City and County (\$10–\$12).

The results of the 2007 YRBS also indicated that significantly more public school students in grades 9–12 reported lifetime use of methamphetamine and MDMA in DC than in Baltimore (6.1 [CI=4.5–8.2] vs. 1.9 [CI=1.3–2.9] percent and 7.7 [CI=6.1–9.7] vs. 3.5 [CI=2.5–4.8] percent, respectively) (exhibit 3a).

The DC Pretrial Services Agency began testing for amphetamines in August 2006. From August 2006 to February 2008, adult positives ranged from 1 to 4 percent, increasing slightly over time. Less than 1 percent (14 of 1,244) of juveniles tested positive from August to December 2006. In 2007, this percentage increased slightly to 2.7 percent, and it appeared to be continuing to increase in 2008 (data not shown).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Newly reported injection drug use (IDU)-related HIV cases in the District decreased steadily from 108 in 2002 to 42 in 2006 (exhibit 8a). IDU-related AIDS cases, in contrast, fluctuated during this time, ranging from 165 to 228 from 2001 to 2005, and decreased 31 percent in 2006 to 158, according to the District of Columbia HIV/AIDS Epidemiology Annual Report 2007. A recent review of these data conducted by the Centers for Disease Control (CDC), however, revealed a significant undercount in the mortality data, and these data are currently under review.

Newly reported IDU-related HIV/AIDS cases in Maryland also decreased steadily from 2001 to 2006 (exhibit 8b). IDU-related HIV cases decreased 87 percent, from 569 to 73, and AIDS cases decreased 59 percent, from 752 to 307. A review of cumulative IDU-related AIDS cases in Maryland's 24 jurisdictions revealed that Baltimore City accounted for more cases than any other jurisdiction. Although the percentage of cases in Baltimore City that are IDU-related is decreasing, Baltimore City accounted for more than 60 percent of the cumulative IDU-related AIDS cases in the State in 2006.

REGIONAL DRUG SCAN: IDENTIFYING CURRENT DRUG TRENDS

The Regional Drug Scan is a qualitative analysis of area substance abuse professionals' perceptions

of the scope of drug use and drug trends in the W/B HIDTA Region, covering 18 jurisdictions between Baltimore, Maryland, and Richmond, Virginia. Qualitative telephone interviews were conducted with 41 area contacts (including 9 in DC and 21 in Maryland) in early 2008 to collect information on local drug trends. Contacts were selected because they were determined to possess indepth knowledge of drug issues, had been exposed to drug-related problems for more than 1 year, and were highly credible sources of information. They included professionals in treatment, education, prevention, and criminal justice.

Contacts throughout the region overwhelmingly found marijuana, cocaine, pharmaceuticals, and heroin use to be the most injurious and imminent drug threats to their communities. Pharmaceuticals were seen as a growing problem, particularly in suburban central and southern Maryland, where reports of "pharm parties" increased. Central Maryland contacts rated pharmaceuticals, particularly oxycodone and hydrocodone, as the highest threat in the area; southern Maryland contacts rated pharmaceuticals third after marijuana and crack.

Baltimore contacts continued to be more likely than others to mention heroin as a primary threat. Other drugs rated as significant threats in the Baltimore area included powder cocaine, crack, pharmaceuticals, and marijuana. Other drugs, such as PCP, ecstasy, and methamphetamine, were also mentioned, but they were deemed to be more minor threats. District contacts rated crack, PCP, marijuana, and heroin as the greatest threats to the city. Conversely, steroids, pharmaceuticals, and ecstasy were least likely to be seen as a threat. Concern lingered about methamphetamine, although most contacts did not report an increase in use.

A new trend identified by Drug Scan contacts in Southern Maryland was an apparent increase in inhalant use among youth age 10–14. According to contacts, these youth were experimenting with items such as household cleansers, glue, and markers.

The information collected through this study is anecdotal and cannot provide true estimates of the level of drug use in the region. However, it is valuable because it provides snapshots of current trends not captured in traditional indicators, and identifies new trends that may be emerging. The full report is available upon request to <cesar@cesar.umd.edu>.

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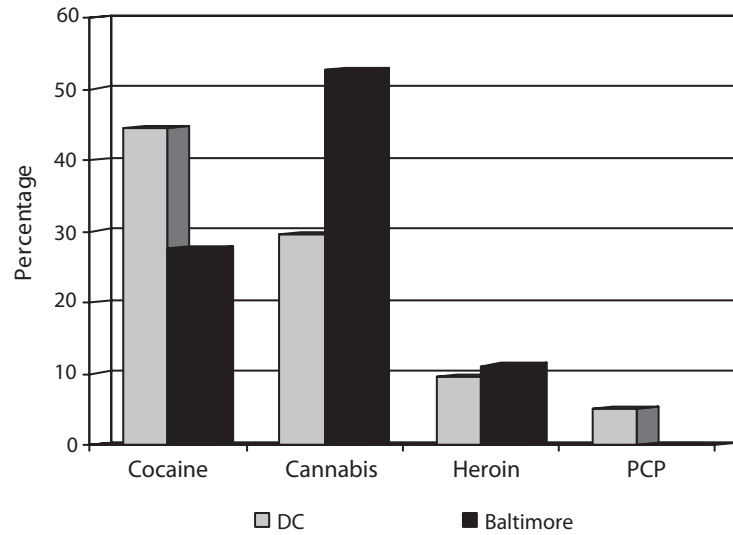
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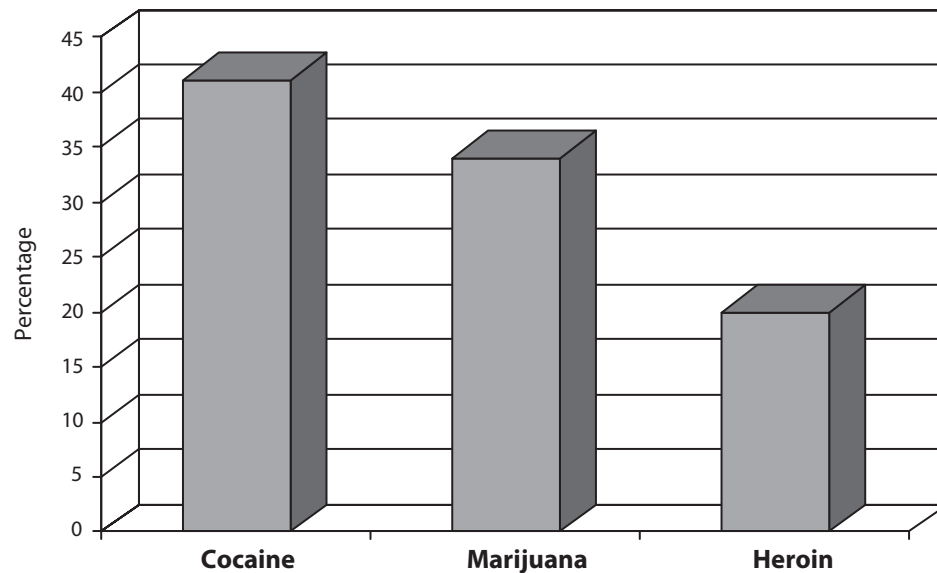
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Exhibit 1a. Percentages of Drug-Positive Items among NFLIS Analyses¹ in Washington, DC, and Baltimore City: 2007



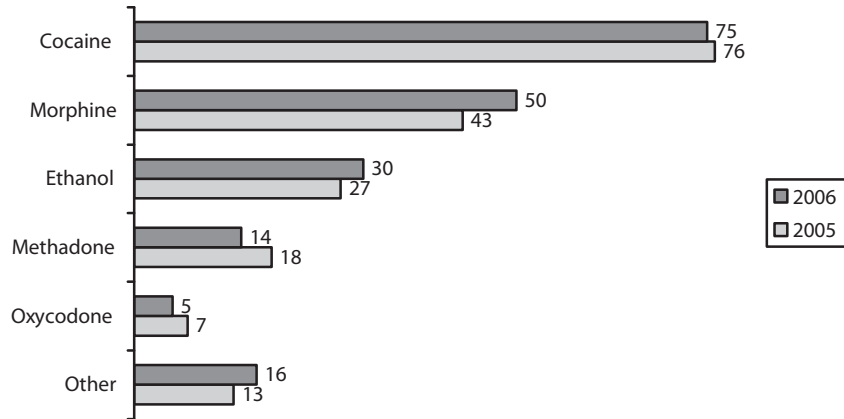
¹The percentage of PCP-positive items in Baltimore was less than 1 percent.
 SOURCE: DEA, NFLIS, special data run May 2008

Exhibit 1b. Percentages of Drug-Positive¹ Items among NFLIS Analyses in Maryland: 2007



¹Less than 1 percent of items tested positive for oxycodone, MDMA/MDA, alprazolam, buprenorphine, clonazepam, methadone, PCP, and methamphetamine.
 SOURCE: DEA, NFLIS, special data run May 2008

Exhibit 2a. Number¹ of Drug Overdose Deaths in Washington, DC, by Drug²: 2005 and 2006

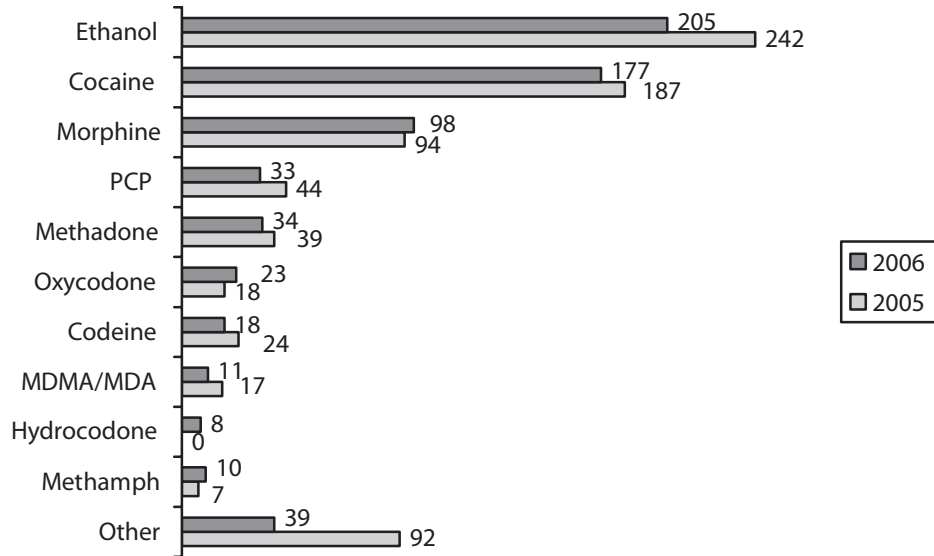


¹2005 N=119 deaths; 2006 N=111.

²2005 Other=citalopram, amitriptyline; 2006 Other=codeine, doxepin, zolpidem, sertraline, trazodone.

SOURCE: Adapted by CESAR from data from the Office of the Chief Medical Examiner, Washington, DC, Annual Reports 2005 and 2006

Exhibit 2b. Number¹ of Drug-Positive Cases in Washington, DC, by Drug²: 2005 and 2006

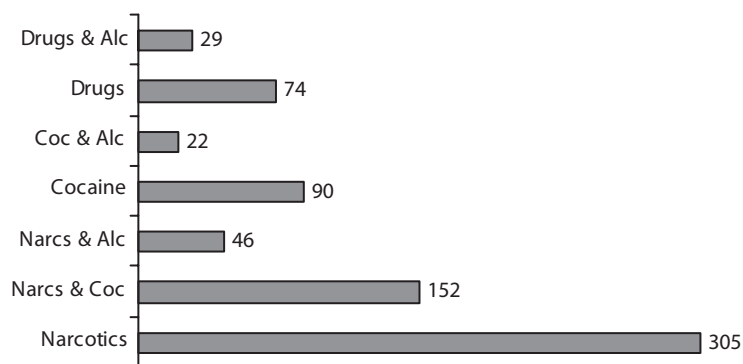


¹2005 N=631 positive cases; 2006 N=503 positive cases; some decedents tested positive for multiple drugs.

²2005 Other=diazepam, amitriptyline, citalopram, sertraline, and carbon monoxide; 2006 Other=amitriptyline, sertraline, trazodone, and carbon monoxide.

SOURCE: Office of the Chief Medical Examiner, Washington, DC, 2005 and 2006 Annual Reports

Exhibit 2c. Number of Maryland Drug Abuse Deaths, by Drug: 2006



N=718.
SOURCE: Office of the Chief Medical Examiner, Maryland, 2006 Annual Report

Exhibit 3a. Drug Use among Baltimore and DC Public School Students in Grades 9–12, by Percent: 2007

| Lifetime Drug Use | Baltimore N=1,927 | DC N=1,732 |
|-------------------|----------------------|---------------|
| Cocaine | 2.0 | 6.2 |
| Heroin | 1.8 | 5.4 |
| Methamphetamine | 1.9 | 6.1 |
| Ecstasy | 3.5 | 7.7 |
| Inhalants | 6.9 | 10.1 |

SOURCE: Adapted by CESAR from data from DC Public Schools 2007 YRBS

Exhibit 3b. Alcohol Use among Baltimore and DC Public School Students in Grades 9–12, by Type of Use and Percent: 2007

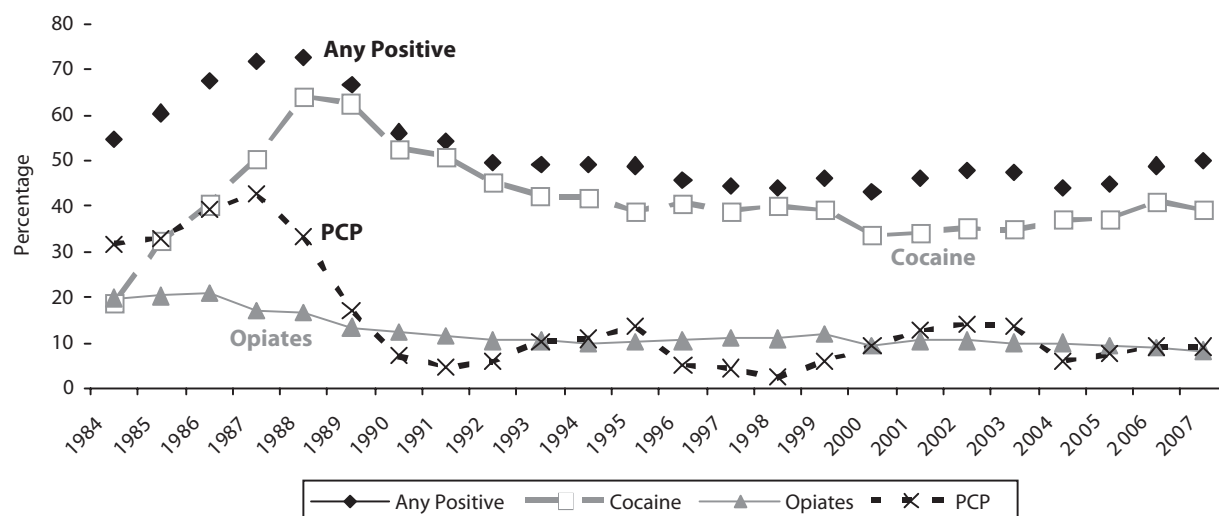
| Alcohol Use | Baltimore N=1,927 | DC N=1,732 |
|---|----------------------|---------------|
| Lifetime Alcohol Use | 61.6 | 66.4 |
| Past-Month Alcohol Use | 26.8 | 32.6 |
| Past-Month Passenger in a Vehicle Driven by Someone Who had been Drinking | 21.3 | 28.5 |
| Past-Month Driving Under the Influence | 4.1 | 6.3 |

SOURCE: Adapted by CESAR from data from DC Public Schools 2007 YRBS

Exhibit 4a. Percentages of Adult Arrestees in Washington, DC, Testing Positive for Selected Drugs: 2000–2008¹

| Drug | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ¹ |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------|
| (N=) | (15,630) | (17,350) | (17,952) | (17,742) | (19,531) | (19,867) | (23,271) | (22,800) | (3,478) |
| Cocaine | 33.6 | 34.2 | 35.2 | 34.8 | 36.6 | 37.3 | 41.0 | 37.2 | 32.8 |
| PCP | 9.3 | 12.7 | 14.2 | 13.5 | 6.2 | 7.5 | 9.2 | 9.4 | 8.8 |
| Opiates | 9.5 | 10.5 | 10.5 | 10.0 | 9.8 | 9.3 | 8.9 | 9.1 | 9.1 |
| Any Drug | 43.2 | 46.1 | 48.0 | 47.3 | 43.5 | 44.7 | 48.9 | 48.2 | 44.5 |

¹2008 data are for January–February only.
SOURCE: District of Columbia Pretrial Services Agency

Exhibit 4b. Percentages of Washington, DC, Adult Arrestees Testing Positive for Any Drug, Cocaine, PCP, and Opiates: 1984–2008¹

¹2008 data are for January–February only.

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

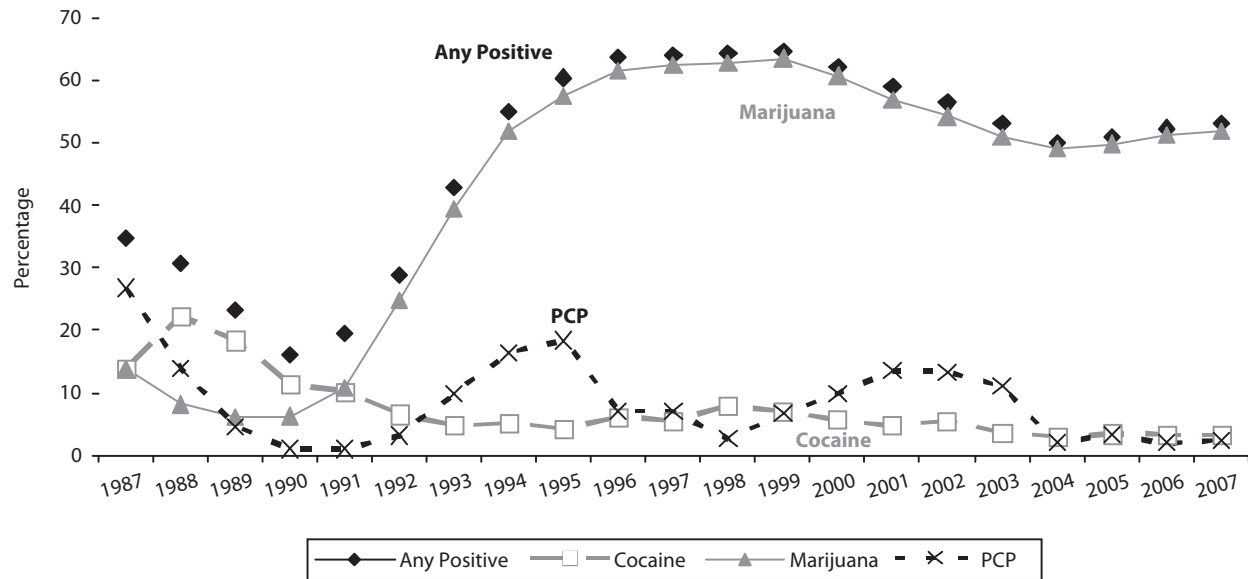
Exhibit 5a. Percentages of Juvenile Arrestees in Washington, DC, Testing Positive for Selected Drugs: 2000–2008¹

| Drug | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ¹ |
|-----------|---------|---------|---------|---------|---------|---------|---------|-------|-------------------|
| (N=) | (2,162) | (2,165) | (1,896) | (1,899) | (2,001) | (2,319) | (2,379) | (196) | (400) |
| Marijuana | 60.7 | 56.9 | 54.2 | 50.8 | 49 | 49.8 | 51.2 | 54.4 | 53.0 |
| Cocaine | 5.7 | 4.8 | 5.5 | 3.7 | 3.3 | 3.5 | 3.4 | 2.8 | 1.0 |
| PCP | 9.8 | 13.5 | 13.4 | 11.1 | 1.9 | 3.4 | 2.0 | 2.6 | 2.5 |
| Any Drug | 62.0 | 59.1 | 56.4 | 53.1 | 49.6 | 51.0 | 52.3 | 55.6 | 53.8 |

¹2008 data are for January–February only.

SOURCE: District of Columbia Pretrial Services Agency

Exhibit 5b. Percentages of Washington, DC, Juvenile Arrestees Testing Positive for Any Drug,¹ Cocaine, PCP, and Marijuana: 1987–2008²

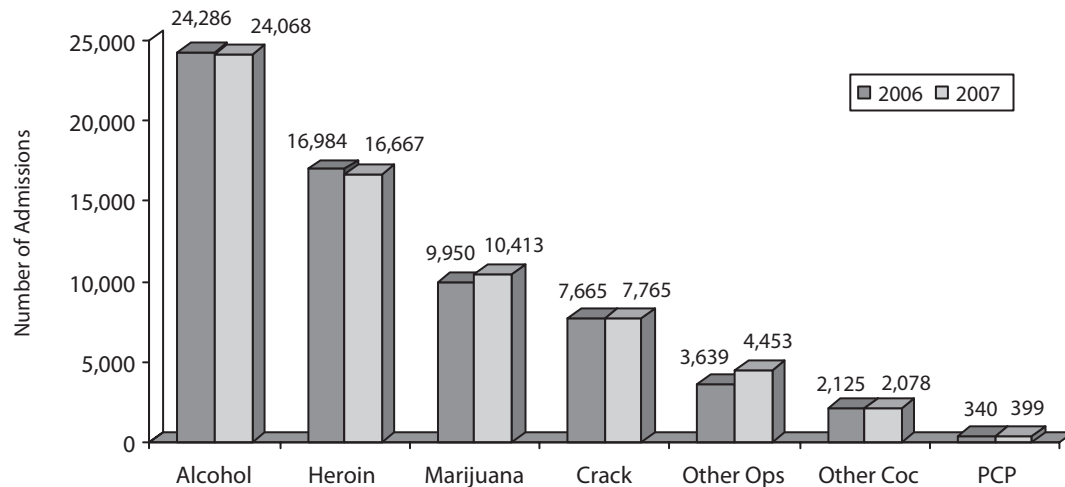


¹Any Positive includes opiates from 1987 through mid 1994 (< 1%).

²2008 data are for January–February only.

SOURCE: Adapted by CESAR from data from the District of Columbia Pretrial Services Agency

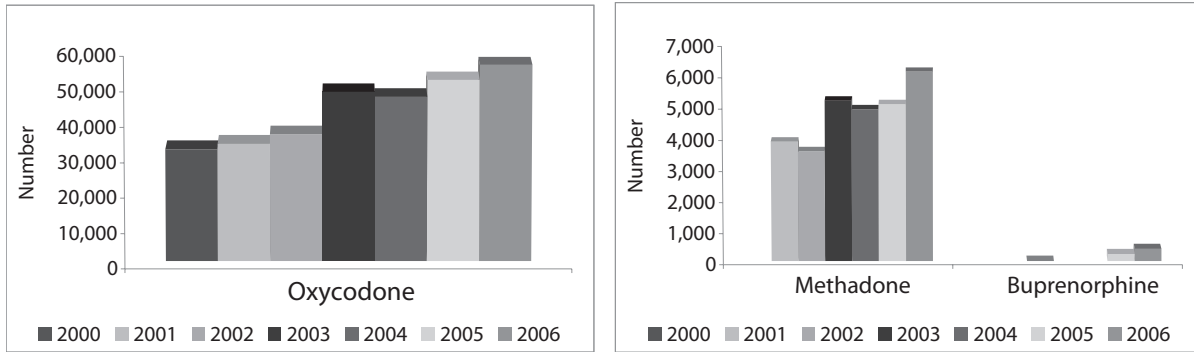
Exhibit 6. Numbers of Primary Admissions¹ to Certified Alcohol and Drug Treatment Programs in Maryland: 2006 and 2007



¹2006 N=65,861; 2007 N=66,852.

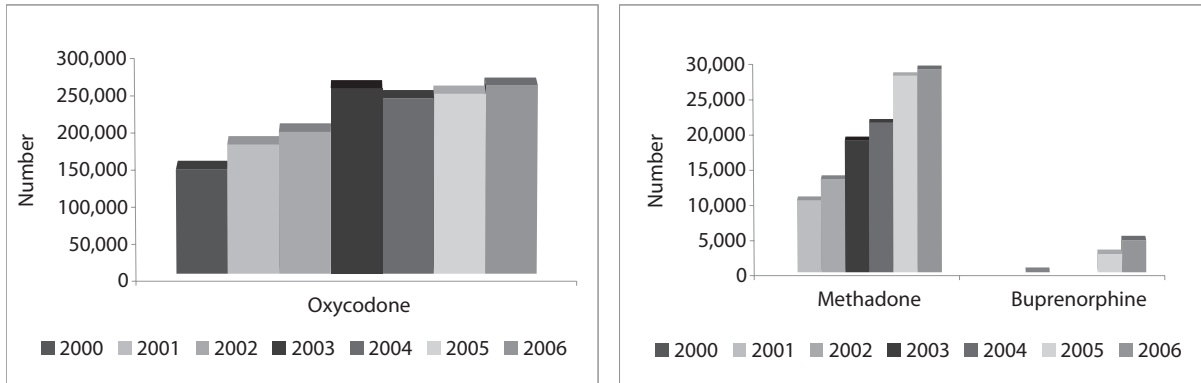
SOURCE: Adapted by CESAR from data provided by the Alcohol and Drug Abuse Administration, Dept. of Health and Mental Hygiene, SAMIS System

Exhibit 7a. Retail Distribution of Select Drugs in Washington, DC, by Year and Drug¹: 2000–2006



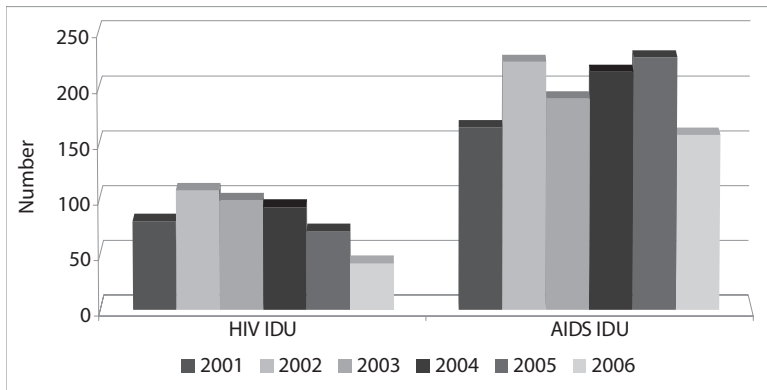
¹Note: Buprenorphine first became available for treating heroin addiction in May 2003.
SOURCE: DEA ARCOS Retail Drug Summaries

Exhibit 7b. Retail Distribution of Select Drugs in Baltimore, by Year and Drug¹: 2000–2006



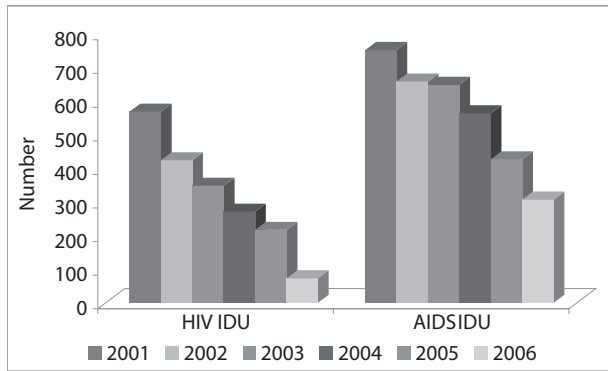
¹Note: Buprenorphine first became available for treating heroin addiction in May 2003.
SOURCE: DEA ARCOS Retail Drug Summaries

Exhibit 8a. Newly Diagnosed IDU-Related¹ HIV and AIDS Cases in Washington, DC, by Year: 2001–2006



¹Note: IDU includes injection drug users (IDUs) and men who have sex with men (MSM) who are also IDUs.
SOURCE: HIV/AIDS Surveillance and Epidemiology Division, Administration for HIV Policy and Programs, DC Department of Health, Annual Report 2007

Exhibit 8b. Newly Diagnosed IDU-Related¹ HIV and AIDS Cases in Maryland, by Year: 2001–2006



¹Note: IDU includes IDU and MSM/IDU.

Source: 2008 MD AIDS Administration, MD Department of Health and Mental Hygiene

Greater Boston Patterns and Trends in Drug Abuse: June 2008

Daniel P. Dooley¹

ABSTRACT

Overall Boston's cocaine indicators were mostly stable at high levels in 2007. Cocaine led all drugs among drug abuse deaths, hospital emergency department reports, and drug arrests. In 2007, there were 86 cocaine-related deaths in Suffolk County, up from 77 in 2006. Although cocaine (including crack) primary admissions have decreased from 10 percent in calendar year (CY) 2000 to 7 percent in CY 2007, consistently about one in five (20 percent) additional treatment clients identified cocaine as a secondary drug. The age, race, and gender demographics of cocaine treatment clients did not change from 2006. But since 2000, the proportion of Black cocaine primary admissions has decreased from 63 to 45 percent. Cocaine helpline calls remained fairly stable, at 20 percent of the total in fiscal year (FY) 2007. After remaining stable at between 41 and 43 percent for 6 years from 2000 to 2006, the proportion of Class B drug arrests (mainly cocaine) increased slightly from 43 to 46 percent in 2007. As in 2006, cocaine accounted for one-third of all drug lab samples in 2007. Heroin abuse also remained at high and fairly stable levels. Heroin dominated as the primary drug in treatment and among substance abuse helpline drug mentions. The proportion of heroin treatment admissions increased gradually yet steadily over 8 years. In CY 2007, more than one-half of all treatment admissions (51 percent) cited heroin as the client's primary drug problem. The proportion increased from 47 percent in 2003 and 38 percent in 2000. Increases from 2000 in heroin primary treatment

admissions were seen among young clients (age 18–25) and White clients. The proportion of heroin clients who primarily injected heroin did not change from 2006 to 2007, but increased from 67 percent in 2000 to 82 percent in 2007. The proportion of heroin calls to the substance abuse helpline dipped slightly from 35 percent in FY 2006 to 32 percent in FY 2007. The levels of Class A drug arrests (mainly heroin) and heroin drug lab samples were stable from 2005 to 2006. The most recent Drug Enforcement Administration (DEA) data reported that a typical bag of South American heroin cost between \$6 and \$20 retail. Indicators for other opiates, including most prominently oxycodone, appeared relatively stable at moderate levels of abuse. The proportion of other opiate primary treatment admissions remained between 3 and 4 percent for 6 years from CY 2002 to CY 2007. Similarly, the proportion of oxycodone drug lab samples remained stable (between 2 and 3 percent) for 6 years from 2002 to 2007. Recent marijuana indicators were mostly stable, but at varied levels. Treatment admissions citing marijuana as the primary drug remained between 3 and 4 percent from 2000 to 2007. From FY 1999 to FY 2007, the proportion of marijuana helpline calls remained stable at between 5 and 6 percent. The proportion of Class D drug arrests (mainly marijuana) remained fairly stable at 35 percent in 2007. The proportion of marijuana drug lab samples was unchanged from 2005 to 2006 at approximately 40 percent, but dipped to 35 percent in 2007. Methamphetamine abuse levels remained low overall in Boston. Only 91 treatment clients (less than 1 percent) identified methamphetamine as either their primary or secondary drug in 2007. Similarly, there were only 20 methamphetamine calls to the helpline in FY 2007. Methamphetamine drug lab samples totaled 36 in 2006 and 26 in 2007. The DEA reported that methamphetamine cost between \$100 and \$200 per gram. In 2006, there were 209 adult HIV/AIDS cases diagnosed in Boston. Primary transmission risk factors for these cases included 5 percent who were injection drug users (IDUs), 3 percent who had sex with IDUs, and 28 percent who had an unknown/undetermined risk factor.

¹The author is affiliated with the Boston Public Health Commission.

INTRODUCTION

Area Description

According to the 2000 U.S. census, Massachusetts ranked 13th in population size (6,349,097 people). The 746,914 people in the metropolitan Boston area represented 12 percent of the total Massachusetts population. The 2000 census data show that there were 589,141 residents of the city of Boston. The racial composition included: 5 percent White non-Hispanic, 23 percent Black non-Hispanic, 14 percent Hispanic/Latino (henceforth referred to as Latino), and 8 percent Asian.

Several characteristics influence drug trends in Boston and throughout Massachusetts:

- The area is contiguous with five neighboring States (Rhode Island, Connecticut, New York, Vermont, and New Hampshire), linked by a network of State and interstate highways.
- Interstate 95 connects Boston to all major cities on the East Coast, particularly New York.
- The area has a well-developed public transportation system that provides easy access to communities in eastern Massachusetts.
- Both the greater Boston area and western Massachusetts have large populations of college students.
- There are several seaport cities with major fishing industries and harbor areas.
- Logan International Airport and several regional airports are within a one-hour drive of Boston.
- There are a high number of homeless individuals seeking shelter.

Data Sources

This report presents data from a number of different sources with varied Boston-area geographical parameters. For this reason, caution is advised when attempting to generalize across data sources. A description of the relevant boundary parameters is included with each data source

description. For simplicity, these are all referred to as “Boston” throughout the text. In addition, there are many systemic factors specific to each data source that do not directly relate to the level of abuse in the larger population, but may contribute to changes seen in the data. For example, reductions in treatment funding would likely cause reductions in available services, and ultimately, reductions in the number of admissions at a time when the number of potential clients exceeds the number of available treatment slots. In such a scenario, decreasing admissions numbers are not an indication of reductions in the number of people seeking treatment. How such systemic factors influence totals and subpopulation differences observed within a data source is often unknown. Further, to what degree an individual data source is representative of the larger drug-abusing population is largely unknown. Conclusions drawn from the data sources within this text are subject to these limitations. At best, these data present a partial picture of Boston’s collective drug abuse experience. Overall understanding of drug use and abuse patterns should improve as current data sources improve and new sources develop.

Data sources for this report are listed below:

- **State-funded substance abuse treatment admissions data** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (Community Health Network Area [CHNA] 19), for calendar years (CYs) 2000–2007 were provided by the Massachusetts Department of Public Health (DPH), Bureau of Substance Abuse Services.
- **Drug-related death data** were provided by the Office of the Chief Medical Examiner (ME), Massachusetts DPH, and the Drug Abuse Warning Network (DAWN) from the Substance Abuse and Mental Health Services Administration (SAMHSA) Office of Applied Studies (OAS), for 2006 and 2007, for Suffolk County Massachusetts.
- **Analysis of seized drug samples** for the Boston region comprising the cities of Boston,

Brookline, Chelsea, Revere, and Winthrop (CHNA 19) for 1998 through 2007 was provided by the Massachusetts DPH Drug Analysis Laboratory in Amherst, Massachusetts. The Boston area drug sample counts do not include samples analyzed at the Worcester County or State Police laboratories.

- **Information on drug mentions in Helpline calls** for a Boston region comprising the cities of Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19) for FY 2000 through FY 2007 was provided by the Massachusetts Substance Abuse Information and Education Helpline.
- **Drug arrests data** for the city of Boston for 2000 through 2007 were provided by the Boston Police Department, Drug Control Unit and Office of Research and Evaluation. For arrest data only, Black and White racial designations include those who identify themselves as Hispanic.
- **Drug price, purity, and availability data** for New England were provided by the DEA, New England Field Division Intelligence Group, June 2008.
- **Adult acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** for 2006, and cumulative data through May 1, 2008 were provided by the Massachusetts DPH AIDS Surveillance Program.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

In Boston, Cocaine (including crack) is one of the most heavily abused drugs. Recent cocaine/crack indicators were at high and at fairly stable levels of use and abuse. There were 86 cocaine death reports in Suffolk County in 2007 and 77 cocaine deaths in 2006.

In CY 2007, 1,348 treatment clients (7 percent of all admissions) reported cocaine/crack as their primary drug, and there were an additional

3,863 (20 percent of all admissions) clients who reported cocaine/crack as their secondary drug (exhibit 1). Of the clients reporting cocaine/crack as their primary drug, 80 percent identified crack and 20 percent identified powder cocaine. A comparison of 2007 to previous years showed that the proportion of clients who reported cocaine/crack as their primary drug (7 percent) decreased slightly from 8 percent in 2006 and from a high of 10 percent in 2000 (exhibit 1). The proportion of clients who reported cocaine/crack as their secondary drug fluctuated between 20 and 24 percent from 2000 to 2007 (exhibit 1).

Of the 1,348 clients reporting cocaine/crack as their primary drug, 74 percent reported another secondary drug of abuse. Among these, 58 percent reported alcohol and 19 percent reported heroin as their secondary drug. Since 2000, the percentage of alcohol as secondary drug decreased from 70 percent and the percentage of heroin as secondary drug increased from 11 percent (data not shown).

The gender distribution of cocaine/crack primary drug treatment admissions in 2007 (58-percent male and 42-percent female) reflected a recent slight decrease in the proportion of males (down from 63 percent in 2005) and an increase in the proportion of females (up from 37 percent in 2005) (exhibit 2a).

After years of decreasing proportions of younger cocaine clients (age 18–25), the most recent treatment data revealed an increase from 6 percent in 2004 to 12 percent in 2007. Age group analysis further revealed the proportion of clients age 26–34 steadily decreased from 36 percent in 2000 to 21 percent in 2007.

The 2007 racial/ethnic distribution for cocaine/crack admissions (45 percent Black, 36 percent White, 14 percent Latino) revealed a shift toward higher White proportions (up from 25 percent in 2000) and lower Black proportions (down from 63 percent in 2000) (exhibit 2a).

In FY 2007, cocaine or crack was indicated in 657 calls (20 percent) to the substance abuse helpline (exhibit 3). Since FY 2000, the proportion of

helpline calls with mentions of cocaine/crack has fluctuated between 18 percent and 22 percent.

In 2007, 3,567 seized samples of cocaine/crack were analyzed by the drug lab. The proportion of cocaine/crack samples among all drug samples analyzed increased from 29 percent in 2005 to 33 percent in 2007.

There were 2,178 Class B (mainly cocaine and crack) drug arrests in 2007 (exhibit 4). Class B arrests accounted for the largest proportion of drug arrests (46 percent) in the city of Boston in 2007. The proportion of Class B arrests ranged from 41 to 43 percent between 2000 and 2006, before increasing slightly in 2007. The proportion of Class B arrests of those older than 39 increased steadily from 16 percent in 1998 to 31 percent in 2007. During the same time period Class B arrests of people age 25–39 decreased from 54 percent in 1998 to 43 percent in 2007.

The racial distribution of Class B arrestees shifted slightly from 2006. The proportion of White Class B arrestees increased slightly and the percent of Black Class B arrestees decreased slightly in 2007.

The DEA reported that retail “street-level” cocaine cost between \$26 and \$100 per gram with variable levels of purity (20–90 percent) in Boston (exhibit 5). A rock of crack cost \$10–\$20. Cocaine was considered available throughout New England.

Heroin

Heroin remained one of the most heavily abused drugs in Boston. After years of continued growth most indicators were fairly stable at very high levels.

There were 29 heroin/morphine death reports in Suffolk County in 2007.

In CY 2007, 9,813 treatment clients (51 percent of all admissions) reported heroin as their primary drug, and there were an additional 547 (3 percent of all admissions) clients who reported heroin as their secondary drug (exhibit 1).

A comparison of 2007 to previous years shows that the proportion of clients who reported heroin

as their primary drug increased from 47 percent in 2006 and from 38 percent in 2000 (exhibit 1). The proportion of clients who reported heroin as their secondary drug has remained stable, between 3 and 5 percent from 2000 to 2007 (exhibit 1).

Of the 9,813 clients reporting heroin as their primary drug, 49 percent reported a secondary drug of abuse. Among these, 39 percent reported cocaine/crack and 28 percent reported alcohol as their secondary drug. Since 2000, the percentage of alcohol as secondary drug decreased from 42 percent and the percentage of cocaine as secondary drug increased from 31 percent (data not shown).

Exhibit 2b shows demographic characteristics of heroin primary treatment admissions in Boston. The gender distribution of heroin/other opiates primary drug treatment admissions in 2007 (74 percent male and 26 percent female) did not change from 2005 (exhibit 2b). The proportion of younger clients (age 18–25) increased from 15 percent in 2000 to 24 percent in 2005 and has remained stable since. The proportion of older clients (age 35 and older) decreased from 52 percent in 2003 to 43 percent in 2007. The 2007 racial/ethnic distribution for heroin admissions (66 percent White, 19 percent Latino, 12 percent Black) remained stable from 2006 to 2007, but has shifted towards higher White percentages (up from 50 percent in 2000) and lower Black and Latino percentages (down from 22 percent and 23 percent, respectively) since 2000 (exhibit 2b).

In 2007, 82 percent ($n=8,080$) of heroin admissions reported injection was their preferred route of using the drug, up from 67 percent ($n=6,513$) in 2000.

In FY 2007, heroin was mentioned in 1,040 calls (32 percent of the total) to the helpline (exhibit 3). The proportion of heroin helpline call mentions has fluctuated between 31 and 40 percent from FY 2000 to FY 2007.

In 2007, 1,025 seized samples of heroin (9 percent of all drug samples) were analyzed. The proportion of heroin samples among all drug samples analyzed remained stable from 2005 (10 percent) but decreased from 19 percent in 2001.

There were 732 Class A (mainly heroin and other opiates) drug arrests in 2007 (exhibit 4). The proportion of Class A drug arrests among all drug arrests in the city of Boston remained fairly stable from 2005 (17 percent) to 2007 (15 percent), but decreased from 27 percent from 2000. The proportion of White Class A arrestees has increased from 63 percent in 2006 to 68 percent in 2007. The proportion of Black Class A arrestees has decreased from 35 percent to 30 percent and the proportion of Latino arrestees decreased from 42 percent to 36 percent during the same period.

The most recent DEA data reports indicated that in Boston street heroin cost \$6–\$30 per bag and \$47–\$120 per gram (exhibit 5). The purity covered a wide range—from 5 percent to 85 percent. Analyzed samples were overwhelmingly South American in origin and distributed in wax or colored glassine packets. According to the DEA, heroin was considered “readily available throughout New England” and was available in all forms: bag, bundle, gram, ounce, kilogram, and cylinder shaped bullets/eggs.

Narcotic Analgesics

After years of growing narcotic analgesic abuse, indicators appeared relatively stable at high levels. In CY 2007, 585 treatment clients (3 percent of all admissions) reported other opiates/synthetics as their primary drug and 45 additional clients reported other opiates as secondary drugs (exhibit 1). From 2005 to 2007, the number and proportion of other opiate primary drug admissions decreased 30 percent and 25 percent, respectively (exhibit 1). The proportion of clients who reported other opiates as their secondary drug remained stable at 0.2 percent from 2000 to 2007 (exhibit 1).

The proportion of younger clients (age 18–25) increased from 21 percent in 2000 to 44 percent in 2002 then steadily decreased to 31 percent in 2007. The proportion of older clients (age 35 and older) decreased from 50 percent in 2000 to 29 percent in 2003 then increased to 43 percent by 2007.

In 2007, close to two-thirds (63 percent) of the clients reporting other opiates as their primary drug were male and about one-third female (37 percent). The proportion of female other opiates/synthetics clients increased from 29 percent in 2000 to 37 percent in 2007. The overwhelming majority (89 percent) of other opiates/synthetics clients were White, 5 percent were Black, and 5 percent were Latino. The racial/ethnic composition of other opiate clients changed little from 2000 to 2007.

In FY 2007, there were 575 calls (18 percent of the total) to the helpline during which other opioids (heroin not included) were mentioned (exhibit 3). Oxycodone was mentioned in 258 calls. The proportion of oxycodone calls decreased from 12 percent in FY 2004 to 8 percent in FY 2007.

In 2007, 315 seized samples of oxycodone (3 percent of all drug samples) were analyzed. The proportion of oxycodone samples remained stable between 2 and 3 percent from 2002 to 2007.

The DEA reported that oxycodone in the form of OxyContin® was “widely available” throughout New England and typically cost between \$0.45 and \$1.25 per milligram (exhibit 5). Generic oxycodone sold for as little as \$5 per dosage unit.

Marijuana

The most recent marijuana indicators for greater Boston were stable at various levels of use/abuse. In CY 2007, 625 treatment clients (3 percent of all admissions) reported marijuana as their primary drug, and an additional 952 clients (5 percent of the total) reported marijuana as their secondary drug in State-funded treatment programs (exhibit 1).

The proportion of all treatment clients that reported marijuana as their primary drug remained relatively stable from 2000, accounting for 3–4 percent of total admissions, but the proportion reporting marijuana as their secondary drug decreased from 8 percent in 2000 to 5 percent in 2007 (exhibit 1).

Of the 625 clients reporting marijuana as their primary drug, 72 percent reported a secondary drug of abuse. Among these, 70 percent reported alcohol and 18 percent reported cocaine/crack as their secondary drug. Since 2000, the percentage of alcohol as secondary drug has decreased from 76 percent and the percentage of cocaine as secondary drug increased slightly from 15 percent (data not shown).

Exhibit 2c shows demographic characteristics of marijuana primary treatment admissions in Boston. The gender distribution of marijuana primary drug treatment admissions in 2007 (69 percent male and 31 percent female) changed slightly from 2005 and has varied little overall since 2000.

The proportion of marijuana clients younger than 18 decreased from 21 percent in 2001 to 5 percent in 2007. The proportion of clients age 35 and older increased from 13 percent to 22 percent during the same period. The 2007 racial/ethnic distribution for admissions with marijuana as primary drug (45 percent Black, 27 percent White, 22 percent Latino) has remained fairly stable since 2000 (exhibit 2c).

In FY 2007, marijuana was mentioned in 154 calls to the helpline (exhibit 3). The proportion of helpline calls with marijuana mentions remained stable between 5–6 percent from FY 2000 to FY 2007.

There were 3,839 seized samples of marijuana, more than any other drug, analyzed by the forensic lab in 2007. The proportion of marijuana samples analyzed in 2007 (35 percent of all drug samples) decreased from 41 percent in 2005.

There were 1,677 Class D (mainly marijuana) drug arrests in 2007 (exhibit 4). The proportion of Class D arrests among all drug arrests remained fairly stable from 33 percent in 2002 to 37 percent in 2005 to 35 percent in 2007. The proportion of Black (including Latinos) Class D arrestees has remained fairly stable from 66 percent in 2003 to 68 percent in 2007. Similarly, the proportion of White (including Hispanics) Class D arrestees remained fairly stable from 32 percent in 2003 to 30 percent in 2007.

The latest DEA report showed marijuana is readily available throughout the New England States and sold for \$100–\$250 per ounce. A marijuana cigarette, or “joint,” typically cost \$5 (exhibit 5).

Benzodiazepines

As a group, benzodiazepines continued to show high levels of abuse. There were 137 calls (4 percent of the total) to the helpline during which benzodiazepines (including Ativan®, Valium®, Xanax®, Klonopin®, Rohypnol®, Halcion®, and others) were mentioned in FY 2007 (exhibit 3). The number of helpline calls with benzodiazepine mentions decreased from 208 in FY 2006. Current arrest and drug laboratory data were unavailable for benzodiazepines.

Methylenedioxymethamphetamine (MDMA)

MDMA (ecstasy) indicators showed stable and relatively low levels of abuse. There were only 10 calls to the helpline during which MDMA was self-identified as a substance of abuse (less than 1 percent of all mentions) in FY 2007. The number of MDMA helpline calls ranged from 10 to 45 since FY 1999 (exhibit 3). There were 58 MDMA drug lab submissions in 2007. The number of MDMA lab submissions decreased from 68 in 2006.

The latest DEA report indicated that one MDMA tablet cost between \$15 and \$40 retail, with lower prices when purchasing in bulk (more than 50 dosage units) (exhibit 5). Distributed at clubs and on college campuses, MDMA remained “widely available and in significant quantities” (DEA, New England Field Division, June 2008).

Other Drugs

Amphetamines

There were 51 amphetamine samples analyzed in 2007. The number of amphetamine lab samples increased from 18 in 2006.

Methamphetamine

There were 67 methamphetamine primary treatment admissions in 2007. The number of methamphetamine admissions decreased from 92 in 2006. After increasing from 10 calls in FY 2003 to 28 calls in FY 2006, there were 20 methamphetamine calls to the helpline in FY 2007 (exhibit 3). There were 26 methamphetamine lab samples analyzed in 2007, down from 36 in 2006 and 55 in 2005. The DEA reported that methamphetamine cost between \$100 and \$800 per gram (exhibit 5). The purity level is unknown.

Ketamine

Ketamine lab samples decreased in number from 43 in 2002 to 5 in 2006 then increased to 15 in 2007. The DEA reported that a vial of ketamine cost \$55 to \$120 (exhibit 5).

Phencyclidine (PCP)

The DEA reported that PCP cost between \$10 and \$20 per bag (1–2 grams) (exhibit 5).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

In 2006, there were 209 adult HIV and AIDS cases diagnosed in Boston. The primary risk factor for these cases included 5 percent who were injection drug users (IDUs), 3 percent who had sex with IDUs, and 28 percent who had an unknown/undetermined transmission status. As of May 1, 2008, cumulative adult AIDS cases numbered 6,532. By primary risk factor, these included 25 percent who were IDUs, 7 percent who had sex with IDUs, and 14 percent for whom the risk behavior was unknown/undetermined.

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- Gary Lever, Massachusetts Substance Abuse Information and Education Helpline
- Marcia Izzi, Office of the Chief Medical Examiner, Massachusetts Department of Public Safety
- Jessica Ansong, Boston Public Health Commission Research Office

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Exhibit 1. Percentages of Admissions to State-Funded Substance Abuse Treatment Programs by Primary and Secondary Drug in Greater Boston¹: 2000–2007

| Treatment Admissions | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Primary Drug | | | | | | | | |
| Alcohol | 45 | 42 | 38 | 35 | 35 | 34 | 36 | 34 |
| Heroin/Other Opiates | 40 | 45 | 48 | 51 | 53 | 52 | 51 | 54 |
| Heroin | 38 | 42 | 45 | 47 | 49 | 48 | 47 | 51 |
| Other Opiates | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 3 |
| Cocaine and/or Crack | 10 | 9 | 8 | 8 | 7 | 9 | 8 | 7 |
| Cocaine (powder) | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 |
| Crack | 8 | 7 | 7 | 7 | 6 | 7 | 7 | 6 |
| Marijuana | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |
| Other ² | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Total (N) | 25,332 | 25,284 | 25,750 | 21,463 | 20,579 | 20,853 | 20,937 | 19,239 |
| Secondary Drug | | | | | | | | |
| Alcohol | 18 | 17 | 18 | 17 | 15 | 14 | 14 | 13 |
| Heroin | 4 | 5 | 4 | 4 | 3 | 3 | 3 | 3 |
| Other Opiates | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 |
| Cocaine or Crack | 22 | 21 | 20 | 20 | 20 | 21 | 24 | 20 |
| Marijuana | 8 | 8 | 7 | 7 | 7 | 6 | 6 | 5 |
| Other | 6 | 7 | 8 | 10 | 10 | 10 | 10 | 10 |
| None | 42 | 42 | 43 | 42 | 45 | 45 | 44 | 50 |
| Total (N) | 25,332 | 25,284 | 25,750 | 21,463 | 20,579 | 20,853 | 20,937 | 19,239 |

¹Excluding prisoners and out-of-State admissions.

²Other includes barbiturates, other sedatives, tranquilizers, hallucinogens, amphetamines, “over-the-counter,” and other drugs.

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

Exhibit 2a. Demographic Characteristics of Clients¹ in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Cocaine/Crack, by Percent: 2000–2007

| Characteristic | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Gender | | | | | | | | |
| Male | 61 | 64 | 60 | 55 | 60 | 63 | 60 | 58 |
| Female | 39 | 36 | 40 | 45 | 40 | 37 | 40 | 42 |
| Race | | | | | | | | |
| White | 25 | 25 | 26 | 27 | 29 | 30 | 33 | 36 |
| Black | 63 | 59 | 60 | 58 | 54 | 52 | 48 | 45 |
| Latino | 10 | 12 | 10 | 11 | 15 | 15 | 15 | 14 |
| Other | 2 | 3 | 3 | 4 | 3 | 3 | 4 | 4 |
| Age at Admission | | | | | | | | |
| 17 and younger | <1 | <1 | <1 | <1 | <1 | <1 | 1 | <1 |
| 18–25 | 8 | 8 | 7 | 7 | 6 | 9 | 10 | 12 |
| 26–34 | 36 | 32 | 31 | 29 | 26 | 21 | 22 | 21 |
| 35 and older | 57 | 60 | 62 | 64 | 68 | 70 | 68 | 67 |
| Total (N) | 2,553 | 2,182 | 2,167 | 1,704 | 1,477 | 1,807 | 1,715 | 1,348 |

¹Excludes prisoners and out-of-State admissions.

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

Exhibit 2b. Demographic Characteristics of Clients¹ in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Heroin, by Percent: 2000–2007

| Characteristic | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|--------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|
| Gender | | | | | | | | |
| Male | 75 | 77 | 76 | 73 | 73 | 74 | 74 | 74 |
| Female | 25 | 23 | 24 | 27 | 27 | 26 | 26 | 26 |
| Race | | | | | | | | |
| White | 50 | 48 | 52 | 55 | 60 | 62 | 65 | 66 |
| Black | 22 | 20 | 19 | 17 | 15 | 14 | 13 | 12 |
| Latino | 23 | 28 | 23 | 24 | 21 | 20 | 18 | 19 |
| Other | 4 | 3 | 4 | 3 | 3 | 2 | 3 | 21 |
| Age at Admission | | | | | | | | |
| 17 and younger | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 18–25 | 15 | 16 | 17 | 18 | 20 | 24 | 23 | 23 |
| 26–34 | 34 | 33 | 32 | 30 | 31 | 30 | 33 | 34 |
| 35 and older | 51 | 50 | 51 | 52 | 48 | 46 | 44 | 43 |
| Total (N) | 9,713 | 10,626 | 11,671 | 10,178 | 10,057 | 10,015 | 9,887 | 9,813 |

¹Excludes prisoners and out-of-State admissions.

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

Exhibit 2c. Demographic Characteristics of Clients¹ in Greater Boston State-Funded Substance Abuse Treatment Programs with a Primary Problem with Marijuana, by Percent: 2000–2007

| Characteristic | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------|--------------|--------------|--------------|------------|------------|------------|------------|------------|
| Gender | | | | | | | | |
| Male | 76 | 78 | 76 | 73 | 70 | 76 | 72 | 69 |
| Female | 24 | 22 | 23 | 27 | 30 | 24 | 28 | 31 |
| Race | | | | | | | | |
| White | 28 | 29 | 26 | 29 | 27 | 28 | 30 | 27 |
| Black | 48 | 48 | 50 | 45 | 47 | 46 | 41 | 45 |
| Latino | 20 | 19 | 21 | 21 | 21 | 21 | 23 | 22 |
| Other | 3 | 3 | 3 | 4 | 4 | 4 | 6 | 5 |
| Age at Admission | | | | | | | | |
| 17 and younger | 17 | 21 | 16 | 16 | 6 | 14 | 7 | 5 |
| 18–25 | 45 | 46 | 48 | 46 | 46 | 42 | 44 | 48 |
| 26–34 | 25 | 20 | 21 | 21 | 26 | 22 | 25 | 24 |
| 35 and older | 13 | 13 | 14 | 17 | 21 | 22 | 24 | 22 |
| Total (N) | 1,122 | 1,074 | 1,055 | 959 | 783 | 762 | 727 | 625 |

¹Excludes prisoners and out-of-State admissions.

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

Exhibit 3. Substance Abuse Helpline Drug Mentions in Greater Boston¹: FY 2000–FY 2007²

| Drug ³ | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | FY 2006 | | FY 2007 | |
|------------------------------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| | No. | (%) | No. | (%) | No. | (%) | No. | (%) | No. | (%) | No. | (%) | No. | (%) | No. | (%) |
| Cocaine/Crack | 1,118 | (20) | 1,068 | (19) | 1,072 | (18) | 1,041 | (20) | 1,017 | (18) | 949 | (19) | 991 | (22) | 657 | (20) |
| Heroin | 1,832 | (33) | 1,862 | (33) | 2,038 | (35) | 1,895 | (36) | 2,230 | (40) | 1,562 | (31) | 1,618 | (35) | 1,040 | (32) |
| Narcotic Analgesics | 344 | (6) | 508 | (9) | 785 | (14) | 832 | (16) | 1,025 | (18) | 931 | (19) | 848 | (18) | 575 | (18) |
| Marijuana/Hashish | 309 | (6) | 291 | (5) | 339 | (6) | 261 | (5) | 253 | (5) | 226 | (5) | 240 | (5) | 154 | (5) |
| Benzodiazepines | 151 | (3) | 154 | (3) | 204 | (4) | 187 | (4) | 175 | (3) | 168 | (3) | 208 | (5) | 137 | (4) |
| Methamphetamine | 2 | (<1) | 7 | (<1) | 11 | (<1) | 10 | (<1) | 14 | (<1) | 16 | (<1) | 28 | (<1) | 20 | (<1) |
| MDMA | 43 | (1) | 40 | (1) | 45 | (1) | 32 | (1) | 24 | (<1) | 17 | (<1) | 22 | (<1) | 10 | (<1) |
| Hallucinogens | 17 | (<1) | 24 | (<1) | 8 | (<1) | 14 | (<1) | 8 | (<1) | 6 | (<1) | 4 | (<1) | 1 | (<1) |
| Inhalants | 100 | (2) | 55 | (1) | 40 | (1) | 15 | (<1) | 25 | (<1) | 12 | (<1) | 12 | (<1) | 12 | (<1) |
| Total Number of Calls | 5,478 | | 5,695 | | 5,814 | | 5,221 | | 5,627 | | 4,977 | | 4,589 | | 3,245 | |

¹Greater Boston includes Boston, Brookline, Chelsea, Revere, and Winthrop (CHNA 19).

²Fiscal year runs from July through June of named year. For example, FY 2000 runs from July 1999–June 2000.

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

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

Exhibit 4. Boston Police Department Arrests by Substance¹, by Number and Percent: 2000–2007

| Drug Class | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| A (Mostly Heroin) | 1,022 (27.1) | 905 (26.4) | 947 (22.5) | 939 (22.5) | 791 (20.8) | 752 (17.4) | 789 (16.6) | 732 (15.3) |
| B (Mostly Cocaine) | 1,532 (40.6) | 1,428 (41.7) | 1,762 (41.9) | 1,736 (41.6) | 1,650 (43.3) | 1,821 (42.2) | 2,033 (42.9) | 2,178 (45.6) |
| D (Mostly Marijuana) | 1,093 (29.0) | 982 (28.7) | 1,375 (32.7) | 1,366 (32.7) | 1,247 (32.8) | 1,599 (37.1) | 1,757 (37.0) | 1,677 (35.1) |
| Other | 123 (3.3) | 111 (3.2) | 125 (3.0) | 133 (3.2) | 119 (3.1) | 141 (3.3) | 165 (3.5) | 185 (3.9) |
| Total Drug Arrests | 3,770 | 3,426 | 4,209 | 4,174 | 3,807 | 4,313 | 4,744 | 4,772 |
| Total Arrests | 22,216 | 20,470 | 21,025 | 20,686 | 19,577 | 23,035 | 23,134 | 22,377 |
| Drug Percentage of Total Arrests | (17.0) | (16.7) | (20.0) | (20.2) | (19.4) | (18.7) | (20.5) | (21.3) |

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

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

Exhibit 5. Drug Street Price, Purity, and Availability in Boston

| Drug | Price | Purity | Availability |
|------------------|---|------------------|---------------------|
| Heroin | \$47–\$120 per gram \$60–\$80 per bundle \$6–\$30 per bag | 5%–85% | Readily Available |
| Cocaine (powder) | \$26–\$100 per gram retail | 20%–90% | Available |
| Crack | \$10–\$20 per rock | NA ¹ | Available |
| Marijuana | \$5 per joint \$100–\$250 per ounce | Commercial Grade | Readily Available |
| Methamphetamine | \$100–\$800 per gram | NA | Limited |
| MDMA (Ecstasy) | \$15–\$40 per tablet (retail) \$2.25–\$15 (wholesale) | NA | Widely Available |
| OxyContin® | \$0.45–\$1.25 per milligram | NA | Widely Available |
| PCP | \$10–\$20 per bag (1–2 grams) | 1.3%–7.2% | Readily Available |
| Ketamine | \$55–\$120 per vial | NA | Available |
| GHB | \$150 per ounce | NA | Available |

¹NA=Not available.

SOURCE: New England Field Division, DEA as of June 2008 and NIDC December 2007; prepared by the Boston Public Health Commission, Research Office

Patterns and Trends of Drug Abuse in Chicago

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ABSTRACT

Epidemiological indicators suggested that heroin, cocaine, and marijuana continued to be the most commonly used illicit substances in Chicago in 2007. Heroin was the major opiate abused in this region; many heroin-use indicators have been increasing or maintaining already elevated levels since the mid-1990s. Drug treatment services for heroin use, which surpassed those for cocaine in FY 2001, peaked in FY 2005 at 33,662 episodes and then declined to 26,836 episodes in FY 2007. Cocaine was the second most frequently reported reason for entering publicly funded treatment programs in FY 2007. After 3 years of small increases in treatment episodes for cocaine, FY 2007 saw a small decline to 16,938. According to preliminary unweighted data from DAWN (Drug Abuse Warning Network) Live!, cocaine, heroin, and marijuana were the illicit drugs most often reported in emergency departments during 2007. These were also the drugs most frequently seized by law enforcement in FY 2007, accounting for 96 percent of all items seized. The number of deaths attributed to fentanyl-laced heroin declined to pre-epidemic levels. Methamphetamine indicators continued to show low but increasing levels of use in Chicago, including an increase among African Americans. Smoking "ice" methamphetamine appeared to be increasing as a form of methamphetamine administration. Methamphetamine use appears to remain concentrated among North Side men who have sex with men. Beyond Chicago, methamphetamine use was most common in downstate and western Illinois.

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Several MDMA indicators suggested low levels of use, but a few indicated increases. Ethnographic and survey reports suggested MDMA was popular among young low-income African Americans, and the drug was available in street drug markets. LSD and PCP indicators continued to show levels of use below the national average. African American injection drug users were an aging cohort, while among Whites, new cohorts of young heroin injectors continued to emerge.

INTRODUCTION

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

Area Description

Because of its geographic location and multifaceted transportation infrastructure, Chicago is a major hub for the distribution of illegal drugs throughout the Midwest. Located in northeastern Illinois, Chicago stretches for 25 miles along the shoreline of the southern tip of Lake Michigan. The 2000 U.S. census estimated the population of Chicago at 2.9 million and Cook County (which includes Chicago) at 5.4 million. In June 2003, the U.S. Office of Management and Budget (OMB) revised definitions for the Nation's Metropolitan Statistical Areas (MSAs). The Chicago/Naper-ville/Joliet, Illinois, MSA includes Cook, DeKalb, DuPage, Grundy, Kane, Kendall, McHenry, and Will Counties. Its population size was slightly more than 9 million (ranking third in the Nation), according to the 2000 census. In 2006, this population was estimated at 9.5 million, a 4.5-percent increase since 2000.

According to the U.S. Census Bureau, the city population increased approximately 4 percent between 1990 and 2000. The number of Hispanics

living in Chicago increased 38 percent between 1990 and 2000, while the number of Whites and African Americans declined by 14 and 2 percent, respectively. Among U.S. cities, Chicago has the second largest Mexican American and Puerto Rican populations.

Based on the 2000 census, the Chicago population was 36-percent African American, 31-percent White, 26-percent Hispanic, and 4-percent Asian American/Pacific Islander. In 2000, the median age of Chicagoans was 31.5, with 26 percent of the population younger than 18, and 10 percent age 65 or older. The unemployment rate was 6.2 percent, and the percentage of families living below the poverty level with children younger than 18 was 11.4 percent.

The primary sources of information for this report are listed below:

- **Treatment data** for the State of Illinois and Chicago for fiscal years (FYs) 2002–2007 (July 1–June 30) were provided by the Illinois Division of Alcoholism and Substance Abuse (DASA).
- **Emergency department (ED) data** were derived for calendar year (CY) 2007 from the DAWN *Live!* restricted-access, online query system, administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the Chicago MSA totaled 88; hospitals in the DAWN sample numbered 76, with 79 EDs in the sample (some hospitals have more than one ED). During this 12-month period, between 31 and 35 EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of June 16, 2008. Data derived from DAWN *Live!* represent drug reports in drug-related ED visits. The number of drug reports exceeds the number of visits because a patient may report use of multiple drugs (up to six drugs plus alcohol). The DAWN *Live!* data are unweighted and consequently are not estimates for the reporting area. These data cannot be compared with DAWN data from 2007 and before, nor can these preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found on the DAWN Web site: <<http://dawninfo.samhsa.gov>>.
- **Drug-related mortality data** on deaths related to accidental drug poisonings were available through 2005 from the Chicago Department of Public Health (CDPH). Where appropriate, 2003 mortality data from DAWN, OAS, and SAMHSA are briefly summarized in this paper. A more detailed account of the DAWN medical examiner/coroner data for five counties in the Chicago metropolitan area was reported in the June 2005 Chicago CEWG report. The 2003 data were the most recent information on drug-related mortality other than death data due to accidental drug poisoning.
- **Incidence data on drug-related calls** were provided by the Illinois Poison Center (IPC) in Chicago for Cook County for 2007. During this period, the IPC staff handled 104,881 calls from all 102 counties in Illinois—a 2-percent decrease from 2006—regarding household products, herbal products, medication overdoses, adverse reactions to medications, alcohol or drug misuse, occupational accidents, chemical spills, and other poisonings.
- **Criminal justice data** were available from the Illinois Criminal Justice Information Authority (ICJIA), which collects, maintains, and updates a variety of criminal justice data to support its research and evaluation efforts. ICJIA regularly publishes criminal justice research, evaluation reports, and statistical profiles. At the time of this report, 2006–2007 information was not yet available; therefore, ICJIA's drug arrest data for 2005–2006 and the 2004 special report on methamphetamine trends in Illinois were reviewed.
- **Price and purity data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), for heroin for 1991–2006. The Illinois State Police (ISP),

Division of Forensic Science, provided purity data on drug samples for 2007. Drug price data were reported from the December 2007 report of *National Illicit Drug Prices* by the National Drug Intelligence Center (NDIC). Data from the National Forensic Laboratory Information System (NFLIS) for FY 2007 were used to report on drugs seized by law enforcement in Chicago. Ethnographic data on drug availability, prices, and purity were from observations and interviews conducted by the Community Outreach Intervention Projects (COIP), School of Public Health, University of Illinois at Chicago (UIC).

- **Survey data on student and household populations** were derived from two sources. Student (8th, 10th, and 12th grades) drug use data were provided by the 2006 Illinois Youth Survey, which is prepared by the Chestnut Health Systems for the Illinois Department of Human Services. The 2007 Youth Risk Behavioral Surveillance System, prepared by the Centers for Disease Control and Prevention (CDC), provided drug use data representative of 9th through 12th grade students in Chicago public schools from the Youth Risk Behavior Survey (YRBS). Data on substance use and abuse for the State of Illinois were provided by SAMHSA's National Survey on Drug Use and Health for 2005 and 2006.
- **Recent drug use estimates** were derived from the NIDA-funded "Sexual Acquisition and Transmission of HIV—Cooperative Agreement Program" (SATH-CAP) study in Chicago (U01 DA017378). Respondent-driven sampling was used at multiple sites in Chicago to recruit men and women who use "hard" drugs (cocaine, heroin, methamphetamine, or any illicit injected drug), men who have sex with men (MSM) regardless of drug use, and sex partners linked to these groups. Participants ($n=2,725$) in this ongoing study completed a computerized self-administered interview and were tested for human immunodeficiency virus (HIV), syphilis, chlamydia, and gonorrhea.

- **Acquired immunodeficiency syndrome (AIDS) and HIV data** were derived from both agency sources and UIC studies. IDPH surveillance reports provided statistics on sexually transmitted infections (STI)/HIV infections from June 2007 until April 2008. The CDPH "STI/HIV/AIDS Chicago" surveillance report provided incidence and prevalence data on STI/HIV infections as of December 31, 2006 (data may be incomplete because of delays in reporting.)

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

DRUG ABUSE PATTERNS AND TRENDS

Although this report of drug abuse patterns and trends is organized by major pharmacologic categories, readers are reminded that multidrug consumption was the normative pattern among a broad range of substance abusers in Chicago in 2007. Various indicators suggested that drug combinations played a substantial role in drug use prevalence. Preliminary unweighted DAWN data showed that 26 percent of all ED drug reports in Chicago in 2007 were alcohol-in-combination. During FY 2007, heroin use was the most often reported reason for seeking treatment in Chicago. Among these treatment episodes, the most common secondary substances reported were cocaine (43 percent) and alcohol (9 percent).

Crack/Cocaine

The majority of quantitative and qualitative cocaine indicators suggested that use remained

stable at high levels and that cocaine continued to be a serious drug problem for Chicago.

The number of treatment services rendered for primary cocaine use in Chicago fluctuated slightly between FY 2000 and FY 2007, peaking in FY 2006 at 17,764, and decreasing slightly in FY 2007 to 16,938 admissions. Generally, numbers of episodes remained stable at high levels (exhibit 2). Cocaine use was the second most common reason to enter treatment in FY 2007; the majority reported treatment for crack/cocaine use (91 percent) (exhibit 3). Cocaine was the most commonly mentioned secondary drug among clients treated for primary alcohol, heroin, and other opioid-related problems. In FY 2007, African Americans remained the largest group treated (81 percent) for cocaine abuse, and males accounted for more services rendered (57 percent) than females (exhibit 3).

Preliminary unweighted data accessed from *DAWN Live!* for 2007 showed that more than one-third (35 percent) of total ED reports for major substances of abuse (including alcohol) were cocaine related. ED cocaine reports totaled 9,092 during this period (exhibit 4). The majority of the cocaine reports involved males (66 percent) and patients older than 35 years of age (75 percent). African Americans represented 59 percent of cocaine ED reports, followed by Whites at 16 percent. Race was not documented for 14 percent of the cocaine ED reports.

Data from the CDPH on mortality due to accidental poisoning were available only up to 2005. Cocaine was responsible for the majority of accidental deaths due to poisonings in Chicago for both 2004 and 2005 (67 and 62 percent, respectively). Readers are referred to the June 2005 Chicago CEWG report for additional information regarding cocaine-related mortality.

Of the 531 calls regarding stimulants and street drugs handled by the Illinois Poison Center in 2007, cocaine-related calls numbered 139, relatively constant from the previous year. As in 2005 and 2006, cocaine continued to generate more calls than any other “street drug” during this period.

State (ISP) and Federal (NFLIS) labs reported that cocaine was the drug most often received for testing in FY 2007 after cannabis, constituting 30 percent of the drugs seized (exhibit 5).

The NDIC reported an increase in the wholesale price of a kilogram of powder cocaine in Chicago, from \$15,000–\$22,000 in 2006 to \$17,000–\$25,000 in 2007. These prices have not changed much since the 2003 estimates of \$18,000–\$22,000. The range in ounce prices for powder cocaine included prices that were lower (\$650) and much higher (\$2,400) than reported in 2006. Ounce prices for crack/cocaine remained stable at \$750–\$870. Gram prices for powder and rock cocaine remained about the same as in 2006 at about \$100. Bags of crack/cocaine—the typical unit for street-level transactions—sold for \$5, \$10, or \$20.

The Illinois State Police analyzed 184,000 grams of cocaine in Cook County (which includes Chicago) in 2006; 33 percent were crack/cocaine. Cook County seizures represented 60 percent of all cocaine seizures in Illinois. In Chicago, 35 percent purity was reported for an exhibit of cocaine weighing between 35.1 and 979.9 grams. In a neighboring suburban community, Joliet, seven exhibits weighing over 980 grams were analyzed with an average purity of 87 percent.

Ethnographic reports suggested that the quality of cocaine (and heroin) may have become more variable, as police pressure on drug dealing organizations caused decentralization in organizational structures. Leaders in highly centralized drug-dealing gangs have been effectively targeted by police and, as they are sent to prison, drug sales are more often made by smaller cliques of younger people who have more control over the product they sell, including how the product is mixed. There was also a trend towards conducting user-level sales through contacts made by telephone or other electronic means rather than in open-air markets, which are more vulnerable to arrests.

The 2007 YRBS assessed current (previous 30 days) and lifetime cocaine use among public school students in grades 9 through 12 in the city

of Chicago. In 2007, 3.0 percent (CI or confidence interval=1.7–5.3) of Chicago students reported current cocaine use, an increase from the 2005 value of 1.9 percent (CI=1.1–3.4). Lifetime use for these students was 4.2 percent (CI=2.4–7.3) in 2005 and 5.9 percent (CI=3.9–8.8) percent in 2007 (exhibit 6).

According to data from SAMHSA's National Survey on Drug Use and Health, the proportion of past-year cocaine use among Illinois youth age 12–17 increased slightly from 1.32 percent in 2005 to 1.58 in 2006.

In the SATH-CAP study, crack/cocaine was the most prevalent illicit drug, with 57 percent of participants reporting its use in the past 30 days. Crack use varied geographically, however, with the highest prevalence on the North Side (71 percent) and the lowest prevalence on the Northwest Side (51 percent).

Heroin

Heroin abuse indicators in this reporting period continued to suggest high levels of use in the Chicago area. The number of persons treated for heroin use in State-supported programs increased considerably between FY 2000 and FY 2005, declined in FY 2006, and flattened in FY 2007 at approximately 26,800 admissions. Heroin use accounted for 40 percent of all treatment admissions and was the most common reason for seeking treatment in Chicago (exhibit 3). The majority (82 percent) of those treated reported inhalation “snorting” as the primary route of administration, while only 14 percent injected (exhibit 3). In contrast, 46 percent of patients entering treatment programs outside of Chicago reported injection as the primary route of administration. Recent research indicated that injection was declining among African Americans but increasing among Whites, which may account for some of the difference in injection prevalence. Clients entering treatment in Chicago were more likely to be African American (82 percent), while patients from the remainder of Illinois were more likely to be White (60 percent).

Preliminary unweighted DAWN *Live!* ED data for 2007 indicated that heroin was the third most frequently reported major substance of abuse, following only cocaine and alcohol (exhibit 4). The majority of the 6,052 heroin ED reports involved males (63 percent), those older than 35 years (74 percent), and African Americans (58 percent). Race was not documented for 15 percent of the heroin reports.

The DAWN medical examiner (ME) system for the Chicago MSA has not provided updated drug-related mortality data since 2003. In that year, the DAWN ME system recorded 27 heroin-related deaths, of which five were single-drug deaths. The CDPH reported only one accidental death due to heroin use in 2004 and none in 2005. For more information regarding the increase in fentanyl-related deaths in 2006, readers should refer to Chicago's June 2006 and June 2007 CEWG reports.

Based on the 2005 DMP report, heroin from multiple geographic source areas, including South America, Southeast Asia, Southwest Asia, and Mexico, was consistently available. This made Chicago unique among other U.S. cities. The purity of street-level heroin peaked in 1997 at about 31 percent. In 2006, South American heroin exhibits purchased by the DMP in Chicago averaged 12.6-percent pure, a decrease from 17.1 percent in 2005 (exhibit 7). However, the average price per milligram pure was \$0.49 in 2006, a slight increase from 2005 (\$0.45), but not a return to the 2004 price of \$0.56.

The amount of heroin analyzed in Cook County by the ISP laboratory increased from 12 kilograms in 2002 to 21 kilograms in 2003, remained at this level in both 2004 and 2005, and then dropped to less than 20 kilograms in 2006. In 2007, the amount of heroin analyzed by the by ISP increased again to almost 23 kilograms. According to NFLIS, heroin was the third most often seized drug in Chicago in FY 2007, accounting for nearly 12 percent of all items analyzed (exhibit 5).

The YRBS reported that lifetime use of heroin among Chicago public high school students was

2.0 percent (CI=0.9–4.4) in 2005 and 3.7 percent (CI=2.1–6.2) in 2007 (exhibit 6). Male students' use was reported at 4.7 percent compared with 2.2 percent among female students.

Heroin prices varied depending on type and origin. On the street, heroin was commonly sold in \$10 and \$20 units (bags), though bags for as little as \$5 were available. "China White" heroin was the most common, but brown and tar heroin were also available. According to the December 2007 NDIC report, wholesale prices for a kilogram were stable between 2006 and 2007, at about \$60,000 for Mexican brown powder heroin and \$45,000–\$80,000 for South American heroin. In comparison, kilogram prices in 2003 ranged from \$100,000–\$125,000. Ounce prices in 2007 ranged from \$1,800–\$3,000, the same as in 2006 but lower on average than in 2003 (\$2,500–\$3,000). The price range of 1 gram of heroin was stable at \$70–\$200, with Mexican brown powder heroin at \$100.

The prevalence of heroin use in the past 30 days among SATH-CAP participants was 47 percent and was highest on the Northwest Side.

Other Opiates/Narcotics

Preliminary unweighted data accessed from DAWN *Live!* showed that there were 2,456 ED reports of other opiates in 2007 that were due to seeking detoxification treatment, overmedication, or "other," which included the illegal use of the drug. The majority of the "other opiates" reports were for methadone (25 percent), hydrocodone (19 percent), propoxyphene (8 percent), and oxycodone (5 percent). Men represented more than one-half of the cases (54 percent), while African Americans constituted 42 percent of cases, followed by White and Hispanic reports (37 and 7 percent, respectively). Race was not documented for 14 percent of reports.

Drug treatment for other opiates/prescriptions decreased from 788 episodes in 2006 to 496 in 2007, a 37-percent reduction. Clients seeking treatment were more likely to be women (53 percent), African American (64 percent), and older

than 34 years (76 percent). Inhalation (59 percent) was reported the most frequent route of administration followed by oral (28 percent). Cocaine was reported to be the most common secondary drug (32 percent) when "other opiates/prescriptions" were listed as the primary drug of treatment.

Opiates/opioids other than heroin constituted 0.7 percent of the drugs seized and analyzed by the NFLIS. Of these opiates/opioids, hydrocodone was most prevalent (49 percent), followed by methadone (14 percent) and oxycodone (9 percent).

Methamphetamine/Amphetamines

Treatment services rendered in Chicago for methamphetamine use steadily increased, from 29 episodes in FY 2002 to 139 in FY 2006. In contrast, FY 2007 saw a decrease in treatment services to 114 episodes. The city of Chicago is seeing more African Americans seeking treatment for methamphetamine abuse. African Americans comprised 15 percent of treatment episodes in FY 2005, 47 percent in FY 2006, and 30 percent in FY 2007 (exhibit 3). Males continued to be more likely to seek treatment than females (76 percent), probably because the use of methamphetamine in Chicago remained concentrated among MSMs. Smoking was the most often reported primary route of administration (60 percent), followed by injecting (27 percent, a 12-percent point increase since FY 2006). A more pronounced increase in methamphetamine treatment episodes was reported in the rest of the State. Treatment episodes increased from 698 in FY 2000 to peak in FY 2005 at 5,134, but started to decline in FY 2006 to 4,879 and then to 3,029 in FY 2007. Alcohol was the predominant secondary drug used with methamphetamine (25 percent). "Ecstasy" (MDMA) comprised 12 percent of secondary drugs used with methamphetamine. Excluding phencyclidine (PCP) and hallucinogens, methamphetamine was the drug with which ecstasy was most likely to appear as a secondary drug. Readers are referred to the January 2006 Chicago

CEWG report for additional information regarding methamphetamine treatment data.

Treatment services rendered for methamphetamine outnumbered those for amphetamine in Chicago and the State. In FY 2007, 56 amphetamine episodes were reported in Chicago, which was a 53-percent decrease from the previous year. Amphetamine treatment episodes in the rest of the State numbered 335 in FY 2007. Chicago males were more likely than females to seek treatment for amphetamine use (84 percent). African Americans were 63 percent of amphetamine treatment episodes in FY 2006, but only 30 percent in 2007, while Whites constituted 25 percent in FY 2006 and 45 percent in FY 2007. Cocaine was the predominant secondary drug used in conjunction with amphetamine (29 percent) in FY 2007, a shift from alcohol in FY 2006.

In 2007, preliminary unweighted DAWN *Live!* data showed 53 methamphetamine ED reports for Chicago (exhibit 4). ED patient characteristics were similar to clients receiving treatment services in publicly funded programs for methamphetamine. Males (81 percent), patients age 25–54 (81 percent), and Whites (at least 42 percent) accounted for the majority of ED methamphetamine reports. Race was not documented for 28 percent of these reports. In 2007, 95 preliminary amphetamine ED reports were registered by DAWN *Live!* (exhibit 4).

Methamphetamine calls to the Illinois Poison Center in Chicago were infrequent. In 2007, the Poison Center received a total of four calls. However, there were 125 amphetamine-related calls during this period.

Data from the ISP indicated that seizures of methamphetamine in 2006 decreased considerably from the previous year. In 2005, more methamphetamine was seized than cocaine or heroin in nearly 50 percent of Illinois counties. However, methamphetamine seizures in all counties in Illinois were reduced by 52 percent in 2006 and by another 53 percent in 2007 to 9.1 kilograms. The amount of methamphetamine received by ISP from Cook County in 2006 also decreased considerably from the previous year, from approximately

7.6 to 3.8 kilograms, a reduction of 51 percent. According to the NFLIS report, 0.56 percent of the items analyzed in Chicago in FY 2007 were methamphetamine (exhibit 5).

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

According to the YRBS, lifetime use of methamphetamine among Chicago public high school students increased considerably and significantly from 1.5 percent (CI= 0.7–3.3) in 2005 to 4.7 percent (CI= 2.9–7.5) in 2007 (exhibit 6), and was reported by 7.1 percent of male students and 2.5 percent of female students. In Chicago, African American students reported use rates of 5.2 percent, compared with Hispanic students, at 3.7 percent. There was not enough data on White students in Chicago to estimate use. In contrast, 4.3 percent of White students in the State used methamphetamine, compared with 2.0 percent of African American and 3.5 percent of Hispanic students.

Within Chicago, a low but stable prevalence of methamphetamine use has been reported for a number of years in the North Side gay community. In a recent study of young men (age 16–24) who are MSMs ($n=270$), 13 percent reported past-year use of methamphetamine. Use was more likely among those who were older, non-African American, or HIV positive.

In the SATH-CAP study, 13 percent of participants reported ever trying amphetamine or methamphetamine, and only 4 percent reported use in the 30 days prior to being interviewed. Among MSMs, these figures increased to 16 percent and 8 percent, respectively.

The price for a pound of “ice” methamphetamine ranged from \$8,000–\$16,000 in both 2006

and 2007, according to NDIC estimates. Ounce prices in both years ranged from \$1,000–\$1,500, about the same as in 2003 (\$1,000–\$1,300). Gram prices for ice were the same in all three time periods, \$80–\$100. Current reports of the cost of a bag of methamphetamine ranged from \$10–\$20.

The authors received more street reports of the availability of ice methamphetamine than in past years, which was consistent with the increase in smoking as the primary route of administration among entrants to drug treatment.

Marijuana

Marijuana continued to be the most widely available and used illicit drug in Chicago and Illinois. Marijuana users represented 14 percent of all treatment episodes in Chicago in FY 2007 and 26 percent of episodes elsewhere in the State. Marijuana-related episodes increased as a percentage of total episodes in Chicago between FY 2002 and FY 2007, peaking in 2007 at 9,639 episodes. Alcohol remained the most commonly reported secondary drug among persons receiving treatment for marijuana (38 percent). In Chicago, treatment episodes for marijuana were highest for males (79 percent) and for African Americans (76 percent) (exhibit 3).

Preliminary unweighted data accessed from *DAWN Live!* showed that ED reports of marijuana in 2006 represented 13 percent of all substance abuse reports, including alcohol (exhibit 4). Of the 3,388 marijuana ED reports during this period, 46 percent involved African Americans, followed by Whites (26 percent). Race was not documented for 15 percent of the reports. The majority of these were male (60 percent) and younger than 35 (64 percent).

According to the DEA, the bulk of marijuana shipments were transported by Mexico-based polydrug trafficking organizations that concealed the drug among legitimate goods in tractor-trailers coming into the Chicago area from the southwest border. The primary wholesalers of marijuana were the same Mexico-based organizations that supplied most of the cocaine, methamphetamine,

and Mexican heroin in the Midwest. Marijuana produced locally (indoor and outdoor) by independent dealers was also available.

Currently available marijuana is of variable quality. The abundance and popularity of marijuana across the city has led to an increased array of varieties and prices, and marijuana prices may have increased since 2003. According to the NDIC December 2007 report, a pound of marijuana in Chicago cost \$2,700–\$3,000 for hydroponic and \$700–\$3,000 for Mexican-produced; these prices were consistent with local street reports. Ounce prices for “hydro” and domestically produced marijuana were \$200–\$300 and \$40–\$50, respectively. On the street, marijuana was most often sold in bags for \$5–\$20 or as blunts. Both ISP and NFLIS laboratories analyzed more marijuana samples than samples for any other drug in 2007. Fifty-four percent of drug samples analyzed by the NFLIS for Chicago in FY 2007 were identified as cannabis, or marijuana (exhibit 5).

According to the YRBS, current marijuana use among 9th through 12th grade public school students in Chicago decreased between 2001 and 2007. Past-30-day use decreased by 24 percent, from 28.7 percent (CI=24.3–33.5) in 2001 to 21.7 percent (CI=18.1–25.7) in 2007. This trend was similar in lifetime use as well. In 2007, male students were no more likely to report lifetime use than female students (45.8 [CI=40.4–51.3] and 42.3 [CI=37.9–46.9], respectively), while 46.1 percent (CI=40.0–52.3) of Hispanic students reported having used marijuana at least one in their lifetime compared to 41.8 percent (CI=36.1–47.7) of African American students. Data were insufficient to estimate use in White students. These differences found in the YRBS, however, were not significant at the 95 percent confidence level.

Data from SAMHSA’s National Survey on Drug Use and Health for 2005 and 2006 painted a slightly different picture of drug use among Illinois youth. In this survey, marijuana use in the past month and the past year remained relatively constant at 5.4 and 9.4 percent, respectively, for Illinois youth age 12–17. The “perception of great risk of smoking marijuana once a month” among

these youth increased in 2006, however, to 39 percent.

Cannabis Control Act drug arrests in Cook County, which includes Chicago, totaled 31,551 in 2006, an increase of 5 percent from 2004. These arrests represented 46 percent of all drug arrests in Cook County in 2006.

Club Drugs

In the Chicago area, methylenedioxymethamphetamine (MDMA or ecstasy) continued to be the most prominently identified of the club drugs, and its use appeared to have increased among African Americans. In FY 2007, treatment services for MDMA use in Illinois were few, with only 124 episodes reported. Direct comparisons to earlier years were not possible, because reports of treatment for MDMA use were subsumed in the category of “club drug” use. Nonetheless, the number of treatment episodes for MDMA in 2007 exceeded the number for club drug use by about 50 percent for both FY 2005 and FY 2006. During FY 2007, 70 percent of MDMA treatment episodes were males. The number of African Americans seeking treatment for ecstasy/club drug use grew. Eighty-six percent of treatment episodes were among African Americans, an increase from 75 percent for club drug episodes in 2006.

The preliminary unweighted data extracted from DAWN *Live!* showed 125 MDMA reports in 2007 (exhibit 4). MDMA ED reports were more common among males (62 percent), African Americans (50 percent), and those younger than 35 (92 percent).

From 2005 to 2007, lifetime use of MDMA among 9th through 12th grade students in Chicago increased from 3.3 to 6.4 percent, according to the YRBS (exhibit 6); however, these differences were not significant with 95 percent confidence. The percentage of Hispanic students reporting lifetime MDMA use was 6.8 percent, compared with 4.2 percent of African American students. Sufficient data were not available to estimate use in White students. The percentage of male students who reported lifetime use of MDMA was

not significantly different from female students (6.5 versus 5.8 percent).

MDMA samples sent to the ISP laboratory from Cook County increased steadily from 0.8 kilograms in 2003 to 4.6 kilograms in 2007. Similarly, the NFLIS reported an increase in the proportion of all items analyzed for Chicago that were MDMA, from 0.41 percent in FY 2005 to 0.78 percent in FY 2006. In FY 2007, MDMA made up 1.15 percent of all items analyzed (exhibit 5). However, 2007 NFLIS data cannot be trended with data from earlier time periods as the current methodology used to construct MSA data sets differed from years past.

Ecstasy availability increased in street drug markets, though availability varied across the city. In some areas, ecstasy was reported by street sources to be sold by the same people who sold heroin and cocaine. In other markets, ecstasy was sold by dealers who specialized in the drug. Raves featuring ecstasy use were said to be close to nonexistent. Ecstasy continued to be sold in pill or capsule form, and, according to the 2006 NDIC report, prices decreased slightly in recent years. In 2003, per-tablet wholesale prices ranged between \$10 and \$12, but declined to \$5 per tablet in 2006. Retail prices in 2007 ranged from \$20–\$40 for a single tablet, compared with \$25–\$35 in 2003. However, street sources in neighborhoods with major drug markets reported prices as low as \$100 for 10 pills.

There were increasing reports of ecstasy use from participants in local studies of drug users. These reports indicated increased use of ecstasy by African Americans, principally those in their teens and twenties, but some older. This use of ecstasy occurred not only in the context of club going and house parties, but also among street populations, including sex workers. Some users claimed that ecstasy could be obtained in “upper” and “downer” forms, which suggested different combinations of drugs. Likewise, the Cook County Sheriff’s Police Department Forensic Laboratory reported in February 2006 that pills resembling MDMA in color and logo were upon analysis identified to be a mixture of methamphetamine

and PCP. Marijuana and alcohol were the drugs most often purposely consumed in combination with ecstasy.

Gamma hydroxybutyrate (GHB), a central nervous system depressant with hallucinogenic effects, was used infrequently in Chicago, and use was mainly by young White males. No treatment services were provided specifically for GHB use in FY 2007, and, according to preliminary unweighted data accessed from DAWN *Live!*, there were only 35 GHB ED reports in 2007.

GHB was sold as a liquid (“Liquid G”), in amounts ranging from drops to capfuls. Prices for a capful were reported at \$10 and remained level. Compared with other club drugs, overdoses were more frequent with GHB, especially when used in combination with alcohol. GHB was not tracked in most quantitative indicators, but its use was perceived to be low compared with ecstasy.

Ketamine, an animal tranquilizer often referred to as “Special K,” is another depressant with hallucinogenic properties. DASA did not report anyone treated for ketamine use in FY 2007 in publicly funded treatment programs in Illinois. As reported in the June 2004 Chicago CEWG report, street reports indicated that ketamine was usually sold in \$5–\$30 bags of powder or in liquid form.

PCP, LSD, and Other Hallucinogens

Treatment services rendered for hallucinogen use in Chicago increased from 30 in FY 2002 to 284 in FY 2003, and then decreased to 133 episodes in FY 2006. In FY 2007, treatment episodes for PCP totaled 60, and “other hallucinogens,” which included lysergic acid diethylamide (LSD), totaled 25. The majority of treatment episodes occurred among African Americans (74 percent) and male clients (68 percent) in FY 2007.

In general, both PCP and LSD use in Chicago remained low, though street reports suggested use of PCP was fairly common in some neighborhoods. According to preliminary unweighted data accessed from DAWN *Live!*, there were 121 PCP and 29 LSD ED reports in 2007 (exhibit 4).

No deaths related to hallucinogens were reported to the DAWN ME system in 2003.

The amount of PCP samples received by the ISP laboratory for analysis decreased significantly between 2002 and 2006, from 4.2 kilograms to 0.16 kilograms, but increased slightly to 0.46 kilograms in 2007. NFLIS LSD seizures totaled 0.02 percent of all items analyzed in FY 2007 (exhibit 5).

According to the Illinois Youth Survey, hallucinogen (including LSD and PCP) use has decreased markedly among 8th, 10th, and 12th grade students in Cook County since the turn of the century. Past-year use was reported by 4 percent of students in 2000, but only 1.8 percent reported use in 2004 and 1.2 percent reported use in 2006 (exhibit 6). Hallucinogen use was reported more often by males (2.7 percent) than females (1.5 percent) and by White students (2.5 percent) more often than African American (0.6 percent) and Hispanic (0.6 percent) students.

Calls into the Illinois Poison Center in Chicago for LSD, PCP, and other hallucinogens totaled 38 in 2007, a 45-percent reduction since 2006.

Ethnographic reports on PCP use suggested that PCP “sticks” about the size of toothpicks were reportedly available for \$10–\$30. For more information on PCP prices, readers are referred to the June 2003 Chicago CEWG report.

LSD hits typically cost \$5–\$10. LSD was available in the city and suburbs. According to some accounts by White youth, hallucinogenic mushrooms remained available. Reported prices were \$20–\$40 per mushroom.

Benzodiazepines/Barbiturates

In Chicago, depressants, such as benzodiazepines and barbiturates, were commonly taken with narcotics to improve the effect of opiates, frequently heroin. Depressants were also taken with stimulants to moderate the undesirable side effects of chronic stimulant abuse. Chronic cocaine and speed abusers often took depressants along with stimulants, or when concluding “runs,” to help

induce sleep and to reduce the craving for more stimulants (especially in the case of cocaine).

Treatment data suggested depressants rarely were the primary drugs of choice among entrants. In FY 2007, DASA reported 14 treatment episodes for benzodiazepines and 3 episodes for barbiturates in Chicago.

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

Preliminary unweighted data accessed from DAWN *Live!* showed that 1,638 ED reports were related to the misuse of benzodiazepines in 2007. More than one-fourth (27 percent) of these mentions were classified as overmedication.

Benzodiazepine-related calls to the Illinois Poison Center in Chicago repeatedly represented nearly one-half of all substance misuse calls between 2001 and 2006. Approximately 500 to 600 calls annually were reported during this period, with a high of 707 calls in 2007. Calls for barbiturate use remained low during this period, at approximately 40 calls annually.

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

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

While Chicago accounts for 23 percent of Illinois' population, 68 percent of the State's 35,199 cumulative AIDS cases were from Chicago in 2007. Metropolitan Chicago (Cook County and the collar counties of DuPage, Kane, Lake, McHenry, and Will) accounted for 86 percent of cumulative AIDS cases diagnosed in Illinois.

In 2005, CDPH reported 1,118 HIV diagnoses, a decline of 88 diagnoses from the previous year. MSM contact continued to be the leading mode of transmission (45 percent). Injection drug use declined from 19 percent of HIV

diagnoses in 2001 to 11 percent in 2005. In 2005, non-Hispanic African Americans represented more than one-half of HIV diagnoses (58 percent) despite constituting about 35 percent of the city's population. One-quarter of HIV diagnoses in 2005 were among Whites and 13 percent were among Hispanics.

In 2007, 84 percent (CI=79.1–88.1) of Chicago students in grades 9 through 12 reported ever being taught about AIDS or HIV infection in school, compared with 90 percent (CI=84.4–94.0) in 2005, a marginally significant change ($p=.05$). A considerable proportion of students also continued to report behavior that may place them at risk for sexually transmitted infections. In 2007, 40 percent were currently sexually active, 32 percent of those sexually active students or their partners did not use a condom during their last intercourse, and 12.5 percent of sexually active students consumed alcohol or drugs before their last sexual intercourse. Another 2.4 percent of students used a needle to inject an illegal drug into their bodies one or more times during their lives. None of these percentages were statistically different from those in 2005.

The prevalence of HIV infection among participants in the SATH-CAP study was approximately 7 percent. Prevalence was highest (35 percent) among men who reported only male sex partners in the past 6 months. Of note, HIV prevalence was only slightly higher among injection drug users compared to noninjection drug users.

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Exhibit 1. DAWN ED Sample and Reporting Information: January–December 2007

| CEWG Area | Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|--------------------------|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | | 90–100% | 50–89% | <50% | |
| Chicago MSA ³ | 88 | 76 | 79 | 26–32 | 3–6 | 0–3 | 44–48 |

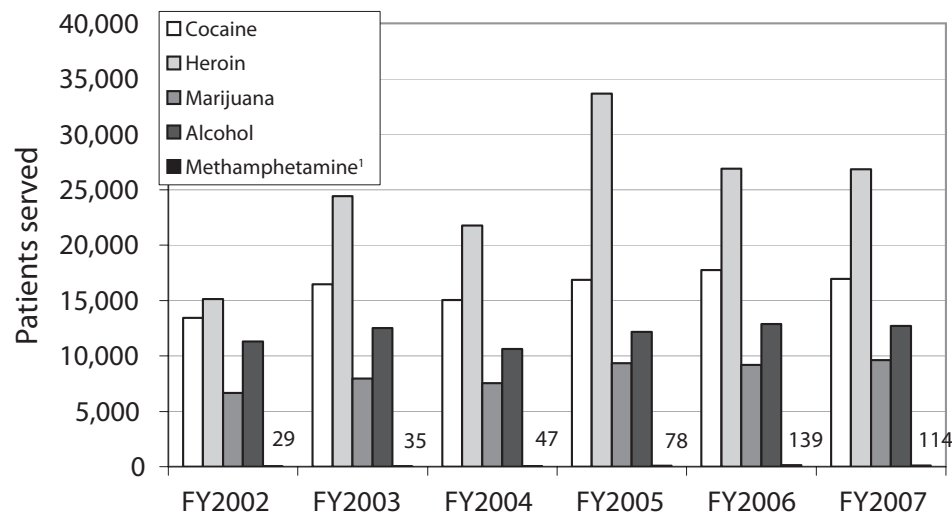
¹Short-term, general, non-Federal hospital with 24-hour EDs based on the American Hospital Association Annual Survey.

²Some hospitals have more than one ED.

³Chicago MSA includes Chicago “Core” and Chicago “Other.”

SOURCE: DAWN Live!, OAS, SAMHSA, updated 6/16/2008

Exhibit 2. Persons Served in Publicly Funded Treatment Programs in Chicago, by Primary Substance: FYs 2002–2007



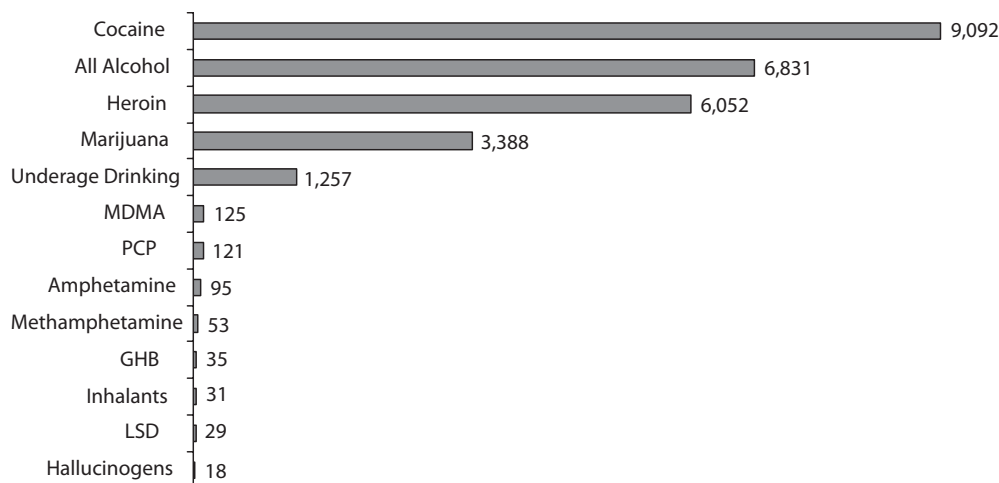
¹Methamphetamine values shown in the graph.

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

Exhibit 3. Demographic Characteristics of Persons Served in Publicly Funded Treatment Programs in Chicago, by Primary Substance and Percent: FY 2007

| Characteristics (N=67,788) | Heroin (n=26,836) | Cocaine (n=16,938) | Alcohol (n=12,704) | Marijuana (n=9,639) | Other Opioids (n=496) | Methamphetamine (n=114) |
|--------------------------------|-------------------|--------------------|--------------------|---------------------|-----------------------|-------------------------|
| Percent of Total | 40 | 25 | 19 | 14 | 1 | <1 |
| Gender | | | | | | |
| Male | 54 | 57 | 72 | 79 | 47 | 76 |
| Female | 46 | 43 | 28 | 21 | 53 | 24 |
| Race/Ethnicity | | | | | | |
| White | 9 | 9 | 19 | 5 | 22 | 58 |
| African American | 82 | 81 | 60 | 76 | 64 | 30 |
| Hispanic | 7 | 7 | 19 | 16 | 10 | 4 |
| Other | <1 | 1 | 1 | 1 | 2 | 4 |
| Other Single Race | 1 | 2 | 2 | 2 | 2 | 4 |
| Age | | | | | | |
| 17 or younger | <1 | <1 | 5 | 44 | 1 | - |
| 18-25 | 4 | 6 | 11 | 31 | 10 | 25 |
| 26-34 | 14 | 19 | 20 | 15 | 13 | 41 |
| 35 and older | 82 | 75 | 64 | 10 | 76 | 33 |
| Route of Administration | | | | | | |
| Oral | 1 | 1 | 100 | 3 | 28 | 6 |
| Smoking | 2 | 91 | - | 96 | 1 | 60 |
| Inhalation | 82 | 8 | - | 1 | 59 | 7 |
| Injecting | 14 | <1 | - | <1 | 11 | 27 |
| Secondary Drug | | | | | | |
| | Cocaine 43 | Alcohol 40 | Cocaine 28 | Alcohol 38 | Cocaine 32 | Alcohol 25 |

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

Exhibit 4. Numbers of Selected Illicit Drug Reports in Chicago EDs (Unweighted¹): January–December 2007¹Unweighted data are from 31–35 Chicago EDs reporting to DAWN in January–December 2007. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted and, therefore, are subject to change.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 6/16/2008

Exhibit 5. Drug Seizures Items Analyzed by Forensic Labs in Chicago: FY¹ 2005–2007²

| Selected Substance | FY 2005 | | FY 2006 | | FY 2007 | |
|---|-----------------|---------|---------------|---------|---------------|---------|
| | Count | Percent | Count | Percent | Count | Percent |
| Cannabis | 34,144 | 49.01 | 33,153 | 49.55 | 44,020 | 53.68 |
| Cocaine | 22,428 | 32.19 | 21,317 | 31.86 | 24,447 | 29.81 |
| Heroin | 11,597 | 16.65 | 10,001 | 14.95 | 10,015 | 12.21 |
| Clonidine | NA ³ | NA | 612 | 0.91 | 611 | 0.75 |
| Methamphetamine | 412 | 0.59 | 608 | 0.91 | 459 | 0.56 |
| 3,4-Methylenedioxy-methamphetamine (MDMA) | 286 | 0.41 | 519 | 0.78 | 943 | 1.15 |
| Phencyclidine | 202 | 0.29 | 76 | 0.11 | 115 | 0.14 |
| Hydrocodone | 79 | 0.11 | 113 | 0.17 | 255 | 0.31 |
| Methadone | 69 | 0.10 | 82 | 0.12 | 88 | 0.11 |
| Alprazolam | 59 | 0.08 | 63 | 0.09 | 136 | 0.17 |
| Psilocin | 53 | 0.08 | 44 | 0.07 | 71 | 0.09 |
| Codeine | 41 | 0.06 | 38 | 0.06 | 46 | 0.06 |
| Diazepam | 31 | 0.04 | 25 | 0.04 | 44 | 0.05 |
| Clonazepam | 26 | 0.04 | 20 | 0.03 | 37 | 0.05 |
| Oxycodone | 23 | 0.04 | 12 | 0.02 | 57 | 0.07 |
| Amphetamine | 16 | 0.02 | 25 | 0.04 | 46 | 0.06 |
| 3,4-methylenedioxy-amphetamine | 15 | 0.02 | 9 | 0.01 | 3 | <0.01 |
| Ketamine | 15 | 0.02 | 5 | 0.01 | 42 | 0.05 |
| Propoxyphene | 13 | 0.02 | NA | NA | 15 | 0.02 |
| Morphine | 10 | 0.01 | 15 | 0.02 | 32 | 0.04 |
| Psilocybin | 9 | 0.01 | 5 | 0.01 | 1 | <0.01 |
| Lorazepam | 8 | 0.01 | 18 | 0.03 | 16 | 0.02 |
| Pseudoephedrine | 8 | 0.01 | 7 | 0.01 | 5 | 0.01 |
| Chlordiazepoxide | 2 | <0.01 | NA | NA | 1 | <0.01 |
| Lysergic acid diethylamide | 2 | <0.01 | 7 | 0.01 | 17 | 0.02 |
| Total Items Reported | 69,668 | | 66,905 | | 82,010 | |

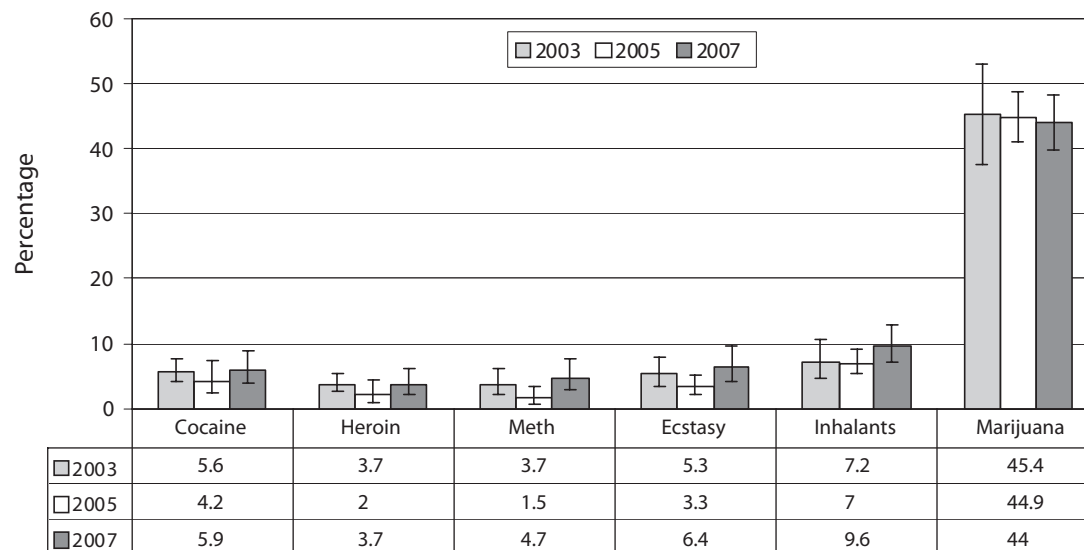
¹Drug items analyzed between October 1st and September 30th of each year.

²NFLIS data for 2007 cannot be trended with data from earlier time periods as the current methodology used to construct MSA data sets differs from years past.

³NA, data not available.

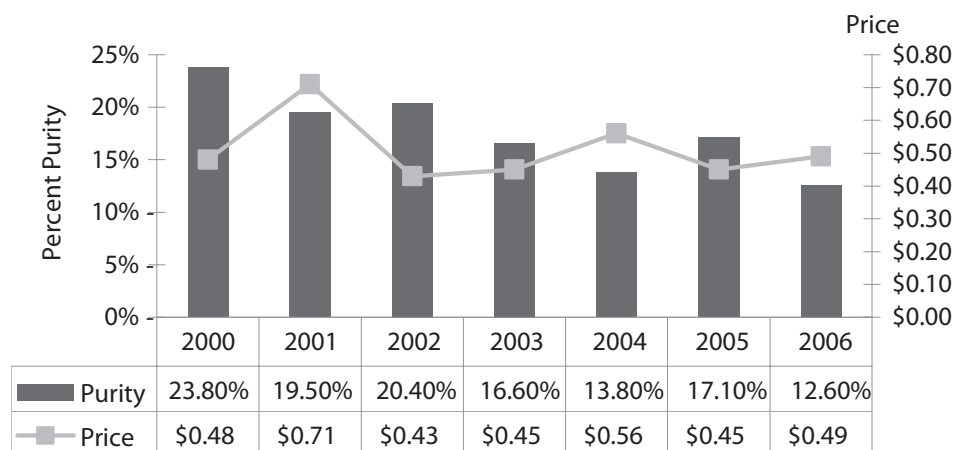
SOURCE: NFLIS, DEA

Exhibit 6. Percentage and 95 Percent Confidence Intervals of Lifetime Illicit Drug Use Among Public High School Students in Chicago, IL, by Survey Year



SOURCE: YRBS, National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health, CDC

Exhibit 7. Heroin¹ Price and Purity Trends in Chicago: 2000–2006



¹South American heroin.
SOURCE: DMP, DEA

Drug Abuse Patterns and Trends in Cincinnati, Ohio

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ABSTRACT

The predominant drug issues in Cincinnati continue to involve cocaine, crack/cocaine and marijuana as primary drugs of abuse. Crack/cocaine indicators remained high but leveled off during 2007 compared with 2006 data. Cincinnati law enforcement removed more than 92 kilograms of crack/cocaine from Hamilton County in 2007, an 88-percent increase over the previous year. A 56-percent increase in powder cocaine seizures also occurred over the same time frame. Indicators for marijuana in the Cincinnati region were stable at high levels. Marijuana dominated all other reported drugs among treatment admissions, accounting for nearly 36 percent of the admissions, excluding alcohol, during FY 2007. While marijuana availability and use remained high across the Cincinnati region, indicators pointed to a leveling off at high level. Marijuana accounted for 43 percent of submitted items for forensic analysis for Hamilton County and was second only to alcohol for primary treatment admissions. Indicators for heroin remained fairly stable, with some indicators showing a slight increase during 2007 from the previous year. Treatment admissions for primary heroin use were not delineated from other opiate/opioid admissions, but the total number of admissions was slightly elevated for the category. Poison control data showed a 33-percent increase in reported human heroin exposure cases in 2007, with resulting findings pointing to distribution of an adulterated heroin in the Cincinnati region between April and September 2007. Methamphetamine indicators continued to remain low

in Cincinnati, with additional decreases noted in 2007. A decrease in the number of methamphetamine lab seizures, combined with increased pricing, indicated less availability for use during 2007. MDMA (methylenedioxymethamphetamine) indicators were moderate in Cincinnati, with a noticeable increase in availability and use during 2007 compared with 2006. MDMA human exposure cases reported to poison control increased in 2007. Abuse of prescription drugs, specifically benzodiazepine-based tranquilizers and opioid narcotics, continue to be an increasing drug issue in Cincinnati. Qualitative indicators point to relative high availability, with a slight increase in 2007 from 2006. Abuse of methadone appeared to be increasing; this will be an area to monitor in the future. The most desirable benzodiazepine abused continued to be alprazolam, according to both users and law enforcement. A 45-percent increase in the number of clonazepam exposures reported to poison control in 2007 suggests a need to monitor this in the future to determine whether there may be an increase in clonazepam abuse. Increased numbers of calls to poison control for tablet identification of buprenorphine-containing pharmaceuticals suggest the possibility of use for abuse purposes. While data are currently lacking to verify this finding, it is an area for future monitoring.

INTRODUCTION

Area Description

The city of Cincinnati is one of 36 municipalities within Hamilton County, located in the southwest region of the State of Ohio along the Ohio River. Hamilton County is also home to 12 separate townships. Since 1990, the U.S. Census Bureau recorded consistent decreases in the population in the city of Cincinnati, at the rate of approximately 1 percent per year. Census projections indicated there were 308,728 residents of Cincinnati in 2003, along with 823,472 residents in Hamilton County. The census list that came out in June 2006

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showed Cincinnati at the bottom of the list, as the city losing the highest number of U.S. residents of any city during the previous 5-year period. This finding prompted the mayor of Cincinnati to challenge the Census Bureau to reevaluate the population, based on several indicators that suggested the population had actually increased in numbers for both the city and county. The mayor approached the Census Bureau with the following for consideration:

- Statistical analysis from city records, including:
 - Building permits
 - Demolition permits
 - Conversion of buildings to apartments or condominiums
- Increased home-building data
- Increased development projects data

The Census Bureau accepted the challenge and, after review of all data submitted, concluded that the city and county populations had indeed increased in size. The new projections for the population of Cincinnati were revised in October 2006 to record 331,310 residents, an increase of 6.8 percent over previous estimations. Similarly, the estimation of residents in Hamilton County rose 4.3 percent to 860,652 with the revised census projections. The Cincinnati population distribution remained consistent, with 53 percent White and nearly 43 percent African American. By comparison, residents of Hamilton County were nearly 73 percent White and 23 percent African American.

Various factors were identified by law enforcement as influences on drug trafficking and substance abuse in the Cincinnati region and State of Ohio. Ground travel is the predominant source of drugs to the city of Cincinnati and the State of Ohio, as many major thoroughfares cut through the State, making transport relatively easy across the State line. Interstate 75 (I-75) is a direct route, running south to north, from the Florida border through four States, including Ohio, and terminating in Detroit, Michigan. Transport of cocaine

through this route has earned the I-75 corridor the nickname of “cocaine lane.” Interstate 80/90 travels east to west across the top of Ohio and contributes to drug travel from Chicago and New York. Some drug travel through the ports of Lake Erie occurs as well, but this is a less common route of distribution than ground travel.

Cincinnati is within close proximity of the Northern Kentucky/Cincinnati International Airport to the south and the Dayton International airport to the north, with a few smaller airports scattered throughout the region. The region is also close to major package delivery centers where air transport of drugs in containers or packages contributes to the supply of imported drugs from Mexico, Texas, and California.

Cincinnati Police filed 10,667 drug charges in 2007. Nearly 40 percent of the charges involved people between the ages of 20 and 29, and 66 percent involved African American males. Possession of marijuana accounted for 34 percent of all drug charges in 2007. Another 16 percent involved drug trafficking charges.

Data Sources

The major sources of data/information for this paper are as follows:

- **Treatment data** were provided by the Hamilton County Mental Health and Recovery Services Board for fiscal years (FYs) 2005 through 2007 for publicly funded treatment programs in Hamilton County only. Primary drugs of use at admission were determined through billing data submitted by reporting agencies. Data methodology capture differed from previous reporting periods and does not provide for direct comparison to previous reports. Data were captured by group classification and not necessarily by specific drug type or route of administration. Additional changes in reporting of admissions may result in lack of comparison from this report to the next.
- **Poison control center data** were provided by the Cincinnati Drug and Poison Information

Center (DPIC) for calendar years (CYs) 2005, 2006, and 2007. Only human case data captured for purposes of illustration of drug exposures were reported. Call data were accessed for the covered area, comprising 38 of 88 counties in Ohio. DPIC provides a 24/7 telephone hotline for drug and poison information, as well as management and treatment information of hazardous or toxic exposures for the public, health care professionals, business, and government officials. The information obtained from DPIC included exposures to illicit substances (e.g., heroin, cocaine, and 3, 4-MDMA), as well as prescription drugs used for purposes of intentional abuse or suicide. Data may also have included intentional misuse or intentional use for unknown reason. All human exposure calls, regardless of exposure type, that referenced buprenorphine-containing pharmaceuticals were accessed for purposes of this report.

- **Crime laboratory drug analyses data** were derived from the Drug Enforcement Administration (DEA), National Forensic Laboratory Information System (NFLIS), and the Hamilton County Coroner's Office for 2007.
- **Drug seizure data** were provided by the Cincinnati Police Department for CYs 2004 through 2007.
- **Mortality data** were provided by the Hamilton County Coroner's Office for CYs 2006 through 2007.
- **Drug purity and cost data** came from the DEA, Cincinnati Resident Office, National Drug Intelligence Center (NDIC), Warren-Clinton County Drug Task Force, and the Ohio Substance Abuse Monitoring Network (OSAM) for 2007.
- **Methamphetamine lab seizure data** were provided by the Ohio Bureau of Criminal Investigation and Identification (BCI&I)
- **Qualitative data** came from focus group interviews conducted for the OSAM Project, funded by the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) through a grant

to Wright State University Center for Interventions Treatment and Addictions Research (CITAR). Focus groups were conducted in six-month intervals.

DRUG ABUSE PATTERNS AND TRENDS

Crack/Cocaine

Cocaine remains the most serious drug problem in Cincinnati. The treatment data for FY 2007 showed that cocaine accounted for nearly 27 percent of the primary treatment admissions, excluding alcohol (exhibit 1).

From FYs 2005 to 2007, the proportion of primary cocaine admissions remained relatively stable, hovering around 30 percent of all treatment admissions, excluding alcohol. Nearly 58 percent of the treatment admissions were male, and the majority were of African American ethnicity. The number of White users in treatment for primary cocaine increased by 5 percent from FY 2006 to FY 2007, while the number of African American admissions dropped by the same percentage over the same time frame. Exhibits 2 and 3 show demographic information for cocaine users. Qualitative data indicated that new cocaine users were more likely to be young (some as young as 14) and more likely to start their use by mixing the cocaine, either crack or powder cocaine, with tobacco or marijuana and smoking it. The term "Primo" describes the mix of tobacco or marijuana with cocaine.

Poison control center data showed a total of 132 cocaine (salt/crack) human exposure calls captured by the Cincinnati DPIC during 2007 for the service region. All of the cases involved intentional use of cocaine (salt/crack).

The Hamilton County Coroner's Office recorded 72 deaths in which evidence of cocaine or crack/cocaine use was documented by the medical examiner during 2007. This number represents a 22-percent decrease from the previous year (2006). Deaths were recorded in one of three categories: accidental, suicide, or homicide.

Evidence of cocaine was not necessarily related to manner of death. Seventy-seven percent of the cases with cocaine presence recorded in the decedent were ruled as accidental, 3 percent were due to suicide intent, and 20 percent were ruled homicide.

The Cincinnati Police Department merged drug seizure data from all municipalities and townships within Hamilton County in 2005. From 2004 to 2007, county-wide law enforcement seizures for powder cocaine increased nearly 50 percent each year (exhibit 4). Crack/cocaine seizures across the county remained fairly stable from 2004 to 2006, but they increased approximately ninefold in 2007. Qualitative data indicated a noticeable decrease in availability of crack/cocaine during the spring of 2007, most likely due to the higher amount of drug removed from street sale by law enforcement across the region.

Of the 13,535 drug items analyzed by NFLIS labs in the Cincinnati metropolitan area in 2007, 42.2 percent were cocaine (exhibit 5). The Hamilton County Coroner's Office analyzed 10,205 drug items seized by county law enforcement during 2007. Of those, 2,780 items were identified as crack/cocaine, and an additional 716 items were identified as powder cocaine (cocaine hydrochloride) (exhibit 6). These items combined to account for 34.2 percent of the total number of seized items in Hamilton County. Analysis of the purity of cocaine samples seized by the local DEA in 2007 showed that the range of purity of crack/cocaine was 43.5–71.6 percent, while the range of purity of powder cocaine was 74.5–80.1 percent (exhibit 7).

The retail (street) price of powder cocaine during 2007 was \$25–\$50 per gram and \$125–\$225 per 8-ball (exhibit 8). Prices varied depending on ethnicity and geography throughout the Cincinnati region. Prices were lower if the buyer was African American rather than White, and they were higher in the suburbs, outside the city limits. Midlevel prices for powder cocaine ranged from \$600–\$1,000 per ounce, and wholesale prices ranged from \$18,000–\$25,000 per kilogram. The street price of crack/cocaine changed little during

2007, with a gram costing \$25–\$40 and an 8-ball costing \$120–\$150. Midlevel prices for crack/cocaine ranged from \$600–\$800 per ounce.

Heroin

Indicators for heroin abuse increased slightly during 2007. Heroin and prescription opioid abuse accounted for 17 percent of all primary treatment admissions (excluding alcohol) during FY 2007 (exhibit 1). Clients entering treatment with primary heroin or prescription opioid abuse issues were more likely to be female (exhibit 2) and White (exhibit 3).

Qualitative data showed relative stability in availability of heroin during 2007, with a slight increase noted during the latter half of the year. Mexican brown powder heroin remained the most available form of heroin, but there were reports of increasing availability of both black tar heroin and white powder heroin in the Cincinnati area. Injection of heroin remained the primary method of administration among young heroin users. First-time heroin use was reported to occur in the late teens or early twenties, with no identifiable gender predominance.

Poison control center data showed that there were 48 heroin exposure calls related to intentional abuse during 2007, an increase of 33 percent from 2006. This finding resulted from documented distribution of an adulterated heroin in the Cincinnati region between April and September 2007. Overall, the medical examiner data recorded nine deaths during 2007 with evidence of heroin abuse as manner of death. All of the deaths were ruled accidental in nature by the medical examiner.

The Cincinnati Police Department recorded 4,898 grams of heroin seized during 2007, a 105-percent increase in recorded seizures since 2004, when nearly 2,394 grams were removed from the street (exhibit 6).

Heroin accounted for nearly 5 percent of the items analyzed by NFLIS in 2007 (exhibit 5). The Hamilton County Coroner's Office analyzed 547 items that tested positive for heroin, accounting for 5.4 percent of the total number of items tested

during 2007 by their laboratory (exhibit 6). Eighteen heroin items were submitted to the DEA during 2007, with analysis indicating a purity range of 55.0–74.8 percent (exhibit 7). Heroin sold on the street (retail) for \$120–\$170 per gram and for \$20 per one-tenth gram in 2007 (exhibit 8). Midlevel prices for heroin ranged from \$2,000–\$4,000 per ounce for Mexican brown powder heroin. Wholesale prices for a kilogram of heroin were reported to range from \$40,000–\$70,000. Qualitative data continued to show variability in the price of heroin as dependent on the race/ethnicity of the buyer.

Other Opiates/Opioids

Primary admissions for prescription opioid abuse were not separated from heroin users and accounted for 17 percent of total admissions in which a drug was defined (excluding alcohol) in FY 2007 (exhibit 1). Qualitative data indicated high availability, with a slight increase during the latter half of 2007. First-time use was reported as young as 16. While most opioids are ingested, oxycodone (OxyContin®) remained the one most likely to be crushed and insufflated or injected, according to users.

Poison control center data showed that hydrocodone and oxycodone pharmaceutical products were more likely to be abused than other opiates/opioids available. There were a total of 416 exposure calls for intentional abuse, including suicide, of oxycodone products during 2007, representing a 17-percent increase over exposure calls recorded in 2006 and a 29-percent increase over such calls in 2005. The number of hydrocodone combination narcotic exposures in 2007 for intentional abuse, including suicide, totaled 383, representing a 12.5-percent increase over 2006 and a nearly 15.0-percent increase over calls in 2005. The number of intentional methadone cases recorded during 2007 was 92, an increase of nearly 23 percent over the previous year.

Among the drugs analyzed by NFLIS in 2007, oxycodone accounted for 2.0 percent of the total items, hydrocodone represented 1.5 percent of all

items, and other opiates/opioids accounted for 0.8 percent of all items (exhibit 5).

The Hamilton County Coroner's Office recorded 118 deaths during 2007 that had evidence of opiate/opioid use on the part of the decedent. Of those reported, 87 percent were determined to be accidental, 10 percent were involved in a suicide, and 3 percent were victims of homicide. In addition, there were 21 recorded cases in which methadone contributed to the death. All of the methadone deaths were determined to be from accidental exposure/overdose.

Qualitative data demonstrated that the OxyContin®-branded product continued to lead other opioids in both desirability and availability with regard to diversion of pharmaceutical products to the street. The generic extended-release oxycodone products have reportedly lost interest among users who find the drug more difficult to crush and snort or inject than the branded OxyContin®. In 2007, OxyContin® sold on the streets of Cincinnati for \$40–\$60 for 80 milligrams, \$25–\$30 for 40 milligrams, and \$10–\$15 for 20 milligrams (exhibit 8). Overall prices ranged from \$0.50–\$0.75 per milligram of oxycodone. Sold by hydrocodone content, Vicodin®, Lorcet®, and Lortab® products sold for \$2–\$3 for 5 milligrams, \$5 for 7.5 milligrams, and \$7–\$8 for 10 milligrams. Qualitative data indicated a rise in availability and use of methadone during 2007. Methadone prices increased during 2007 to \$1 per milligram, regardless of whether the formulation was liquid or tablet.

Methamphetamine/Amphetamines

Methamphetamine abuse indicators continued to decrease in the Cincinnati area. Of the primary illicit drug admissions in FY 2007, methamphetamine/amphetamines accounted for only 0.4 percent of the admissions, excluding alcohol (exhibit 1). Qualitative data described local production of methamphetamine in rural areas transported into the city at much lower incidence than seen previously.

Poison control data showed a total of 13 intentional abuse exposures, including suicide, to methamphetamine reported in 2007. The Hamilton County Coroner's Office recorded five deaths in which there was evidence of amphetamines in the decedent.

Methamphetamine items analyzed by NFLIS in 2007 totaled 65, accounting for only 0.48 percent of the total drug items recorded (exhibit 5). Thirty-six amphetamine items were recorded, representing 0.27 percent of the total items. In 2007, the retail price for methamphetamine from Mexican sources ranged from \$100–\$125 per gram, and the cost was \$85–\$100 per gram for locally produced powdered methamphetamine (exhibit 8). Midlevel prices for methamphetamine ranged from \$1,000–\$1,200 per ounce.

The numbers of methamphetamine incidents involving laboratories, dumpsites, and chemical glass findings throughout Ohio have continued to decline since FY 2005, when 444 lab sites were discovered, dismantled, and cleaned up. The Ohio BCI&I recorded 179 methamphetamine incidents in FY 2007.

Five methamphetamine items were submitted to the DEA during 2007, with analysis indicating a wide purity range of 26.1–95.6 percent (exhibit 7). Dimethylsulfone (MSM) was found as an impurity in each of the analyzed samples.

Qualitative data indicated that the primary routes of administration for methamphetamine included smoking and injection. Users were more likely to be White, with equal gender distribution. First-time use was reported to be as young as 16.

Marijuana

Marijuana remained another primary drug in the Cincinnati region, reported as both widely available and widely used. Marijuana accounted for nearly 36 percent of the treatment admissions, excluding alcohol, in FY 2007 (exhibit 1).

Cannabis (marijuana) was the most frequently reported drug by NFLIS, representing nearly 43 percent of the total drug items analyzed in 2007 (exhibit 5). Marijuana was also the most

frequently reported substance identified by the Hamilton County Coroner's Office, with 5,333 drug items analyzed in 2007, accounting for 52.2 percent of the total number of items analyzed for the year (exhibit 6).

High-grade marijuana sold on the streets for \$20–\$60 per gram (exhibit 8). The midlevel price for marijuana from Mexican sources was \$275–\$400 per ounce, and high-grade marijuana sold for \$200–\$500 per ounce. The wholesale price for marijuana from Mexican sources was \$800–\$1,100 per pound.

Poison control center data revealed a total of 50 human exposure cases involving intentional abuse, including suicide, in 2007. The Cincinnati Police Department recorded seizures of more than 2,700 kilograms of marijuana during 2007 (exhibit 10).

Benzodiazepines

Primary treatment admissions for benzodiazepines accounted for 0.68 percent of all admissions, excluding alcohol, for FY 2007.

Benzodiazepines analyzed by NFLIS totaled nearly 2 percent of the total items submitted for analysis. The Hamilton County Coroner's Office recorded 14 cases in which tranquilizers were found in decedents in 2007.

Poison control center data showed 948 human exposure cases with reported benzodiazepine use in 2007; nearly 35 percent involved alprazolam, and another 32 percent involved clonazepam.

MDMA

Abuse indicators for 3, 4-MDMA increased slightly in the Cincinnati region during 2007. Primary treatment admissions for stimulants, including MDMA and amphetamines, for FY 2007 accounted for nearly 0.4 percent of the total admissions.

Qualitative data indicated that MDMA availability and use rose to a moderate level during 2007. Poison control center data for 2007 showed a total of 33 intentional abuse exposures to

MDMA, a 371-percent increase over 2006, when only seven exposure cases involving MDMA were recorded.

Of the NFLIS items analyzed in 2007, there were 182 MDMA items and five 3, 4-methylenedioxyamphetamine (MDA) items (exhibit 5). Together, these items accounted for 1.4 percent of all drug items reported.

MDMA sold for \$6–\$20 for a “single hit” tablet (exhibit 8). Most of the MDMA was sold in tablet form. No wholesale information on MDMA was available.

Emerging Patterns

DPIC recorded a higher call volume for identification of buprenorphine-containing pharmaceuticals in 2007, recording 155 calls, a 59-percent increase over 2006. Drug identification calls may be a qualitative measure of diversion of the drug to the street. Data are currently lacking to verify abuse patterns, but it is an area for future monitoring.

ACKNOWLEDGMENTS

The author would like to thank those individuals and agencies that contribute alcohol- and

drug-related data, statistics, and information that are used to form these reports. Cincinnati’s contribution to the Community Epidemiology Work Group would be vastly limited without the cooperation of local, State, and national agencies. In particular, the author thanks Dr. O’dell Owens and Terry Daly (Hamilton County Coroner’s Office), Frank Younker and Richard Gelsomino (DEA, Cincinnati Resident Office), Jim Bertram (Cincinnati Police Department), John Roberts (Hamilton County Mental Health and Recovery Services Board), Chrissie Ross (Ohio Bureau of Criminal Investigation and Identification), the Ohio Department of Drug and Alcohol Addiction Services and Wright State University Center for Interventions Treatment and Addictions Research researchers, and the staff at the Cincinnati Drug and Poison Information Center.

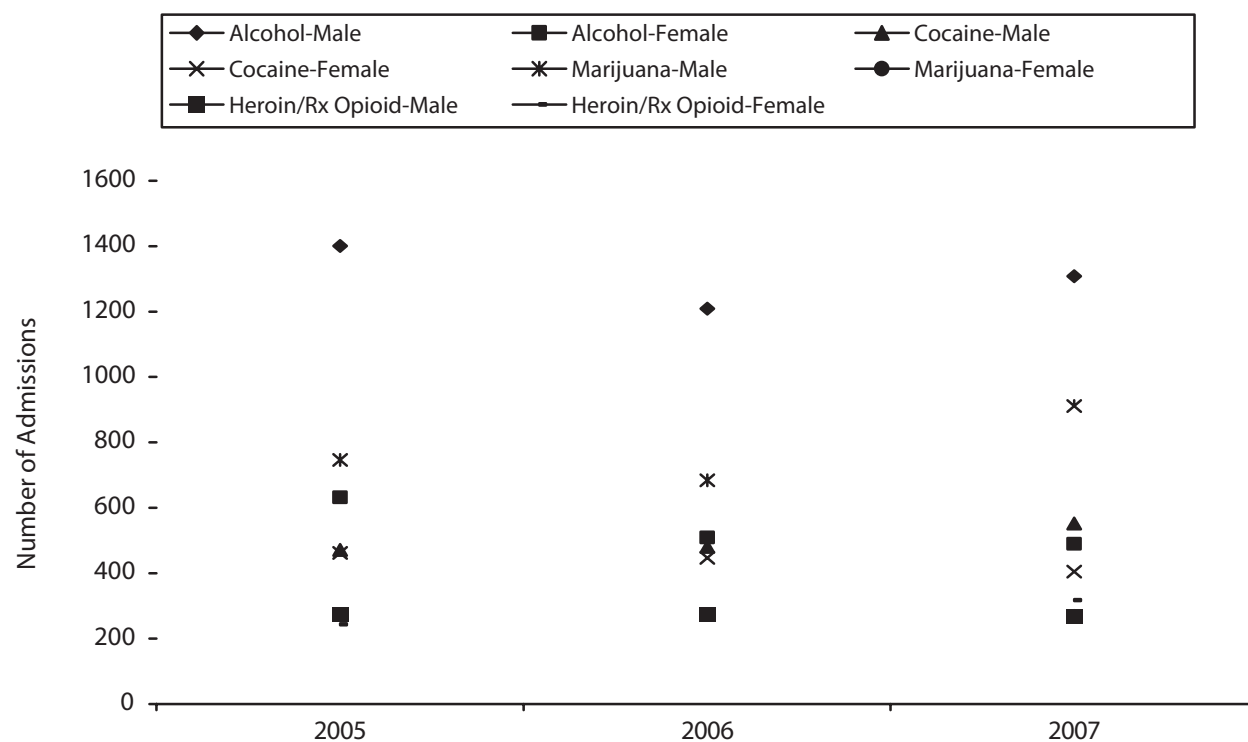
For inquiries concerning this report, please contact Jan Scaglione, Cincinnati Children’s Hospital, Cincinnati Drug and Poison Information Center, 3333 Burnet Ave., ML-9004, Cincinnati, OH 45229, Phone: (513) 636-5060, Email: Jan.Scaglione@cchmc.org.

Exhibit 1. Treatment Admissions in Cincinnati by Primary Drug of Abuse, Total Admissions: FYs 2005–2007

| Drug | FY 2005 | FY 2006 | FY 2007 |
|------------------------------|---------|---------|---------|
| Alcohol | 2,033 | 1,718 | 1,804 |
| Cocaine | 933 | 927 | 957 |
| Heroin/Rx Opioids | 517 | 545 | 586 |
| Marijuana | 1,158 | 1,071 | 1,264 |
| Amphetamines | 22 | 14 | 14 |
| Benzodiazepines | 15 | 12 | 24 |
| All Other Drugs | 327 | 356 | 380 |
| Unknown/Missing/Non-Chemical | 210 | 178 | 296 |

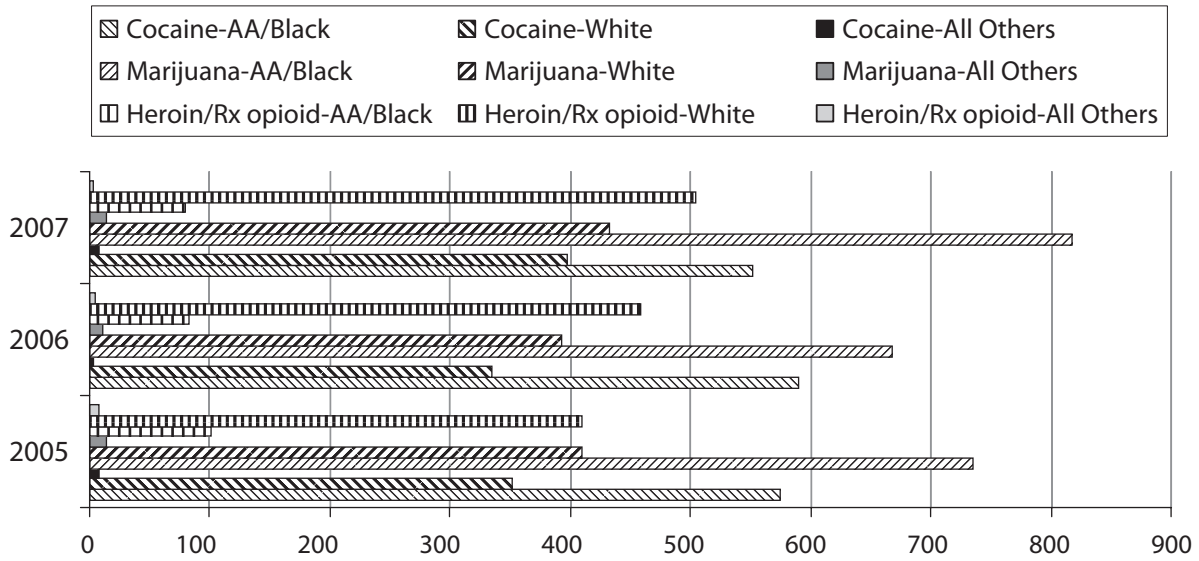
SOURCE: Hamilton County Mental Health and Recovery Services Board

Exhibit 2. Treatment Admissions by Gender for Selected Drugs and Alcohol: FYs 2005–2007



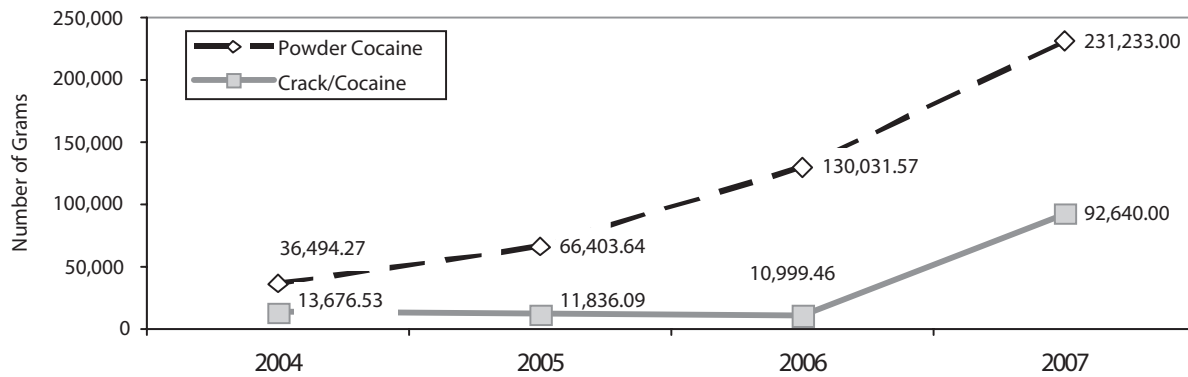
SOURCE: Hamilton County Mental Health and Recovery Services Board

Exhibit 3. Treatment Admissions by Race for Selected Drugs: FYs 2005–2007



SOURCE: Hamilton County Mental Health and Recovery Services Board

Exhibit 4. Seizures of Cocaine HCl and Crack, in Grams: 2004–2007



SOURCE: Cincinnati Police Department

Exhibit 5. Number and Percentage of Total Items¹ for Selected Drugs Analyzed by Forensic Laboratories in Hamilton County: 2007

| Drug | Number | Percent of Total Items |
|------------------------------------|--------|------------------------|
| Cocaine | 5,715 | 42.22 |
| Cannabis | 5,807 | 42.90 |
| Heroin | 671 | 4.96 |
| Oxycodone | 272 | 2.01 |
| Methamphetamine | 65 | 0.48 |
| Hydrocodone | 202 | 1.49 |
| Other Opiates/Opioids ² | 112 | 0.83 |
| Benzodiazepines ³ | 254 | 1.87 |
| MDMA/MDA | 187 | 1.38 |
| Amphetamines | 36 | 0.27 |

¹Total items analyzed=13,535.

²Includes methadone (54), morphine (29), propoxyphene (7), dextropropoxyphene (5), codeine (14), tramadol (1), and hydromorphone (2).

³Includes alprazolam (112), diazepam (78), clonazepam (53), lorazepam (10), and temazepam (1).

SOURCE: NFLIS, DEA

Exhibit 6. Drug Counts¹ in Metropolitan Cincinnati: 2007

| Drug | Number | Percent of Total Items |
|---|--------|------------------------|
| Crack/Cocaine | 2,780 | 27.2 |
| Cannabis | 5,333 | 52.2 |
| Heroin | 547 | 5.4 |
| Cocaine HCl | 716 | 7.0 |
| Clandestine Methamphetamine/ Amphetamine | 104 | 1.0 |
| Pharmaceuticals | 707 | 6.9 |
| Psilocybe Mushrooms | 13 | 0.13 |
| LSD | 5 | 0.04 |

¹Total Items analyzed=10,205.

SOURCE: Hamilton County Coroner's Office

Exhibit 7. Purity Analysis of Drug Seizures: 2007

| Drug | Number of Items | Weight (Grams) | Purity Range (%) |
|-----------------|-----------------|----------------|------------------|
| Crack/Cocaine | 9 | 149.2 | 43.5–71.6 |
| Powder Cocaine | 8 | 19,029 | 74.5–80.1 |
| Heroin | 18 | 302 | 55.0–74.8 |
| Methamphetamine | 5 | 33.8 | 26.1–95.6 |

SOURCE: DEA, Cincinnati Resident Office

Exhibit 8. Prices for Selected Drugs,¹ by Distribution Level and Quantity:² 2007

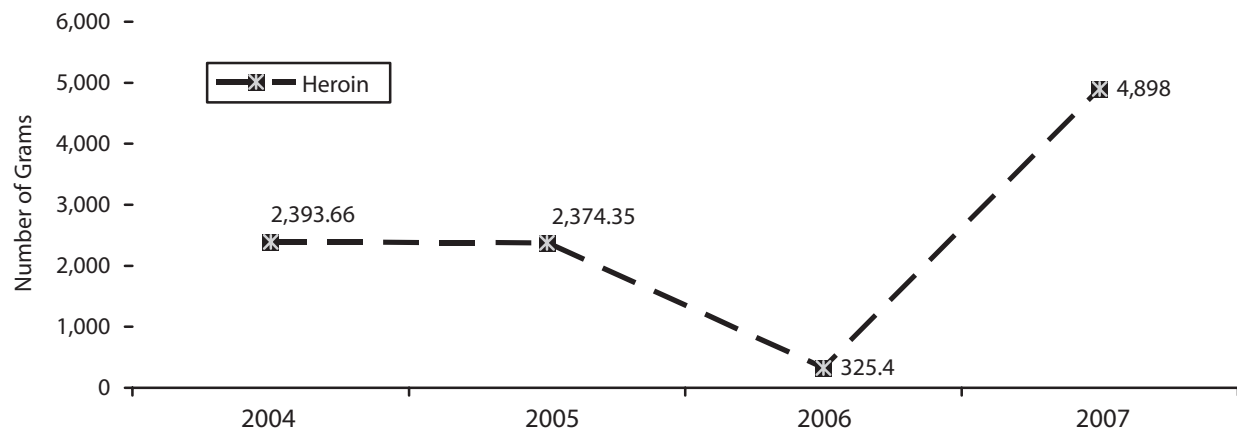
| Drug | Wholesale | Midlevel | Retail* |
|-----------------|--|--|---|
| Powder Cocaine | \$18,000–\$25,000/kg. \$18,000–\$20,000/kg* | \$875–\$1,000/oz. \$600–\$800/oz.* | \$25–\$50/g. \$125–\$225/8-ball |
| Crack/Cocaine | – | \$600–\$800/oz. | \$25–\$40/g. \$120–\$150/8-ball |
| Heroin | \$40,000–\$70,000/kg | \$2,000–\$4,000/oz. (MBP) | \$120–\$170/g. \$20/0.1 g. |
| Marijuana | \$800–\$1,100/lb. MX | \$275–\$400/oz.MX High grade: \$200–\$500/oz* | High Grade: \$20–\$60/g. |
| Methamphetamine | – | \$1,000–\$1,200/oz. | \$85–\$100/g. PM LP \$100–\$125/g. MX |
| MDMA | – | – | \$6–\$20/"single hit" |
| OxyContin® | – | – | 80 mg.: \$40–\$60 40 mg.: \$25–\$30 20 mg.: \$10–\$15 |

¹Key: MX=Mexican; PM LP=Powdered Methamphetamine, Locally Produced; MBP=Mexican Brown Powder.

²Kg=kilogram; lb=pound; oz=ounce; g=gram.

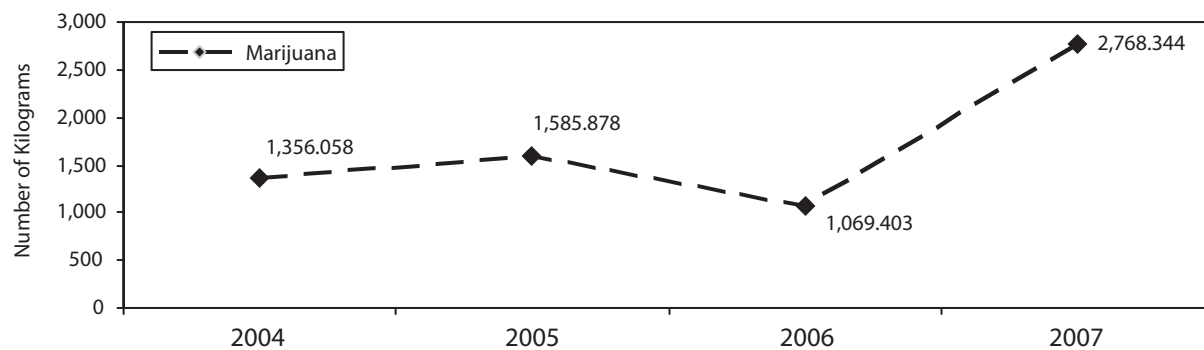
SOURCE: NDIC; DEA, Warren-Clinton County Drug Task Force; OSAM Project

Exhibit 9. Seizures of Heroin, in Grams: 2004–2007



SOURCE: Cincinnati Police Department

Exhibit 10. Seizures of Marijuana, in Kilograms: 2004–2007



SOURCE: Cincinnati Police Department

Patterns and Trends in Drug Abuse in Denver and Colorado: January–December 2007

Bruce Mendelson, M.P.A.¹

ABSTRACT

Excluding alcohol, marijuana abuse has continued to result in the highest number of treatment admissions in Denver and statewide in Colorado annually since 2000. However, from 2001 to 2007, statewide marijuana treatment admissions declined from 42 to 35 percent, and in the Denver/Boulder metropolitan area (greater Denver), they declined from 39 percent in 2004 to 37 percent in 2007. In 2007, cocaine ranked third in statewide treatment admissions and second in Denver metropolitan treatment admissions, but admissions for both areas decreased slightly from 2006. Cocaine accounted for the highest number and rate of illicit drug hospital discharges since 2000 and for the highest number and proportion of illicit drug emergency department (ED) reports since 2005. Cocaine also accounted for the highest drug-related mortality rates from 1996 through 2002, but it was surpassed in 2003 by all opiates, including heroin, and in 2004 through 2006 by opiates other than heroin. Cocaine had the highest number of illicit drug-related calls to the Rocky Mountain Poison and Drug Center from 2001 through 2003 in the Denver area, but it was surpassed by methamphetamine in 2004 and 2005. Cocaine, however, had significantly more statewide poison calls than methamphetamine in both 2006 (129 vs. 29, respectively) and 2007 (91 vs. 31, respectively). Methamphetamine has exceeded cocaine in statewide treatment admissions since 2003, and it was the most common

drug among admissions in Denver/Boulder during 2005, but in both 2006 and 2007, the number of statewide methamphetamine admissions declined from 2005. In the Denver metropolitan area, after climbing every year since 2000, methamphetamine admissions showed a slight decline in 2007 over 2006. Most other methamphetamine indicators showed a downward trend. The number of statewide and Denver methamphetamine lab samples analyzed declined in both 2006 and 2007 from 2005, and the amount of methamphetamine seized declined sharply in 2007 from 2006. Clandestine laboratory closures have decreased steadily since 2003, most likely because an estimated 80 percent of Colorado's methamphetamine comes from outside the State, predominantly Mexico. While methamphetamine poison calls remained stable from 2006 (n=29) to 2007(n=31), both years reflected large declines from 2005 (n=127). Most heroin abuse indicators decreased over the last several years, except for the proportion of Denver area treatment admissions. In 2003 through 2006, opiate-related drug misuse mortalities exceeded those that were cocaine related. One demographic trend noted was a decline in the age of onset and age at first treatment for users of other opiates. Beyond abuse of illicit drugs, alcohol remained Colorado's most frequently abused substance and accounted for the most treatment admissions, ED reports, poison center calls, drug-related hospital discharges, and drug-related deaths.

INTRODUCTION

Area Description

Denver, the capital of Colorado, is located slightly northeast of the State's geographic center. Covering only 154.6 square miles, Denver is bordered by several suburban counties: Arapahoe on the southeast, Adams on the northeast, Jefferson on the west, Broomfield on the northwest, and Douglas on the south. These areas made up the Denver Population and Metropolitan Statistical

¹The author is affiliated with the Office of Drug Strategy, Denver Department of Human Services.

Area (PMSA) through 2004, which accounted for 50 percent of the total population.

For this report, both statewide data and data for the Denver/Boulder metropolitan area were analyzed; the latter includes the counties of Denver, Boulder, Adams, Arapahoe, Broomfield, Clear Creek, Douglas, Gilpin, and Jefferson, and accounts for 56 percent of the total population (2,673,834 out of 4,813,536; July 2006 estimates).

Denver and the surrounding counties experienced rapid population growth from the 1990s through 2003, and Colorado was the third fastest growing State in the Nation until 2004, when the growth rate declined. The State population more than doubled from 1960 to 2000, but recently the population moving out of Colorado exceeded new arrivals. Colorado now ranks among those States with the lowest rates of net domestic immigration and is eighth on the list of fastest growing States. The 2000 census projections estimated a population increase of 1 percent from 4,653,844 in 2004 to 4,804,353 by 2006.

The median age of residents in the Denver area is 34.1. For the population 25 and older, 82 percent are high school graduates and 36 percent have college bachelor's degrees. Males represent 50.7 percent and females account for 49.3 of the population. Ethnic and racial characteristics of the area are as follows: White, 71 percent; Black or African American, 11 percent; Native American/Indian, 1 percent; Asian, 3 percent; and Native Hawaiian and Other Pacific Islanders, less than 1 percent. Hispanics or Latinos of any race compose 35 percent of the area's population.

The major industries in Colorado are communications, utilities, agriculture, and transportation. From February 2007 to February 2008, Colorado ranked fifth in the Nation for employment growth. As of 2006, the per capita income for the city and county of Denver was \$26,548 (\$27,750 for Colorado). The median household income was \$43,777 (\$52,015 for Colorado); the median family income was \$53,616 (\$64,614 for Colorado). Fifteen percent of families and 20 percent of individuals in Denver live below the federal poverty level. The unemployment rate

in Colorado as of March 2008 was 4.7 percent. Nationally, it was 5.1 percent. The Violent Crime Rate National Ranking for Colorado in 2005 was 25 out of 50.

Two major Interstate highways, I-25 and I-70, intersect in Denver. I-25 runs north-south from Wyoming through New Mexico, and I-70 runs east-west from Maryland through Utah. The easy transit across multiple States via these highways, along with the following factors, may influence drug use in Denver and Colorado:

- The area's major international airport is nearly at the Nation's midpoint.
- The area has a growing population and expanding economic opportunities.
- A large tourism industry draws millions of people to Colorado each year.
- Remote, rural areas are ideal for the undetected manufacture, cultivation, and transport of illicit drugs.
- There are several major universities and small colleges in the area.
- A young citizenry is drawn to the recreational lifestyle available in Colorado.

Data Sources

Principal data sources for this report include the following:

- **Treatment data** were provided by the Drug/Alcohol Coordinated Data System (DACODS), which is maintained by the Alcohol and Drug Abuse Division (ADAD) at the Colorado Department of Human Services. Data for this system were collected on clients at admission and discharge from all Colorado alcohol and drug treatment agencies licensed by ADAD. Treatment admissions were reported by the primary drug of use (as reported by the client at admission), unless otherwise specified. Annual figures are given for calendar years (CYs) 2001 through 2007.

- **Drug-related ED reports** for the Denver metropolitan area from January through December 2007 were provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS), through its Drug Abuse Warning Network (DAWN *Live!*). These data were accessed on and reflect cases received by DAWN as of May 7, 2008, and are subject to change in future OAS quality reviews. Because these data were unweighted, they cannot be used as estimates of the reporting area. Only weighted DAWN data released by SAMHSA can be used for trend analysis. The total number of eligible DAWN hospitals for the time period measured was 15, and 8 hospitals reported during every month in 2007. A “completeness” table appears in exhibit 1. Because a patient may report more than one drug, the number of drug reports may exceed the number of cases. A full description of the DAWN system can be found at <<http://dawn-info.samhsa.gov>>.
- **Drug-related mortality data** statewide for CY 2006 came from the Colorado Department of Public Health and Environment (CDPHE).
- **Hospital discharge data** for the Denver metropolitan area for 2000–2007 were provided by the Colorado Hospital Association. Data included diagnoses (ICD-9-CM codes) for inpatient clients at discharge from all acute care hospitals and some rehabilitation and psychiatric hospitals. These data exclude ED care.
- **Rocky Mountain Poison and Drug Center (RMPDC) data** for Denver and Colorado represent the number of calls to the center regarding “street drugs” from 2001 through 2007.
- **National Forensic Lab Information System (NFLIS) data** for Colorado and Denver were obtained from analyzed samples by drug type from 2000 to 2007. The NFLIS is a Drug Enforcement Administration (DEA) program through their Office of Diversion Control that systematically collects drug identification results and associated information from drug cases analyzed by Federal, State, and local forensic laboratories.
- **Statistics on seized drug items** were obtained from *Colorado Fact Sheet Reports* published by the DEA.
- **Availability, price, and purity data** were obtained from the March 2008 National Drug Intelligence Center’s (NDIC) report, *National Illicit Drug Prices*, December 2007.
- **Intelligence data** were obtained from Rocky Mountain High Intensity Trafficking Area staff, the DEA, and local law enforcement officials.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) data for 2001 through 2007** were obtained from the CDPHE.
- **Population statistics** were obtained from the Colorado Demography Office, U.S. Census 2000, including estimates and projections, and <factfinder.census.gov>.
- **Qualitative and ethnographic data** for this report were available from clinicians from treatment programs across the State, Denver Vice Detectives, street outreach workers, and local researchers.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine

Of the five major drugs (cocaine, heroin, other opiates, methamphetamine, and marijuana), cocaine ranked third in statewide and second in Denver area treatment admissions, both of which remained stable from 2006 to 2007 (exhibits 2 and 3). Excluding alcohol, cocaine ranked first in ED and hospital discharge reports of illicit drugs, first in Denver and Colorado NFLIS samples analyzed, and second in both poison control center calls and in numbers of deaths caused by illicit drug use.

During 2007, cocaine was reported as a primary drug in 20.3 percent of treatment admissions

(excluding alcohol) statewide (exhibit 2). Since 2000, cocaine constituted 18.3 to 21.1 percent of statewide admissions each year; through 2002, it was second to marijuana in volume of treatment admissions. Since 2003, methamphetamine admissions have exceeded cocaine admissions.

In the Denver metropolitan area, cocaine was reported in 23.4 percent of treatment admissions (excluding alcohol) during 2007 (exhibit 3). While cocaine surpassed heroin in treatment admissions in 2003, methamphetamine admissions slightly exceeded cocaine admissions in 2005, but cocaine surpassed methamphetamine again in both 2006 and 2007 admissions.

Statewide, the proportion of male cocaine admissions rose from 55.4 percent in 2000 to 61.5 percent in 2004 and declined slightly to 60.9 percent in 2007 (see exhibit 4). Likewise, in the Denver metropolitan area, the proportion of male cocaine admissions increased from 50.8 percent in 2000 to 62.9 percent in 2004 and declined to 60.8 percent in 2006. In 2007, males constituted 60.3 percent of Denver area cocaine admissions (exhibit 5).

Historically, Whites have accounted for the largest proportion of cocaine admissions statewide (44.1 percent overall, 2000 through 2007). However, the proportion of Hispanics/Latinos, which is 32.1 percent of admissions overall, has been mostly on an upward trend from 27.4 percent in 2001 to 34.8 percent in 2007. In Denver, the proportion of Hispanics/Latinos has increased almost steadily from 23.0 percent in 2000 to 32.2 percent in 2007 (28.4 percent overall). From 2000 to 2007, the proportion of African American treatment admissions declined from 21.9 to 18.3 percent statewide and from 30.7 to 22.8 percent in the Denver metropolitan area.

Statewide, 1.8 percent of all primary cocaine admissions in 2007 were for clients younger than 18, and 14.7 percent were younger than 25 (exhibit 4). Roughly 70 percent of cocaine admissions from 2000 through 2005 were for clients age 25 to 44. However, that age group's proportion declined steadily from 76.0 percent in 2000 to 62.2 percent in 2007, while the proportion of those older than

44 increased from 8.1 to 23.1 percent during that time. This may be indicative of a cohort that is aging.

The Denver metropolitan area showed similar trends, with a decline in total cocaine admissions of those age 25 to 44 (80.0 to 61.2 percent from 2000 to 2007) and a rise in clients older than 44 (7.5 to 25.2 percent from 2000 to 2007). The Denver area also reported a small increase from 9.2 to 11.3 percent in admissions for clients age 18 to 24 from 2000 through 2007.

Statewide in 2007, the proportions of all admitted clients who smoked, inhaled, or injected cocaine were 58.3, 33.0, and 6.6 percent, respectively (exhibit 4). The proportion that smoked increased slightly from 2000 (57.9 percent) to 2007 (58.3 percent). From 2002 through 2007, the proportion inhaling cocaine increased from 25.7 to 33.0 percent, and the proportion injecting fell from 12.0 to 6.6 percent.

The Denver area proportions in 2007 were 55.9, 37.4, and 5.0 percent, respectively, of cocaine users who smoked, inhaled, or injected the drug (exhibit 5). However, while smoking has been fairly stable statewide, in the Denver area the proportion of cocaine smokers declined steadily from 68.8 percent in 2000 to 55.9 percent in 2007. Compared with Colorado overall, the Denver area had a more dramatic rise in inhaling cocaine (from 21.8 percent in 2002 to 37.4 percent in 2007) and a larger decline in injecting (11.9 to 5.0 percent from 2002 to 2007).

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

In addition to traditional demographics, the proportions of users entering treatment for the first time (people with no prior treatment episodes) were examined, as well as those first-time users who had been using less than 3 years (new users).

Statewide, the proportion of first-time treatment admissions (first-timers) declined from

36.0 percent in 2000 to 29.3 percent in 2007. In the Denver area, first-timers increased from 29.4 percent of 2000 cocaine-related admissions to 35.5 percent in 2006, but they declined to 31.8 percent in 2007.

Statewide, approximately 18.9 to 20.9 percent of first-time cocaine admissions had been using less than 3 years from 2000 through 2004. This proportion increased to 24.2 percent in 2005 and again to 25.8 percent in 2006, but it declined to 20.0 percent in 2007 (exhibit 6). In the Denver area, the proportion of new users in treatment increased from 16.0 percent in 2003 to 23.8 percent in 2006 but declined sharply to 17.3 percent in 2007.

In 2007, first-time cocaine admissions statewide and for Denver only reported average onset ages of 23.3 and 23.6, respectively (both had a median age of 21.0, exhibit 6). From 2000 onward, the mean age of onset for first-time admissions was between 21.7 and 23.8 statewide and between 22.2 and 23.8 in the Denver metropolitan area.

In 2007, the mean number of years from reported onset of cocaine use to the first treatment episode was 11.4 years for statewide admissions and 11.8 years for Denver area admissions (exhibit 6), up slightly from 10.6 years (for both State and Denver area admissions) in 2004. Before 2004, the mean time to enter treatment remained between 10.0 and 10.2 years statewide and between 10.0 and 10.8 years in the Denver metropolitan area.

Excluding alcohol, cocaine accounted for the most illicit drug-related ED reports in the unweighted DAWN *Live!* data for the Denver area in 2007. There were 3,926 ED reports for cocaine, which constituted 45.4 percent of illicit drug ED reports (exhibit 7).

Statewide, cocaine-related deaths climbed from 92 in 1997 (23.6 per million) to 146 in 1999 (36.1 per million). While they declined to 116 in 2000 (27.0 per million), they increased to 134 in 2001 (30.4 per million), 153 in 2002 (34.1 per million), and 180 in 2003 (39.2 per million) before declining in 2004 to 170 (36.5 per million). In 2005, cocaine deaths increased to 217—the highest

number so far (exhibit 8), but they declined in 2006 to 206.

Cocaine has been second only to alcohol in Denver drug-related hospital discharges since 2000. Cocaine-related hospital discharges rose relatively steadily from 2000 (241 per 100,000) through 2006 (324 per 100,000), but they declined to 282 per 100,000 in 2007 (exhibit 9).

From 2001 through 2003, poison control center call data for street drugs were reported for the city and county of Denver only. In 2004, data were received for both the city of Denver and the entire State, but from that point on, only statewide data were available. From 2001 through 2003, cocaine was second only to alcohol in the number of Denver calls received by the Rocky Mountain Poison and Drug Center, and the number of cocaine calls rose from 59 in 2001 to 68 in 2003 (exhibit 10). In 2004, cocaine calls totaled 59 in Denver and 120 statewide. In 2005 and 2006, respectively, cocaine accounted for 107 and 129 poison center calls statewide; calls declined to 91 in 2007.

Federal drug seizures for cocaine across Colorado (exhibit 11), after decreasing from 65.5 kilograms to 36.0 kilograms from 2003 to 2004, increased substantially in 2005 (131.5 kilograms) and 2006 (135.1 kilograms). They declined sharply in 2007 (44.0 kilograms).

Drug samples analyzed in Federal, State, and local forensics labs and reported to the DEA's NFLIS are shown for all of Colorado and for Denver in exhibit 12. As indicated, while the proportions of cocaine samples analyzed dropped dramatically over time for Colorado and the city and county of Denver, cocaine continued to account for the largest proportion of all drug samples analyzed statewide and in Denver.

Reports from law enforcement indicated that cocaine was still “King” in Denver, although the total proportion of cocaine exhibits submitted to the Denver Police Department Crime Laboratory (DPCL) remained static from 2003 to 2007 (with a range of 17.3 to 21.0 percent). The DCPL showed a decline in crack/cocaine use (23 percent in 2007 vs. 34 percent in 2003). Crack/cocaine has developed a bad reputation near the bottom

of the drug use hierarchy, while inhaling powder cocaine is considered fairly safe as a recreational drug.

Some undercover officers in northeast Denver reported that the day of open-air cocaine markets (or those for any other drug) is long past. Cocaine dealing was done out of houses with dealers only selling to people they know, not to strangers.

The treatment and street outreach communities described similar information about cocaine, as they reported their clients saying that the social stigma placed crack among the “lowest of the lows.” Many who enter treatment do not want to admit smoking crack. Also, clinicians said that crack smoking may have declined somewhat because of users concerned about increased jail time for possession of crack as opposed to powder cocaine.

As reported by clinicians and outreach workers, speedballs (injecting combination of cocaine and heroin) were “still around.” One local outreach program in a survey of 108 clients found that 53 (49 percent) had injected a speedball in the past 30 days. Ten percent claimed speedballs as their drug of choice and said that they “would do more of them if they weren’t so expensive.”

Another outreach worker reported that speedballs were the leading cause of accidental overdoses among the street users and that most speedball “junkies” went to the hospital rather than to detoxification or treatment.

Over the past few years, a growing number of stimulant users prefer methamphetamine to cocaine. This is discussed further in this report under methamphetamine.

Current Denver cocaine price and purity information is presented in exhibit 13.

Heroin

Of the five major drugs of cocaine, heroin, other opiates, methamphetamine, and marijuana, heroin ranked fourth in both statewide and Denver area treatment admissions, both of which remained stable from 2006 to 2007. Excluding alcohol, heroin ranked fourth in ED reports of

illicit drugs in 2007 (stable from 2006), fourth in poison control center calls (stable from 2006), and fourth in both Colorado and Denver NFLIS samples analyzed.

During 2007, heroin was reported as a primary drug in 7.3 percent of treatment admissions (excluding alcohol) statewide and 10.5 percent in the Denver metropolitan area (exhibits 2 and 3). Since 2001, heroin treatment admissions fell from 14.7 to 7.3 percent statewide and from 23.6 to 10.5 percent in the Denver area. Since 2001, the volume of heroin admissions has been behind marijuana, methamphetamine, and cocaine admissions statewide.

In Denver, the volume of heroin admissions exceeded admissions for cocaine and methamphetamine until 2002; however, in 2003, heroin admissions dropped below cocaine admissions. In 2004, they dropped even farther, below both cocaine and methamphetamine admissions.

Heroin admissions have been predominately male, and from 2000 to 2007 the proportion of male admissions out of all heroin admissions rose from 62.8 to 67.0 percent statewide and from 63.6 to 67.0 percent in the Denver area (exhibits 4 and 5).

Historically, Whites have accounted for the largest proportion of heroin admissions, and in 2007 that proportion was the highest it had been since 1997. Statewide, the 2007 proportions for Whites, Hispanics, and African Americans, respectively, were 69.3, 21.4, and 5.6 percent of total admissions. In Denver in 2007, the proportions of White, Hispanic, and African American admissions were 65.7, 23.3, and 7.2 percent, respectively.

Statewide in 2007, the average age of heroin users admitted to treatment was 37.5 (median=35.0). Since 2000, less than 1 percent of heroin users entering treatment were younger than 18, and in 2007, the proportion younger than 18 was 0.2 percent. Changes in two age ranges over time are indicative of an aging cohort. From 2000 to 2007, the proportions of clients age 35 to 44 declined from 34.2 to 22.6 percent, while those 45 and older increased from 24.7 percent in 2000

to 32.5 percent in 2006. In 2007, 30.0 percent of statewide heroin admissions were for clients older than 44.

In Denver in 2007, the average age of heroin users entering treatment was 38.5 (median=37.0). The Denver metropolitan area showed a decline in heroin admissions of clients age 35 to 44 (32.9 percent in 2000 to 23.4 percent in 2007) and rises in clients 45 and older from 2000 to 2006 (26.7 to 36.0 percent). In 2007, the 45 and older group constituted 32.9 percent of heroin admissions.

Heroin is a drug that is predominantly injected. Statewide, the proportion of heroin injectors remained between 85.9 and 88.2 percent between 2000 and 2004, and declined to 82.0 percent in 2007 (exhibit 4). The proportion smoking heroin increased from 5.8 percent in 2000 to 9.2 percent in 2007. The proportion inhaling heroin also increased, from 4.9 percent in 2000 to 7.6 percent in 2007.

Denver's proportions were similar to statewide figures. The proportion injecting declined from 88.2 percent in 2001 to 81.4 percent in 2007 (exhibit 5). The proportion that smoked heroin remained between 5.5 and 6.9 percent from 2000 to 2004, and it rose to 9.5 percent in both 2006 and 2007. The proportion inhaling remained between 4.3 and 6.3 percent from 2000 to 2006, but it increased to 7.9 percent in 2007.

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

In 2007, the proportion of heroin treatment admissions in treatment for the first time was 17.9 percent statewide and 17.0 percent in the Denver metropolitan area (exhibit 6). Statewide, from 2000 through 2007, the proportion of first-timers remained between a low of 17.9 percent in 2007 and a high of 23.7 in 2002. During that time period in Denver, the proportion of first-timers stayed between a low of 17.0 percent in 2007 and a high of 22.5 in 2002.

Statewide in 2007, 40.0 percent of heroin users in treatment for the first-time had been using less than 3 years (exhibit 6), an increase from 19.4 percent in 2004. In Denver, the proportion of new

users in treatment decreased from 37.1 to 18.9 percent from 2000 to 2004 and rose to 38.6 percent in 2007.

Heroin users tended to be the oldest drug-using group, and started using at the oldest age. Among 2007 first-time heroin admissions, the mean and median ages of onset statewide were 24.7 and 22.0, respectively (exhibit 6). The mean and median onset ages decreased slightly from 2000 to 2003 (mean, 24.1 to 21.6 and median, 23.0 to 18.5), but they have increased since.

In Denver, the mean and median ages of onset for 2007 were 25.0 and 22.0, respectively. Similar to the statewide trend, there was a decrease in onset age from 2000 to 2003 (mean, 25.2 to 21.9; median 24.0 to 18.0), with a subsequent increase in 2007.

Among 2007 first-time heroin admissions, the mean time to enter treatment was 8.0 years for the State and 8.8 for the Denver metropolitan area (exhibit 6). Statewide, the mean time to enter treatment rose from 8.9 to 14.0 years from 2000 to 2004. During that same period, Denver showed a similar trend, with an increase from 7.8 to 14.8 years.

DAWN *Live!* unweighted data showed 925 heroin-related ED reports in 2007, accounting for 10.6 percent of illicit drug reports, excluding alcohol (exhibit 7).

Statewide in 2003, mortality data reported 247 deaths (5.4 per 100,000) related to all opiates (including heroin, morphine, other opioids, and narcotics), but since 2004, heroin-related deaths have been separated out from all other opiates. Heroin-related deaths jumped from 22 in 2004 to 42 in 2005, but they decreased to 37 in 2006 (exhibit 8). Because of the variations in how drugs were classified and in the geographical areas reporting, no mortality trends could be assessed for heroin alone.

Denver metropolitan hospital discharge data from 2000 to 2007 combined all narcotic analgesics and other opiates, including heroin. While trends in this indicator for heroin alone could not be assessed, this indicator for all opiates increased steadily, with the rate increasing from 133 per

100,000 in 2000 to 173 per 100,000 in 2005; it declined to 159 per 100,000 in 2006 but increased to 179 per 100,000 in 2007 (an overall increase of 35 percent from 2000) (exhibit 9).

The number of Denver area poison calls for heroin and morphine combined remained fairly steady with 19, 16, 22, and 18 calls each year, respectively, from 2001 through 2004 (exhibit 10). Since 2004, statewide heroin calls have been broken out separately, and there were 20, 24, 25, and 21 heroin calls statewide in 2004, 2005, 2006, and 2007, respectively.

As shown in exhibit 11, only small quantities of heroin were seized in Colorado, ranging from 2.5 to 4.6 kilograms from 2003 to 2007.

As shown in exhibit 12, the proportion of heroin samples analyzed in NFLIS reporting labs declined over time for Colorado and the city and county of Denver. As a proportion of all drug samples analyzed, heroin percentages are much smaller than those for cocaine, cannabis (marijuana), and methamphetamine statewide and in Denver for the entire time period shown.

According to local law enforcement, the Colorado and Denver metropolitan area heroin was supplied by Mexican drug trafficking organizations (DTOs). The DTOs were trafficking larger amounts of Mexican domestically grown opium and the processed heroin (both black tar and brown powder) to raise cash in order to buy other high-profit drugs such as cocaine and methamphetamine. The DTOs sometimes employed Honduran youth as retail distributors. However, the DTOs did not allow anything but Mexican black tar and brown powder heroin (i.e., no Southeast or Southwest Asian heroin).

Some local clinicians and outreach workers pointed to the “junkie” stigma as a reason for declining heroin treatment populations. However, others said that the users were still there, but that fewer were coming into treatment because of inadequate detoxification availability. Another point of view was that the stigma has pushed heroin users towards prescription narcotics, but that was not borne out when comparing demographics

of heroin users with those of prescription opiate users.

As to the increase in heroin smoking and inhaling, local clinical and outreach workers reported that some younger heroin users felt that injection was something “old people do,” and that there was less stigma in using a route of administration other than injection. Also, many new heroin users thought that they would not become addicted if they smoked or inhaled. Additionally, among some injectors, it is inevitable that veins will “give out” and that smoking or inhaling are the only routes that can be used to get the drug they need.

There was no report of “cheese” availability in the Denver metropolitan area (a mixture of black tar heroin and the over-the-counter antihistamine diphenhydramine found in drugs such as Tylenol PM®). Heroin price and purity information is available in exhibit 13.

Other Opiates

This category excludes heroin and includes all other opiates and narcotic analgesics, such as methadone, morphine, hydrocodone, hydromorphone, codeine, and oxycodone. Of the five major illicit drugs, this category has ranked last in numbers and proportions of treatment admissions and has remained fairly steady over the last 7 years. Other opiates ranked third in volume of hospital discharges from 2000 through 2007. While this category accounted for the highest number of deaths (excluding alcohol) in 2004 through 2006, discrepancies in the classification of opiates and geographical areas reported precluded assessment of mortality trends.

During 2007, opiates other than heroin were reported as primary drugs in 5.8 percent of statewide treatment admissions (excluding alcohol; exhibit 2), an increase from a low of 3.8 percent in 2002. In Denver, other opiates accounted for between 4.8 and 6.0 percent of treatment admissions (excluding alcohol) between 2001 and 2006 (exhibit 3), and they constituted 5.2 percent of admissions in 2007.

Treatment admissions related to nonheroin opiates have always had higher proportions of females than the other four major illicit drugs. Statewide, females totaled 55.4 percent of other opiate treatment admissions in 2001, but this proportion dropped to 52.1 percent in 2007 (exhibit 4).

In Denver, females constituted 55.5 percent of nonheroin opiate treatment admissions in 2001; however, this proportion declined to 51.8 percent in 2007 (exhibit 5).

Statewide and in Denver, Whites account for the largest proportion of treatment admissions related to other opiates. Since 2000, the proportion of Whites fluctuated between 81.3 and 87.8 percent statewide, and the proportion was 84.4 percent in 2007 (exhibit 4). African American treatment admissions for other opiates declined from 3.4 percent in 2002 to 1.6 percent in 2007. The proportion of Hispanic other opiate admissions in Colorado rose from 6.5 percent in 2003 to 13.9 percent in 2006, but it declined slightly to 12.7 percent in 2007.

In the Denver metropolitan area, the proportion of White admissions for other opiates declined from 86.3 to 80.3 percent between 2000 and 2002, jumped up to 89.0 percent in 2003, and decreased to 83.8 percent in 2004. In 2007, the proportion of White other opiate admissions was 85.0 percent (exhibit 5). In 2007, African Americans represented 2.3 percent of admissions, down from a high of 5.3 percent in 2002. However, the moderate change in proportion is influenced by the small numbers of African American other opiate admissions (between 8 and 16 from 2000 through 2007). Hispanics accounted for 11.0 percent of Denver area opiate admissions in 2007, the highest proportion since 2001 (12.2 percent). However, the Hispanic proportions vacillated between 5.0 percent and 12.2 percent during the entire 2001 to 2007 time period; this vacillation may also be based on the small numbers of admissions (between 15 and 44 over the 7-year period).

Like heroin users, users of other opiates tend to be older than other drug using groups.

Statewide, the average age of other opiate users entering treatment in 2007 was 36.2 (median=34); slightly more than 1 percent were younger than 18, and 26.7 percent were older than 44. Two age ranges demonstrate a possible trend toward younger users. From 2000 to 2007, the proportion of users age 18 to 34 increased from 33.6 to 49.2 percent, while those 35 and older declined from 64.5 percent in 2000 to 49.6 percent in 2007.

Likewise, in Denver, there was an overall increase in admissions of users of other opiates in clients age 18–34 (31.5 to 48.1 percent from 2000 through 2007).

Nonheroin opiates are most often taken orally. Statewide, between 2000 and 2007, the proportion of admissions ingesting other opiates orally ranged from 83.5 to 86.7 percent. In 2007, 4.7 and 7.6 percent, respectively, inhaled and injected other opiates (exhibit 4). From 2000 to 2005, the proportions injecting declined from 12.3 to 8.3 percent, increased in 2006 to 9.4 percent, but declined again in 2007 to 7.6 percent. The proportion inhaling increased from 0.6 to 7.9 percent from 2000 through 2006 but declined slightly to 4.7 percent in 2007. Perhaps the overall increase in other opiate inhalation reflects the practice of crushing and inhaling oxycodone in the form of OxyContin®.

Denver's proportions were similar to statewide figures. The proportion of other opiate admissions ingesting orally ranged from 89.0 percent in 2000 to 86.0 percent in 2007 (exhibit 5). The 2007 proportions that inhaled and injected were 4.0 and 7.8 percent, respectively. The Denver area had not shown the same decline as seen statewide in the numbers injecting between 2000 (7.7 percent) and 2006 (10.2 percent), but it did experience a decline in 2007 (7.8 percent). Inhalation increased from 2000 (0.6 percent) to 2005 (7.4 percent), but it decreased to 4.0 percent in 2007.

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

In 2007, first-time other opiate admissions constituted 35.4 percent of treatment admissions

statewide and 31.9 percent in the Denver metropolitan area (exhibit 6). Statewide, the proportion of first-timers increased from 32.5 to 37.6 percent from 2002 to 2005. In Denver, from 2000 to 2007, the proportion of first-timers fluctuated widely between 29.3 and 38.4 percent, with no clear trend.

Among 2007 first-time opiate treatment admissions, the mean and median ages of onset statewide were 27.2 and 25.0, respectively (exhibit 6), decreasing since 2001 from a mean onset age of 28.8 (median age was 28).

Denver showed a similar trend, with a decrease from 2001 to 2006 in the mean age of onset from 29.4 to 27.0 and in the median age from 30.0 to 25.5. In 2007, the mean and median onset ages of Denver area first-time opiate admissions were 26.2 and 24.0, respectively (exhibit 6).

In 2007, the mean time to enter treatment for first-time other opiate admissions was 7.6 years statewide and 7.5 years for the Denver metropolitan area (exhibit 6). Statewide, the mean time to enter treatment declined from 12.1 years in 2003. Denver showed a similar decline from 13.4 years in 2003.

In 2007, 27.1 percent of users of other opiates entering their first treatment in Colorado and 22.2 percent in Denver had been using less than 3 years (exhibit 6). Statewide, this proportion was at its lowest (19.5 percent) in 2002, and it jumped to 26.3 percent in 2004. In Denver, the proportion of new users in treatment increased from 17.5 to 27.9 percent from 2002 through 2006.

In 2007, the unweighted DAWN *Live!* data show 2,439 ED reports for opiates/opioids.

In 2003, statewide mortality data showed 247 deaths (5.4 per 100,000) related to all opiates (including heroin, morphine, other opioids, and narcotics). In 2003, other opiate-related deaths in the Denver/Aurora County area totaled 138, excluding those involving suicide (exhibit 8). In 2004, heroin deaths were categorized separately from all other opiates; that year there were 22 heroin deaths and 238 other opiate-related deaths. In 2005 and 2006, there were 301 and 335 deaths,

respectively, related to the use of opioids other than heroin.

As noted earlier, Denver metropolitan hospital discharge data from 2000 to 2007 combined all narcotic analgesics and opiates, including heroin. While trends in this indicator for heroin alone could not be assessed, this indicator for all opiates increased steadily, with the rate increasing from 133 per 100,000 in 2000 to 173 per 100,000 in 2005. The rate declined to 159 per 100,000 in 2006 but increased to 179 per 100,000 in 2007 (an overall increase of 35 percent from 2000) (exhibit 9).

There were no poison control center calls reported for opiates other than heroin and morphine.

Some local clinicians and outreach workers reported that a portion of heroin users were switching to prescription narcotics. However, this did not seem to be widespread, and other outreach workers claimed it did not happen at all, or that those who did switch eventually returned to “street drugs” (i.e., heroin). Conversely, clinicians in a local treatment program heard that some users who were addicted to prescription opiates started to use heroin when they could not get opiates on the street. One outreach worker said that heroin users may have used prescription narcotics to “stay well” if they periodically were unable to obtain heroin.

Almost all local clinical and outreach workers reported that the increase in other opiate use was due to the easy access to a variety of prescription narcotics (e.g., Vicodin®, Percodan®, or Percocet®). These drugs are as close as the medicine cabinet, or the Internet. Many prescription narcotic users “doctor shop” or simply go to the ED. One treatment client claimed he went to the ED 40 times to obtain drugs, while another client claimed he could “score” prescription pain medication from an ophthalmologist.

A worker in a local outreach program reported the existence of “Tupperware parties,” where “users traded drugs with middle aged housewives—as it seems 45- to 60-year-old White women can get a prescription for anything.”

Methamphetamine

Methamphetamine ranked second in statewide treatment admissions (excluding alcohol) and third in Denver area treatment admissions, poison calls, and drug samples analyzed by NFLIS. For hospital discharges and deaths, methamphetamine was not reported separately, but included in the general category of “amphetamines and stimulants,” which ranked third on both of these indicators.

In 2007, methamphetamine was the primary drug reported for 29.5 percent of all treatment admissions (excluding alcohol) statewide (exhibit 2), down from 30.4 percent in 2006. Prior to 2006, methamphetamine admissions rose steadily from 16.5 percent in 2001 to a high of 31.7 percent in 2005. In 2003, methamphetamine exceeded cocaine in illicit drug admissions, and it has been second to marijuana admissions ever since.

There were fewer methamphetamine treatment admissions (21.7 percent) in the Denver metropolitan area in 2007 than statewide. While the proportion of methamphetamine admissions (excluding alcohol) in Denver rose each year (from 11.3 to 21.6 percent from 2000 through 2006), there was only a slight increase to 21.7 percent in 2007. Moreover, while Denver area methamphetamine admissions exceeded heroin admissions in 2004 and surpassed heroin and cocaine admissions in 2005, the volume of Denver area methamphetamine admissions dropped below cocaine admissions again in 2006 and 2007.

After admissions for nonheroin opiates, methamphetamine admissions had the highest proportion of females both statewide and in Denver (46.2 and 44.9, respectively, in 2007; exhibits 4 and 5). Statewide, the proportion of female admissions for four main drug categories stayed between 45.1 and 50.4 percent from 2000 through 2003, decreased to 44.0 percent in 2004, and rose to 46.0 and 46.7 percent in 2005 and 2006, respectively. However, the proportion of females declined slightly to 46.2 in 2007.

In the Denver area, the proportions of female methamphetamine admissions were 50.0 and 50.4

percent in 2000 and 2001, respectively. The proportion decreased to 45.9 percent in 2002, jumped to a high of 52.7 percent in 2003, declined to a low of 43.6 percent in 2004 and 2005, and rose to 45.3 percent in 2006. There was a small decline in the proportion of female methamphetamine admissions (44.9 percent) in 2007.

Methamphetamine admissions in Colorado and Denver were predominately White (79.7 and 79.5 percent, respectively, in 2007; exhibits 4 and 5). From 2000 to 2007, the proportions of White treatment admissions declined from 87.8 to 79.7 percent statewide and from 90.1 to 79.5 percent in the Denver area. At the same time, the proportions of Hispanic/Latino methamphetamine admissions rose from 8.5 to 15.8 percent statewide and 7.0 to 14.7 percent in Denver.

Compared with cocaine, methamphetamine admissions tended to be younger. In 2007, the average age of clients entering treatment was 31.3 (median=30.0) statewide and 31.8 (median=31.0) for Denver admissions. Also, 25.3 percent of statewide admissions and 21.5 percent of Denver admissions were younger than 25. Statewide, 65.6 percent of admissions were clients age 25 to 44, compared with 69.4 percent for the Denver area.

Statewide in 2007, the proportions of clients who smoked, injected, or inhaled methamphetamine were 65.2, 20.2, and 11.8 percent, respectively (exhibit 4). The proportion who smoked increased dramatically from 2000 (38.7 percent) to 2007 (65.2 percent), while the proportions who injected and inhaled both decreased substantially during that time. Injectors decreased from 33.9 to 20.2 percent, and inhalers declined from 21.5 to 11.8 percent.

During 2007 in the Denver area, the proportions that smoked, injected, or inhaled methamphetamine were 61.4, 20.1, and 15.1 percent, respectively (exhibit 5). As with the State overall, the proportion that smoked increased substantially from 35.6 to 65.7 percent from 2000 to 2006. However, this proportion dropped to 61.4 percent in 2007. Similarly, those who injected declined from 38.5 to 18.2 percent from 2000 to 2006, but this percentage also increased to 20.1 percent in

2007. While there appears to be an overall downward trend, the proportion of inhalers declined from 19.8 to 9.4 percent from 2000 to 2003, but during 2004 through 2007, the proportions were 12.7, 15.1, 12.3 and 15.1 percent, respectively.

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

In 2007, 33.6 percent of methamphetamine admissions statewide and 33.0 percent in Denver were first-timers (exhibit 6). Statewide, the proportion of first-time admissions declined from 44.9 in 2000 to 33.6 in 2007. In Denver, the proportion of first-time methamphetamine admissions remained between 33.0 and 35.8 percent between 2000 and 2007.

Statewide, the proportion of new users among first-time admissions rose from 19.5 to 27.8 percent from 2000 to 2003. In 2004, the proportion of new users declined to 24.9 percent, and the proportions in 2005 and 2006 were 26.0 and 21.5 percent, respectively. However, the statewide methamphetamine new user proportion declined to 17.8 percent in 2007, the lowest percentage in the 8-year time period. In Denver, the proportion of new users in treatment increased from 14.3 percent in 2000 to 28.2 percent in 2003, declined to 23.4 percent in 2004, and was at 26.1 and 20.8 percent, respectively, in 2005 and 2006. However, like the State, the Denver metropolitan area methamphetamine new user proportion also declined in 2007 (17.6 percent).

The average age of onset for methamphetamine use reported in 2007 by first-time admissions was 22.1 (median=19.0) statewide and 22.7 (median=20.0) for Denver (exhibit 6). Since 2000, the mean age of onset for methamphetamine admissions statewide and Denver stayed between 20 and 23. The median age remained at 19 statewide and 20 in the Denver area (exhibit 6).

From 2000 to 2005, the average time for methamphetamine abusers to enter treatment decreased from 8.7 to 7.5 years statewide and from 9.1 to 7.6 years in Denver. In 2006, the average time to enter treatment rose to 8.5 and 8.4 years, respectively,

for statewide and Denver area admissions, and it remained at approximately those durations in 2007 for both statewide (8.6 years) and Denver (8.5 years) admissions (exhibit 6).

The unweighted DAWN *Live!* ED data for the Denver PMSA show 779 reports for methamphetamine in 2007, accounting for 8.9 percent of illicit drug reports, excluding alcohol (exhibit 7).

Methamphetamine-related deaths were reported under the "Stimulant" category in both DAWN (2003) and CDPHE data (2004–2006) (exhibit 8). From 2003 through 2006, there were 47, 45, 70, and 42 stimulant-related deaths reported statewide.

Methamphetamine was also included in the stimulants category in hospital discharge data. Overall, Denver metropolitan amphetamine-related hospital discharges nearly tripled from 2000 to 2005, from 44 per 1000,000 to 129 per 100,000 (exhibit 9), but they then dropped in 2006 and 2007 (85 and 76 per 100,000, respectively).

In 2004, methamphetamine-related poison calls in the Denver area exceeded cocaine-related calls. In 2005, methamphetamine accounted for the highest number of calls ($n=127$) statewide out of all street drugs (exhibit 10). However, the number of methamphetamine calls statewide dropped drastically in 2006 (to 29) and 2007 (31).

While the numbers of Federal drug seizures/laboratory closures increased dramatically from 2000 through 2002, they have declined steadily since then (exhibit 11). Factors contributing to this decline include the enactment of legislation restricting the purchase of cold medicines and other precursor chemicals, the effectiveness of law enforcement, and increased community awareness and cooperation with law enforcement that has kept labs at bay.

Despite the decline in laboratory closures, however, the quantity of methamphetamine seized in law enforcement raids rose from 2003 (14.8 kilograms) to 2006 (50.3 kilograms), but declined sharply in 2007 (8 kilograms). Overall, Denver Vice Detectives reported that the larger quantities of methamphetamine being seized from 2003 to 2006 could be attributed to an increase in

Colorado's supply of Mexican methamphetamine that compensated for a decrease in local production. Mexican methamphetamine historically has the reputation of having lower purity levels than locally produced methamphetamine, but local law enforcement sources reported increased purity levels and prices. It has been surmised that prices have increased based on increasing competition between Mexican drug trafficking organizations in obtaining precursor chemicals, which are becoming harder to get in Mexico.

The proportion of methamphetamine samples analyzed in NFLIS reporting labs increased dramatically statewide from 2000 to 2005 (11.7 to 25.5 percent), but began to decline slightly in 2006 (23.0 percent). This same pattern was realized in the city and county of Denver, where the proportion of methamphetamine samples increased from 2000 to 2005 (9.8 to 15.9 percent) but declined in 2006 (13.8 percent). As a proportion of all drug samples analyzed, methamphetamine percentages were typically somewhat smaller than both cocaine and marijuana statewide and in Denver for the entire time period shown (exhibit 12).

Local law enforcement officials reported that the vast majority, at least 95 percent, of available methamphetamine in Colorado was produced in Mexico, and the rest was from local sources (i.e., decline in local lab seizures previously discussed). However, recent conversations with the DEA point out that Mexico is cracking down on precursor chemicals. This crackdown has already been translated into methamphetamine supply problems and higher prices for border States. While this has not affected the supply or prices yet in Denver, it could translate into lower supplies, higher prices, and a resurgence of local lab activity in the near future.

Related to local lab activity, one outreach agency reported that some local methamphetamine cookers were using the "one-pot method," in which anhydrous ammonia, water, pseudoephedrine tablets, and the reactive metal lithium are combined into one container for an easier and less complicated "cooking process."

Several Denver metropolitan area clinicians and outreach workers reported that many stimulant users prefer methamphetamine over cocaine because of its cheaper price, ready availability, and longer lasting high. Because of this longer lasting high, it continues to be described as a drug that gives users the energy to work multiple jobs.

Local clinicians and outreach workers also reported that some leveling in the methamphetamine treatment admission trend does not necessarily relate to lower use, but was related to the local lore that treatment did not work very well for methamphetamine users. In addition, the decline in treatment admissions among female methamphetamine users is ascribed by clinicians to the concern that social services will intervene and separate mothers from their children. Conversely, clinicians said that the increase in Hispanic/Latino methamphetamine treatment admissions was largely due to several things: (1) the association with trafficking by Mexican cartels and the drug's increased presence in neighborhoods with substantial percentages of Hispanics/Latinos; (2) cultural delays that took longer to break strong Hispanic/Latino family bonds; and (3) the acculturation process itself, in which Hispanics/Latinos engaged in activities that other parts of American society are involved in, such as drug use.

Some outreach workers spoke of increased methamphetamine use among gay men, including use in "bathhouses."

Marijuana

Of the five major illicit drugs, marijuana ranked first in treatment admissions and amounts seized and second in ED reports, hospital discharges, and in poison control center calls (all stable from 2006). Excluding alcohol, marijuana has continued to account for the highest numbers of treatment admissions statewide and in the Denver area, but the percentage of statewide treatment admissions for marijuana has decreased from 42.3 percent in 2001 to 34.7 percent in 2007 (exhibit 2).

In Denver, the proportions of marijuana admissions also declined from 37.3 percent in

2001 to 32.3 percent in 2003. However, they jumped up to 38.5 percent in 2004, represented 37.0 percent in 2006, and declined to 36.6 percent in 2007 (exhibit 3).

Historically, marijuana admissions have represented the highest proportion of males among drug groups. In 2007, 76.9 percent of marijuana admissions statewide and 78.5 percent in Denver were male (exhibits 4 and 5). In prior years, the proportions of males were anywhere from 72.3 to 76.2 percent statewide; however, in Denver, the proportion of males increased substantially from 69.3 percent in 2003 to 78.0 percent in 2005.

In 2007, Whites, Hispanics, and African Americans totaled 51.8, 30.2, and 13.6 percent of marijuana admissions, respectively, statewide (exhibit 4). From 2000 to 2006, the proportion of White admissions decreased from 58.3 to 52.0 percent. However, the proportion of African American marijuana admissions increased between 2000 (7.4 percent) and 2006 (14.6 percent). The proportion of Hispanics decreased from 30.7 to 26.2 percent from 2000 to 2003, increased to 30.0 percent in 2005, decreased to 28.4 percent in 2006, but increased again to 30.2 percent in 2007.

In Denver, there was a clear downward trend in the proportion of White marijuana admissions from 2000 to 2005 (58.2 to 41.6 percent), with an increase in 2006 to 44.4 percent, followed by another decline to 43.2 percent in 2007 (exhibit 5). There was a consistent rise in African American admissions from 11.5 percent in 2000 to 21.4 percent in 2005, but this proportion declined to 21.1 and 20.1 percent in 2006 and 2007, respectively. As with the statewide trend, the proportion of Hispanics declined from 2001 to 2003 (27.1 to 24.6 percent), but it increased to 32.1 percent in 2005. This was followed by a decline to 29.9 percent in 2006 and an increase to 32.3 percent in 2007.

In Colorado and Denver, marijuana users were typically the youngest of the treatment admissions groups. In 2007, the average age of marijuana users entering treatment was 25.0 (median=23) statewide and 23.7 (median=21) in Denver. For both the State and Denver, there

appeared to be slight upward trends in the age of treatment admissions. From 2000 to 2006, the median age increased from 18 to 22 statewide and from 17 to 20 in Denver.

Treatment data overall showed that marijuana users most often used alcohol as a secondary drug (exhibits 4 and 5).

Statewide in 2007, 50.0 percent of marijuana admissions were in treatment for the first time (exhibit 6), a decline from 59.7 percent in 2001. Of 2007 Denver area admissions, 52.0 percent entered their first treatment episode, a decline from 60.2 percent in 2001.

Marijuana users not only tended to be the youngest of drug-using groups, but they also started to use at the youngest age. In 2007, the mean and median ages of onset for first-time admissions statewide were 14.2 and 14.0, respectively (exhibit 6). For the Denver area, the mean and median ages of onset for those in treatment the first-time were both 14.0. Since 2000, age of onset has remained stable statewide and for Denver area admissions.

Statewide in 2007, 22.5 percent of marijuana users had been using less than 3 years (exhibit 6) before entering treatment for the first time, a decrease from 33.4 percent in 2003. In Denver, the proportion of new users entering their first treatment episode decreased from 37.8 to 24.6 percent from 2003 to 2007.

In 2007, the mean time to enter treatment for the first time was 9.2 years statewide and 8.2 years for Denver area admissions (exhibit 6). For the State as a whole and the Denver area, both the mean and median times to enter treatment increased since 2000 (by 2 years, statewide, and by 3 years in Denver).

In 2007, there were 2,249 ED marijuana reports; these accounted for 25.8 percent of the illicit drug reports (exhibit 7).

CDPHE reported that the marijuana-related mortality data for the Denver PMSA has been quite small, ranging from 1 in 1996 to a peak of 31 in 2001, with a decline to 5 in 2002. The annual numbers of cases since 2003 have been too small to report.

Denver metropolitan marijuana-related hospital discharges increased steadily from 2000 (140 per 100,000) to 2006 (207 per 100,000) and then decreased in 2007 to 181 per 100,000 (exhibit 9).

From 2002 through 2004, the number of marijuana poison control center calls in the Denver area declined from 37 to 29; statewide there were 68 marijuana calls in 2004 and 78 in 2005, followed by a decrease to 45 in 2006 and an increase to 70 calls in 2007 (exhibit 10).

Statewide Federal drug seizures for marijuana (exhibit 11), after increasing from 2003 (444.1 kilograms) to 2004 (774.6 kilograms), decreased in 2005 (765.6 kilograms) and 2006 (656.8 kilograms). However, marijuana seizures nearly doubled in 2007 (1,149.5 kilograms) over 2006.

As a proportion of all drugs samples analyzed in NFLIS reporting labs, cannabis/marijuana samples increased fairly steadily over time for Colorado and the city and county of Denver (exhibit 12). Marijuana followed cocaine as the second largest proportion of all drug samples analyzed statewide and in Denver.

Local law enforcement reported that all Mexican DTOs were smuggling, transporting, and distributing marijuana as a staple income cash crop to support their other illicit drug trafficking activities. In the Denver metropolitan area, Mexican marijuana was of low purity and high availability. BC Bud (high potency marijuana from British Columbia) was expensive and was “challenged as a source of supply by Asian growers in Colorado establishing multiple grow houses to compete and often undercut BC Bud traffickers.” One local outreach worker reported that “Kind Bud,” locally grown or brought in from the Pacific Northwest, was even more potent than BC Bud but was more expensive.

Local clinicians reported that “blunts” (pot mixed with crack and rolled up in the outer layer of a cigar) were still common among African American and Hispanic/Latino males. They also reported that African American and Hispanics/Latinos were more often profiled for arrest, while “Whites are often given a ticket and referred to an 8-hour class.”

Other Drugs

This section covers five categories of drugs: other depressants (including barbiturates, benzodiazepines, tranquilizers, and other sedatives/hypnotics); stimulants and amphetamines other than cocaine, and, in some data sources, methamphetamine; club drugs; hallucinogens; and other drugs (over-the-counter drugs, inhalants, steroids, and other nonspecified drugs). The combination of all five categories constituted 2.5 percent of treatment admissions (excluding alcohol) statewide and in the Denver metropolitan area in 2007.

During 2007, there were 16,650 treatment admissions (excluding alcohol) in Colorado, including 127 for other depressants, 36 for other stimulants, 59 for club drugs, 31 for hallucinogens, and 142 for other drugs. The small numbers preclude looking at demographic trends. However, the proportion of treatment admissions decreased slightly since 2000 for all categories except club drugs. The proportion of club drugs, which were not tracked until 2002, remained stable at around 0.3 percent (exhibit 2).

In 2007, there were 159 ED reports for methylenedioxymethamphetamine (MDMA) (exhibit 7), 16 for gamma hydroxybutyrate (GHB), 81 for lysergic acid diethylamide (LSD), 16 for phencyclidine (PCP), 72 for miscellaneous hallucinogens, and 79 for inhalants and other combinations not specified.

In 2006, there were 42 deaths statewide related to stimulants other than cocaine. Before 2003, methamphetamine deaths were reported separately, but since 2003, methamphetamine-related deaths have been reported within the general category of “other stimulants/amphetamines.”

In 2007 for the Denver metropolitan area, there were 192 hospital discharges related to depressants, 438 involving stimulants/amphetamines (this category excludes cocaine but includes methamphetamine and psycho-stimulants, which are most likely club drugs), and 14 related to hallucinogens. While the hospital discharge rate (per 100,000 population) for the general stimulants/amphetamines category increased

dramatically from 2000 through 2005 (exhibit 9), there was a decline in 2006 and 2007. Moreover, cases involving methamphetamine and club drugs could not be isolated for analysis.

Poison control center calls for other drugs were reported as “other stimulants/amphetamines” (excluding cocaine and methamphetamine) and club drugs. From 2001 through 2003, the numbers of stimulant/amphetamine-related calls in Denver were three in 2001 and 2002, six in 2003, and four in 2004 (exhibit 10). Statewide, the numbers of stimulant calls in 2004 through 2007 were 321, 308, 318, and 257, respectively. Club drug calls for the city of Denver increased from 30 in 2001 to 55 in 2002 and then decreased to 40 in 2003. The numbers of club drug calls statewide in 2004, 2005, 2006, and 2007 were 43, 49, 47, and 49, respectively.

Local law enforcement reported increasing MDMA availability, with the most common source of supply identified as Asians from Canada or California. Local clinicians and outreach workers said that raves had not gone away and that ecstasy was still a major party drug. One clinician reported his first ecstasy client enrolled in residential treatment. An outreach worker described the availability of ecstasy cut with methamphetamine, a way to get MDMA users hooked into the circle of methamphetamine users.

One downtown Denver outreach worker emphasized that there should be a more concentrated effort to educate law enforcement and hospital emergency rooms about GHB, which is readily available and heavily addictive.

As is the case with prescription narcotics, local clinicians and outreach workers described the easy availability of prescription benzodiazepines (e.g., Valium®, Xanax®, Ativan®) and related

drugs. The drugs are easy to get on the street, in college dorms, on the Internet, at parties and raves, through doctor shopping, or at home in the medicine cabinet. One outreach worker said that some heroin addicts were using benzodiazepines to detoxify from heroin. Another outreach worker said there would be more treatment admissions for “benzo” users if medical detoxification were available.

Some local outreach workers reported the limited availability of powerful hallucinogenic tryptamines including 5MEO-DMT (or 5-Methoxy-N,N-dimethyltryptamine) and Foxy (4-Acetoxy-N,N-diethyltryptamine), as well as the stimulant MBZP (or 1-methyl-4-benzylpiperazine).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE: AIDS AMONG INJECTION DRUG USERS

Of the 9,007 cumulative AIDS cases reported in Colorado through December 31, 2007, 9.2 percent were classified as injection drug users (IDUs), and another 10.7 percent were classified as men who have sex with men (MSMs) and IDUs (exhibit 14). The proportion of newly diagnosed HIV and AIDS cases (not cumulative cases as shown in exhibit 14) attributed to IDU has stayed fairly stable since 2001 (exhibits 15 and 16).

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Exhibit 1. Data Completeness for the Denver Metropolitan Area DAWN Live! EDs¹, by Month: January–December 2007

| Data Completeness | Number of EDs by Month | | | | | | | | | | | |
|-------------------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Basically Complete (90% or greater) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Partially Complete (< 90%) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| No Data Reported | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Total EDs in Sample ¹ | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |

¹Total eligible hospitals in area=15; hospitals in DAWN sample=15; EDs in DAWN Sample=15. Tables reflect cases received by DAWN as of 5/14/07. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/7/08

Exhibit 2. Numbers and Percentages of Treatment Admissions by Primary Drug Type in Colorado: CYs 2001–2007

| Drug | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total |
|-----------------------------------|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Alcohol | <i>n</i> | 6,325 | 6,890 | 7,263 | 9,873 | 10,189 | 11,481 | 10,977 | 62,998 |
| | % | 38.6 | 38.8 | 37.8 | 40.7 | 38.8 | 40.9 | 39.7 | 39.5 |
| Marijuana | <i>n</i> | 4,255 | 4,367 | 4,236 | 5,305 | 5,568 | 5,653 | 5,783 | 35,167 |
| | % | 26.0 | 24.6 | 22.0 | 21.9 | 21.2 | 20.1 | 20.9 | 22.0 |
| | (excluding alcohol) % | 42.3 | 40.2 | 35.4 | 36.8 | 34.7 | 34.0 | 34.7 | 36.4 |
| Methamphetamine | <i>n</i> | 1,664 | 2,078 | 2,794 | 3,846 | 5,084 | 5,053 | 4,914 | 25,433 |
| | % | 10.2 | 11.7 | 14.5 | 15.8 | 19.4 | 18.0 | 17.8 | 15.9 |
| | (excluding alcohol) % | 16.5 | 19.1 | 23.3 | 26.7 | 31.7 | 30.4 | 29.5 | 26.3 |
| Cocaine | <i>n</i> | 1,889 | 2,215 | 2,368 | 3,034 | 2,929 | 3,476 | 3,374 | 19,285 |
| | % | 11.5 | 12.5 | 12.3 | 12.5 | 11.2 | 12.4 | 12.2 | 12.1 |
| | (excluding alcohol) % | 18.8 | 20.4 | 19.8 | 21.1 | 18.3 | 20.9 | 20.3 | 20.0 |
| Heroin | <i>n</i> | 1,483 | 1,425 | 1,676 | 1,273 | 1,421 | 1,271 | 1,223 | 9,772 |
| | % | 9.0 | 8.0 | 8.7 | 5.2 | 5.4 | 4.5 | 4.4 | 6.1 |
| | (excluding alcohol) % | 14.7 | 13.1 | 14.0 | 8.8 | 8.9 | 7.6 | 7.3 | 10.1 |
| Other Opiates ¹ | <i>n</i> | 395 | 412 | 541 | 614 | 713 | 824 | 961 | 4,460 |
| | % | 2.4 | 2.3 | 2.8 | 2.5 | 2.7 | 2.9 | 3.5 | 2.8 |
| | (excluding alcohol) % | 3.9 | 3.8 | 4.5 | 4.3 | 4.4 | 5.0 | 5.8 | 4.6 |
| Depressants ² | <i>n</i> | 64 | 159 | 131 | 101 | 97 | 121 | 127 | 800 |
| | % | 0.4 | 0.9 | 0.7 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 |
| | (excluding alcohol) % | 0.6 | 1.5 | 1.1 | 0.7 | 0.6 | 0.7 | 0.8 | 0.8 |
| Other Amphetamines/ Stimulants | <i>n</i> | 91 | 105 | 78 | 56 | 57 | 52 | 36 | 475 |
| | % | 0.6 | 0.6 | 0.4 | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 |
| | (excluding alcohol) % | 0.9 | 1.0 | 0.7 | 0.4 | 0.4 | 0.3 | 0.2 | 0.5 |
| Hallucinogens ³ | <i>n</i> | 73 | 43 | 31 | 27 | 33 | 35 | 31 | 273 |
| | % | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| | (excluding alcohol) % | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 |
| Club Drugs ⁴ | <i>n</i> | NA | 12 | 37 | 56 | 50 | 47 | 59 | 261 |
| | % | NA | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| | (excluding alcohol) % | NA | 0.1 | 0.3 | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 |
| Other ⁵ | <i>n</i> | 151 | 59 | 77 | 90 | 92 | 88 | 142 | 699 |
| | % | 0.9 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.4 |
| | (excluding alcohol) % | 1.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.9 | 0.7 |
| Total | N | 16,390 | 17,765 | 19,232 | 24,275 | 26,233 | 28,101 | 27,627 | 159,623 |
| | (excluding alcohol) N | 10,065 | 10,875 | 11,969 | 14,402 | 16,044 | 16,620 | 16,650 | 96,625 |

¹Includes nonprescription methadone and other opiates and synthetic opiates.

²Includes barbiturates, benzodiazepine tranquilizers, clonazepam, and other sedatives.

³Includes LSD, PCP, and other hallucinogens.

⁴Includes Rohypnol®, ketamine (Special K), GHB, and MDMA (ecstasy).

⁵Includes inhalants, over-the-counter drugs, and other drugs not specified.

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

Exhibit 3. Numbers and Percentages of Treatment Admissions by Primary Drug Type in the Denver/ Boulder Metropolitan Area: CYs 2001–2007

| Drug | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total |
|-----------------------------------|------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Alcohol | <i>n</i> | 2,496 | 2,009 | 2,360 | 3,551 | 3,575 | 4,408 | 4,321 | 22,720 |
| | % | 33.4 | 31.9 | 29.1 | 33.6 | 33.1 | 36.0 | 35.9 | 33.6 |
| Marijuana | <i>n</i> | 1,855 | 1,466 | 1,859 | 2,703 | 2,695 | 2,901 | 2,824 | 16,303 |
| | % | 24.8 | 23.3 | 22.9 | 25.6 | 24.9 | 23.7 | 23.5 | 24.1 |
| | <i>(excluding alcohol)</i> % | 37.3 | 34.2 | 32.3 | 38.5 | 37.2 | 37.0 | 36.6 | 36.4 |
| Methamphetamine | <i>n</i> | 564 | 516 | 946 | 1,271 | 1,494 | 1,696 | 1,672 | 8,159 |
| | % | 7.5 | 8.2 | 11.7 | 12.0 | 13.8 | 13.8 | 13.9 | 12.1 |
| | <i>(excluding alcohol)</i> % | 11.3 | 12.1 | 16.4 | 18.1 | 20.6 | 21.6 | 21.7 | 18.2 |
| Cocaine | <i>n</i> | 1,028 | 960 | 1,264 | 1,619 | 1,460 | 1,849 | 1,807 | 9,987 |
| | % | 13.8 | 15.3 | 15.6 | 15.3 | 13.5 | 15.1 | 15.0 | 14.8 |
| | <i>(excluding alcohol)</i> % | 20.7 | 22.4 | 21.9 | 23.1 | 20.2 | 23.6 | 23.4 | 22.3 |
| Heroin | <i>n</i> | 1,176 | 979 | 1,226 | 922 | 1,007 | 810 | 807 | 6,927 |
| | % | 15.7 | 15.6 | 15.1 | 8.7 | 9.3 | 6.6 | 6.7 | 10.3 |
| | <i>(excluding alcohol)</i> % | 23.6 | 22.9 | 21.3 | 13.1 | 13.9 | 10.3 | 10.5 | 15.5 |
| Other Opiates ¹ | <i>n</i> | 238 | 208 | 300 | 340 | 434 | 412 | 400 | 2,332 |
| | % | 3.2 | 3.3 | 3.7 | 3.2 | 4.0 | 3.4 | 3.3 | 3.5 |
| | <i>(excluding alcohol)</i> % | 4.8 | 4.9 | 5.2 | 4.8 | 6.0 | 5.3 | 5.2 | 5.2 |
| Depressants ² | <i>n</i> | 32 | 79 | 55 | 47 | 45 | 57 | 48 | 363 |
| | % | 0.4 | 1.3 | 0.7 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 |
| | <i>(excluding alcohol)</i> % | 0.6 | 1.8 | 1.0 | 0.7 | 0.6 | 0.7 | 0.6 | 0.8 |
| Other Amphetamines/ Stimulants | <i>n</i> | 25 | 34 | 31 | 24 | 21 | 34 | 17 | 186 |
| | % | 0.3 | 0.5 | 0.4 | 0.2 | 0.2 | 0.3 | 0.1 | 0.3 |
| | <i>(excluding alcohol)</i> % | 0.5 | 0.8 | 0.5 | 0.3 | 0.3 | 0.4 | 0.2 | 0.4 |
| Hallucinogens ³ | <i>n</i> | 31 | 15 | 18 | 16 | 17 | 25 | 17 | 139 |
| | % | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 |
| | <i>(excluding alcohol)</i> % | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 |
| Club Drugs ⁴ | <i>n</i> | NA | 5 | 22 | 29 | 24 | 24 | 39 | 143 |
| | % | NA | 0.1 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 |
| | <i>(excluding alcohol)</i> % | NA | 0.1 | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | 0.3 |
| Other ⁵ | <i>n</i> | 29 | 19 | 39 | 41 | 40 | 37 | 75 | 280 |
| | % | 0.4 | 0.3 | 0.5 | 0.4 | 0.4 | 0.3 | 0.6 | 0.4 |
| | <i>(excluding alcohol)</i> % | 0.6 | 0.4 | 0.7 | 0.6 | 0.6 | 0.5 | 1.0 | 0.6 |
| Total | N | 7,474 | 6,290 | 8,120 | 10,563 | 10,812 | 12,253 | 12,027 | 67,539 |
| (excluding alcohol) | N | 4,978 | 4,281 | 5,760 | 7,012 | 7,237 | 7,845 | 7,706 | 44,819 |

¹Includes nonprescription methadone and other opiates and synthetic opiates.

²Includes barbiturates, benzodiazepine tranquilizers, clonazepam, and other sedatives.

³Includes LSD, PCP, and other hallucinogens.

⁴Includes Rohypnol®, ketamine (Special K), GHB, and MDMA (ecstasy).

⁵Includes inhalants, over-the-counter drugs, and other drugs not specified.

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

Exhibit 4. Demographic Characteristics of Clients Admitted to Treatment in the State of Colorado, by Percent: January–December 2007

| Characteristics | Alcohol ¹ Only or In Combo | Cocaine | Heroin | Other Opiates | Mari- juana | Meth- amphet- amine | Other Stimu- lants ² | Seda- tives | Hallu- cino- gins | Club Drugs | All Other ³ |
|-----------------------------|---|----------------|----------------|------------------|----------------|-----------------------------|---------------------------------------|----------------|-------------------------|----------------|---------------------------|
| Total (N=27,624) | (10,977) | (3,374) | (1,223) | (961) | (5,781) | (4,913) | (36) | (127) | (31) | (59) | (142) |
| Gender | | | | | | | | | | | |
| Male | 70.0 | 60.9 | 67.0 | 47.9 | 76.9 | 53.8 | 58.3 | 39.4 | 83.9 | 55.9 | 73.9 |
| Female | 30.0 | 39.1 | 33.0 | 52.1 | 23.1 | 46.2 | 41.7 | 60.6 | 16.1 | 44.1 | 26.1 |
| Race/Ethnicity | | | | | | | | | | | |
| White | 66.8 | 43.3 | 69.3 | 84.4 | 51.8 | 79.7 | 86.1 | 77.2 | 48.4 | 66.1 | 50.7 |
| African American | 5.5 | 18.3 | 5.6 | 1.6 | 13.6 | 1.6 | 2.8 | 2.4 | 19.4 | 3.4 | 9.9 |
| Hispanic | 22.7 | 34.8 | 21.4 | 12.7 | 30.2 | 15.8 | 11.1 | 11.8 | 22.6 | 20.3 | 31.0 |
| Other | 5.1 | 3.5 | 3.7 | 1.3 | 4.4 | 2.9 | 0.0 | 8.7 | 9.7 | 10.2 | 8.4 |
| Age at Admission | | | | | | | | | | | |
| Younger than 18 | 3.8 | 1.8 | 0.2 | 1.4 | 28.6 | 2.1 | 0.0 | 3.9 | 6.5 | 27.1 | 12.0 |
| 18 to 24 | 16.6 | 12.9 | 14.4 | 14.5 | 28.9 | 23.2 | 16.7 | 12.6 | 45.2 | 25.4 | 18.3 |
| 25 to 34 | 25.5 | 28.7 | 32.7 | 34.7 | 25.5 | 40.7 | 27.8 | 29.9 | 29.0 | 32.2 | 28.9 |
| 35-44 | 27.2 | 33.5 | 22.6 | 22.9 | 11.7 | 24.9 | 25.0 | 30.7 | 9.7 | 8.5 | 25.4 |
| 45-54 | 20.9 | 20.8 | 20.5 | 19.5 | 4.8 | 8.3 | 27.8 | 14.2 | 9.7 | 6.8 | 10.6 |
| 55 and older | 5.9 | 2.3 | 9.5 | 7.2 | 0.5 | 0.8 | 2.8 | 8.7 | 0 | 0.0 | 4.9 |
| Route of Ingestion | | | | | | | | | | | |
| Smoking | 0.3 | 58.3 | 9.2 | 1.1 | 93.6 | 65.2 | 25.0 | 18.9 | 22.6 | 39.0 | 12.0 |
| Inhaling | 1.1 | 33.0 | 7.6 | 4.7 | 4.0 | 11.8 | 25.0 | 4.7 | 6.5 | 5.1 | 12.0 |
| Injecting | 0.1 | 6.6 | 82.0 | 7.6 | 0.1 | 20.2 | 22.2 | 2.4 | 0.0 | 6.8 | 2.1 |
| Oral/Other | 98.5 | 2.1 | 1.1 | 86.6 | 2.3 | 2.7 | 27.8 | 74.0 | 71.0 | 49.2 | 73.9 |
| Secondary Drug | | | | | | | | | | | |
| Marijuana | Alcohol | Cocaine | Alcohol | Alcohol | Mari- juana | Mari- juana | Alcohol | Mari- juana | Mari- juana | Mari- juana | Alcohol |
| 24.1 | 32.5 | 29.7 | 15.5 | 41.5 | 32.4 | 30.6 | 26.8 | 38.7 | 37.3 | 15.5 | |
| Tertiary Drug | | | | | | | | | | | |
| Marijuana | Alcohol | Mari- juana | Mari- juana | Alcohol | Alcohol | Cocaine & Mari- juana | Mari- juana | Alcohol | Alcohol | Mari- juana | |
| 5.0 | 13.8 | 12.1 | 7.8 | 8.2 | 14.2 | 11.1 | 9.4 | 25.8 | 11.9 | 9.2 | |

¹Includes alcohol only or in combination with other drugs.

²Includes other stimulants (e.g., Ritalin®, etc.) and amphetamines (Benzedrine®, Dexadrine®, Desoxyn®, etc.).

³Includes over-the-counter drugs, inhalants, anabolic steroids, and other nonclassified substances.

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

Exhibit 5. Demographic Characteristics of Clients Admitted to Treatment in Denver/Boulder Metropolitan Area, by Percent: January–December 2007

| Characteristics | Alcohol ¹ Only or In Combo | Cocaine | Heroin | Other Opiates | Mari- juana | Meth- amphet- amine | Other Stimu- lants ² | Seda- tives | Hallu- cino- gins | Club Drugs | All Other ³ |
|-----------------------------|---|----------------|----------------|------------------|----------------|---------------------------|---------------------------------------|----------------|-------------------------|----------------|---------------------------|
| Total (N=12,026) | (4,321) | (1,807) | (807) | (400) | (2,823) | (1,672) | (17) | (48) | (17) | (39) | (75) |
| Gender | | | | | | | | | | | |
| Male | 67.3 | 60.3 | 67.0 | 48.3 | 78.5 | 55.1 | 58.8 | 39.6 | 82.4 | 53.8 | 73.3 |
| Female | 32.7 | 39.7 | 33.0 | 51.8 | 21.5 | 44.9 | 41.2 | 60.4 | 17.6 | 46.2 | 26.7 |
| Race/Ethnicity | | | | | | | | | | | |
| White | 65.8 | 40.6 | 65.7 | 85.0 | 43.2 | 79.5 | 94.1 | 68.8 | 41.2 | 61.5 | 41.3 |
| African American | 7.1 | 22.8 | 7.2 | 2.3 | 20.1 | 2.3 | 5.9 | 4.2 | 29.4 | 5.1 | 14.7 |
| Hispanic | 21.7 | 32.2 | 23.3 | 11.0 | 32.3 | 14.7 | 0.0 | 12.5 | 17.6 | 17.9 | 34.7 |
| Other | 5.3 | 4.4 | 3.9 | 1.8 | 4.3 | 4.5 | 0.0 | 14.6 | 11.8 | 15.4 | 9.3 |
| Age at Admission | | | | | | | | | | | |
| Under 18 | 3.8 | 2.3 | 0.1 | 1.3 | 34.8 | 3.0 | 0.0 | 2.1 | 0.0 | 35.9 | 12.0 |
| 18 to 24 | 16.5 | 11.3 | 12.8 | 12.3 | 29.3 | 18.5 | 17.6 | 16.7 | 58.8 | 25.6 | 14.7 |
| 25 to 34 | 26.1 | 27.4 | 30.9 | 35.8 | 21.7 | 41.4 | 23.5 | 27.1 | 29.4 | 23.1 | 36.0 |
| 35-44 | 28.7 | 33.8 | 23.4 | 24.0 | 10.2 | 28.0 | 29.4 | 27.1 | 5.9 | 7.7 | 21.3 |
| 45-54 | 19.5 | 22.6 | 21.7 | 19.0 | 3.6 | 8.3 | 23.5 | 18.8 | 5.9 | 7.7 | 10.7 |
| 55 and older | 5.4 | 2.6 | 11.2 | 7.8 | 0.4 | 0.8 | 5.9 | 8.3 | 0.0 | 0.0 | 5.3 |
| Route of Ingestion | | | | | | | | | | | |
| Smoking | 0.3 | 55.9 | 9.5 | 1.8 | 91.5 | 61.4 | 29.4 | 18.8 | 41.2 | 25.6 | 4.0 |
| Inhaling | 1.9 | 37.4 | 7.9 | 4.0 | 6.3 | 15.1 | 17.6 | 2.1 | 5.9 | 7.7 | 10.7 |
| Injecting | 0.2 | 5.0 | 81.4 | 7.8 | 0.2 | 20.1 | 29.4 | 4.2 | 0.0 | 5.1 | 1.3 |
| Oral/Other | 97.6 | 1.8 | 1.1 | 86.0 | 2.0 | 3.4 | 23.5 | 75.0 | 53.0 | 61.5 | 84.0 |
| Secondary Drug | | | | | | | | | | | |
| Marijuana | Alcohol | Cocaine | Alcohol | Alcohol | Mari- juana | Mari- juana | Alcohol | Mari- juana | Mari- juana | Mari- juana | Mari- juana |
| 23.2 | 33.0 | 31.0 | 14.3 | 41.3 | 30.1 | 29.4 | 27.1 | 47.1 | 43.6 | 10.7 | |
| Tertiary Drug | | | | | | | | | | | |
| Cocaine & Marijuana | Alcohol | Mari- juana | Mari- juana | Alcohol | Alcohol | Alcohol | Alcohol | Alcohol | Alcohol | Alcohol | Alcohol |
| 5.6,5.2 | 15.4 | 10.5 | 8.8 | 7.5 | 14.7 | 11.8 | 8.3 | 29.4 | 15.4 | 5.3 | |

¹Includes alcohol only or in combination with other drugs.

²Includes other stimulants (e.g., Ritalin®, etc.) and amphetamines (Benzedrine®, Dexadrine®, Desoxyn®, etc.).

³Includes over-the-counter drugs, inhalants, anabolic steroids, and other nonclassified substances.

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

Exhibit 6: Age of Onset, Years to Treatment, and Proportions of New Users (< 3 Years) and New to Treatment (Tx) Admissions for Colorado and the Denver Area: January–December 2007

| Area | | Cocaine (n=3,374) | Heroin (n=1,223) | Other Opiates (n=961) | Metham- phetamine (n=4,914) | Marijuana (n=5,783) |
|------------------------------|--------|----------------------|---------------------|-----------------------------|-----------------------------------|------------------------|
| Age at Onset ¹ | Mean | 23.3 | 24.7 | 27.2 | 22.1 | 14.2 |
| | Median | 21.0 | 22.0 | 25.0 | 19.0 | 14.0 |
| Years to 1st Tx ¹ | Mean | 11.4 | 8.0 | 7.6 | 8.6 | 9.2 |
| | Median | 9.0 | 4.0 | 5.0 | 7.0 | 6.0 |
| % New Users ¹ | | 20.0 | 40.0 | 27.1 | 17.8 | 22.5 |
| % New to Tx. ² | | 29.3 | 17.9 | 35.4 | 33.6 | 50.0 |
| Denver Area | | (n=1,807) | (n=807) | (n=400) | (n=1,672) | (n=2,824) |
| Age at Onset ¹ | Mean | 23.6 | 25.0 | 26.2 | 22.7 | 14.0 |
| | Median | 21.0 | 22.0 | 24.0 | 20.0 | 14.0 |
| Years to 1st Tx ¹ | Mean | 11.8 | 8.8 | 7.5 | 8.5 | 8.2 |
| | Median | 10.0 | 5.0 | 5.0 | 6.0 | 5.0 |
| % New Users ¹ | | 17.3 | 38.6 | 22.2 | 17.6 | 24.6 |
| % New to Tx ² | | 31.8 | 17.0 | 31.9 | 33.0 | 52.0 |

¹Computed for first-time treatment admissions/no prior treatment admissions only.

²Proportion of those with no prior treatment admissions out of all treatment admissions.

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

Exhibit 7. Numbers and Percentages of Reports in Drug-Related ED Visits in Denver¹, by Drug Category (Unweighted²): January–December 2007

| Category/Drug | Number | % Incl. Alcohol | % Excl. Alcohol |
|--|---------------|-----------------|-----------------|
| Alcohol | 5,137 | 37.1 | NA |
| Cocaine | 3,926 | 28.3 | 45.4 |
| Heroin | 925 | 6.7 | 10.6 |
| Marijuana | 2,249 | 16.2 | 25.8 |
| Methamphetamine | 779 | 5.6 | 8.9 |
| Amphetamines | 397 | 2.9 | 4.6 |
| MDMA | 159 | 1.1 | 1.8 |
| GHB | 16 | 0.1 | 0.2 |
| Flunitrazepam (Rohypnol®) | 4 | 0.03 | 0.05 |
| Ketamine | 12 | 0.09 | 0.1 |
| LSD | 81 | 0.6 | 0.9 |
| PCP | 16 | 0.1 | 0.2 |
| Miscellaneous Hallucinogens | 72 | 0.5 | 0.8 |
| Other ³ | 79 | 0.6 | 0.9 |
| Total Illicit Drugs⁴ (Excl. Alcohol) | 8,715 | | 100.0 |
| Total Illicit Drugs and Alcohol | 13,852 | 100.0 | |

¹Unweighted data from seven Denver-area hospital EDs reporting to DAWN. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

²Misuse cases only, which exclude adverse reaction and accidental ingestion cases.

³Includes inhalants and other combinations not tabulated above.

⁴Includes cocaine, heroin, marijuana, methamphetamine, other amphetamines, MDMA, and Other.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/7/2008

Exhibit 8. Drug-Related Deaths for Denver and Colorado: 2003–2006

| Drug | Denver/Aurora Co. (DAWN 2003) | Statewide (2003) | Statewide (2004) | Statewide (2005) | Statewide (2006) |
|------------------------------|----------------------------------|---------------------|---------------------|---------------------|---------------------|
| Alcohol | 130 ¹ | 1,141 | 1,052 | 1,171 | 1,138 |
| Cocaine/Crack | 102 | 180 | 170 | 217 | 206 |
| Heroin | 7 | ... ² | 22 | 42 | 37 |
| Other Opiates ³ | 138 | 247 | 238 | 301 | 335 |
| Stimulants | 26 | 47 | 45 | 70 | 42 |
| Benzodiazepines ³ | 30 | NR ⁴ | NR | 36 | 37 |
| Antidepressants ³ | 28 | NR | NR | 57 | 48 |

¹Includes alcohol-in-combination with other drugs (all ages) and alcohol alone (decedents younger than 21) (DAWN).

²In 2003, heroin was combined with other opiates.

³Includes “misuse”; excludes “suicide.”

⁴NR=Not reported.

SOURCES: DAWN, OAS, SAMHSA, and Colorado Department of Public Health and Environment

Exhibit 9. Numbers and Rates of Denver Drug-Related Hospital Discharge Reports per 100,000 Population for Selected Drugs: 2000–2007

| Drug | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Alcohol | (n) | 10,013 | 10,606 | 10,429 | 9,812 | 10,560 | 10,060 | 10,288 | 10,116 |
| | Rate | 1,802 | 1,893 | 1,859 | 1,733 | 1,856 | 1,759 | 1,788 | 1,747 |
| Stimulants | (n) | 244 | 261 | 323 | 407 | 549 | 738 | 489 | 438 |
| | Rate | 44 | 47 | 58 | 72 | 97 | 129 | 85 | 76 |
| Cocaine | (n) | 1,338 | 1,298 | 1,369 | 1,423 | 1,753 | 1,843 | 1,862 | 1,634 |
| | Rate | 241 | 232 | 244 | 251 | 308 | 322 | 324 | 282 |
| Marijuana | (n) | 778 | 846 | 837 | 842 | 1,100 | 1,163 | 1,188 | 1,050 |
| | Rate | 140 | 151 | 149 | 149 | 193 | 203 | 207 | 181 |
| Opiate | (n) | 741 | 744 | 720 | 818 | 804 | 987 | 916 | 1,038 |
| | Rate | 133 | 133 | 128 | 145 | 141 | 173 | 159 | 179 |
| Population | | 555,781 | 560,366 | 560,884 | 566,174 | 568,913 | 571,847 | 575,294 | 579,177 |

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

Exhibit 10. Numbers of Drug-Related Calls¹ to the Rocky Mountain Poison and Drug Center in Denver and Colorado: 2001–2007

| Drug | Denver Metropolitan | | | | Statewide | | | |
|--------------------------------|---------------------|------|------|------|-----------|----------------|------|------|
| | 2001 | 2002 | 2003 | 2004 | 2004 | 2005 | 2006 | 2007 |
| Alcohol | 110 | 149 | 150 | 223 | 762 | 884 | 868 | 858 |
| Cocaine/Crack | 59 | 66 | 68 | 59 | 120 | 107 | 129 | 91 |
| Heroin/Morphine | 19 | 16 | 22 | 18 | 20 | 24 | 25 | 21 |
| Marijuana | 34 | 37 | 36 | 29 | 68 | 78 | 45 | 70 |
| Methamphetamine | 20 | 39 | 39 | 66 | 95 | 127 | 29 | 31 |
| Other Stimulants/ Amphetamines | 3 | 3 | 6 | 4 | 321 | 308 | 318 | 257 |
| Club Drugs | 30 | 55 | 40 | 39 | 43 | 49 | 47 | 49 |
| Inhalants | 4 | 16 | 10 | 4 | 29 | * ² | * | * |

¹Human exposure calls only.

²* = Unknown.

SOURCE: Rocky Mountain Poison and Drug Center

Exhibit 11. Federal Drug Seizures in Colorado: 2003–2007

| Drug | Quantity Seized | | | | |
|-----------------|-----------------|-----------|------------------------------|----------------|-------------|
| | 2003 | 2004 | 2005 | 2006 | 2007 |
| Cocaine | 65.5 kgs | 36.0 kgs | 131.5 kgs | 135.1 kgs | 44.0 kgs |
| Heroin | 3.9 kgs | 4.6 kgs | 3.0 kgs | 4.0 kgs | 2.5 kgs |
| Methamphetamine | 14.8 kgs | 28.8 kgs | 34.4 kgs | 50.3 kgs | 8.0 kgs |
| (Meth labs) | 345 | 228 | 145 | 85 | 44 |
| Marijuana | 444.1 kgs | 774.6 kgs | 765.6 kgs | 656.8 kgs | 1,149.5 kgs |
| Ecstasy | 1,128 tablets | 0 tablets | 0.6 kgs/2,104du ¹ | 0.0kgs/1,103du | 0.0 kgs |

¹du=dosage units.

SOURCE: U.S. DEA State Factsheets for Colorado 2003–2007

Exhibit 12. Denver and Colorado NFLIS Samples Analyzed by Drug Type: 2000–2007¹

NFLIS Lab analysis data for Denver and Colorado 2000–2007

| Colorado | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------------------|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Cocaine | N | 2604 | 3601 | 2381 | 2545 | 2511 | 3856 | 3658 | 2642 |
| | % | 53.6% | 53.3% | 49.0% | 47.9% | 42.4% | 34.8% | 33.0% | 30.9% |
| Cannabis | N | 751 | 981 | 701 | 1012 | 1175 | 2389 | 2870 | 2332 |
| | % | 15.5% | 14.5% | 14.4% | 19.1% | 19.8% | 21.5% | 25.9% | 27.3% |
| Methamphetamine | N | 569 | 635 | 462 | 645 | 1124 | 2833 | 2554 | 1924 |
| | % | 11.7% | 9.4% | 9.5% | 12.1% | 19.0% | 25.5% | 23.0% | 22.5% |
| Heroin | N | 371 | 476 | 355 | 258 | 251 | 335 | 264 | 309 |
| | % | 7.6% | 7.0% | 7.3% | 4.9% | 4.2% | 3.0% | 2.4% | 3.6% |
| Other Drugs | N | 559 | 1060 | 956 | 852 | 860 | 1678 | 1744 | 1350 |
| | % | 11.5% | 15.7% | 19.7% | 16.0% | 14.5% | 15.1% | 15.7% | 15.8% |
| Total Without "Other Drugs" | | 4295 | 5693 | 3899 | 4460 | 5061 | 9413 | 9346 | 7207 |
| Grand Total | | 4854 | 6753 | 4855 | 5312 | 5921 | 11091 | 11090 | 8557 |
| Percentage Total | | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Denver | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Cocaine | N | 2396 | 3472 | 2287 | 2147 | 1649 | 2417 | 2392 | 1934 |
| | % | 57.6% | 55.8% | 50.9% | 49.9% | 47.8% | 47.1% | 45.6% | 42.4% |
| Cannabis | N | 655 | 924 | 612 | 764 | 558 | 871 | 1006 | 958 |
| | % | 15.7% | 14.8% | 13.6% | 17.8% | 16.2% | 17.0% | 19.2% | 21.0% |
| Methamphetamine | N | 409 | 460 | 386 | 479 | 493 | 817 | 721 | 614 |
| | % | 9.8% | 7.4% | 8.6% | 11.1% | 14.3% | 15.9% | 13.8% | 13.5% |
| Heroin | N | 356 | 469 | 353 | 224 | 199 | 243 | 201 | 219 |
| | % | 8.6% | 7.5% | 7.8% | 5.2% | 5.8% | 4.7% | 3.8% | 4.8% |
| Other Drugs | N | 346 | 898 | 859 | 690 | 549 | 782 | 921 | 833 |
| | % | 8.3% | 14.4% | 19.1% | 16.0% | 15.9% | 15.2% | 17.6% | 18.3% |
| Total Without "Other Drugs" | | 3816 | 5325 | 3638 | 3614 | 2899 | 4348 | 4320 | 3725 |
| Grand Total | | 4162 | 6223 | 4497 | 4304 | 3448 | 5130 | 5241 | 4558 |
| Percentage Total | | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

¹NFLIS data for 2007 cannot be trended with data from earlier time periods as the current methodology used to construct MSA data sets differs from years past.

SOURCE: DEA, NFLIS

Exhibit 13. Price and Purity of Selected Drugs in Denver¹: December 2007

| Drug | Wholesale Price | Retail Price | Street Price | Percent Purity at Retail Level |
|-----------------|---|---|--|--------------------------------|
| Powder Cocaine | \$18,000–\$20,000 kg | \$600–\$1,000 oz | \$100–\$150 ⅓ oz \$100–\$150 gm | 50–60% |
| Crack Cocaine | \$15,000–\$20,000 kg | \$650–\$900 oz | \$20 rock \$100–\$120 gm | 75–85% |
| Heroin | \$24,000–\$35,000 kg (MBT) \$30,000–\$35,000 kg (MBP) | \$800–\$1,600 oz (MBT, MBP) | \$130–\$250 gm (MBT) \$130 gm (MBP) \$20 bag (MBT) | 6–73% |
| Methamphetamine | \$12,000–\$16,000 lb (PM, MX) \$16,000–\$20,000 lb (Ice, MX) | \$1,000–\$1,500 oz (Ice, MX) \$500–\$1,000 oz (PM, LP, STL) \$500–\$800 oz (PM, MX) | \$100–\$150 gm (Ice MX) \$100–\$150 gm (PM, LP, STL) | 14–50%(MX) 70–90%(LP) |
| Marijuana | \$2,600–\$5,000 lb (BC) \$2,000 lb (DO, LP) \$300–\$500 lb (MX) | \$80–\$100 oz (MX) \$300–\$400 oz (BC) | \$60–\$100 oz (MX) \$30–\$60 ¼ oz (MX) | – |
| Ecstasy | \$3–\$6 tablet | \$6–\$13 tablet | \$20–\$25 tablet | – |

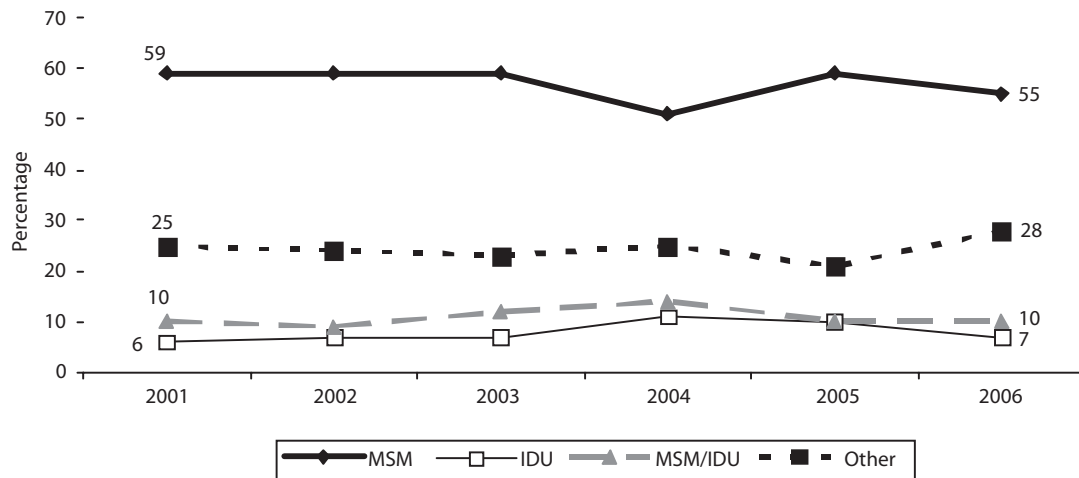
¹Note: kg=kilogram; gm=gram; MBT=Mexican black tar; PM=powder methamphetamine; MX=Mexican produced, LP=locally produced; DO=domestic; HY=hydroponic; CG=commercial grade; BC=BC Bud from Canada.
SOURCES: DEA, NDIC, local law enforcement

Exhibit 14. Colorado AIDS Cases by Exposure Category: Cumulative Through December 31, 2007

| | Number of AIDS Cases | Percent of AIDS Cases |
|---------------------------------|----------------------|-----------------------|
| Gender | | |
| Male | 8,232 | 91.4 |
| Female | 775 | 8.6 |
| Total | 9,007 | 100.0 |
| Exposure Category | | |
| Men who have sex with men (MSM) | 5,979 | 66.4 |
| Injection drug user (IDU) | 824 | 9.2 |
| MSM and IDU | 960 | 10.7 |
| Heterosexual contact | 628 | 7.0 |
| Other | 616 | 6.8 |

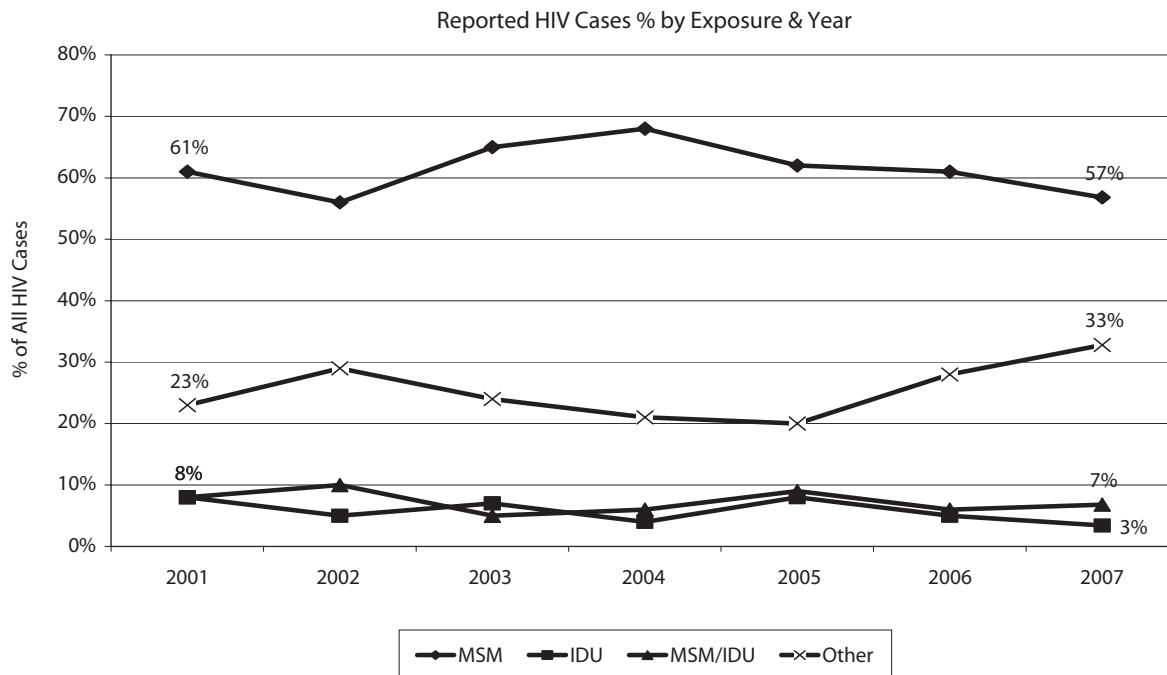
SOURCE: Colorado Department of Public Health and Environment

Exhibit 15. Percent of New AIDS Cases in Colorado, by Exposure and Year: 2001–2006



SOURCE: Colorado Department of Public Health and Environment

Exhibit 16. Percent of New HIV Cases in Colorado, by Exposure and Year: 2001–2007



SOURCE: Colorado Department of Public Health and Environment

Drug Abuse in Detroit, Wayne County, and Michigan

Cynthia L. Arfken, Ph.D. and Yvonne E. Anthony, Ph.D., M.B.A., M.H.A.¹

ABSTRACT

Cocaine and heroin were the two major drugs of abuse in the Detroit/Wayne County area in 2007, but marijuana was the most widespread. Cocaine primary treatment admissions accounted for 28 percent of Detroit publicly funded admissions in FY 2007; 91.6 percent of these admissions were for crack/cocaine. Of the crack/cocaine admissions, 58.8 percent were male, 91.0 percent were African American, and 85.0 percent were older than 35. Of the powder cocaine admissions, 52.4 percent were male, 80.6 percent were African American, and 67 percent were older than 35. Cocaine accounted for 34.4 percent of Wayne County drug items reported by the National Forensic Laboratory Information System (NFLIS) in 2007. In 2007, the Wayne County Medical Examiner (ME) reported 321 deaths involving cocaine, the highest number for all drugs. In FY 2007, heroin primary treatment admissions represented 29.7 percent of the publicly funded admissions; 58.1 percent were male, 88.4 percent were African American, and 58.1 percent were older than 35. The Wayne County ME reported 167 deaths involving heroin in 2007. The 686 heroin items analyzed by forensic laboratories accounted for 8.6 percent of the total drug items. In 2007, the ME reported declines in deaths in which fentanyl, hydrocodone, and methadone were detected in decedents—after extremely high levels in 2006. Fentanyl was detected in 72 decedents, down from 244 in 2006. The lethal combination of heroin or cocaine and fentanyl, which first appeared in Detroit

and northern Michigan during the second half of 2005, appeared to have dissipated. Outreach efforts were implemented to disseminate information to at-risk people on the streets about this new threat, and efforts are underway to implement an overdose prevention approach to opiates. Treatment admissions for marijuana have increased steadily since 2003, accounting for 16.7 percent of the publicly funded admissions in FY 2007. Of these admissions, 74.1 percent were male, 92.2 percent were African American, and 38.7 percent were younger than 18. There was criminal justice involvement in 68.4 percent of the admissions. Marijuana represented 42.2 percent of the drug items reported by NFLIS in 2007. The indicators for methamphetamine remained low. Ecstasy use was still troublesome, as evidenced by NFLIS but was reported to be stable by law enforcement and ME reports.

INTRODUCTION

Area Description

Detroit and surrounding Wayne County are located in the southeast corner of Michigan's Lower Peninsula. In 2006, the Wayne County population totaled slightly less than 2 million residents (of whom 46 percent live in Detroit) and represented 19.2 percent of Michigan's 10.1 million population.

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

- Michigan has a major international airport with a new terminal that opened in 2002, 10 other large airports that also have international flights, and 235 public and private small airports. Long-term projections for the Detroit Metropolitan

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Airport forecast a 31-percent increase in flights during the next 10 years.

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

Additional factors influencing substance use in Detroit are:

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

Data Sources

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

- **Treatment admissions data** for fiscal year (FY) 2007 were provided by the Bureau of Substance Abuse and Addiction Services, Division of Substance Abuse and Gambling Services, Michigan Department of Community Health (MDCH), for the city of Detroit for those persons whose treatment was covered by Medicaid or Block Grant funds. The data do not include admissions funded by the Department of Corrections. The city of Detroit uses a "Treatment on Demand" approach without a wait list (unless the client is seeking a specific provider). MDCH, following revised Treatment Episode Data Set (TEDS) Federal guidelines, is converting to an episode-based reporting system in which changes in levels of care that are part of the treatment plan (moving from residential treatment to outpatient, for example) are not reported as new separate admissions but rather as transfers within an episode. This transition has not been fully implemented by all publicly funded programs. As this change is fully implemented, it is expected that total admissions will decline, and comparisons of admissions trends before and after this change are not recommended.
- **Mortality data** were provided by the Wayne County Medical Examiner (ME) for calendar year (CY) 2007. The Wayne County ME provided data on pathologists' determinations and deaths with positive drug toxicology for 2007. These drug tests were routine when the decedent had a known drug use history, was younger than 50, died of natural causes or homicide, was a motor vehicle accident victim, or there was no other clear cause of death.
- **Heroin purity data** were provided by the Drug Enforcement Administration (DEA) for 2006.
- **Drug intelligence data** were provided by the DEA and National Drug Intelligence Center.

- **Data on drug content** among drug seizures were provided by the National Forensic Laboratory Information System (NFLIS) for 2007. The report covers all of Wayne County.
- **Poison control case data** from contact data on cases of intentional abuse of substances for 2007 were provided by the Children's Hospital of Michigan Poison Control Center in Detroit. This center is one of two in Michigan; its catchment area is eastern Michigan.
- **Drug-related infectious disease data** were provided by the MDCH on the acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) prevalence estimates, as of May 1, 2008.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine

For FY 2007, 28.0 percent of all Detroit publicly funded treatment admissions listed either powder cocaine (2.3 percent) or crack/cocaine (25.6 percent) as the primary drug of abuse (exhibit 1). An additional 2.6 percent had powder cocaine as a secondary drug of abuse and 10.2 percent had crack/cocaine as a secondary drug of abuse. Clients seeking treatment for crack/cocaine were more likely to be male (58.8 percent) and African American (91.0 percent), with 85 percent age 35 or older. Clients seeking treatment for powder cocaine were more equally distributed by gender (52.4 percent were male) with a lower proportion of African Americans (80.6 percent), and lower proportion (67 percent) age 35 or older. There was criminal justice involvement in 33 percent of the powder cocaine admissions and 25.4 percent of the crack/cocaine admissions.

Cocaine constituted 34.4 percent of drug items reviewed by Wayne County forensic laboratories in 2007 (exhibit 1).

Cocaine was detected in 321 deaths during CY 2007 in Wayne County. Of these deaths, 65.1 percent were male, 43.6 percent were African

American and 70.1 percent were between the ages of 26 and 40. Cocaine was the cause of death in 275 decedents.

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

Heroin

In FY 2007, 29.7 percent of Detroit publicly funded treatment admissions listed heroin as the primary drug of abuse (exhibit 2). An additional 1.7 percent had heroin as the secondary drug of abuse. Clients seeking treatment for heroin were likely to be male (58.1 percent), African American (88.4 percent), and older (58.1 percent age 35 or older). There was criminal justice involvement in 10.5 percent of the heroin admissions.

Only 8.6 percent of drug items reviewed by Wayne County forensic laboratories were found to contain heroin in 2007 (exhibit 1).

Heroin was detected in 167 deaths during CY 2007 in Wayne County, and was the cause of death in 159 decedents. Of these deaths, 75.3 percent were male, 39.9 percent were African American and 50.0 percent were between the ages of 26 and 40.

Heroin street prices remained stable and relatively low in Detroit. Nearly all heroin continued to be white in color, but Mexican black and brown heroin could be found. A wide range of purity could also be found, but it averaged 41.4 percent in 2006. South America remained the dominant source, although heroin originating in Southwest Asia was identified.

Other Opiates/Narcotic Analgesics

Other opiates represented 1.2 percent of primary treatment admissions in Detroit in FY 2007 (exhibit 2). An additional 0.8 percent had other opiates as the secondary drug of abuse. There was criminal justice involvement in 19.4 percent of the admissions.

Only 3.8 percent of drug items reviewed by Wayne County forensic laboratories were found to contain an opiate other than heroin in 2007 (exhibit 1).

Toxicology findings from the Wayne County ME laboratory showed 94 decedents with methadone positivity and 72 decedents with fentanyl positivity. For methadone, this number was a decline from 107 decedents in 2006. For fentanyl this number was a large decline from 244 decedents in 2006. The surge in 2006 was noted in news media and resulted in outreach efforts to warn and educate drug users of the threat of fentanyl, by itself or with heroin or cocaine. Work groups also formed to address the threat. The monthly trends showed 2006 peaks in May and June and then again in November. No large peaks were observed in 2007.

For hydrocodone combinations, laboratory findings showed a decline, from 189 deaths in 2006 to 183 decedents in 2007, compared with 60 in 2000; 80 in 2001; 120 in 2002; 108 in 2003; 123 in 2004; and 147 in 2005.

According to intelligence reports, other opiates were common and viewed as better quality. Due to the volume of cases, some police no longer took reports of stolen or lost prescriptions. Because of difficulty in prosecuting diversion cases, the DEA was the sole agency investigating these cases.

Marijuana

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

In Detroit, marijuana accounted for 16.7 percent of all publicly funded substance abuse treatment admissions in FY 2007 in Detroit (exhibit 2). Clients seeking treatment for marijuana were likely to be male (74.1 percent), African American (92.2 percent), and have criminal justice involvement (68.4 percent). Over a third of the admissions (38.7 percent) were below the age of 18.

Marijuana was found in 42.8 percent of drug items reviewed by Wayne County forensic laboratories in 2007 (exhibit 1).

The Wayne County ME did not test for marijuana in decedents.

Stimulants

In Detroit during FY 2007, treatment data showed that admissions for stimulants other than cocaine as primary drugs of abuse included two admission for amphetamines. The ME found 12 deaths with positive toxicology for methamphetamine during CY 2007.

Club Drugs

The club drugs category included methylenedioxymethamphetamine (MDMA or ecstasy), gamma hydroxybutyrate (GHB), flunitrazepam (Rohypnol®), and ketamine. Indicators for ecstasy increased, but based on more recent data law enforcement agencies suggest that its supply and demand are stable. There were 14 treatment admissions for ecstasy during FY 2007.

Toxicology findings from the Wayne County ME laboratory showed 20 cases of MDMA during CY 2007 and eight cases of ketamine.

MDMA was found in 4.6 percent of drug items reviewed by forensic laboratories in 2007 (exhibit 1).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Michigan has an estimated AIDS prevalence rate of 134 per 100,000 population. As of April 1, 2008, a cumulative total of 22,783 cases of AIDS ever diagnosed had been reported in Michigan. Of the people currently living with AIDS or HIV, 65 percent live in the city of Detroit.

Injection drug users (IDUs) accounted for 16 percent of people living with HIV/AIDS; 10 percent had only this risk factor, and 4 percent were

IDUs who were also men who have sex with men (MSM).

Of the 10,396 men currently living with AIDS or HIV, 10 percent were IDUs, and 6 percent were in the dual risk group (IDU/MSM).

Among the 3,102 women currently living with AIDS or HIV, 21 percent were IDUs (22 percent among African American women and 18 percent

among White women), 60 percent were infected through heterosexual contact, and 17 percent had undetermined risk factors.

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Exhibit 1. Numbers and Percentages of Most Commonly Seized Drug Items Analyzed in Wayne County: CY 2007

| Substance | Number of Items Seized | Percent of Items Seized |
|-----------------------------|------------------------|-------------------------|
| Cannabis | 3,418 | 42.8 |
| Cocaine | 2,746 | 34.4 |
| Heroin | 686 | 8.6 |
| MDMA | 366 | 4.6 |
| Total Items Reported | 7,984 | |

SOURCE: NFLIS

Exhibit 2. Treatment Admissions in Detroit, by Primary and Secondary Drugs of Abuse and Percent: FY 2007

| Drug | Primary Drug of Abuse | Secondary Drug of Abuse |
|-----------------|-----------------------|-------------------------|
| NONE | - | 58.9 |
| Alcohol | 24.1 | 16.3 |
| Heroin | 29.7 | 1.7 |
| Cocaine, powder | 2.2 | 2.6 |
| Crack/cocaine | 25.6 | 10.2 |
| Other Opiates | 1.2 | 0.8 |
| Marijuana | 16.7 | 8.7 |
| Other Drugs | 0.2 | 0.8 |

N=8,788.

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

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

D. William Wood, M.P.H., Ph.D.¹

ABSTRACT

Patterns of drug use in Hawai'i stabilized in 2007 with some signs of a decline (methamphetamine, in particular). Seizures of all types of drugs indicated greater activity on the part of law enforcement, but expected increases in prices had not yet come to the streets of Honolulu, which suggests there was ample supply or transport of drugs available. As the year progressed, the evidence of a downturn in methamphetamine use became clearer with downturns in treatment admissions as well as toxicology screens of decedents. The local Hawai'i High Intensity Drug Trafficking Area (HIDTA) reported several high profile drug seizures on neighbor islands. The coordination of effort through HIDTA improved the capacity of the narcotics divisions of local police departments for drug interdiction. The National Guard was also involved in these operations. The State of Hawai'i does little analysis of its data on those in treatment. Univariate statistics are available but even bivariate data showing profiles of users of specific drugs are not routinely generated. No analysis of polydrug use is conducted, nor of recidivists in the treatment system; differential analysis of those succeeding in treatment compared to those who do not succeed (although 6-month post treatment data are collected) are not completed. Treatment admissions data, based on self-reported primary drug information, showed that 2007 admissions for cocaine use continued their multi-year decline, although the number of decedents with cocaine as part of the body toxicology increased from previous reporting periods. The Medical Examiner's (ME) findings contradicted Honolulu Police data

that showed a reduction in cases for the year. Heroin treatment admissions continued their multi-year downturn, but the number of decedents with other opiates as part of their toxicology analysis increased sharply, with hydrocodone followed by oxycodone as the primary drugs involved. Heroin deaths have been a problem for the ME lab for some time because of an apparent spike in use of morphine and codeine that made the unambiguous identification of heroin as the drug in the toxicology report difficult to ascertain. Methadone deaths were up slightly from previous periods. Admissions for treatment with marijuana as the primary drug were up considerably during 2007 with no apparent explanation. The ME reported the number of decedents with tetrahydrocannabinol (THC) in their toxicology screen was stable. Police reported a slight increase in numbers of cases. Admissions to treatment with methamphetamine as a primary drug were down slightly from the previous year. Seventeen years of data showed a decline in numbers in treatment and ME positive toxicology reports, equaling 2002 and 2003 data, respectively. Cases recorded by police were markedly down and equaled 1999 data. The four major drugs seized or captured and sent for analysis in National Forensic Laboratory Information System (NFLIS) participating labs remained stable over the past 5 years with methamphetamine analyzed most often and followed by cannabis, THC or similar products, cocaine, and all other drugs. Heroin was minimal in the drugs analyzed. However, the proportion of methamphetamine analyses was lower in 2007 than in previous years with cannabis and cocaine taking up the difference.

INTRODUCTION

This report presents current information on illicit drug use in Hawai'i, based on the Honolulu Community Epidemiology Work Group (CEWG), described later in this section. The Honolulu CEWG has been operational for 19 years and was established at the suggestion of National Institute

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on Drug Abuse (NIDA) as a response to the many reports of a “new” drug arriving on Hawai'i's shores. “Batu,” “Shabu,” “crystal,” or “ice,” as it was known at the time, has had a profound influence on the health and social status of residents of the islands. Methamphetamine (methamphetamine HCl) in its purest and crystalline form has now impacted the entire Nation in one form or another. This report is the first in the 19-year period to report reductions in the indicators for the drug.

Area Description

In spite of many warnings from the mainland about a recession or “downturn” in the economy, throughout 2007 Hawai'i's economy remained robust with little indication of any problems on the horizon. The State's “Council of Revenues” predicted a slight slowing of the economy in early 2008, with some adjustments occurring later in the year, but overall 2007 was a good year and 2008 was headed for a slightly more modest version of the same economic future.

The Hawai'i Visitor Bureau reports some softening in the numbers of tourists from Japan but feels that the new markets opened by greater prosperity in China and Korea will more than compensate for any losses in Japanese visitors. Mainland markets are seen as possibly a problem if the current downturn in the economy in fact emerges as a recession. The economy of the State is dependent on tourism as a primary source of revenue and the military for a steady supply of contracts to employ residents.

Under normal circumstances, the population of Hawai'i contains roughly 10 percent military and dependents. During this period (2007), the deployment of large numbers of military, active duty, National Guard, and Reserves continued to negatively influence the State economy due to: fewer civilian jobs on the bases; the departure of families of active duty for their family homes on the mainland; and the general decline in purchasing power of families whose primary

earner has lost their regular wage or is forced to accommodate the military wage structures.

Housing prices have remained stable with the only visible sign of change being the length of time homes are on the market. Rental prices have increased and availability of new rentals is predicted to increase in the future.

During 2007, the local High Intensity Drug Trafficking Area (HIDTA) successfully seized record amounts of methamphetamine and marijuana and heightened awareness about drug trafficking within the State. There were reductions in the numbers of cases reported by all police departments in the State, treatment data showed reductions in admissions for methamphetamine and cocaine, and the Honolulu Medical Examiner (ME) reported stable to slight reductions in the number of positive toxicology screens for methamphetamine and cocaine among decedents.

Data Sources

Much of the data presented in this report are from the Honolulu CEWG, which met on May 2, 2008. The meeting was hosted by the Hawai'i HIDTA program office, whose staff facilitated the attendance of Drug Enforcement Administration (DEA) representatives, as well as people knowledgeable about drug data from Honolulu and neighbor islands. The Honolulu Police Department (HPD) submitted data but was unable to physically attend due to staff training. The County ME Office provided data on toxicology screens from decedents for 2007 and attended and participated in the discussions of the meeting. The State's Alcohol and Drug Abuse Division (ADAD) attended and presented data from the State treatment data system. This report is focused only on drug activities on O'ahu (Honolulu County) for the calendar year 2007. Other specific data sources are listed below:

- **Treatment admissions and demographic data** were provided by the Hawai'i State Department of Health, ADAD. Previous data from ADAD are updated for this report whenever ADAD reviews its records. These data represent all

State-supported treatment facilities (90 percent of all facilities). About 5–10 percent of these programs and two large private treatment facilities did not provide data. During this reporting period, approximately 45 percent of the treatment admissions were paid for by ADAD; the remainder was covered by State health insurance agencies or by private insurance. Approximately 10 percent of State residents are uninsured.

- **Drug-related death data** were provided by the Honolulu City and County ME Office for 1991 through 2007. These data were based on toxicology screens performed by the ME Office on decedents brought to them for examination. The types of circumstances that would lead to the body being examined by the ME included unattended deaths, deaths by suspicious cause, and clear drug-related deaths. In short, while the ME data were consistent, they were not comprehensive and accounted for only one-third of all deaths on O'ahu. To allow a direct comparison between ME data and treatment data, the ME data were multiplied by a factor of 10 on the exhibits.
- **Law enforcement case data** for 2007 were received from the Honolulu HPD, Narcotics/Vice Division only.
- **Drug price data** were provided for 2007 by the HPD, Narcotics/Vice Division.
- **Uniform Crime Reports (UCR) data** were accessed from the State Attorney General's Web site for 1975–2005.
- **The National Forensic Laboratory Information System (NFLIS)** provided data on the analysis of drug samples originating in the HPD forensic laboratory and related to drugs seized and otherwise collected in the performance of the department's investigation and enforcement duties.

Emergency department (ED) drug mentions data have not been available in Hawai'i since 1994. Discussions with the Healthcare Association of Hawai'i regarding inclusion in the Drug Abuse

Warning Network (DAWN) program included a briefing of all hospital CEOs and the sharing of DAWN information. The Healthcare Association declined the opportunity to participate and no hospitals signed on as a DAWN site.

DRUG ABUSE PATTERNS AND TRENDS

General Comments

Hawai'ians,² followed by Caucasians, remained the majority (67.4 percent of all admissions) user groups among the 17 identified ethnic groups (plus two categories: "other" and "unknown/blank") who access ADAD facilities for substance abuse treatment. During 2007, 43.2 percent and 24.1 percent of the admissions to treatment services were Hawai'ian or Caucasian, respectively. All other groups represented significantly lower proportions of admissions. A two-to-one male to female ratio characterized treatment admissions (64.0 percent male); clients under 18 years of age (28.9 percent), age 25–34 (23.8 percent), and age 35–44 (19.7 percent) dominated the admissions. More than one-third (34.8 percent) of admissions were from court referrals, 10 percent (10.1 percent) came from State schools, nearly 5 percent (4.2 percent) from Child Protection Services, and approximately 8 percent (7.8 percent) from other health care providers. Twenty-nine (28.5) percent of all admissions were students.

Methamphetamine remained the leading primary substance of abuse for those admitted to treatment, accounting for 35.2 percent of all admissions in 2007. Marijuana remained the third most frequently reported primary substance for treatment admissions (22.2 percent), behind alcohol (30.7 percent). As in other jurisdictions, almost all admissions were polydrug treatment admissions and most listed alcohol as a substance of abuse in addition to the primary drug

²Hawai'ians are defined as those who state on admission that they are of Hawai'ian ancestry and may or may not be pure Hawai'ian.

at admission listed above. While marijuana abuse accounted for the majority of treatment admissions among clients younger than 18 (the most frequently admitted age group), the abuse of “ice” or crystal methamphetamine still remained the major treatment category for all admissions.

The police data used in this report came from the HPD, whereas in previous reports attempts were made to include whatever data were available from neighbor island police departments. The frequency and consistency of reporting made it impossible to continue the practice, and from this point forward only HPD data will be reported.

During 2007, drug prices remained stable in most categories (exhibit 1). The size of the drug supply appeared stable, with seizures having little impact on price structure. The drop in purity mentioned in a previous report had little effect on price and both price and purity remained high following the event mentioned.

Cocaine/Crack

Powder cocaine and crack treatment admissions in Hawai'i declined during this period. There were 363 primary cocaine treatment admissions in 2004; for 2005, that number was 244, for 2006 it rose to 378, and for 2007 it dropped to 349, a decrease of about 8 percent (exhibit 2). This shows that the number of clients listing cocaine as the primary drug, after a slow decline of several years, began to rise but has leveled and declined slightly. One can only speculate that there may be an association between the reported changes in methamphetamine admissions and cocaine admissions. Powder cocaine/crack ranked sixth (3.8 percent) among primary drugs of treatment admissions, after methamphetamine, alcohol, marijuana, hallucinogens, and other drugs.

The Honolulu ME reported 29 deaths with a cocaine-positive toxicology screen during 2007, which compares to 27 deaths in 2006, and 15 deaths in all of 2005 (ME data on the chart have been adjusted to allow for their presentation on the same axes by multiplying all death data by a constant of 10) (exhibit 2). In 2004, there were

22 deaths compared with 22–26 in 1999–2003. This finding reinforces the treatment finding of the relative and continual decline in cocaine use over the past decade. However, ME data showed a marked up-tick for 2006 and a smaller one for 2007; treatment data showed a spike for 2006 but a decline for 2007.

According to the HPD, cocaine prices have remained relatively stable over the past several years. One-quarter gram of crack sold for \$20–\$40 in 2007; the same amount of rock cocaine was listed at the same price on the HPD chart (exhibit 1). Police cases for cocaine/crack were at a decade high in 2006 with 305 cases (111 percent increase) but declined to 248 cases in 2007 (18.9 percent decrease). In 2005 there were 144 cases (exhibit 3) compared to 239 cases from 2004 and 202 in 2003. Over the past several years, the number of HPD cocaine cases plummeted from more than 1,200 cases in 1996 to less than 150 cases in 2005 (an 86 percent decline over the decade). Cocaine seizures by HPD also increased to 9,343.3 grams of powder cocaine and 481.5 grams of rock cocaine in 2006, and continued to rise to 12,571.4 grams of powder and 731.7 grams of rock in 2007. This compares to 8,797 grams of powder and 464 grams of rock cocaine in 2005; 14,927 grams of powder and 239 grams of rock cocaine in 2004; 7,637 grams of powder and 3,721 grams of rock in 2003; and 5,727 grams of powder and 629 grams of rock cocaine in 2002.

Heroin and Other Opiates

If there is heroin in Honolulu it is almost certainly black tar heroin, and it was readily available in all areas of the State during this reporting period. China white heroin has been uncommon in Hawai'i for many years, but it was occasionally available for a premium price. HPD data showed 1.6 grams of black tar heroin and 1.55 grams of white powder heroin were seized in 2006, and 33.0 grams of black tar heroin and 0.01 grams of white powder heroin were seized in 2007. This compared with the 3,602 grams of black tar and 18.5 grams of China white powder seized in 2005,

which was triple the amount seized for 2004 (1,251 grams of black tar and 1.7 grams of powder), and was even higher than the 3,502 grams of black tar and the 0.019 grams of powder seized in 2003. For 2002, 992 grams of black tar and 494 grams of powder were seized. In 2001, 530 grams of powder were seized, along with 3,258 grams of black tar heroin. According to the HPD in 2006, black tar heroin prices remained stable in Honolulu at \$20–\$50 per one-quarter gram, \$500–\$800 per one-quarter ounce (7 grams), and \$2,000–\$3,200 per ounce (exhibit 1).

A continuation of the 3-year increase in heroin treatment admissions in Hawai'i (exhibit 4) occurred. In 1998, record levels of treatment admissions were recorded, with more than 500 individual admissions that year. In 2007, however, heroin ranked seventh if considered alone (2.0 percent), or, if considered along with other opiate admissions, ranked fifth (4.4 percent) among treatment admissions.

The Honolulu ME reported that deaths in which opiates were detected rose again in 2007; however, the residuals of heroin vs. morphine and other opiates could not be definitively separated for several cases. Only four morphine or heroin deaths were confirmed for 2007, a major drop from the 44 deaths confirmed with these drugs present in 2006 (exhibit 4). In total 90 decedents were identified with opiates detected in their toxicology screens. Decedents with a positive toxicological result for other opiates were primarily those in whom hydrocodone, oxycodone, morphine, or methadone were detected. The exact medication (OxyContin® or another) used was not specified. Sixteen decedents had oxycodone present, 11 had hydrocodone, none had fentanyl, and an additional 19 had methadone present in their toxicology screens in 2007. The rest were not clearly identifiable with the testing done by the ME office. In 2005, there were 21 decedents with methadone in the toxicology screens, compared with 25 decedents in 2004, 22 in 2003, and 28 in 2002.

The HPD reported 19 heroin cases in 2007, compared with 15 cases in 2006, and 31 cases in

2005 (exhibit 5). Since 1998, when there were 87 heroin cases, there has been a decade-long downward trend in heroin cases. Seizures were minimal at 33.0 grams of black tar and 0.1 grams of powder in 2007, compared to the 3,602 grams of black tar heroin and 18.5 grams of white powder seized in 2005. This was the largest amount of black tar heroin seized since 2000. White powder seizure amounts were surpassed by the 2002 seizure of 494 grams.

Marijuana

Statewide, marijuana treatment admissions for 2007 rose to a new height of all years collected since 1991. A total of 2,018 admissions with marijuana as the primary drug occurred in 2007, compared with the 1,783 admissions in 2006; 1,733 admissions for 2005; and 1,461 admissions in 2004 (exhibit 6). Those admitted for treatment in 2007 continued to be predominantly younger clients referred by the courts and schools. In examining these treatment data, it is important to remember that the number of clients in treatment for marijuana use in 2007 represents an eight-fold increase over the number in treatment in 1991, the first year for which data was reported. It is also important to note that while marijuana was listed as the primary drug of use at admission, many users of other drugs used marijuana as a secondary or tertiary drug of choice.

Between 1994 and 1999, the O'ahu ME reported 12–21 deaths per year in which marijuana was found in the specimens submitted for toxicology screening (exhibit 6). Those numbers increased to 25 in 2000; 36 in 2001; 30 in 2002; 32 in 2003; 31 in 2004; 43 in 2005; and 44 in 2006. In 2007, the number of decedents with a positive tetrahydrocannabinol (THC) toxicological screen was 45—the highest number to be reported since record collection began in 1991. Again, in most instances, marijuana was used with other drugs if there was a drug-related death.

The HPD continues to monitor, but to not specifically report, case data for marijuana. Instead, marijuana cases are lumped together with other

under the category “Detrimental Drugs,” an artifact of the Uniform Crime Reporting (UCR) system. As mentioned in previous CEWG reports, possession cases remained steady at about 650 per year, although distribution cases have continued to increase. Law enforcement sources speculated that much of the Big Island’s marijuana was transported to O’ahu for sale. Exhibit 7 shows the HPD reported 125 detrimental drug cases in 2007. The 120 marijuana cases previously reported in 2006 and the 116 cases reported in 2005 are also listed officially as detrimental drug cases. In 2007, 4,491 marijuana plants were seized and a total of 45,378.8 grams of dried marijuana were seized. The comparable numbers for 2006 were 4,842 plants and 95,187 grams of dried marijuana; in 2005 there were 6,814 plants and 81,966 grams of dried marijuana; and in 2004 there were 1,045 plants and 24,814 grams of dried marijuana seized.

As shown in exhibit 1, marijuana cost \$20–\$40 per joint and \$400–\$600 per ounce during 2007.

Methamphetamine

Hawai'i's problem with methamphetamine has existed for over 20 years, and remains the drug of choice among those age 18–34. The concerns of treatment providers and law enforcement officers have been well documented in these reports over the years, but a positive trend emerged in 2007. Hawai'i's methamphetamine has always been of extremely high purity (more than 90 percent). In the latter part of 2005, anecdotal evidence emerged that suggested that even though the price of the drug was constant, the purity had declined. According to HIDTA, the purity of several samples submitted during late 2005 was in the mid 50-percent range rather than in the high 90s. High purity is desirable, but it obviously was not a sufficient condition for smoking the drug—Hawai'i's chosen route of administration. No decline in users, cases, decedents, or those admitted to treatment occurred during this period of low purity.

Statewide methamphetamine treatment admissions declined slightly (2.9 percent) in 2006, and declined again in 2007 (2005=3,353; 2006=3,253; 2007=3,209), but still accounted for 35.2 percent of all admissions in 2007 (exhibit 8). The continued increase in admissions observed in the recent past (exhibit 8), for the second time in over a decade declined. The increased demand for treatment space for methamphetamine abusers has been nearly 2,000 percent since 1991. This situation continued to outstrip the treatment system's capacity, meaning that people who might want treatment for alcohol or any other drug were unable to receive it in a timely manner. With court diversion programs in place, the available treatment slots for nonjudicial treatment admissions are extremely tight.

Between 1994 and 2000, the O’ahu ME mentioned crystal methamphetamine in 24–38 cases per year (exhibit 8). In 2001, that number jumped to 54, and methamphetamine-positive decedents increased to 62 in 2002. In 2003, the number of decedents with ice detected in their toxicology reports was 56; in 2004 it was 67 decedents; and in 2005, a total of 88 decedents were found to have a positive toxicology for methamphetamine, representing 97.3 deaths per 1,000,000 population for the island of O’ahu. The 2006 report from the ME showed 67 decedents with positive toxicology reports and the 2007 ME report showed 56 deaths with a positive toxicology screen for methamphetamine.

Crystal methamphetamine prices remained constant over the course of 2007. The drug was sold in the islands as “clear” (a clear, white form) or “wash” (a brownish, less processed form). Prices for ice varied widely in 2007. HPD reported that a 0.25 gram of ice sold for \$50–100, depending on whether it is wash or clear. That distinction remained across all amounts of the drugs with the lower number representing the more impure wash and the higher price representing the purer clear, or crystal. Wash sold for \$500 for 3.5 grams or \$800 for clear. One pound of wash sold for \$30,000, the same amount of clear sold for \$45,000 (exhibit 1).

HPD methamphetamine case data for Honolulu has varied considerably from year to year. Recorded cases peaked at 964 in 2003, and the lowest number (502) was in 1996 (exhibit 9). For 2005, 962 cases were registered by the HPD, which was the third highest number of cases since data collection began in 1991. The 2006 number of cases was 722, a reduction of 31.4 percent. For 2007, the number of cases reduced a further 25 percent to 567 cases.

Seizures of methamphetamine were up again in 2007, when a total of 43,789.8 grams of ice were seized. This compares with 32,277 grams of ice seized in 2006, 74,767 grams seized in 2005, and 63,000 grams seized in 2004. The sudden reduction in amount of methamphetamine seized and the total absence of powdered methamphetamine seized in 2006 was not sufficient to suggest a change in methamphetamine use. This sort of pattern, although not as extreme, has occurred previously and without the indicators of drug shortage (high process of large amounts as well as general price increase), it is interesting and worth watching for at least another few data collection periods. There has been a shift to cocaine use, which parallels occurrences in other jurisdictions where users of methamphetamine have shifted to cocaine as a stimulant that is not as damaging and reserve use of methamphetamine for periodic binge use.

Depressants

Barbiturates, sedatives, and sedatives/hypnotics are combined into the depressants category. Few data were provided about these drugs in the islands in 2007. ADAD maintains three categories under this heading—benzodiazepines, other tranquilizers, and barbiturates. Treatment admissions for these drugs were minimal in terms of impact on the State system. Annually, the numbers admitted to treatment for these drugs totaled less than 40. The number of ME mentions for depressants in Honolulu remained stable for several years at five or less. The HPD has not reported depressant case

data since 1991. Neighbor island police reported fewer than 15 cases per year since 1996.

Hallucinogens

Statewide, hallucinogen treatment admissions have totaled less than five per year during recent periods. No hallucinogen ME mentions have been reported since the beginning of data collection. Prices for lysergic acid diethylamide (LSD) were \$4–\$6 per “hit” and \$225–\$275 per 100 dosage unit sheets (a “page”) in 2007 (exhibit 1).

Overall Death Data

An examination of exhibit 10 shows that over the past 17 years, Honolulu ME drug cases have varied considerably. Brief descriptions of drug trends, as seen from the ME’s viewpoint, were complex in the early 1990s, with low numbers of cases for cocaine, methamphetamine, and marijuana. However, it is important to note that the accumulation of drug cases in 1993–1995 became quite high.

By 2000, heroin cases had started to decline, but marijuana and methamphetamine cases began to soar in numbers. Cocaine cases remained relatively stable throughout this period, but they began to decline in the 2000–2005 period, although increasing for 2006–2007. Alcohol cases, which were only added to the series in 2000, showed a continual and rapid increase until 2006 when they suddenly dropped.

NFLIS Data

The NFLIS, a project administered by the U.S. Department of Justice, DEA, systematically collects results from solid dosage drug analyses conducted by State and local forensic laboratories across the country. Through special arrangements between the DEA and the NIDA, data related to the 21 cities included in the CEWG efforts are made available to the local representatives for presentation at CEWG meetings. Exhibit 11 shows the data for Honolulu for 2002 through 2007.

The data originated in the HPD forensic laboratory and related to drugs seized and otherwise collected in the performance of the department's investigation and enforcement duties.

Within the data presented in this exhibit are several interesting findings that relate to the dominance of methamphetamine within the drug community of Hawai'i. First, the proportion of all samples collected that were methamphetamine ranged between 56 and 63 percent across the 6 years of available data. That is, of all samples collected from all sources for all reasons fully three in six were methamphetamine. The second important finding in this exhibit is that the second most commonly occurring drug in the samples was cannabis, with cannabis rates constant between 16.5 to 17.6 percent. Third on the list of drugs consistently appearing across all years was cocaine, with rates between 11.9 and 14.2 percent. Heroin was the fourth drug in terms of proportion of all drugs sampled across the 4 years, consistently between 1.6 and 1.9 percent. These four drugs, methamphetamine, cannabis, cocaine, and heroin, represent a cumulative total of between 92.01 and 94.49 percent. All other drug samples represent less than 10 percent of the total samples tested.

AIDS CASES IN HAWAI'I

State level data regarding the numbers of acquired immunodeficiency syndrome (AIDS) cases that

have been reported from 1983 to 2007 are shown by risk factor in exhibit 12. Men who have sex with men (MSM) represent 72 percent of all cases. Injection drug use (IDU) was a risk for 8 percent, with 7 percent including both IDU and MSM risk. All other reasons accounted for less than 15 percent of all cases.

Since 1983, a total of 3,011 AIDS cases have been reported to the Hawai'i State Department of Health by health providers and 1,752 (58.2 percent) of these individuals are known to be deceased. The estimated size of the population in Hawai'i living with HIV/AIDS is between 2,600 and 2,900 including those who are presently unaware of their HIV+ status. There were 82 cases reported in 2007 (1 year), which yields an annual AIDS report rate of 6.4 per 100,000 population. Of the 82 cases, 71 (87.0 percent) were male and 11 (11.0 percent) were female. Honolulu County reported 60 cases (73.2 percent); Maui County reported 8 cases (9.8 percent); Hawai'i County reported 12 cases (14.6 percent); and, Kaua'i County reported 2 cases (2.4 percent).

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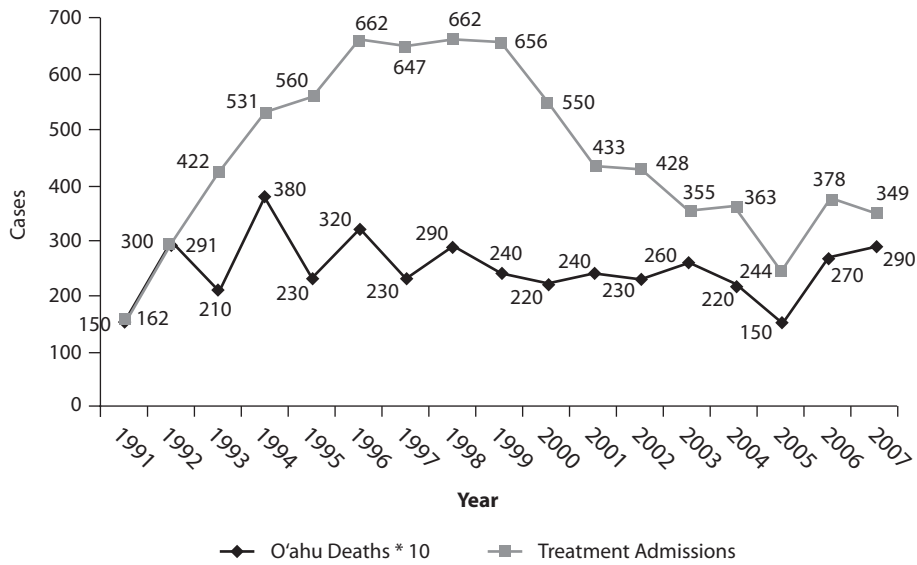
Exhibit 1. Street Prices of Narcotics/Dangerous Drugs, City and County of Honolulu

| Drug Type | Paper | ½ Teen | Teen/"T | 8-ball | Quarter | Half | "O | "LB's | KILO s |
|----------------|------------------|-----------------------|---------------------|--------------------|-------------------------|-----------------------|----------------------|-------------------------|--------------------------|
| | .25 grams | 1/32 oz. .88 grams | ¼ oz. 1.77 grams | ⅓ oz. 3.5 grams | ¼ oz. 7.0 grams | ½ oz. 14.175 grams | Ounce 28.35 grams | Pound 453.5924 grams | 2.2 lbs or 2.2046 lbs |
| Crystal Meth | \$50–\$100 | \$150–\$300 | \$250–\$450 | \$500–\$800 | \$800–\$1600 | \$1600–\$2800 | \$3200–\$5000 | \$30,000–\$45,000 | \$81,000 |
| Heroin | \$30–\$70 | | | | | | \$1700–2000 | \$30,000 | \$70,000 |
| Black Tar | \$20–\$50 | | | | \$500–800 | | \$2000–3200 | | |
| Powder Cocaine | | \$100–\$150 | | \$200–\$400 | \$400–\$600 | | \$1050–\$1200 | \$16,000–\$22,000 | \$28,000–\$36,000 |
| Rock Cocaine | \$20–\$40 | | | \$200–\$300 | | | | | |
| Cocaine/Crack | \$20–\$40 | \$75–\$150 | \$150–\$250 | \$300–\$450 | \$500–\$800 | \$1000–\$1500 | \$2200–\$3200 | | |
| Ecstasy | \$10–\$30 | | | | | | | | |
| Marijuana | \$20–\$40 | | | | | | \$400–\$600 | \$5,000 | |
| Hashish | \$10–\$15 | | | | | | | | |
| PCP | \$10–\$20 | \$100 gram | | | \$350–\$550 | | \$900–\$1200 | | |
| LSD | \$4–\$6 per hit | | | | \$225–\$275 per 100 hts | | | | |
| Vicodin® | \$3 – \$5 tablet | | | | | | | | |
| Valium® | \$3 – \$5 tablet | | | | | | | | |
| Xanax® | \$3 – \$8 tablet | | | | | | | | |

For statistical purposes: 1 gram value of crystal methamphetamine = \$200–\$300

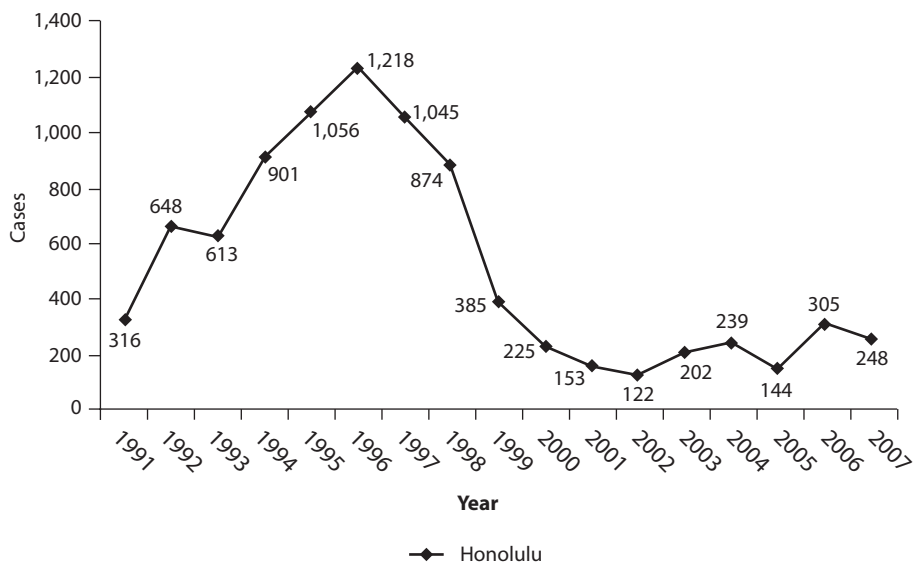
SOURCE: Honolulu Police Department, Narcotics/Vice Covert Detail

Exhibit 2. Hawai'i – Death and Treatment Data for Cocaine: 1991–2007



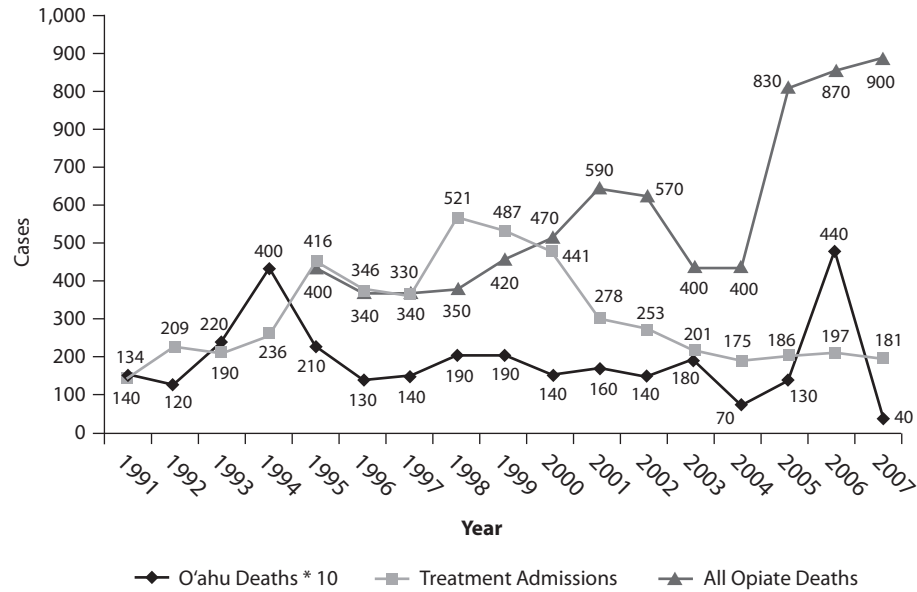
SOURCE: Honolulu City and County Medical Examiner (ME) Office; Hawai'i State Department of Health, Alcohol and Drug Abuse Divisions

Exhibit 3. Hawai'i – Police Data for Cocaine: 1991–2007



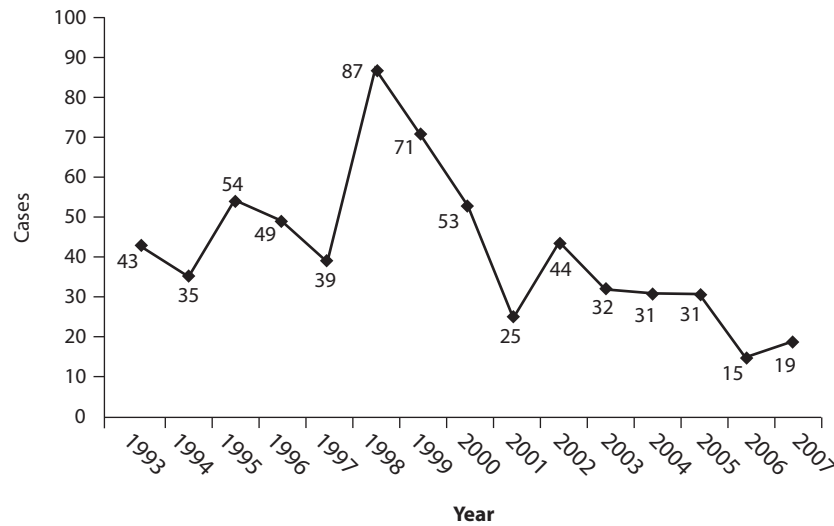
SOURCE: Honolulu Police Department, Narcotics/Vice Division

Exhibit 4. Hawai'i – Death and Treatment Data for Heroin: 1991–2007



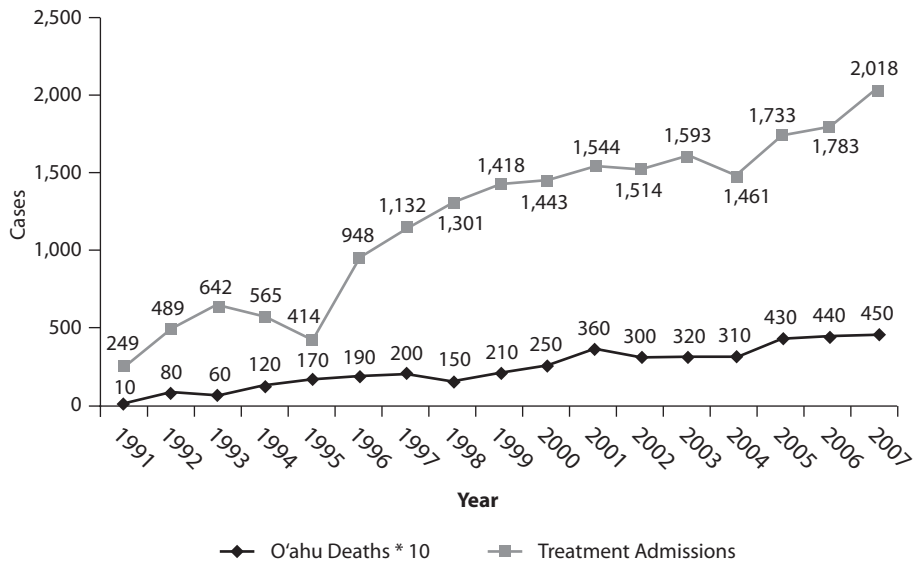
SOURCE: Honolulu City and County Medical Examiner (ME) Office; Hawai'i State Department of Health, Alcohol and Drug Abuse Divisions

Exhibit 5. Hawai'i – Police Data for Heroin: 1993–2007



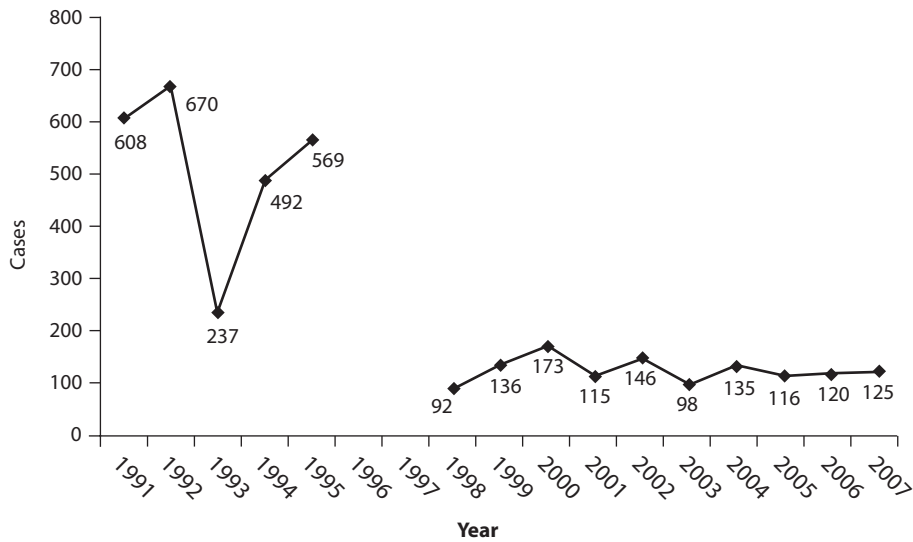
SOURCE: Honolulu Police Department, Narcotics/Vice Division

Exhibit 6. Hawai'i – Death and Treatment Data for Marijuana: 1991–2007



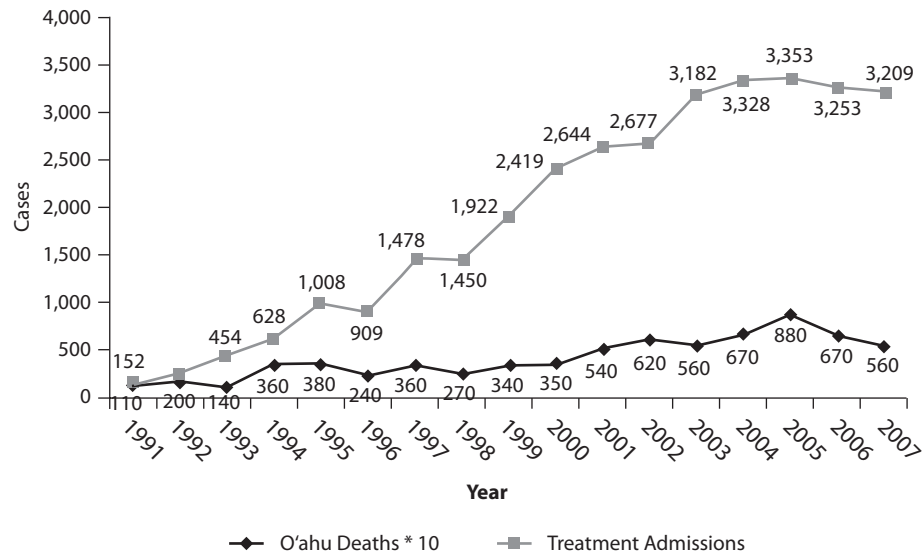
SOURCE: Honolulu City and County Medical Examiner (ME) Office; Hawai'i State Department of Health, Alcohol and Drug Abuse Divisions

Exhibit 7. Hawai'i – Police Data for Marijuana: 1991–2007



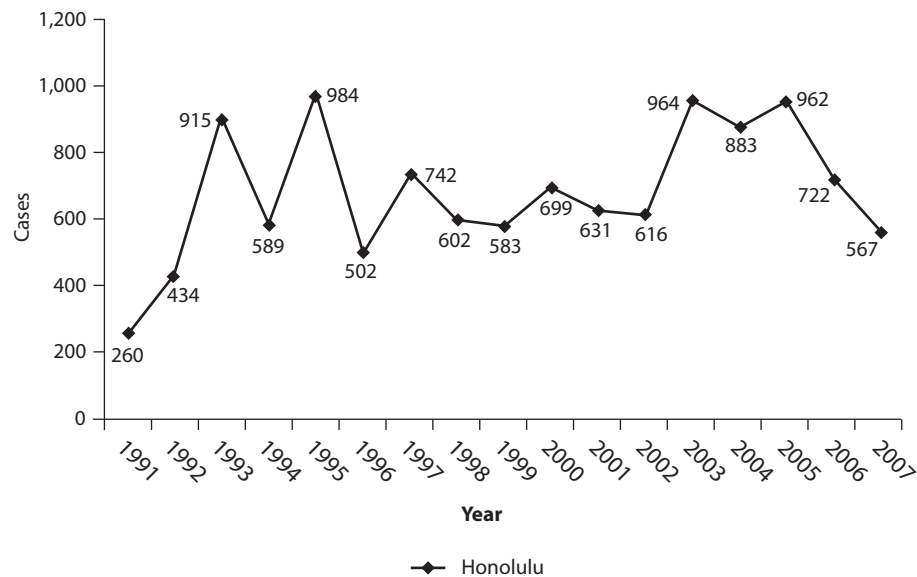
SOURCE: Honolulu Police Department, Narcotics/Vice Division

Exhibit 8. Hawai'i – Death and Treatment Data for Methamphetamine: 1991–2007



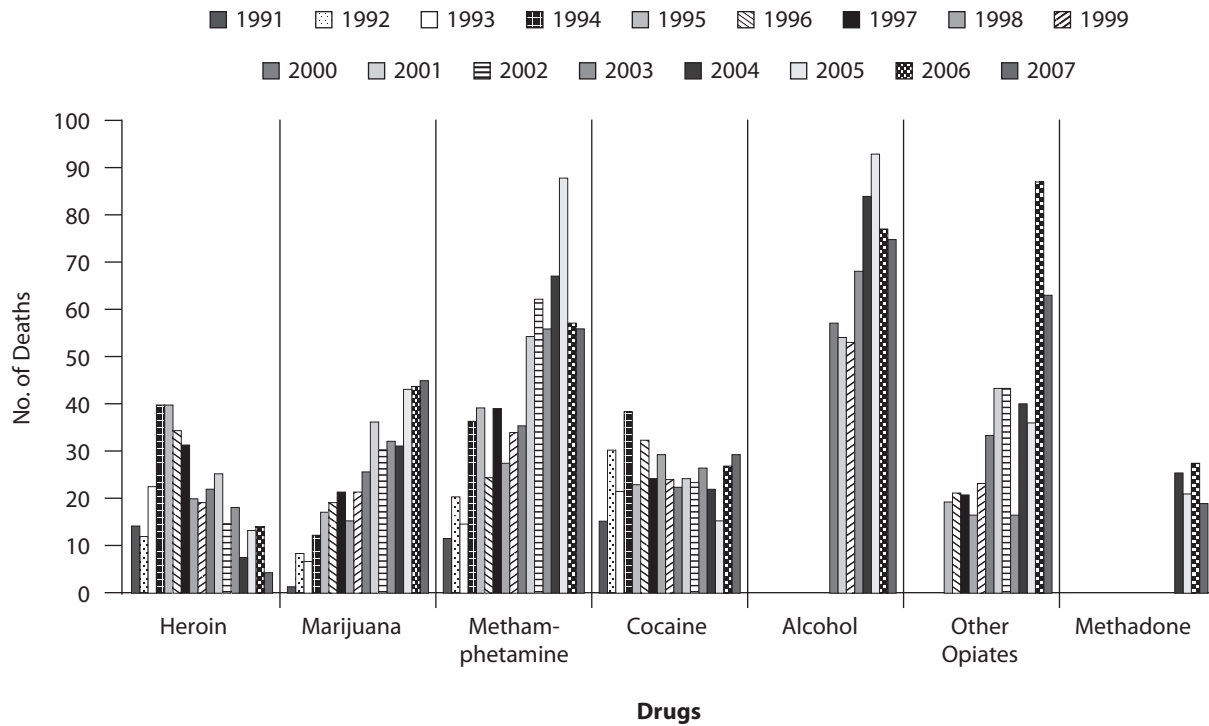
SOURCE: Honolulu City and County Medical Examiner (ME) Office; Hawai'i State Department of Health, Alcohol and Drug Abuse Divisions

Exhibit 9. Hawai'i – Police Data for Methamphetamine: 1991–2007



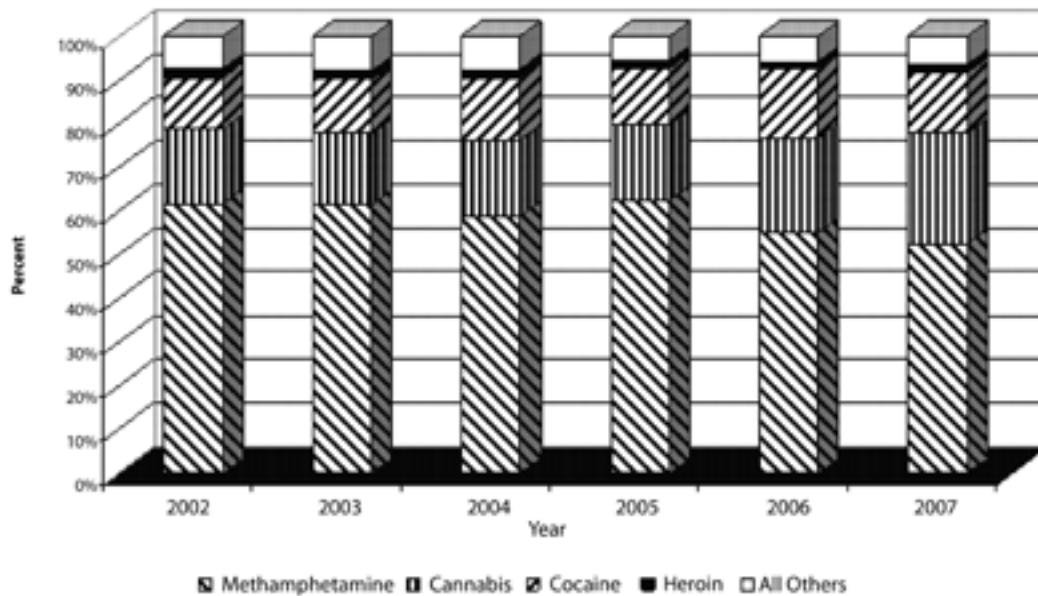
SOURCE: Honolulu Police Department, Narcotics/Vice Division

Exhibit 10. Hawai'i – Annual Data for Drugs Present at Death: 1991–2007



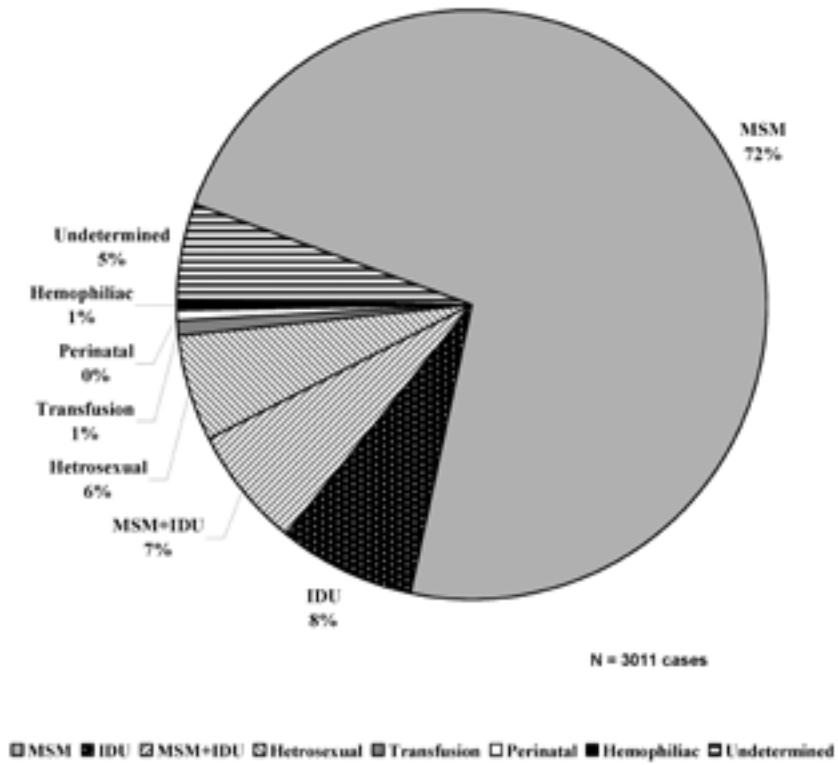
SOURCE: Honolulu City and County Medical Examiner (ME) Office; Hawai'i State Department of Health, Alcohol and Drug Abuse Divisions

Exhibit 11. NFLIS Drug Lab Results for Hawai'i: 2002–2007



SOURCE: DEA, NFLIS

Exhibit 12. Hawai'i AIDS Cases: 1983–2007



SOURCE: Hawai'i State Department of Health

Patterns and Trends in Drug Abuse in Los Angeles County, California: June 2008 Update

Mary-Lynn Brecht, Ph.D.

ABSTRACT

Methamphetamine continued to dominate the local treatment system in Los Angeles County in 2007. Almost one in four admissions (22.9 percent) reported methamphetamine as the primary substance of abuse, a slight decline from 2006 levels (24.5 percent). The second most frequently mentioned primary substance of abuse at admission was heroin (19.6 percent), followed closely by alcohol (18.6 percent), marijuana (18.3 percent), and cocaine/crack (16.2 percent). Cocaine, cannabis (marijuana), and methamphetamine together accounted for 90 percent of all Los Angeles-based illicit drug items analyzed and recorded by the National Forensic Laboratory Information System (NFLIS) in 2007; hydrocodone was the most prevalent pharmaceutical/noncontrolled drug item. Adolescent substance use data collected by the Youth Risk Behavior Surveillance System (YRBSS) illustrated that lifetime usage percentages of marijuana, cocaine, methamphetamine, and heroin remained stable over the period 2001–2007 among Los Angeles County secondary school students. In the 2007 survey, school-based youth were most likely to report lifetime use of marijuana (40.7 percent), with lower lifetime use levels for cocaine (11.4 percent), methamphetamine (9.0 percent), ecstasy (6.4 percent), and heroin (3.1 percent). Retail drug prices were relatively stable between 2006 and 2007. However, 2007 wholesale prices for cocaine, methamphetamine, and phencyclidine (PCP) increased substantially from 2006 levels, and the wholesale price of MDMA decreased. Seizures of marijuana dominated the interdiction arena. Among AIDS cases diagnosed in 2007 in Los Angeles County, 65 percent of males were infected through men

who have sex with men (MSM), and 10 percent were infected through contact with an injection drug user (IDU) or MSM with IDU; 50 percent of females were infected through heterosexual contact.

INTRODUCTION

Area Description

Los Angeles County is the most populous county in the Nation (2007 estimate: 10,331,939). If Los Angeles County were a State, it would rank eighth in population behind California, Texas, New York, Florida, Illinois, Pennsylvania, and Ohio. Approximately 28 percent of California's residents live in Los Angeles County. The population of Los Angeles County has increased approximately 8 percent since the 2000 census. Just over one-half of all Los Angeles County residents are female (50.3 percent). More than one-quarter (27.1 percent) are younger than 18; 10.6 percent are 65 or older. The diverse racial and ethnic composition of Los Angeles County residents includes 38.8 percent non-Hispanic White, 47.0 percent Hispanic, 10.8 percent Asian, 9.4 percent Black/African American, 0.3 percent American Indian, 0.2 percent Pacific Islander, and 1.5 percent multiracial.

Los Angeles County encompasses approximately 4,084 square miles, bordered on the west by 78 miles of Pacific Ocean coastline. It is also bordered by Ventura, Kern, San Bernardino, and Orange Counties. Los Angeles County is a mix of heavily urbanized areas and lesser-populated desert and mountain inland areas in the north and eastern portions of the county.

According to the Drug Enforcement Administration (DEA), Los Angeles County is on the trafficking distribution route for illicit drugs, including heroin, cocaine, marijuana, and methamphetamine from Mexico. In addition, marijuana is cultivated in substantial quantities, and methamphetamine is produced within the State. Mexican drug trafficking organizations and criminal groups, aligned with the major drug cartels

in western Mexico, are cited as a major concern of law enforcement groups in the Los Angeles area.

Data Sources

This report describes drug abuse-related indicators and characteristics in Los Angeles County for 2007, as well as trends in selected indicators for available years from 2000 to 2007. Information was collected from the following sources:

- **Drug treatment data** were derived from the California Outcomes Monitoring System (CalOMS) and its predecessor, the California Alcohol and Drug Data System (CADDSS). The statistics correspond to Los Angeles County alcohol and other drug treatment program admissions for January 2000 to December 2007. In January 2006, there was a change in the statewide substance abuse treatment program admission/discharge data system, from CADDSS to CalOMS. Because of this system change, data collected prior to 2006 may not be exactly comparable to the more recent data. While trends for major substances appear to retain reasonable validity, the reader is nevertheless cautioned when interpreting these statistics. Treatment providers receiving public funding report all their admissions (whether public or private) to CalOMS. Because all programs providing narcotic replacement therapy must report admissions to CalOMS (whether or not the program receives public funding), admissions for heroin treatment may be disproportionately represented in the CalOMS system.
- **Prescription drug sales data** for 2006 were extracted from the DEA's Automation of Reports and Consolidated Orders System (ARCOS) reports. The data provide retail drug distribution data by ZIP Code, covering primarily sales to hospitals and pharmacies. ARCOS data presented here are for the 3-digit ZIP Code areas of 900xx through 919xx and 935xx, which roughly correspond with Los Angeles County boundaries. Available data report the "grams of active ingredient" by year; this is complicated

to translate into the number of prescriptions or users, so data are reported in terms of change of proportional share of prescription opiates and of prescription stimulants from 2001 to 2006 and from 2005 to 2006.

- **Drug availability, price, purity, seizure, and distribution data** were derived from the Los Angeles High Intensity Drug Trafficking Area (HIDTA), the Los Angeles County Regional Criminal Information Clearinghouse (LA CLEAR), the National Drug Intelligence Center (NDIC), and the DEA. The prices included in this report reflect the best estimates of the analysts in the Research and Analysis Unit at LA CLEAR and reported in NDIC publications. The price estimates are based primarily on field reports, interviews with law enforcement agencies throughout the Los Angeles HIDTA, and post-seizure analysis.
- **Drug analysis results** from local forensic laboratories were derived from the DEA's National Forensic Laboratory Information System (NFLIS). The statistics correspond to items analyzed in 2007. While previous Los Angeles County reports included trends from 2003 to 2006, the data source recommended that because of changes in the data system, recent data may not be comparable to earlier statistics.
- **Adolescent substance use statistics** were accessed from the Youth Risk Behavior Surveillance System (YRBSS) for years 2001 to 2007. As part of the YRBSS, the Centers for Disease Control conducts the Youth Risk Behavior Survey (YRBS) to monitor health risk behaviors among students in grades 9–12. YRBS data were the most recent available for general population youth in Los Angeles County.
- **Demographic and geographic data** were accessed from the California Department of Finance, Demographic Research Unit, and the U.S. Census Bureau (*State and County QuickFacts*).
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus**

(HIV) data (cumulative through December 2007) were obtained from the Los Angeles County Department of Health Services, HIV Epidemiology Program, Advanced HIV (AIDS) Quarterly Surveillance Summary, January 2008.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Approximately 16 percent of Los Angeles County treatment admissions in calendar year (CY) 2007 reported crack or powder cocaine as the primary drug (exhibit 1). The absolute number of primary cocaine/crack admissions decreased 11 percent from 2006 to 2007, following a 12-percent increase in frequency from 2005 to 2006. As a percentage share of the total admissions, cocaine admissions had remained relatively stable from 2000 to 2006 (with some fluctuation between 17.1 and 19.3 percent), with a slight decrease to 16.2 percent in 2007.

A majority (64.5 percent) of primary cocaine admissions in 2007 were male, a slight decrease from the previous year (67.3 percent). The racial/ethnic composition of cocaine admissions remained stable from the previous year, with Blacks (non-Hispanic) continuing to dominate cocaine admissions (at 56.5 percent of the total), followed by Hispanics (at 24.2 percent), and White non-Hispanics (15.3 percent); other racial/ethnic groups combined constituted only 3.9 percent. Cocaine admissions were predominantly for clients age 35 and older (76.4 percent) (exhibit 2). Primary cocaine admissions were more likely than admissions for other drugs to report being homeless at admission (26.7 percent). Sixty percent had earned a high school diploma/GED or reported post-high school educational levels. At the time of admission, 14.4 percent were employed full- or part-time.

Primary cocaine treatment admissions were more likely than treatment admissions for any other major illicit substances to report a secondary substance (60.0 percent); the most common

secondary substance was alcohol (36.0 percent of cocaine admissions), followed by marijuana (17.5 percent). Smoking was the predominant reported route of administration (86.2 percent); another 10.7 percent reported inhalation. Only 2.9 percent reported any intravenous drug use in the year prior to admission (exhibit 2).

More than one-half (51.5 percent) of the cocaine admissions were referred to treatment through various court or criminal justice system sources: 38.3 percent through the Substance Abuse and Crime Prevention Act (SACPA) and 13.2 percent through other court/criminal justice agencies (including dependency court, drug court, driving under the influence [DUI]/driving while intoxicated [DWI], and other non-SACPA court/criminal justice vectors). Forty-three percent of the primary cocaine admissions had not previously been admitted to treatment in the California public treatment system (exhibit 2). The 2007 figures were stable with those of the previous year.

Data from NFLIS for CY 2007 showed that out of 60,024 analyzed items reported by participating laboratories within Los Angeles County, 37.2 percent were found to be cocaine/crack (exhibit 3). Cocaine/crack was the most likely illicit drug to be found among items tested in the county, followed by cannabis and methamphetamine, similar to the ranking for these drugs for the United States as a whole in 2007. Regarding all drug items seized in Los Angeles and analyzed by the NFLIS, cocaine/crack has been the most prevalent (number 1 rank) in Los Angeles County since 2004.

Los Angeles area crack and powder cocaine seizures in 2007 (2,367 kilograms) were about one-half the amount seized in 2006 (exhibit 4). The street value of the seized cocaine (more than \$16.5 million) accounted for approximately 28 percent of the total street value of all major drugs seized in 2007. Most (approximately 95 percent) of the seized cocaine was in powder form. Wholesale prices for powder cocaine were higher in 2007 than 2006: \$17,000–\$18,000 per kilogram vs. \$12,000–\$14,000 in 2006 (exhibit 5). However, these wholesale price increases were not

yet reflected in street price increases; retail prices have remained stable at about \$80 per gram.

According to the YRBS, 11.4 percent (CI=9.1–14.3) of students in grades 9–12 in 2007 reported ever having used cocaine in any form. In terms of past-month use, 4.2 percent (CI=2.6–6.6) of youth reported using cocaine (exhibit 6). Trends as reported through YRBS data have been remarkably stable from 2001 to 2007.

Heroin

In 2007, 10,150 Los Angeles County treatment admissions reported heroin as the primary drug. These heroin admissions represented 19.6 percent of Los Angeles County admissions, a share second to that of methamphetamine (exhibit 1). While total 2007 heroin admissions represented a slight decrease (7.5 percent) from 2006, the percentage share remained fairly stable across 2005–2007.

Heroin admission demographics have remained stable across recent reporting periods. In 2007, heroin admissions were predominantly male (73.4 percent), more likely to be Hispanic (46.5 percent) or non-Hispanic White (39.1 percent) than Black (9.4 percent) or other race/ethnicity (5.0 percent), and age 35 or older (74.5 percent) (exhibit 2). Sixteen percent of primary heroin admissions were homeless at time of admission, and 20.7 percent reported full- or part-time employment. High school graduation/GED or higher education levels were reported by 58.2 percent.

Slightly more than one-half (56.5 percent) of heroin users reported no secondary substance abuse. Cocaine/crack was the most commonly reported secondary substance problem (18.3 percent), followed by alcohol (9.7 percent). Heroin administration patterns remained relatively stable, with injection use reported by 84.2 percent in 2007, smoking by 9.2 percent, and inhalation (snorting) by 4.8 percent (exhibit 2). Similar to previous years, 82.8 percent reported injection drug use in the year prior to admission.

Heroin admissions were less likely than admissions for other types of drugs to have been

referred to treatment by the court/criminal justice system (12.1 percent vs. 28.4–55.3 percent for admissions for the three other major drugs); SACPA referrals were reported by 8.9 percent and 3.2 percent were referred by other court/criminal justice system agencies (exhibit 2). About one-fifth (20.6 percent) indicated that they had not previously participated in drug treatment.

According to NFLIS data based on 60,024 analyzed items reported by participating laboratories within Los Angeles County in 2007, only 3.5 percent were found to be heroin (similar to percentages since 2003; exhibit 3). Heroin ranked fourth for both Los Angeles County and the Nation as a whole among drugs found in NFLIS items. This small proportion is consistent with the small proportion of heroin reported among Los Angeles Police Department seizures statistics.

Seizures of heroin from interdictions with a California nexus, as reported to LA CLEAR, were down substantially in 2007 (56 kilograms) compared with 2006 (exhibit 4), with a street value of about \$380,000. According to LA CLEAR and reported through the NDIC, the wholesale price per kilogram of the most prevalent type of heroin in Los Angeles, Mexican black tar, ranged from \$20,000–\$22,000, similar to 2006 levels (exhibit 5). Retail prices were about \$80 per gram, also similar to 2006 prices. Less prevalent Mexican brown powder heroin had a slightly higher wholesale price of about \$25,000 per kilogram.

Lifetime use of heroin reported by youth in YRBS showed that 3.1 percent (CI=2.0–4.8) of students in grades 9–12 in 2007 reported ever having used heroin (exhibit 6). Levels have remained consistently low since 2001 and, despite small fluctuations in percentage, show no significant year-to-year changes from 2001 to 2007.

Other Opiates/Narcotics

Other opiates/synthetics continued to constitute a small percentage (2.2 percent) of Los Angeles County treatment admissions (exhibit 1). After slightly lower levels in 2005–2006, 2007 figures were back up to 2004 levels. Despite the small

share of admissions for other opiates/synthetics compared with other major substances of abuse, there is current concern in California and other CEWG areas about general increases in prevalence of prescription opiate misuse and when/whether those increases in use will translate to problematic use and related treatment entry.

Approximately 3.9 percent of the 60,024 items analyzed and reported to NFLIS in 2007 were identified as pharmaceuticals, prescription drugs, or noncontrolled nonnarcotic medications (as opposed to illicit substances). Of those, nearly one-half were found to be narcotic/other analgesics. The most frequently cited analgesics were hydrocodone (463 items, 0.8 percent of total items), oxycodone (138 items, 0.2 percent), and codeine (124 items, 0.2 percent) (exhibit 3). These three drugs were ranked 6th, 9th, and 11th, respectively, among substances reported in the local NFLIS data.

DEA ARCOS data on sales of prescription-type opiates to hospitals and pharmacies in the Los Angeles County area indicated that quantities sold of prescription opiates increased substantially between 2001 and 2006 (25 percent), with an increase of 11 percent from 2005 to 2006 (exhibit 7). The greatest increases in quantity among specific opiates occurred for oxycodone (26-percent increase from 2005 to 2006), methadone (23-percent increase), and hydromorphone (21-percent increase). It is important to mention that these data for methadone only included prescriptions for the treatment of pain by physicians and did not include methadone provided in local narcotic treatment programs. Quantities of codeine sold to hospitals and pharmacies decreased from 2001 to 2005 then leveled off for 2006; sales of meperidine have also decreased.

Methamphetamine/Other Amphetamines

The percentage (22.9) of primary methamphetamine admissions to Los Angeles County substance abuse treatment programs decreased slightly in 2007 from the 26.1 percent high in 2005, and the number of methamphetamine

admissions (11,853) decreased from a high of 13,414 in 2006 (exhibit 1). Other amphetamines constituted a very small percentage of admissions in 2007 (0.06 percent, data not shown).

Compared with admissions for other major illicit drugs, primary methamphetamine admissions had the largest proportion of females (40.7 percent). Methamphetamine admissions were most likely to be Hispanic (55.4 percent), followed by non-Hispanic Whites (34.4 percent) (exhibit 2). Other racial/ethnic groups accounted for small percentages: Asian/Pacific Islanders (2.9 percent), Blacks (3.7 percent), and all others (3.6 percent). The racial/ethnic breakdown continued the trend toward increasing proportions of Hispanic methamphetamine admissions, such that Hispanics were over-represented compared with their Los Angeles County general population distribution. There was broad age diversity across methamphetamine admissions: 18–25-year-olds (26.5 percent), 26–34-year-olds (32.8 percent), and clients 35 or older (36.3 percent). The age distribution represents a shift toward older admissions compared with 2006. About one-half (53.1 percent) reported education levels of high school graduate/GED or higher, 20.4 percent reported full- or part-time employment, and 20.9 percent were homeless at admission.

While 42.1 percent of methamphetamine admissions reported no secondary substance problem, 25.8 percent reported marijuana and 22.9 percent reported alcohol as a secondary substance problem. Smoking continued as the most frequently mentioned way for primary methamphetamine admissions to administer the drug (76.8 percent), similar to levels in 2006 (75.0 percent). The recent figures are part of a general shift toward smoking as the preferred administration route (compared with about one-half smokers in 1999). Conversely, the proportions of injectors and inhalers have declined since 1999, from 15.2 and 29.9 percent, respectively, to 5.8 and 14.4 percent, respectively, in 2007. Past-year injection drug use was reported by 8.6 percent of primary methamphetamine admissions.

More than one-half (55.3 percent) of primary methamphetamine treatment admissions were referrals through court or criminal justice systems: 40.3 percent were referred through SACPA, and 15.0 percent were referred through other legal system channels. Forty-five percent were entering treatment for the first time (exhibit 2).

According to NFLIS data based on 60,024 analyzed items reported by participating laboratories within Los Angeles County in 2007, 23.0 percent were found to be methamphetamine/amphetamine (exhibit 3). Methamphetamine accounted for the third largest proportion of samples positively identified by NFLIS in 2007, a similar rank to methamphetamine for the whole United States, but a decrease from ranking second in Los Angeles for 2006.

In 2007, methamphetamine was still reported by the NDIC to be the major drug threat in the Los Angeles HIDTA area (four counties, including Los Angeles) in overall terms (production, distribution, and abuse), in spite of specific declines in many of the indicators. Los Angeles area seizures of methamphetamine in 2007 (465 kilograms) represented a substantial decrease from 2006 levels (733 kilograms) (exhibit 4). Seizures were almost entirely “ice” (or crystal methamphetamine). The street value of the seized methamphetamine was about \$2.3 million, accounting for only 4 percent of the total value of major drugs seized. The wholesale price of methamphetamine in 2007 ranged from \$16,000–\$18,000, almost double the 2006 prices (exhibit 5). Street prices remained stable at about \$40 for one-quarter gram for 2007; however, early 2008 reports indicated an increase in the street prices. According to NDIC reports, wholesale price increases were attributed to significant decreases in methamphetamine availability as a result of major control efforts on both sides of the California/Mexico border and strict precursor chemical regulations.

Clandestine laboratory seizures in the Los Angeles HIDTA area have continued to decline dramatically, with 25 such seizures in 2007 compared with 78 in 2006, 112 in 2005, 217 in 2004,

470 in 2003, and 607 in 2002. Fourteen children were affected by these lab incidents in 2007.

Data from the YRBS showed that 9.0 percent (CI=7.1–11.4) of students in grades 9–12 in 2007 reported ever having used methamphetamine (exhibit 6). Levels have remained consistent since 2001; the small fluctuations in percentages were not significant either year-to-year or overall from 2001 to 2007.

Marijuana

Both the number of primary marijuana treatment admissions and marijuana's percentage share of all admissions steadily increased from 2000 to 2007 in Los Angeles County (exhibit 1). During that period, numbers increased from 3,553 to 9,469, and percentages rose from 7.0 to 18.3.

Seventy-one percent of the primary marijuana admissions were male. Marijuana admissions had the largest proportion of individuals younger than 18: 46.5 percent were younger than 18, compared with a range of 0.3 percent for heroin and 4.3 percent for methamphetamine (exhibit 2). There appears to be a trend toward an “aging” of marijuana admissions, with a decline in the percentage in the younger-than-18 category from 2006 levels of 54.5 percent. Consistent with the generally younger age for marijuana admissions than for those for other primary drugs, marijuana admissions had the lowest percentage of high school or higher education (25.9 percent), employment (10.6 percent full- or part-time), and homelessness (6.0 percent). Primary marijuana admissions were most likely to be Hispanic (51.3 percent), followed by Blacks (30.7 percent), White non-Hispanics (12.8 percent), and all other race/ethnic categories (5.3 percent combined).

While 42.6 percent of primary marijuana admissions reported no secondary drug problem, alcohol was identified as a secondary drug problem for 38.5 percent, methamphetamine by 10.2 percent, and cocaine/crack by 5.8 percent. Smoking was the predominant route of administration for marijuana (97.9 percent). Few (0.8

percent) reported any past-year injection drug use (exhibit 2).

A total of 28.4 percent of primary marijuana admissions reported being referred to treatment by the court/criminal justice system: 13.6 percent through SACPA and 14.8 percent through other court/criminal justice system channels. Seventy-five percent were entering treatment for the first time.

According to NFLIS data from 60,024 analyzed items reported by participating laboratories within Los Angeles County in 2007, 29.8 percent were found to be marijuana/cannabis (exhibit 3). Cannabis was the second most frequently identified substance in Los Angeles County, as it was for the whole United States. In 2006, marijuana/cannabis ranked third in Los Angeles County NFLIS items.

Marijuana continued to dominate drug seizures in the city of Los Angeles. The amount of marijuana seized in 2007 (64,913 kilograms) was more than double 2006 seizures of 30,431 kilograms (exhibit 4), with a street value of \$41.8 million. Marijuana accounted for 72 percent of the total street value of the seizures of major drugs. The wholesale price of Mexican low-grade marijuana ranged from \$300–\$350 per pound, while the retail price range was about \$5–\$10 per gram, similar to 2006 price levels (exhibit 5). The wholesale price of high-grade sinsemilla increased to \$6,000 per pound in 2007 from \$2,000–\$4,000 in 2006. Retail prices remained stable at \$60–\$80 for one-eighth ounce.

Data from the YRBS showed that 40.7 percent (CI=33.8–47.9) of students in grades 9–12 in 2007 reported ever using marijuana (exhibit 6). Past-month use of marijuana was reported by 21.4 percent (CI=18.5–24.6). Levels have remained relatively consistent since 2001, with no significant changes either year-to-year or overall from 2001 to 2007.

Club Drugs

Very few admissions to treatment for substance abuse in Los Angeles County in 2007 reported

club drugs, including methylenedioxymethamphetamine (MDMA/ecstasy), gamma hydroxybutyrate (GHB), ketamine, or Rohypnol®, as the primary drug (0.2 percent, $n=97$; data not shown in exhibits).

According to NFLIS data on 60,024 analyzed items from Los Angeles County in 2007, 1.5 percent contained MDMA (exhibit 3). MDMA was more likely to be found in Los Angeles County NFLIS items (ranking fifth) than in the Nation as a whole (ranking eighth). An additional 0.2 percent of local items were found to be GHB, ketamine, or Rohypnol®.

The DEA reported that MDMA was widely available in Los Angeles, one of the three major gateway cities for incoming shipments of MDMA to the United States (Miami and New York are the other two cities). NDIC reported that Los Angeles was a large domestic MDMA market (with supplies originating from Canadian sources). The reported MDMA availability was reflected in substantial seizures of more than 176,000 doses in 2007 (exhibit 4). These seizures had a street value estimated at \$3.6 million, representing about 6 percent of the total street value of seizures of major drugs. At the wholesale level, MDMA prices were about \$2,500–\$3,000 per “boat” (1,000 pills), less than one-half the 2006 prices (exhibit 5). At the retail level, ecstasy sold for \$10–\$12 per tablet, consistent with 2006 prices (exhibit 5).

According to YRBS data for 2007, 6.4 percent (CI=3.9–10.1) of students in grades 9–12 reported any lifetime use of ecstasy (exhibit 6). Use levels remained relatively consistent from 2003 to 2007; small fluctuations in percentages were not significant either year-to-year or overall from 2003 to 2007.

Phencyclidine and Hallucinogens

Phencyclidine (PCP) and other hallucinogens accounted for 0.6 percent of the reported primary drugs among Los Angeles treatment admissions in 2007 ($n=301$, data not shown in exhibits); all but 20 of these mentions were for PCP.

According to NFLIS data on 60,024 analyzed items from Los Angeles County in 2007, 0.7 percent contained PCP (exhibit 3). PCP was ranked 7th in Los Angeles, compared with 15th in the Nation as a whole.

PCP seizures declined in 2007 (75 gallons) from 2006 levels. The wholesale price for a gallon of PCP increased in 2007 to \$15,000–\$18,000, compared with 2006 prices of \$10,000–\$12,000. An ounce of PCP could be purchased for \$300–\$350 in 2007. A sherm cigarette dipped in liquid PCP sold for \$10–\$20 (exhibit 5).

Benzodiazepines, Barbiturates, and Sedative/Hypnotics

In 2007, treatment admissions associated with primary barbiturate, benzodiazepine, or other sedative/hypnotic abuse continued to account for less than 1 percent of all admissions in Los Angeles County (0.4 percent, $n=212$, data not shown in exhibits).

Approximately 0.7 percent of the 60,024 Los Angeles County items analyzed and reported to the NFLIS system in 2007 were identified as benzodiazepines. The two most frequently cited benzodiazepines were alprazolam (0.3 percent) and diazepam (0.2 percent), ranking 8th and 13th, respectively, in Los Angeles (exhibit 3).

Other Drugs

Very few treatment admissions in Los Angeles County in 2007 reported other stimulants (including prescription stimulants such as methylphenidate) as the primary drug problem (0.2 percent, $n=118$, data not shown in exhibits).

Stimulants were found in very few (0.1 percent) of the NFLIS items from Los Angeles County in 2007. Methylphenidate and phentermine were the most common drugs identified in this class.

ARCOS data indicated continuing increases in sales of prescription stimulants (an increase of 13 percent for the total class of drugs from 2005 to 2006). Examples of increases in specific drugs included 16 percent for DL amphetamine

(Adderall®), 13 percent for Dexedrine®, and 12 percent for methylphenidate (Ritalin®) (exhibit 7).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The cumulative total of adult/adolescent AIDS cases reported in Los Angeles County through December 31, 2007, reached 53,198. Currently, approximately 22,455 Los Angeles County residents are living with advanced HIV disease. Los Angeles County cumulative cases represent approximately 36 percent of the 147,821 cumulative cases in California. Of the cumulative cases reported in Los Angeles County, 45 percent were non-Hispanic White, 31 percent were Hispanic, and 20 percent were African American. In terms of age, 12 percent were younger than 30, 44 percent were age 30–39, and 44 percent were age 40 or older. Most (92 percent) were male.

Approximately 7 percent of cumulative AIDS cases reported by the end of 2007 involved injection drug use (IDU) as the primary vector of exposure, and another 7 percent involved MSM with IDU. For females, exposure through IDU contact was 24 percent, while for males IDU exposure was 13 percent (combined across categories of IDU alone or male-to-male sexual contact with an IDU). Exposure through IDU alone was particularly high for Blacks (13 percent) and Asian/Pacific Islanders (11 percent), compared with 2–6 percent for other race/ethnic categories (data not shown).

The number of HIV/AIDS diagnoses in Los Angeles County has been gradually declining since 2000 (exhibit 8). Because of reporting delays, figures for 2007 are a substantial underestimate of what completed reporting is likely to show.

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Exhibit 1. Frequency and Percentages of Annual Treatment Admissions in Los Angeles County, by Primary Drug of Abuse: 2000–2007

| Primary Drug | 2000 Freq (%) | 2001 Freq (%) | 2002 Freq (%) | 2003 Freq (%) | 2004 Freq (%) | 2005 Freq (%) | 2006 Freq (%) | 2007 (%) |
|------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Cocaine | 8,951 (17.7) | 8,703 (18.9) | 9,009 (19.3) | 10,057 (18.8) | 9,261 (18.0) | 8,418 (17.1) | 9,421 (17.2) | 8,354 (16.2) |
| Heroin | 22,975 (45.4) | 17,560 (38.1) | 14,863 (31.9) | 13,595 (25.4) | 12,283 (23.9) | 9,997 (20.3) | 10,969 (20.0) | 10,150 (19.6) |
| Marijuana | 3,553 (7.0) | 4,286 (9.3) | 5,502 (11.8) | 7,121 (13.3) | 7,130 (13.9) | 7,681 (15.6) | 9,121 (16.6) | 9,469 (18.3) |
| Methamphetamine | 4,140 (8.2) | 5,418 (11.7) | 7,145 (15.3) | 10,056 (18.8) | 11,235 (21.8) | 12,875 (26.1) | 13,414 (24.5) | 11,853 (22.9) |
| PCP | 337 (0.7) | 405 (0.9) | 415 (0.9) | 576 (1.1) | 365 (0.7) | 278 (0.6) | 279 (0.5) | 281 (0.5) |
| Other Opiates/ Synthetics | 859 (1.7) | 834 (1.8) | 839 (1.8) | 1,227 (2.3) | 956 (1.9) | 510 (1.0) | 1,013 (1.8) | 1,161 (2.2) |
| Other (Includes Alcohol) | 9,753 (19.3) | 8,921 (19.3) | 8,856 (19.0) | 10,871 (20.3) | 10,200 (19.8) | 9,516 (19.3) | 10,362 (18.9) | 10,161 (19.7) |
| Total Admissions | 50,568 (100.0) | 46,127 (100.0) | 46,629 (100.0) | 53,503 (100.0) | 51,430 (100.0) | 49,275 (100.0) | 54,784 (100.0) | 51,662 (100.0) |

SOURCE: LA County Alcohol and Drug Program Administration, California Outcomes Monitoring System (CalOMS)

Exhibit 2. Demographics of Treatment Admissions in Los Angeles County, by Percent and Primary Illicit Drug of Abuse: 2007

| Demographics | Cocaine/ Crack | Heroin | Marijuana | Metham- phetamine | All Admissions |
|--|-------------------|-----------------|----------------|----------------------|-------------------|
| Gender¹ | | | | | |
| Male | 64.5 | 73.4 | 71.1 | 59.2 | 65.6 |
| Female | 35.5 | 26.6 | 28.9 | 40.7 | 34.3 |
| Race/Ethnicity | | | | | |
| White, non-Hispanic | 15.3 | 39.1 | 12.8 | 34.4 | 28.5 |
| Black, non-Hispanic | 56.5 | 9.4 | 30.7 | 3.7 | 22.7 |
| Hispanic | 24.2 | 46.5 | 51.3 | 55.4 | 43.2 |
| American Indian | 0.7 | 0.7 | 0.4 | 1.0 | 0.9 |
| Asian/Pacific Islander | 1.3 | 1.1 | 2.2 | 2.9 | 2.0 |
| Other | 1.9 | 3.2 | 2.7 | 2.6 | 2.7 |
| Age at Admission | | | | | |
| 17 and younger | 1.0 | 0.3 | 46.5 | 4.3 | 13.0 |
| 18–25 | 7.0 | 9.0 | 26.7 | 26.5 | 16.5 |
| 26–34 | 15.6 | 16.2 | 12.3 | 32.8 | 19.0 |
| 35 and older | 76.4 | 74.5 | 14.4 | 36.3 | 51.6 |
| Route of Administration | | | | | |
| Oral | 1.2 | 1.4 | 1.6 | 1.7 | 22.8 |
| Smoking | 86.2 | 9.2 | 97.9 | 76.8 | 52.1 |
| Inhalation | 10.7 | 4.8 | 0.3 | 14.4 | 6.2 |
| Injection | 0.6 | 84.2 | 0.0 | 5.8 | 18.1 |
| Unknown/other | 1.3 | 0.4 | 0.2 | 1.3 | 0.9 |
| Secondary Substance² | | | | | |
| None | 37.9 | 56.5 | 42.6 | 42.1 | 47.2 |
| Alcohol | 36.0 | 9.7 | 38.5 | 22.9 | 20.6 |
| Cocaine/crack | -- | 18.3 | 5.8 | 5.5 | 8.7 |
| Heroin | 1.8 | -- | 0.4 | 1.5 | 1.1 |
| Marijuana | 17.5 | 3.8 | -- | 25.8 | 13.4 |
| Methamphetamine | 4.7 | 6.1 | 10.2 | -- | 5.4 |
| Past Year Injection Drug Use | 2.9 | 82.8 | 0.8 | 8.6 | 19.6 |
| Homeless | 26.7 | 16.0 | 6.0 | 20.9 | 17.3 |
| Employed Full- or Part-Time | 14.4 | 20.7 | 10.6 | 20.4 | 16.4 |
| Graduated from High School | 60.0 | 58.2 | 25.9 | 53.1 | 51.3 |
| Referred by Court/Criminal Justice System³ | | | | | |
| SACPA Probation/Parole | 38.3 | 8.9 | 13.6 | 40.3 | 21.8 |
| Other Court | 13.2 | 3.2 | 14.8 | 15.0 | 10.5 |
| First Treatment Episode | 42.9 | 20.6 | 75.0 | 45.2 | 48.7 |
| Total Admissions (N) | (8,354) | (10,150) | (9,469) | (11,853) | (51,662) |

¹0.05 percent reported "other" gender and were not included in this table.

²Other secondary drugs not listed in table; thus percentages may not add to 100.

³SACPA=Substance Abuse and Crime Prevention Act of 2000 (a.k.a., Proposition 36); other court referrals include dependency court, drug court, DUI/DWI, and other non-SACPA court/criminal justice.

SOURCE: LA County Alcohol and Drug Program Administration, California Outcomes Monitoring System (CalOMS)

Exhibit 3. Most Common Drugs in Items Analyzed by the NFLIS for Los Angeles County and the United States: 2007

| Drug (LA ranking) | Number | Percent | LA Rank | U.S. rank |
|-------------------|---------------|--------------|---------|-----------|
| Cocaine | 22,309 | 37.2 | 1 | 1 |
| Cannabis | 17,786 | 29.8 | 2 | 2 |
| Methamphetamine | 13,806 | 23.0 | 3 | 3 |
| Heroin | 2,115 | 3.5 | 4 | 4 |
| MDMA | 904 | 1.5 | 5 | 8 |
| Hydrocodone | 463 | 0.8 | 6 | 5 |
| PCP | 441 | 0.7 | 7 | 15 |
| Alprazolom | 168 | 0.3 | 8 | 6 |
| Oxycodone | 138 | 0.2 | 9 | 7 |
| Psilocin | 131 | 0.2 | 10 | 18 |
| Codeine | 124 | 0.2 | 11 | 16 |
| Carisoprodol | 123 | 0.2 | 12 | 14 |
| Diazepam | 121 | 0.2 | 13 | 11 |
| Other | 1,395 | 2.3 | | |
| Total | 60,024 | 100.0 | | |

SOURCE: NFLIS, DEA

Exhibit 4. Illicit Drugs Seized¹ in the Los Angeles HIDTA Region: 2004–2007

| Substance | 2004 | 2005 | 2006 | 2007 |
|------------------|--------|--------|--------|----------------------|
| Marijuana | 36,294 | 72,191 | 30,431 | 64,913 |
| Cocaine | 2,920 | 4,062 | 4,461 | 2,367 |
| Methamphetamine | 2,536 | 2,229 | 733 | 465 |
| PCP ² | NA | 23 | 476 | 75 |
| Heroin | 36 | 15 | 314 | 56 |
| MDMA | 25 | 48 | 144 | 176,030 ³ |

¹In kilograms, unless otherwise noted.²Liquid gallons.³Dosage units.

SOURCE: NDIC

Exhibit 5. Illicit Drug Prices in Los Angeles: 2006 and 2007

| Type of Drug | Price | | | | | |
|------------------------------------|---------------------------|---------------------------|--------------------|----------------------|-----------------------|----------------------------------|
| | Wholesale | | Midlevel | | Retail | |
| | 2006 | 2007 | 2006 | 2007 | 2006 | 2007 |
| Cocaine—Powder | \$12,000– \$14,000/kg | \$17,000– \$18,000/kg | \$500– \$600/oz | \$600– \$800/oz | \$80/gm | \$80/gm |
| Heroin—Mexican Black Tar | \$20,000– \$22,000/kg | \$20,000– \$22,000/kg | \$300– \$800/oz | \$500– \$800/oz | \$80/gm | \$80/gm |
| Heroin—Mexican Brown Powder | \$25,000/kg | \$25,000/kg | NA ¹ | NA | \$80/gm | \$80/gm |
| Marijuana—Mexican Low-Grade | \$300– 350/lb | \$300– \$350/lb | \$75– \$100/oz | \$75– \$100/oz | \$5–\$10/gm | \$5–\$10/gm |
| Marijuana—Sinsemilla High Grade | \$2,000– \$4,000/lb | \$6,000/lb | \$300– \$600/oz | \$300– \$600/oz | \$60– \$80/ 1/8 oz | \$60– \$80/ 1/8 oz |
| Methamphetamine— Ice | \$8,000– \$12,000/lb | \$16,000– \$18,000/lb | \$650/oz | \$800– \$1,200/oz | \$40/ 1/4 gm | \$40/ 1/4 gm. |
| PCP | \$10,000– \$12,000/gal | \$15,000– \$18,000/gal | NA | \$300– \$350/oz | NA | \$10–\$20/ sherm cigarette |
| MDMA (ecstasy) | \$6,000– \$10,000/boat | \$2,500– \$3,000/boat | NA | NA | \$10–\$12/ tablet | \$10–\$12/ tablet |

¹NA=not available.

SOURCE: NDIC, Los Angeles High Intensity Drug Trafficking Area Drug Market Analysis, June 2008 (from Los Angeles Clearinghouse)

Exhibit 6. Trends in the Percentage of Los Angeles County Youth with Lifetime or Past-30-Day Use of Alcohol and Other Drugs: 2001–2007

| Substance | 2001 | 2003 | 2005 | 2007 |
|--|------|------|------|------|
| At Least One Drink of Alcohol in Lifetime | 76.4 | 76.1 | 72.5 | 71.2 |
| Marijuana—Lifetime | 41.2 | 42.5 | 39.7 | 40.7 |
| Marijuana—Past 30 Days | 22.5 | 22.2 | 18.1 | 21.4 |
| Cocaine—Lifetime | 10.1 | 9.9 | 10.0 | 11.4 |
| Cocaine—Past 30 Days | 5.9 | 4.1 | 4.9 | 4.2 |
| Heroin—Lifetime | 1.8 | 2.2 | 1.8 | 3.1 |
| Methamphetamine—Lifetime | 7.6 | 8.0 | 10.2 | 9.0 |
| Ecstasy—Lifetime | -- | 4.7 | 3.5 | 6.4 |

SOURCE: YRBS

Exhibit 7. Prescription Opiates and Stimulants Sold to Hospitals and Pharmacies in the Los Angeles County Area, by Percentage of Drug Class in 2006 and Percentage Change 2001 to 2006 and 2005 to 2006¹

| Name of Prescription Opiate | Percent of Drug Class | Percent Change 2001 to 2006 | Percent Change 2005 to 2006 |
|---------------------------------------|------------------------------|------------------------------------|------------------------------------|
| Codeine | 29 | -28 | 0 |
| Oxycodone | 20 | +132 | +26 |
| Hydromorphone | 1 | +118 | +21 |
| Hydrocodone | 28 | +68 | +15 |
| Meperidine | 3 | -40 | -7 |
| Methadone | 3 | +167 | +23 |
| Buprenorphine | <1 | | |
| Morphine | 15 | +79 | +11 |
| Fentanyl base | <1 | +151 | +13 |
| Total Opiates | 100 | +25 | +11 |
| Name of Prescription Stimulant | | | |
| DL Amphetamine (Adderall®) | 13 | +112 | +16 |
| D Amphetamine (Dexedrine®) | 19 | +41 | +13 |
| Methylphenidate (Ritalin®) | 68 | +59 | +12 |
| Total Stimulants | 100 | +61 | +13 |

¹Data for ZIP Codes 900xx to 919xx and 935xx, which approximates Los Angeles County boundaries.
SOURCE: DEA, Automation of Reports and Consolidated Orders System

Exhibit 8. Frequency and Percentages of Annual Adult/Adolescent AIDS Cases by Gender, Year of Diagnosis, and Exposure Category: 2000–2007

| Adult/Adolescent Exposure Category ¹ | 2000 Freq (%) | 2001 Freq (%) | 2002 Freq (%) | 2003 Freq (%) | 2004 Freq (%) | 2005 ² Freq (%) | 2006 ² Freq (%) | 2007 ² Freq (%) |
|---|---------------|---------------|---------------|---------------|---------------|----------------------------|----------------------------|----------------------------|
| Males | | | | | | | | |
| Male-to-Male Sexual Contact | 994 (65) | 951 (65) | 1,060 (66) | 984 (69) | 808 (66) | 718 (65) | 711 (67) | 363 (65) |
| Injection Drug Use | 91 (6) | 92 (6) | 82 (5) | 62 (4) | 60 (5) | 53 (5) | 36 (3) | 13 (2) |
| MSM Contact/Injection Drug Use | 120 (8) | 111 (7) | 116 (7) | 1069 (7) | 71 (6) | 61 (6) | 77 (7) | 43 (8) |
| Hemophilia or Coagulation Disorder | <5 (-) | 5 (<1) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) |
| Heterosexual Contact ³ | 51 (3) | 67 (5) | 60 (4) | 59 (4) | 29 (2) | 27 (2) | 24 (2) | 11 (2) |
| Transfusion Recipient | <5 (-) | <5 (-) | 7 (<1) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) |
| Mother with/at Risk for HIV | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | 5 (<1) | <5 (-) |
| Other/Undetermined | 259 (17) | 232 (16) | 273 (17) | 217 (15) | 256 (21) | 245 (22) | 203 (19) | 128 (23) |
| <i>Male Subtotal</i> | 1,524 | 1,463 | 1,600 | 1,434 | 1,225 | 1,109 | 1,059 | 561 |
| Females | | | | | | | | |
| Injection Drug Use | 44 (19) | 46 (21) | 47 (21) | 24 (12) | 32 (18) | 29 (17) | 22 (13) | <5 (-) |
| Hemophilia or Coagulation Disorder | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) |
| Heterosexual Contact ³ | 108 (47) | 90 (40) | 88 (38) | 86 (44) | 65 (37) | 70 (41) | 52 (32) | 36 (50) |
| Transfusion Recipient | <5 (-) | 6 (3) | 6 (3) | <5 (3) | <5 (-) | <5 (-) | <5 (-) | <5 (-) |
| Mother with/at Risk for HIV | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) | <5 (-) |
| Other/Undetermined | 77 (33) | 83 (37) | 87 (38) | 82 (42) | 76 (43) | 70 (41) | 85 (52) | 32 (44) |
| <i>Female Subtotal</i> | 231 | 227 | 229 | 194 | 178 | 171 | 165 | 72 |
| Total | 1,755 | 1,690 | 1,829 | 1,628 | 1,403 | 1,280 | 1,224 | 663 |

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

²Data are provisional due to reporting delay. Cases include those reported by December 31, 2007.

³Heterosexual contact indicates contact with a person who is HIV-infected or at increased risk for HIV.

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

Patterns and Trends of Drug Abuse in Maine

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ABSTRACT

This report updates most drug abuse indicators in Maine through calendar year 2007. Heroin indicators (deaths, poison center exposure calls, seizures, and treatment admissions) continued to decline in 2007; however, after falling every year from 2003–2006, the percent of heroin arrests by the Maine Drug Enforcement Agency rose slightly to 7 percent in 2007. Cocaine indicators were mixed. Arrests and seizures, already substantial, grew 2 percent for arrests and 7 percent for seizures between 2006 and 2007, along with a wholesale price increase in the Portland area. Admissions for both crack and cocaine remained level, but deaths due to cocaine decreased slightly from 19 to 18 percent. Marijuana indicators in 2007 remained high and relatively stable. Although primary marijuana admission percentages decreased slightly from 22 percent in 2006 to 20 percent in 2007, the absolute number of admissions increased due to an increase in overall admissions. Marijuana seizures were level at 11 percent between 2006 and 2007, but arrests decreased 1 to 13 percent. Abuse of prescription drugs, predominantly methadone, oxycodone, and benzodiazepines, was already at high levels, but admissions and seizures continued to increase. Although deaths due to methadone decreased slightly from 40 to 38 percent between 2006 and 2007, oxycodone deaths increased from 14 to 29 percent and benzodiazepine deaths increased from 16 to 24 percent. Methamphetamine abuse is now focused mainly on pills, and indicators are mixed, although the numbers are still quite low. Methamphetamine arrests and seizures went down slightly in 2007, as did admissions. MDMA numbers were low and indicators were mixed; seizures have increased, but the percent of treatment admissions and calls to the poison center fell

in 2007. MDMA pills have been combined with methamphetamine in some samples.

INTRODUCTION

Emerging issues include continuing problems with the high volume of both cocaine abuse and prescription drug misuse and abuse. Of particular note, oxycodone deaths and poison center inquiries increased in 2007. Although methadone deaths decreased slightly, oxycodone deaths rose sharply. MDMA (methylenedioxyamphetamine) and methamphetamine abuse, although low in proportion, exhibit potential threats from new sources that bear monitoring. The trend of increasing female percentages for both cocaine and methamphetamine arrestees, for cocaine deaths, and for cocaine admissions bears monitoring.

Area Description

Maine is the third most rural State in the United States, with only 1.2 million inhabitants thinly distributed across a large geographic area, averaging 40 people per square mile. More than half of its population lives in rural communities. Most of its citizens (96 percent) are White; nearly one-fifth (18 percent) are on Medicaid. The majority of Maine's borders are shared with Canada, creating a significant pattern of crossborder drug trafficking. Maine's long coast and many harbors have contributed to drug distribution, as well as the north-south I-95 corridor, which connects the State to more southerly urban centers.

In the late 1990s, Maine experienced a dramatic increase in drug abuse, including drug-induced deaths, which peaked in the early 2000s. Most of the increase involved pharmaceuticals. Most of the deaths were nonintentional poisonings; these have risen over 600 percent since 1997. When the treatment, arrest, and mortality data were analyzed according to involved drug categories, it was clear that misuse and abuse of pharmaceutical opiates and opioids fueled the upswing in these indicators.

Data Sources

Principal data sources for this report include the following:

- **Treatment data** were provided by the Maine State Office of Substance Abuse, and include all admissions for programs receiving State funding. This report includes admissions data from January to December 2007, excluding shelter and detoxification, and makes comparisons with prior calendar years.
- **Forensic laboratory data** were provided by the Maine State Health and Environmental Testing Laboratory, which tests all samples seized by the Maine Drug Enforcement Agency and provides them to the National Forensic Laboratory Information System (NFLIS). Data were provided for calendar year 2007 and compared to previous years back to 2003.
- **Arrest data** were provided by the Maine State Drug Enforcement Agency, which directs eight multijurisdictional task forces covering the State, generating approximately 60 percent of all Uniform Crime Reporting (UCR) drug-related offenses statewide. Data were provided for calendar year 2007 and compared to previous years back to 2003.
- **Poison center data** for calendar year 2007 and previous years were provided by the Northern New England Poison Center, which serves Maine, New Hampshire, and Vermont, and includes data on calls for law enforcement information, substance abuse information, and calls regarding poisoning exposures.
- **Mortality data** through 2007 were provided by the State of Maine Office of Chief Medical Examiner for all drug-induced cases through 2007. That office investigates all drug-related cases statewide. In 2007 and several previous years, they utilized Central Valley Toxicology for all toxicology testing, which is routinely done on all suspected drug cases.

- **Prescription data** were provided by the State through June 2007 by the Prescription Monitoring Program, administered by the Maine State Office of Substance Abuse. These included aggregate tables summarizing counts for all controlled substance prescriptions dispensed statewide.
- **Epidemiological data** on human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) through 2006 and viral hepatitis through 2005 were provided by the Maine State Centers for Disease Control.
- **Street prices for drugs** in Bangor, Lewiston, and Portland come from “*National Illicit Drug Prices, December 2007*,” distributed by the U.S. Department of Justice using data from the National Drug Information Center (NDIC).

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine and narcotic analgesics remain the two leading types of substance abuse in Maine excluding alcohol and tobacco. The demography of cocaine/crack abuse has, however, been changing. Across several indicators—cocaine/crack admissions, deaths, and arrests—the proportion of males has been decreasing (exhibit 1). This pattern has been especially prominent in arrests, decreasing from 76 to 60 percent between 2006 and 2007. Primary treatment admissions were level in percentage for both crack and cocaine between 2006 and 2007, and combined represented 14 percent of admissions (4 percent crack and 10 percent cocaine) in 2007. The number of admissions did, however, increase by 7 percent for crack and 23 percent for cocaine. Cocaine-induced deaths rose sharply from 4 percent in 2002 to 19 percent in 2006 (exhibit 2). In 2007 there was a very slight decrease in total deaths to 18 percent. It is increasingly found along with prescription narcotics in decedent toxicology, especially with methadone.

Cocaine is a cointoxicant in 22 percent of 2007 methadone-induced deaths, but only 5 percent of oxycodone-induced deaths (exhibit 3). Cocaine/crack arrests have dominated the activity of the Maine Drug Enforcement Agency for several years, constituting 45 percent of arrests in 2007 (29 percent cocaine and 16 percent crack), increasing 6 percent from 2005 to 2006, and staying essentially level with only a 1-percent increase from 2006 to 2007. The percent of females arrested for crack jumped from 23 percent in 2005 and 24 percent in 2006 to 40 percent in 2007. Cocaine/crack also constitutes the largest single category of samples tested in Maine's forensic lab, growing from 36 percent in 2003 to 43 percent in 2006 and then to 50 percent in 2007 (exhibit 4). Midlevel and retail prices on the street did not change between 2006 and 2007; however, there was an increase in wholesale prices in the southern part of the State. There the wholesale price for powder spanned \$24,000–\$42,800 per kilogram, a range encompassing wholesale prices in other parts of the State. Midlevel prices were \$900–\$1,600 per ounce for powder and \$1,100–\$3,800 per ounce for crack. Retail prices were similar throughout the State for powder, at \$80–\$100 per gram, but higher in the cities more distant from Portland for crack: \$20–\$50 per rock in Portland, \$150–\$200 per rock elsewhere.

Heroin

Heroin abuse continues to be a serious problem in Maine but recent indicators have been stable or decreasing. The proportion of admissions has been decreasing since the second half of 2005 (22 percent) and measured 15 percent in both the first and second halves of 2007 (exhibit 5). As heroin has declined, admissions for prescription opiates have increased. Heroin/morphine caused 19 percent of 2006 and 16 percent of 2007 drug-induced deaths (exhibit 2), decreasing in number of deaths as well from a 2005 peak. A rise in prescription-morphine deaths accounted for part of the 2005 peak, but has since subsided. Heroin/morphine deaths were frequently characterized

by the presence of cocaine (32 percent) or prescription narcotics (44 percent); in 24 percent of heroin/morphine-induced deaths methadone was an additional cause of death.

Seven percent of 2007 arrests (up from 3 percent in 2006) were for heroin. Seizures have declined from 18 percent in 2005 to 7 percent of 2007 seizures (down from 10 percent in 2006) (exhibit 4). The NDIC reports only midlevel and retail prices for heroin, all South American. In Portland, the midlevel price was \$6,000–\$8,000 per ounce, with no midlevel price reports for Lewiston or Bangor. Retail prices were \$30–\$60 per bag in Portland and \$250–\$300 per gram farther north in Bangor.

Pharmaceutical Opiates

Prescription narcotic analgesic misuse and abuse remained high and mostly increasing in 2007, contributing to 65 percent of deaths, 21 percent of arrests, 15 percent of forensic lab samples, and 23 percent of primary admissions. Among narcotics, methadone and oxycodone dominated deaths, arrests, seizures, and poison center exposure and information calls.

Prescription opiate primary admissions have continued to rise in recent years, going from 28 percent in the first half of 2003 to 50 percent in the second half of 2007 (exhibit 5). Oxycodone alone constitutes 34 percent of the 2007 second half admissions, having risen from 2 percent in the first half of 2003. Since the total number of admissions increased from 5,393 to 6,595 in 2006 and 2007, respectively, the percents represent larger totals in 2007. Between 2006 and 2007 there was an increase of 42 percent in the number of admissions for primary prescription opiates; oxycodone admissions alone increased 32 percent. Among 2007 primary admissions for cocaine/crack, 51 percent list other pharmaceutical opiates as a secondary problem. Data on route of administration for primary prescription opiate admissions (other than methadone and heroin/morphine) for 2007 shows that 50 percent were sniffing, 24 percent were injecting, and 24 percent were using orally.

Trends in drug-induced deaths over the past decade in Maine have largely been driven by pharmaceutical narcotics, either alone or in combination with other licit or illicit drugs (exhibit 6). Many of these deaths were caused by more than one drug (exhibit 3). For example, in 22 percent of methadone deaths cocaine is listed as another cause. Benzodiazepines were mentioned as causes in 24 percent of methadone deaths and 29 percent of oxycodone deaths. The number of oxycodone deaths increased from 14 to 25 percent in 2007 while methadone decreased slightly from 40 to 38 percent. When the form of methadone is known in a drug-induced death, tablets (generally prescribed for pain) outnumber liquid (prescribed for opiate replacement therapy) by a 2 to 1 ratio. Of the methadone-induced deaths where prescription status is known, 78 percent had no prescription, 9 percent were clients at a methadone clinic, and 6 percent had a methadone prescription for pain.

The supply of pharmaceutical narcotics has continued to rise in Maine, as is shown by the Prescription Monitoring Program data, growing 15 percent from 963,055 in FY 2005 to 1,109,881 prescriptions dispensed in FY 2007 (exhibit 7). This program revealed the number of prescriptions written for controlled substances in FY 2005 through FY 2007 and showed an increase each year for prescription narcotics. In FY 2007, hydrocodone accounted for the most prescriptions (at 41 percent), oxycodone had 29 percent, and methadone (nonmethadone clinics) had 3 percent. According to the Drug Enforcement Agency (DEA) Automation of Reports and Consolidated Orders System (ARCOS) data, Maine's rank in retail sales of oxycodone in grams per 100,000 population rose between 2001 and 2005, from eleventh to eighth place in the Nation.

It is interesting to note that in FY 2007 there were nearly 10 times more prescriptions written for oxycodone (333,889) than for methadone analgesia (37,781). Information calls to the Northern New England Poison Center for oxycodone similarly totaled about eight times greater (6,868) than those regarding methadone (832).

More seized samples of oxycodone (72) were tested than those for methadone (17). More of the oxycodone-induced deaths had a prescription (63 percent) than did the methadone-induced deaths (16 percent). However, poisoning exposure calls were just about equal, and methadone-induced deaths were 53 percent higher than those for oxycodone, indicating that although the apparent supply was greater for oxycodone, the risk was greater for methadone.

Buprenorphine use has increased dramatically since it was approved for treatment use. Prescriptions for buprenorphine increased sharply during 2007; the number of patients in treatment rose from 2,871 in December of 2006 to 3,977 in December of 2007. There was a corresponding increase in street abuse as indicated by seizure samples and information calls by law enforcement to poison control.

Maine Drug Enforcement Agency opiate arrests came down slightly from their peak of 26 percent in 2005 to 21 percent in 2007. Similarly, seizure samples identified as opiate analgesics decreased from 18 percent in 2006 to 14 percent in 2007; this proportion is still larger than heroin (7 percent) and marijuana (11 percent).

Benzodiazepines

Benzodiazepines continued to play an increasing and ubiquitous role in 2007 drug abuse. Primary admissions for benzodiazepines constituted only 2 percent of all admissions in 2007, increasing slightly since 2006. The raw number of primary benzodiazepine admissions increased in 2006–2007 by 87 percent. Benzodiazepines were also frequently identified as secondary or tertiary problems on admission for primary problems of narcotic abuse or cocaine abuse; the vast majority of 266 secondary benzodiazepine admissions (70 percent) were associated with primary admissions for prescription opiates.

Benzodiazepines were frequently and increasingly listed as a cause of death; the prevalence among all drug-induced deaths rose from 16 to 24 percent between 2006 and 2007. They were

usually cointoxicants in narcotic deaths; 24 percent of methadone deaths and 29 percent of oxycodone deaths listed at least one benzodiazepine as a cause of death (exhibit 3).

A breakdown of the number of prescriptions written for five key benzodiazepines by the Prescription Monitoring Program showed a year-to-year increase from FY 2005 through FY 2007, indicating the supply has increased. Lorazepam was ranked first for number of prescriptions, and clonazepam and alprazolam were second and third, respectively.

Arrests for tranquilizers by the Maine Drug Enforcement Agency were relatively rare, constituting only 2 percent of 2007 arrests. Similarly, in 2007, benzodiazepines represented about 3 percent of law enforcement seizures tested at the Maine Health and Environmental Testing Laboratory.

Methamphetamine

Methamphetamine indicators were mixed and numbers continued to be small. Maine passed a precursor law putting pseudoephedrine behind the counter in 2006. Most methamphetamine in Maine during 2007 was found in pill form, coming into the State from Canada.

Both the proportion and the number of 2007 primary methamphetamine admissions declined from 2006 levels, but the overall total was under 1 percent. The total number declined from 49 to 34 from 2006 to 2007.

The proportion of methamphetamine arrests increased from 1 percent in 2005 to 7 percent in 2006 and declined again to 3 percent in 2007. The absolute numbers, however, increased from only 8 in 2005 to 38 in 2006 and increased slightly more in 2007, to 40. The ratio of male to female arrestees dropped 16 percent from 2006 to 2007. In 2007 only one laboratory was discovered—a “box lab” seized at the U.S.-Canadian border—down from seven lab incidents in 2006.

In 2007, only 2 percent of samples tested had methamphetamine, a total of only 22 samples. About 60 percent of methamphetamine samples

tested were in pill form, often combined with MDMA or other substances. Most samples (45 percent) contained methamphetamine and caffeine (termed “yaba”). Several samples (27 percent) had a combination of methamphetamine and MDMA, and a few had additional diphenhydramine (18 percent) or ketamine (5 percent).

The NDIC reports only retail prices in Maine, only for cities relatively closer to Canada than Portland, and only for powder, ranging in price from \$100–\$200 per gram in Lewiston. Small lab prices in Bangor were \$200 per gram and \$70–\$150 farther south in Lewiston. No prices were reported for Portland.

Marijuana

Marijuana abuse is high overall and relatively stable. Although the percentage of law enforcement arrests, seizures, and primary admissions have decreased, the numbers of arrests, admissions, and poison center exposure calls have increased.

The proportion of primary admissions for marijuana has been declining steadily from a high of 36 percent in the first half of 2003 to 19 percent in the second half of 2007. The absolute numbers declined from 1,714 in 2003 to a low of 1,169 in 2006; they rose to 1,349 in 2007.

Maine Drug Enforcement Agency marijuana arrest percentages dipped to 17 percent in 2006, rose to 20 percent in 2006, and fell slightly to 19 percent in 2007. The absolute numbers, however, increased from 111 to 248, a 223-percent increase between 2006 and 2007. Law enforcement seizure samples tested stayed the same from 2006 to 2007 (11 percent) (exhibit 4).

MDMA/MDA

MDMA indicators for 2007 continued to be low and mixed. Primary admissions decreased in number and were less than 1 percent of all nonalcohol admissions. Law enforcement seizures were only 1 percent of both 2006 and 2007 total samples, yet the combination with methamphetamine in one-third of seized MDMA pills (discussed above in

the methamphetamine section) suggests the need to continue monitoring this combination in the future. Of the 14 samples containing MDMA or MDA (methylenedioxyamphetamine), 36 percent contained methamphetamine. Prices reported by NDIC were \$5–\$8 per tablet wholesale in Portland, and a range of retail prices: \$20–\$30 per tablet in Bangor; \$20–\$25 per tablet in Lewiston; and \$18–\$30 per tablet in Portland.

HIV/AIDS, Hepatitis B, and Hepatitis C

HIV/AIDS data revealed 58 new HIV diagnoses in 2006, and a cumulative total of 512 persons diagnosed with AIDS. HIV mode of transmission data showed that 6 percent of males and 13 percent of females had an injection drug use (IDU) source. Overall, reported mode of transmission for 2006 was 66 percent men who have sex with men (MSM), 9 percent IDU, and 12 percent heterosexual and at risk.

The number of acute Hepatitis B cases reported statewide nearly doubled between 2005 and 2006, from 14 to 26. The number of chronic Hepatitis C cases increased slightly from 1,223 in 2004 to 1,381 in 2005, the last year for which data were available.

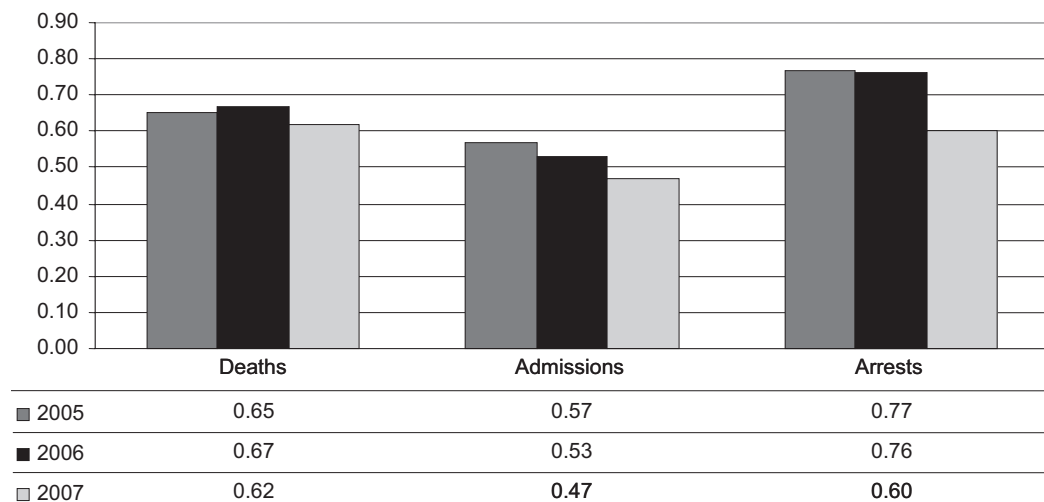
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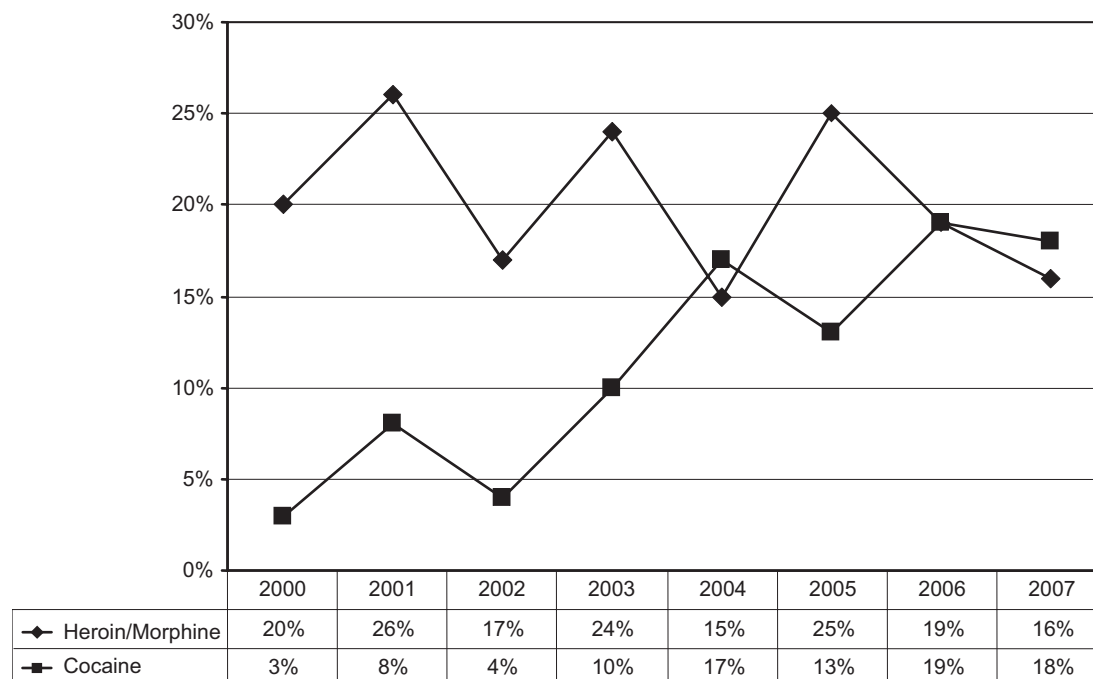
For inquiries concerning this report, please contact Marcella H. Sorg, Ph.D., R.N., D-ABFA, Director, Rural Drug and Alcohol Research Program, Margaret Chase Smith Policy Center, University of Maine, 5784 York Complex, Orono, ME 04469-5784, Phone: 207-581-2596, Fax: 207-581-1266, E-mail: marcella.sorg@umit.maine.edu.

Exhibit 1. Reduction in Proportion of Males among Cocaine/Crack Deaths, Admissions, and Arrests: 2005 to 2007



SOURCE: Maine State Office of Substance Abuse; Maine State Drug Enforcement Agency

Exhibit 2. Deaths Caused by Cocaine and by Heroin/Morphine as a Percent of All Drug-Induced Deaths: 2000–2007



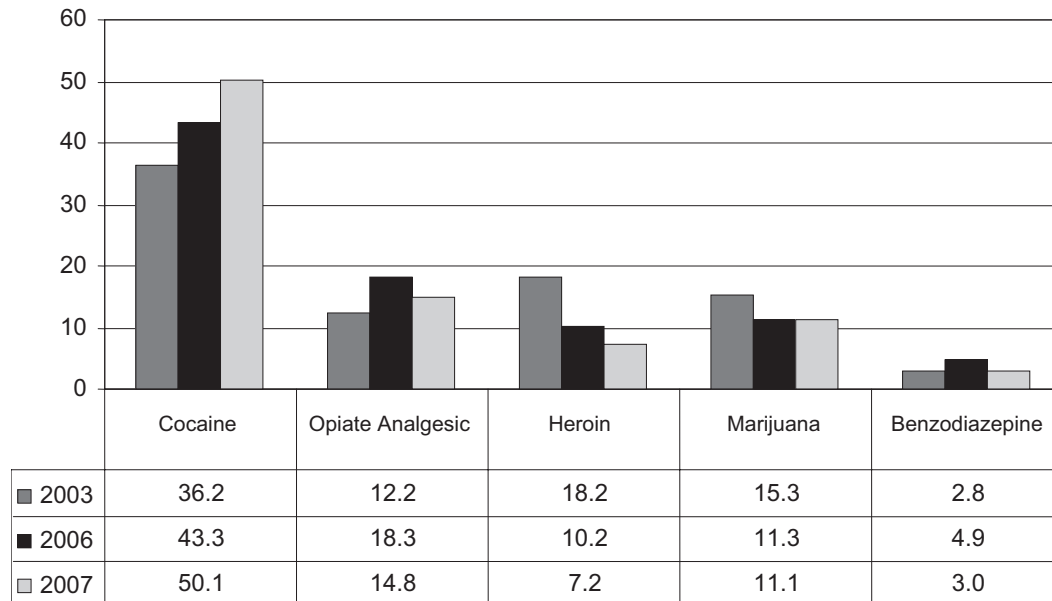
SOURCE: Maine Office of Chief Medical Examiner

Exhibit 3. Percent Selected Cointoxication Cause Among Methadone and Oxycodone-Induced Deaths: 2007

| Cointoxicant Cause | Methadone Deaths | Oxycodone Deaths |
|------------------------|------------------|------------------|
| Single Drug | 33% | 18% |
| With Benzodiazepine(s) | 24% | 29% |
| With Cocaine | 22% | 5% |
| With Each Other | 14% | 24% |

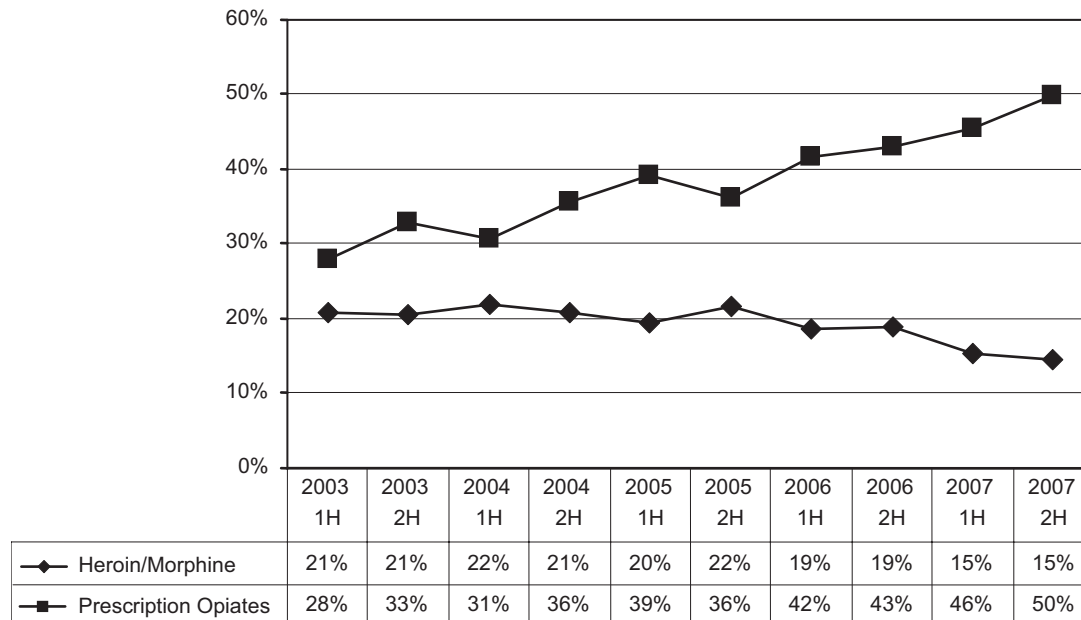
SOURCE: Maine Office of Chief Medical Examiner

Exhibit 4. Percent of Key Drug Categories among Seized Drug Items Tested by Forensic Laboratory: 2003, 2006, and 2007



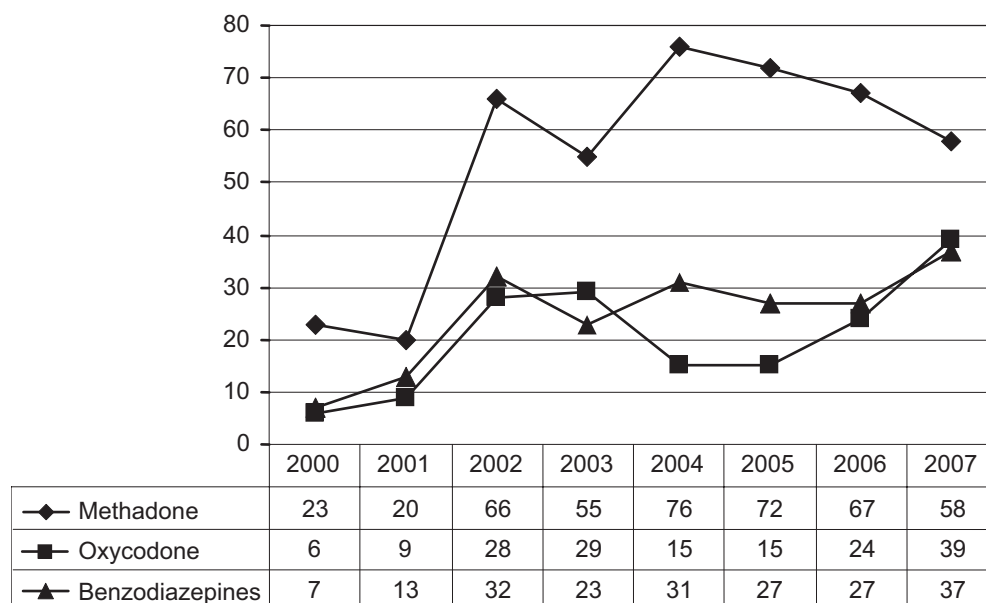
SOURCE: Maine State Health and Environmental Testing Laboratory (provided to NFLIS)

Exhibit 5. Percent of Primary Admissions for Illicit and Pharmaceutical Narcotics: CY2003–2007



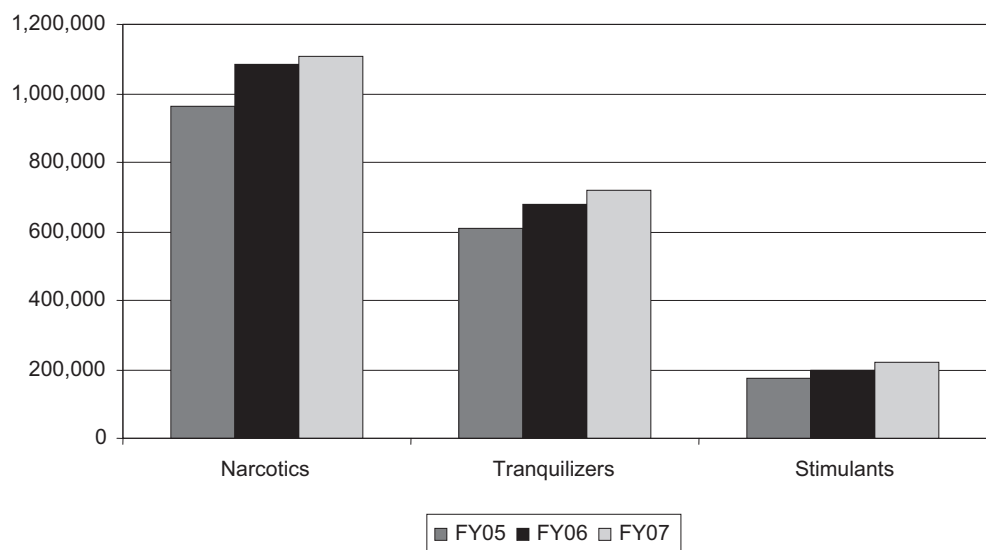
SOURCE: Maine State Treatment Data System

Exhibit 6. Number of Deaths Induced by Selected Pharmaceutical Categories



SOURCE: Maine Office of Chief Medical Examiner

Exhibit 7. Number of Prescriptions Written by Drug Categories: FY2005 to FY2007



SOURCE: Maine Prescription Monitoring Program

Drug Abuse in Miami/ Ft. Lauderdale, Florida: 2007

James N. Hall¹

ABSTRACT

Consequences of cocaine use outranked indicators for all other illicit drugs, including the nonmedical use of specific pharmaceuticals, in Miami/Dade and Broward (Ft. Lauderdale) Counties in 2007. However, when prescription medications were combined as a single category, they surpassed cocaine in numbers of deaths for both counties and in the number of emergency department (ED) reports in Broward County. South Florida had one of the highest proportions of unweighted cocaine-related Drug Abuse Warning Network (DAWN) ED reports and crime lab cases among all CEWG reporting areas, with 60 percent of illicit drug ED reports and two-thirds of crime lab cases during 2007 in both counties related to cocaine. Heroin was the primary opiate reported in Miami/Dade County, while prescription opiate (narcotic analgesic) consequences greatly outnumbered those for heroin in Broward County. Deaths related to narcotic analgesics increased significantly in both counties and the State between 2006 and 2007. The Broward Sheriff's Office Crime Lab reported 426 narcotic analgesic cases in 2007 (5 percent of all items tested), compared with 143 items from the Miami/Dade County National Forensic Laboratory Information System (NFLIS) report for 2007 (less than 1 percent of all items analyzed). Oxycodone was the most frequently cited narcotic analgesic for all consequences. Indicators of methamphetamine abuse remained low. Methamphetamine accounted for less than 1 percent of unweighted DAWN ED reports for illicit drugs

in both counties. The Broward Sheriff's Office reported 201 methamphetamine cases in 2007 (2 percent of cases), while the Miami/Dade NFLIS reported 111 cases. The NFLIS reported 383 MDMA cases (or 2 percent of all items) for Miami/Dade County in 2007, and the Broward Sheriff's Office reported 270 MDMA crime lab cases (3 percent). An increasing number of ecstasy tablets contained both MDMA and methamphetamine. Deaths involving the combination of these two drugs were observed mainly among young adult, African American (Black) male victims of gunshot wounds. About one-quarter of unweighted ED DAWN reports for all nonalcohol major drugs involved marijuana in both counties. Indicators of marijuana consequences remained stable and high, ranking second to cocaine. Marijuana was the primary drug most cited by adolescent treatment clients in Miami/Dade County. The numbers of consequences related to benzodiazepines were double in Broward County compared with those in Miami/Dade County. Alprazolam was the benzodiazepine most frequently observed in abuse reports. Deaths related to benzodiazepines increased significantly in both counties and the State between 2006 and 2007. Benzodiazepines accounted for 15 percent of unweighted DAWN ED reports among eight major substances of abuse in Broward County and for 7 percent in Miami/Dade during 2007. Transmission categories for HIV/AIDS remained unchanged between 2006 and 2007 for both counties and the State: 40 percent were men who have sex with men (MSM), 17 percent were injection drug users (IDUs), and 4 percent were MSM and also IDUs. Emerging trends included the link between the hip-hop subculture and the spread of ecstasy and methamphetamine, as well as the combination of codeine plus promethazine syrup among Blacks and non-Hispanic Caribbean Blacks.

INTRODUCTION

This report reviews data from 2007 about drug-related deaths, medical emergencies, addiction

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treatment admissions, and law enforcement intelligence. Information is presented by primary substance of abuse: cocaine; heroin; prescription narcotic analgesics; methamphetamine; marijuana; gamma hydroxybutyrate (GHB); 3,4 methylenedioxymethamphetamine (MDMA or ecstasy); benzodiazepines; and muscle relaxants. While the information is classified by a single drug or category, the reader should note an underlying problem of polysubstance abuse as mentioned throughout this report. Exhibits for the report follow the narrative text.

Area Description

Located in the extreme southern portion of the Florida peninsula, Miami/Dade County has a population of 2.4 million; 61 percent are Hispanic, 20 percent are Black non-Hispanic, 18 percent are White non-Hispanic, and 1 percent are Asian/Pacific Islanders. Miami is Dade County's largest city, with 360,000 residents. More than 100,000 immigrants arrive in Florida each year; one-half establish residency in Miami/Dade County. More than one-half of the county's population are foreign born.

Broward County, situated due north of Miami/Dade, is composed of Ft. Lauderdale plus 28 other municipalities and an unincorporated area. The county covers 1,197 square miles, including 25 miles of coastline. According to 2006 census estimates, the population was 1.8 million. The population is roughly 49 percent White non-Hispanic, 25 percent Black non-Hispanic, 23 percent Hispanic, and 3 percent Asian/Pacific Islanders. One-fourth of the county's population are foreign born.

Broward County is the second most populated county in Florida after Miami/Dade and accounts for approximately 10 percent of Florida's population. Palm Beach County (population 1.3 million) is located due north of Broward County and is the third most populated county in the State. The population is 65 percent White non-Hispanic, 17 percent Hispanic, 16 percent Black non-Hispanic, and 2 percent Asian/Pacific Islanders. Together,

the 5.5 million people of these three counties constitute one-third of the State's 16.3 million population. Seventeen percent of Palm Beach County's population are foreign born.

Since 2003, these three counties constitute the new federally designated Metropolitan Statistical Area (MSA) for South Florida, making it the sixth largest in the Nation. Previously, the MSA included only Miami/Dade County. Now Broward and Palm Beach Counties are included in more national data sets tracking health-related conditions and criminal justice information. One change is the addition of more hospitals in the national DAWN network that monitors ED reports of drug-related cases.

Approximately 25 million tourists visit South Florida annually. The region is a hub of international transportation and the gateway to commerce between the Americas, accounting for sizable proportions of the Nation's trade: 40 percent with Central America, 37 percent with the Caribbean region, and 17 percent with South America. South Florida's airports and seaports remain among the busiest in the Nation for both cargo and international passenger traffic. These ports of entry make this region a major gateway for illicit drugs.

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

- Proximity to the Caribbean and Latin America exposes South Florida to the entry and distribution of illicit foreign drugs destined for all regions of the United States. Haiti and Jamaica remain as transshipment points for Colombian traffickers.
- South Florida is a designated High Intensity Drug Trafficking Area (HIDTA) and one of the Nation's leading cocaine importation centers. It also has been a gateway for Colombian heroin since the 1990s.
- Extensive coastline and numerous private air and sea vessels make it difficult to pinpoint drug importation routes into Florida and throughout the Caribbean region.

- Lack of a prescription monitoring system in Florida now makes the State a source for diverted medications in the southeastern United States.

Data Sources

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

- **Drug-related mortality data** were provided by the Florida Department of Law Enforcement (FDLE) Medical Examiners Commission's 2007 *Report of Drugs Identified in Deceased Persons between January and December 2007*.
- **Emergency department (ED) data** were derived for Miami/Dade County from DAWN, a network administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). The data represented drug reports involved in drug-related visits for illicit drugs (derived from the category of "major substances of abuse," excluding alcohol) and the nonmedical use of selected prescription drugs (derived from the category of "other substances"). Unweighted Miami/Dade hospital ED data for 2007 came from DAWN *Live!*, a restricted-access online query system. Eligible hospitals in the Miami/Dade County Division totaled 21; hospitals in the DAWN sample numbered 19, with the number of EDs in the sample also totaling 19 (some hospitals have more than one ED). During 2007, seven to nine EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 1). Exhibits in this paper for 2007 Miami/Dade County data reflect cases that were received by DAWN as of May 2, 2008. Unweighted Broward County ED data for 2007 also came from the DAWN *Live!* restricted-access online query system. Eligible hospitals in the Ft. Lauderdale Division (that includes Broward and Palm Beach Counties) totaled 27; there were 22 hospitals in the DAWN sample, and the number of EDs in the sample also totaled 22. During

2007, nine EDs reported data each month. The completeness of data reported by participating EDs varied by month (exhibit 2). DAWN *Live!* exhibits in this paper for Broward and Palm Beach Counties reflect cases that were received by DAWN as of May 16, 2008. Based on the DAWN *Live!* reviews, cases may be corrected or deleted; therefore the unweighted data presented in this paper are subject to change. Drug reports in both areas exceeded the number of ED visits, since a patient could report use of multiple drugs (up to six drugs and alcohol). The DAWN *Live!* data are unweighted and are not estimates for the reporting area. DAWN *Live!* data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found on the DAWN Web site <<http://dawninfo.samhsa.gov>>.

- **Drug treatment data** for the first half of 2007 were provided by the Broward Addiction Recovery Centers (BARC) of the Broward County Department of Human Services and came from nine adult programs operated by BARC in Broward County. These programs serve clients 18 and older (there are a total of 19 addiction treatment programs in the county). The data were also reported by BARC to the State of Florida for inclusion in its Treatment Episode Data Set (TEDS) submission to SAMHSA.
- **Crime lab drug analyses data** were derived from the Drug Enforcement Administration's (DEA's) National Forensic Laboratory Information System (NFLIS) Report for Miami/Dade (all substances) and Broward County (for selected drugs) from January through December 2007. Broward County crime lab data for 2007 came from the Broward Sheriff's Office (BSO) Crime Lab.
- **Drug pricing data** for South Florida were derived from the National Drug Intelligence Center (NDIC), *National Illicit Drug Prices*, December 2007.

- **Heroin price and purity information** came from the U.S. DEA Domestic Monitor Program (DMP) for 2003 to 2006.
- **Data on the prevalence of substance use by middle and high school students** in Florida came from the 2007 Florida Youth Substance Abuse Survey.
- **Data on the prevalence of substance use by high school students** nationally, across the State of Florida, and from Miami/Dade County, Broward County, Palm Beach County, Orange County (Orlando area), and Hillsboro County (Tampa area) were derived from the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Survey (YRBS) for 2007.

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

DRUG ABUSE PATTERNS AND TRENDS

Crack/Cocaine

South Florida's cocaine epidemic is characterized by consequences that ranked among the highest in the Nation in 2007. Cocaine abuse indicators have been rising since 2000 across the State but had remained relatively stable in Miami/Dade and Broward Counties at high numbers through 2006. In 2007, there were modest increases in the numbers of cocaine-related deaths in Broward County and across Florida and a significant increase in Miami/Dade County that may be attributed to underreporting in the previous year. Cocaine indicators dominated consequences of drug abuse. The majority of cocaine deaths, medical emergencies, and addiction treatment reports were among those older than 35. Many of the indicators reflected cocaine use in combination with other drugs, including prescription opiates and benzodiazepines.

Throughout Florida, the number of cocaine-related deaths increased 6.2 percent in 2007

compared with 2006, continuing an upward trend since 2000. There were 2,179 cocaine-related deaths across Florida in 2007, compared with 2,052 in 2006. The 2007 total was the highest number since the drug has been tracked beginning in the late 1980s. The number of cocaine deaths increased 97 percent between 2001 and 2007; the key factor for that rise appeared to be a corresponding 105-percent increase of deaths with cocaine in combination with other drugs, particularly prescription medications. Among the 2,179 cocaine-related deaths in Florida during 2007, 75 percent of the cases involved cocaine in combination with at least one other drug.

In Florida, a drug is considered to be the cause of death if it is detected in an amount considered a lethal dose by the local medical examiner (ME). Among the cocaine-related deaths statewide in 2007, 843 (or 39 percent) were considered to be cocaine induced.

There were 281 deaths related to cocaine use in Miami/Dade County during 2007, representing a 54-percent increase over the 182 reported in 2006 (exhibit 3). It is possible that the number of deaths for 2006 may have been unintentionally underreported. Cocaine was detected at a lethal level in 23 percent of the 2007 cases. Cocaine was found in combination with another drug in 56 percent of the cases (exhibit 4). Two percent ($n=5$) of the cocaine-related fatalities were younger than 18; 13 percent were age 18–25; 14 percent were 26–34; 49 percent were 35–50; and 22 percent were older than 50. Miami/Dade County's number of cocaine deaths in 2006 ranked highest among the 24 ME districts in the State.

There were 157 deaths related to cocaine abuse in Broward County in 2007, representing a 5-percent increase over the 150 deaths in 2006 (exhibit 3). Cocaine was detected at a lethal level in 52 percent of the 2007 cases in Broward County. Cocaine was found in combination with another drug in 73 percent of the related death cases (exhibit 5). One of the cocaine-related fatalities was younger than 18; 11 percent were age 18–25; 25 percent were 26–34; 40 percent were 35–50; and 24 percent were older than 50. Broward County's

number of cocaine deaths ranked seventh among the 24 ME districts in the State.

The Jacksonville ME district reported the second highest number of cocaine-related deaths in the State during 2007, with 248 cases, followed by Orlando with 190, St. Petersburg with 173, Palm Beach County with 168, Tampa with 178, and Broward County with 157. Jacksonville had the highest number of lethal cocaine cases, with 105 deaths, followed by St. Petersburg with 94, Broward County with 81, Tampa with 71, and Palm Beach County with 70 cocaine induced deaths. Miami/Dade County ranked sixth with 65 lethal cocaine cases.

During 2007, unweighted data from DAWN *Live!* showed 3,651 cocaine reports from a sample of 7–9 of 19 EDs in Miami/Dade (exhibit 6). Cocaine was the most frequently cited substance (excluding alcohol) among all local DAWN ED cases for 2007, with 43 percent of the 8,570 cases for any drug or medication including a cocaine report. Among major substances of abuse (excluding alcohol), cocaine represented 62 percent of the ED reports. Most (68 percent) of the 3,651 Miami/Dade cocaine ED reports involved males; none of these reports fell into the “unknown” gender category. Forty percent were non-Hispanic Blacks, 35 percent were non-Hispanic Whites, and 19 percent were Hispanics/other. The race/ethnicity was unknown or not tabulated for 6 percent of reports. Cocaine-related ED reports involving those age 35 or older accounted for 58 percent of these reports. The ages for those reporting cocaine were as follows: 1 percent were younger than 18; 14 percent were 18–24; 26 percent were 25–34; 32 percent were 35–44; 22 percent were 45–54; and 5 percent were 55 or older. Less than 1 percent of the reports fell into the unknown age category. As noted earlier, it is not appropriate to compare this number with the DAWN estimates for 2005 or with DAWN *Live!* data from any time period or any other metropolitan area.

Cocaine was the most commonly cited illicit drug among Broward County unweighted DAWN *Live!* ED reports, accounting for 61 percent of the 5,127 major substances of abuse reports

(excluding alcohol) during 2007; these data represent a sample of nine emergency departments out of 22 (exhibit 7). Among the 10,924 local DAWN ED cases for any drug or medication during 2007, 28 percent of the cases included a cocaine report. Most (66 percent) of the 3,109 Broward cocaine ED reports involved males; none fell into the unknown category for gender. Fifty-seven percent were non-Hispanic Whites, 29 percent were non-Hispanic Blacks, and 10 percent were Hispanics; race/ethnicity was unknown for 4 percent. Cocaine-involved ED patients were age 35 or older in 57 percent of these reports. The ages of those reporting cocaine were as follows: 2 percent were younger than 18; 14 percent were 18–24; 27 percent were 25–34; 32 percent were 35–44; 21 percent were 45–54; and 4 percent were 55 or older. Less than 1 percent had an undocumented age.

There were 744 primary admissions for crack/cocaine and an additional 283 for powder cocaine accounting for a total of 1,027 (or 76 percent) of the 1,353 primary treatment drug mentions (excluding alcohol) from the sample of Miami/Dade County treatment admissions reported by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported 512 primary cocaine admissions during the first half of 2007, representing 39 percent of 1,311 primary admissions (excluding alcohol).

Cocaine continued to be the most commonly analyzed substance by the Miami/Dade and Broward Sheriff’s Office crime labs. It accounted for 14,130 items, or 66 percent, of the 21,402 total samples tested in Miami/Dade during 2007 and for 6,539 cases, or 71 percent, of the 9,157 total items analyzed in Broward County.

Powder cocaine and crack/cocaine continued to be reported as widely available throughout Florida. According to the NDIC, in Miami powder cocaine sold for \$15,250–\$17,500 per kilogram wholesale, \$700–\$1,200 per ounce, and \$40–\$100 per gram retail. Crack/cocaine sold for

\$750 per ounce, \$50–\$125 per gram, and \$10 per 0.1 gram rock.

The 2007 Florida Youth Survey on Substance Abuse reported that 6 percent of Florida high school students had used cocaine at least once in their lifetime. The 2007 YRBS reported lifetime cocaine use at 7.5 percent (CI=6.4–8.6) for Florida high school students and 7.2 percent (CI=6.2–8.2) for students across the Nation. The proportions of high school students reporting lifetime use of cocaine did not differ significantly in five counties included in the YRBS in 2007: Miami/Dade County (7.5 percent, CI=6.3–9.0), Broward County (5.9 percent, CI=4.3–7.9), Palm Beach County (6.4 percent, CI=5.2–7.8), Hillsborough County where Tampa is located (7.8 percent, CI=5.8–10.5), and Orange County where Orlando is located (7.1 percent, CI=5.4–9.3).

The 2007 Florida Youth Survey on Substance Abuse reported that 2 percent of Florida high school students had used cocaine at least once in the past 30 days. The 2007 YRBS reported the proportion as 3.9 percent (CI=3.2–4.8) for Florida high school students and 3.3 percent (CI=2.8–3.8) for students nationally. Past-30-day use of cocaine across the five participating counties did not differ significantly and ranged from 2.2 percent to 4.3 percent as follows: Miami/Dade County (3.8 percent, CI=3.0–4.8), Broward County (2.2 percent, CI=1.4–3.6), Palm Beach County (2.8 percent, CI=2.0–3.9), the Tampa area (4.3 percent, CI=2.9–6.3), and the Orlando area (3.2 percent, CI=2.1–5.0).

Heroin

The purity of street-level heroin increased in 2005 and 2006 after declining between 2000 and 2004. Deaths caused by heroin have declined dramatically in Florida since 2001, but they increased slightly between 2006 and 2007. Substantial increases in abuse and consequences of narcotic analgesics use have occurred as heroin problems have declined. Most heroin ED patients and addiction treatment admissions continued to be among older, White males. Yet, in 2007,

50 percent of heroin-related deaths in Broward County occurred among those younger than 35. South American heroin has been entering the area over the past decade. Abuse of narcotic pain medication has fueled opioid consequences. Poly-drug abuse patterns have facilitated first-time use of opiate drugs, including heroin.

Throughout Florida, the number of heroin-related deaths increased 15 percent during 2007 compared with 2006, reversing declining trends since 2001. There were 110 heroin-related deaths across Florida in 2007. Heroin continued to be the most lethal drug, with 85 percent ($n=93$) of heroin-related deaths in 2007 being caused by the drug. There were 96 heroin-related deaths in 2006. Even with the increase in 2007, heroin deaths have declined 107 percent from the 328 related deaths in 2001, yet deaths from prescription narcotic opiates increased over the same period. Polysubstance abuse was noted in 85 percent of the 2007 heroin-related deaths statewide.

In 2007, Miami/Dade County accounted for nearly one-fourth of all heroin deaths in Florida; heroin was found at a lethal dose level in 19 of the 26 deaths in which the drug was detected. In 2006, 12 of 20 such deaths were considered to be at lethal doses. Other drugs were detected in 81 percent of the 2007 cases (exhibit 4). One of the heroin-related fatalities (or 4 percent) was younger than 18, and one was age 18–25. Five (19 percent) were age 26–34, 15 (58 percent) were age 35–50, and 4 (15 percent) were older than 50. The 26 heroin-related deaths in Miami/Dade during 2007 reflect a 30-percent increase over the 20 deaths in 2006. Lethal heroin deaths peaked in Miami/Dade County in 2000 with 61 fatalities.

In Broward County, heroin was detected at a lethal dose level in three of the four heroin-related deaths during 2007. Other drugs were detected in three of the four cases (exhibit 5). The four heroin-related deaths during 2007 in Broward County reflected a 69-percent decrease over the 13 deaths in 2006 and a steady decline since 2002, when there were 50 heroin-related deaths. None of the heroin-related fatalities were younger than 18; one (25 percent) was age 18–25; one (25

percent) was 26–34; none were 35–50; and two (50 percent) were older than 50. The 13 heroin-related deaths during 2006 in Broward County reflected a 24-percent decrease from 2005, when there were 17 deaths in the entire year. The 35 heroin-related deaths during 2004 in Broward County reflected a 29-percent decrease from the 49 in 2003. There were 50 heroin-related deaths in 2002 and 41 in 2001.

During 2007, unweighted DAWN *Live!* data for Miami/Dade showed 705 heroin reports (exhibit 6), which, as noted earlier, cannot be compared to other areas. Among major substances of abuse (excluding alcohol), heroin represented 12 percent of the ED reports. Most (76 percent) of the 705 Miami/Dade heroin ED reports involved males; less than 1 percent fell into the unknown category for gender. Fifty-nine percent were non-Hispanic Whites, 22 percent were non-Hispanic Blacks, and 10 percent were Hispanics; 9 percent had an unknown/undocumented race/ethnicity. Heroin-related ED reports involved those age 35 or older in 60 percent of these reports. Other ages were as follows: one report involved someone younger than 18; 9 percent were 18–24; 31 percent were 25–34; 36 percent were 35–44; 19 percent were 45–54; and 5 percent were 55 or older. Less than 1 percent had an undocumented/unknown age.

Unweighted DAWN *Live!* data from the Broward EDs in 2007 identified a total of 343 heroin reports, representing 7 percent of illicit drug reports (exhibit 7). The heroin ED reports predominantly involved older White males. Males accounted for 67 percent of these reports (none had an unknown gender), and 69 percent were non-Hispanic Whites (race/ethnicity was unknown or undocumented for 7 percent). Hispanics accounted for 17 percent of the heroin ED reports, and non-Hispanic Blacks represented 7 percent of the reports. There were four (1 percent) reports involving those younger than 18, while 15 percent involved those age 18–24; 37 percent were age 25–34; 27 percent were 35–44; 16 percent were 45–54; and 4 percent were 55 or older.

The age was documented for all of the heroin ED reports.

There were 117 primary admissions for the category combining heroin and prescription opiates, accounting for 9 percent of the 1,353 primary treatment drug mentions (excluding alcohol) from the sample of Miami/Dade County treatment admissions reported by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported 183 primary heroin admissions during the first half of 2007, or 14 percent of 1,311 primary admissions (excluding alcohol).

Heroin accounted for 620 crime lab cases in Miami/Dade during 2007 according to NFLIS, representing 2.9 percent of all drugs tested. There were 100 heroin crime lab cases in Broward County during 2007, representing 1.1 percent of all samples.

Comparisons of 2007 opiate indicators for heroin and narcotic analgesics in Miami/Dade and Broward Counties are shown in exhibits 8 and 9. Heroin accounted for 60 percent of opiate ED reports and 80 percent of opiate crime lab cases in Miami/Dade County. In Broward County, however, narcotic analgesics accounted for 85 percent of opiate ED reports and 81 percent of opiate crime lab cases.

In 2006, 23 qualified heroin DMP samples were purchased in Miami by DEA agents. All of these samples were analyzed as South American heroin. These samples ranged from 2.8 to 85.9 percent pure, with an average purity of 24.4 percent. Compared with 2005 levels, the average purity of Miami's samples rose by five percentage points; this level of average heroin purity had not reached comparable levels in Miami since 2003. The average price per milligram pure in Miami increased from \$1.36 to \$1.75 per milligram pure between 2005 and 2006.

South American heroin was available in South Florida, according to law enforcement officials and epidemiologists/ethnographers. The NDIC reported that in the region one kilogram of heroin sold for \$42,000–\$70,000 (\$1,800 per ounce); retail prices were roughly \$35–\$50 per gram. The

most common street unit of heroin was a bag of heroin (roughly 15–20 percent purity) weighing about one-tenth of a gram that sold for \$10.

The 2007 Florida Youth Survey on Substance Abuse reported that 1 percent of Florida high school students had used heroin at least once in their lifetime. In the 2007 YRBS survey, 3.3 percent (CI=2.7–4.0) of Florida students in grades 9–12 reported ever using heroin. The prevalence of lifetime heroin use among high school students was significantly higher in Miami/Dade County (3.0 percent, CI=2.3–4.0) than in Broward County (1.5 percent, CI=0.9–2.7). Lifetime heroin use among high school students in the three other Florida Counties was 4.0 percent (CI=2.7–6.0) in the Tampa Bay area, 3.5 percent (CI=2.3–5.2) in Palm Beach County, and 1.9 percent (CI=1.3–2.9) in the Orlando area.

Other Opiates

Between 2006 and 2007, deaths related to the category of prescription narcotic analgesics increased 15.0 percent in all of Florida, from 4,386 to 5,059, following an 8.4-percent rise between 2005 ($n=4,045$) and 2006 ($n=4,386$). Deaths from hydrocodone, oxycodone, and methadone have been tracked in Florida since 2000. Beginning in 2003, morphine, propoxyphene, fentanyl, hydromorphone, meperidine, and other opioids were included in the Florida Medical Examiners Commission's surveillance monitoring program. Deaths related to five prescription narcotics totaled 276 in Broward County, 163 in Miami/Dade County, and 326 in Palm Beach County in 2007.

Across Florida, deaths related to oxycodone increased 36 percent between 2006 and 2007 ($n=1,253$), and deaths related to hydromorphone ($n=178$) increased 29 percent. Methadone deaths increased 12 percent between 2006 and 2007 ($n=1,095$), hydrocodone deaths ($n=807$) increased 10 percent, and fentanyl deaths ($n=197$) increased 5 percent. The most lethal prescription narcotics statewide were methadone, which caused 72 percent ($n=785$) of its related deaths; fentanyl, which

caused 59 percent ($n=117$) of its related deaths; and oxycodone, which was the cause of 56 percent ($n=705$) of its related deaths.

ME mentions for all opiate analgesics totaled 5,059 during 2007, compared with 4,179 alcohol ME mentions. Most of the statewide opiate analgesics mentions were polydrug episodes, including 90 percent of the oxycodone ME cases, 89 percent of the methadone ME cases, 87 percent of the hydrocodone ME cases, 79 percent of morphine cases, and 78 percent of propoxyphene deaths.

Miami/Dade recorded 50 morphine-related deaths during 2007 (exhibit 4), of which 24 percent were morphine induced. Miami/Dade also had 45 oxycodone-related deaths in 2007, 51 percent of which were oxycodone induced. Most of these deaths (89 percent) involved oxycodone found in combination with at least one other drug. Miami/Dade County recorded 28 hydrocodone-related deaths during the year, and 36 percent were hydrocodone induced. Miami/Dade County recorded 22 methadone-related deaths in 2007, with 59 percent of them considered methadone induced. There were 18 propoxyphene-related deaths in Miami/Dade County, with 17 percent considered to be a lethal dose. These 163 combined mentions represented an 87-percent increase over the 87 such deaths in 2006.

Broward County had 119 oxycodone-related deaths during 2007 (exhibit 5), 71 percent of which were oxycodone induced. Most of these deaths (92 percent) involved oxycodone found in combination with at least one other drug. Broward County recorded 71 methadone-related deaths in the same year, of which 68 percent were methadone induced. Broward County recorded 35 hydrocodone-related deaths during the period, and 37 percent were hydrocodone induced. Broward County recorded 34 morphine-related deaths in 2007, with 50 percent of them considered morphine induced. There were 19 propoxyphene-related deaths in Broward County, with 37 percent considered to be a lethal dose. These 278 combined mentions represented a 44-percent increase over the total ($n=193$) in 2006.

Palm Beach County recorded 127 methadone-related deaths during 2007, of which 80 percent were methadone induced. Palm Beach County had 119 oxycodone-related deaths in the same year, 71 percent of which were oxycodone induced. Most of these deaths (92 percent) involved oxycodone found in combination with at least one other drug. Palm Beach County recorded 48 morphine-related deaths in 2007, with 52 percent of them considered morphine induced. Palm Beach County recorded 43 hydrocodone-related deaths during the period, with 33 percent considered to be hydrocodone induced. There were 15 propoxyphene-related deaths in Palm Beach County, with 33 percent considered to be a lethal dose. These 377 combined mentions represented a 20-percent increase over the number ($n=313$) in 2006.

Unweighted DAWN *Live!* data for Miami/Dade showed 471 narcotic analgesic reports in 2007 (exhibit 6), as compared to 705 reports for heroin. Among the narcotic analgesic reports, 160 (or 34 percent) were oxycodone ED reports. The total also included 31 methadone ED reports, 27 hydrocodone reports, 8 fentanyl reports, 10 codeine reports, and 3 buprenorphine ED reports. Most (57 percent) of the 471 Miami/Dade narcotic analgesic ED reports involved males; less than 1 percent had an unknown/undocumented gender. Sixty-three percent were non-Hispanic Whites, 17 percent were Hispanics, and 11 percent were non-Hispanic Blacks; race/ethnicity was either unknown or undocumented for 8 percent. The patients' ages were as follows: two were younger than 18; 9 percent were 18–24; 27 percent were 25–34; 28 percent were 35–44; 24 percent were 45–54; and 12 percent were 55 or older. The age was undocumented for less than 1 percent of these ED reports.

Unweighted data accessed from DAWN *Live!* for Broward County EDs during 2007 revealed a total of 1,943 nonmedical use reports for narcotic analgesics (exhibit 7), as compared with 343 reports for heroin. Among the narcotic analgesic reports, 1,044 (or 54 percent) were oxycodone ED reports. The total also included 170 methadone ED

reports, 160 hydrocodone reports, 38 morphine reports, 37 hydromorphone reports, 23 fentanyl reports, 21 propoxyphene reports, 19 codeine reports, and 14 buprenorphine ED reports. Males accounted for 55 percent of these reports, and 81 percent were non-Hispanic Whites. The gender was documented for all of these ED reports, and race/ethnicity was unknown or undocumented for 4 percent. Hispanics accounted for 8 percent of the narcotic analgesic ED reports, and non-Hispanic Blacks represented 6 percent. There were 26 (1 percent) patients younger than 18, while 15 percent were age 18–24; 27 percent were age 25–34; 23 percent were 35–44; 24 percent were 45–54; and 10 percent were 55 or older. Only one ED report (less than 1 percent) did not have an age documented.

As reported above, there were 117 primary admissions for the category combining heroin and prescription opiates, accounting for 9 percent of the 1,353 primary treatment drug mentions (excluding alcohol) from the sample of Miami/Dade County treatment admissions reported by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported 287 primary prescription opiate admissions during the first half of 2007, or 22 percent of 1,311 primary admissions (excluding alcohol).

The NFLIS reported 89 oxycodone crime lab cases, 23 hydrocodone cases, 8 methadone cases, and 31 other narcotic analgesic cases during 2007 in Miami/Dade County, representing 0.7 percent of all drug items analyzed. The 2007 NFLIS data for Broward County did not break out narcotic analgesics from the 1,255 controlled substance prescription drug cases. The Broward Sheriff's Office Crime Lab, however, reported 341 oxycodone cases during 2007. There were also 83 hydrocodone cases, 1 hydromorphone case, and 1 buprenorphine case in the same period. These 426 narcotic analgesics cases in Broward County represented 4.6 percent of all cases.

The 2007 Florida Youth Survey on Substance Abuse found that 1.8 percent of State middle

school students and 3.9 percent of high school students reported nonmedical use of a prescription pain medication at least once in the past 30 days. The 2007 combined prevalence for all students was 3.0 percent, reflecting a 14-percent decline from 3.5 percent reported in 2002, when the question was first asked on the survey, and a 6-percent decrease from 2006.

Methamphetamine

Indicators of methamphetamine abuse remained at low levels. Most methamphetamine seen in South Florida was high-grade Mexican-manufactured “ice” trafficked from Atlanta. Mexican drug trafficking organizations were also supplying powdered methamphetamine directly to local Latino populations of Central and South American nationalities. Additionally, methamphetamine was seen in ecstasy tablets that may have also contained MDMA.

Methamphetamine-related deaths totaled 107 during 2007 statewide in Florida, representing a 6-percent decrease from the 117 deaths in 2006. That had followed a 2-percent increase between 2005 and 2006. Methamphetamine was considered the cause of death in 25 of the 107 cases (23 percent) during 2007. There were also 103 amphetamine-related deaths in 2007 across Florida, a 16-percent decrease over the previous year. Between 2005 and 2006, amphetamine-related deaths increased by 20 percent. Amphetamine was considered the cause of death in 20 percent of the 103 cases in 2007.

Unweighted data accessed from DAWN *Live!* revealed 20 methamphetamine-related ED reports during 2007 in Miami/Dade County (exhibit 6). Among those reports, 90 percent were male; the gender was documented for all of these ED reports. Fifty-five percent were non-Hispanic Whites, 30 percent were non-Hispanic Blacks, and 5 percent were Hispanics; the race/ethnicity was unknown for 10 percent. No methamphetamine ED report involved those younger than 18; 10 percent of reports were age 18–24; 45 percent were age 25–34; 30 percent were 35–44; and 15

percent were 45–54; none were 55 or older. The age was documented for 100 percent of these ED reports. There were also 45 amphetamine-related Miami/Dade ED reports during 2007.

Unweighted data accessed from DAWN *Live!* revealed 45 methamphetamine-related ED reports during 2007 in Broward County (exhibit 7). Among those reports, the gender was documented for 100 percent, and 71 percent were male. Fifty-six percent were non-Hispanic Whites, 24 percent were non-Hispanic Blacks, and 11 percent were Hispanics; the race/ethnicity was undocumented for 9 percent. Two methamphetamine ED patients were between 12 and 17 years of age; 22 percent were age 18–24; 42 percent were age 25–34; 24 percent were 35–44; 5 percent were 45–54; and 2 percent were 55–64. All of these methamphetamine ED reports had a documented age group. There were also 74 amphetamine-related Broward County ED reports in 2007.

There were 12 primary admissions for the combined category of methamphetamine or amphetamine, accounting for 1 percent of the 1,353 primary treatment drug mentions (excluding alcohol) from the sample of Miami/Dade County treatment admissions reported by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported four primary admissions for methamphetamine during the first half of 2007, representing 0.3 percent of 1,311 primary admissions (excluding alcohol). There were also three primary admissions for other amphetamines.

The NFLIS reported that the Miami/Dade Crime Lab analyzed 111 methamphetamine samples in 2007, representing 0.5 percent of all substances tested. There were 201 Broward Sheriff’s Office Crime Lab methamphetamine cases in 2007, representing 2.2 percent of all cases analyzed.

In South Florida, methamphetamine had some of the highest prices in the Nation, at \$15,000–\$30,000 per pound for powdered Mexican methamphetamine as of December 2007, and \$2,100 per ounce for Mexican ice. High purity ice

sold for \$50–\$100 per gram. Lower purity powdered methamphetamine sold for \$200 per gram.

The 2007 Florida Youth Survey on Substance Abuse reported that 2 percent of Florida high school students had used methamphetamine at least once in their lifetime. The 2007 CDC's YRBS reported that 4.2 percent (CI=3.5–5.1) of Florida high school students reported lifetime use, compared to 4.4 percent (CI=3.7–5.3) students across the Nation. The prevalence of lifetime methamphetamine use among high school students in Miami/Dade County was 3.9 percent (CI=3.1–4.9), and in Broward County it was 2.6 percent (CI=1.5–4.3). The prevalence estimate in the Tampa area was 5.5 percent (CI=3.9–7.6), and was 3.9 percent (CI=2.9–5.3) in Palm Beach County and 3.8 percent (CI=2.6–5.6) in the Orlando area.

Methamphetamine abuse and related sexual activity have contributed to sharp increases in sexually transmitted diseases in South Florida, particularly among men who have sex with men (MSM). Local public health officials consider methamphetamine-related sexual behavior as a key factor for Miami/Dade and Broward County ranking numbers one and two nationally in per capita rates of HIV infection.

Marijuana

Marijuana was abused by more Americans, particularly youth, than any other illicit drug in 2007. Consequences of its abuse and addiction continued as declines in its rates of use among youth since 2000 have stalled in recent surveys.

Cannabinoids were detected in 1,103 deaths statewide in Florida during 2007, representing an 11-percent increase over the 990 such reports in 2006.

Unweighted DAWN *Live!* data for Miami/Dade showed 1,342 marijuana reports in 2007 (exhibit 6). Marijuana was the second most cited illicit drug among Miami/Dade County unweighted DAWN *Live!* ED reports, accounting for 23 percent of the 5,918 major substances of abuse reports (excluding alcohol and medications)

during 2007. Three-fourths of the Miami/Dade marijuana ED reports involved males; gender was unknown/undocumented for less than 1 percent. Thirty-six percent were non-Hispanic Blacks, 33 percent were non-Hispanic Whites, and 25 percent were Hispanics; the race/ethnicity was unknown or undocumented for 7 percent. Marijuana-related ED reports involving those younger than 35 accounted for 65 percent. The percentages of those reporting ages were as follows: 7 percent were younger than 18; 28 percent were 18–24; 30 percent were 25–34; 20 percent were 35–44; 12 percent were 45–54; and 3 percent were 55 or older. Less than 1 percent had an unknown/undocumented age.

Marijuana was the second most cited illicit drug among Broward County unweighted DAWN *Live!* ED reports, accounting for 1,369 or 27 percent of the 5,127 major substances of abuse reports (excluding alcohol and medications) during 2007 (exhibit 7). Most (65 percent) of the Broward marijuana ED reports involved males; all of these reports had a documented gender. Fifty-four percent were non-Hispanic Whites, 29 percent were non-Hispanic Blacks, and 13 percent were Hispanics; the race/ethnicity was undocumented for 5 percent of these reports. Seventy-two percent of the marijuana-related ED reports involved those younger than 35. The percentages of those reporting other ages were as follows: 17 percent were younger than 18; 27 percent were 18–24; 28 percent were 25–34; 17 percent were 35–44; 9 percent were 45–54; and 2 percent were 55 or older. The age was undocumented for less than 1 percent of these reports.

There were 184 primary admissions for marijuana, accounting for 14 percent of the 1,353 primary treatment drug mentions (excluding alcohol) from the sample of Miami/Dade County treatment admissions reported by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported 284 primary admissions for methamphetamine during the first half of 2007, or 22 percent of 1,311 primary admissions (excluding alcohol).

The NFLIS reported 5,269 cannabis crime lab cases in Miami/Dade County during 2007, representing 25 percent of all samples analyzed. Broward County reported 909 marijuana crime lab cases in 2007, representing 10 percent of all samples analyzed. Statewide, marijuana was seized more frequently than any other illicit drug in Florida. Marijuana was described as widely available throughout Florida, with local commercial, sinsemilla, and hydroponic grades available. A pound of commercial grade marijuana sold for \$650–\$1,200 per pound. Hydroponic and sinsemilla grades sold for \$3,500–\$4,000 per pound. The ounce price for commercial grade marijuana was \$100–\$150. Sinsemilla sold for \$400–\$500 per ounce. Depending on its potency, marijuana sold for \$5–\$20 per gram.

The 2007 Florida Youth Survey on Substance Abuse reported that 15 percent of Florida high school students had used marijuana at least once in the past 30 days. The 2007 YRBS reported the proportions as 18.9 percent (CI=17.2–20.8) for Florida high school students, and 19.7 percent (CI=17.8–21.8) for students nationwide. For both lifetime and recent marijuana use, students in Miami/Dade high schools were less likely than those in other surrounding counties to have used marijuana in the 30 days prior to survey. Specifically, the percentage of lifetime marijuana use was significantly higher in Palm Beach County, Broward County, and the Tampa area as compared to Miami/Dade, and the percentage of current marijuana use was significantly higher in Palm Beach County and the Tampa area as compared to Miami/Dade.

Methylenedioxymethamphetamine (MDMA or Ecstasy)

Measures of MDMA abuse suggest problems may have peaked in 2001, declined thereafter, and stabilized between 2003 and 2005—but they have increased since 2006.

Ecstasy pills generally contain 75–125 milligrams of MDMA, although pills are often adul-

terated and may contain other drugs being sold as ecstasy.

There were 76 MDMA-related deaths statewide in Florida in 2007, with the drug being cited as the cause of death in 16 of these cases. There were also 36 methylenedioxymethamphetamine (MDA)-related deaths statewide in Florida during the same year. There were an additional three deaths related to other methylated amphetamines in 2007. During 2006, there were 67 MDMA-related deaths and 42 MDA-related deaths. MDMA deaths increased 13 percent and MDA deaths decreased 14 percent in 2007 compared with the previous year.

In 2007, unweighted DAWN *Live!* data revealed 81 MDMA reports in Miami/Dade County (exhibit 6).

In the unweighted DAWN *Live!* data for Broward County during 2007, there were 112 MDMA-related ED reports (exhibit 7).

The NFLIS reported that the Miami/Dade Crime Lab analyzed 383 MDMA samples, 11 MDA samples, and 5 samples containing both MDMA and MDA, representing a combined 1.9 percent of all substances analyzed in 2007. The Broward Sheriff's Office Crime Lab analyzed 270 MDMA cases, 6 MDA cases, and 1 MDEA case together, representing 3 percent all cases.

In South Florida, ecstasy tablets sold for \$4–\$5 per tablet wholesale (in bulk) and \$15 retail for a single pill. These prices have declined since 2006.

The 2007 Florida Youth Survey on Substance Abuse reported that 5 percent of Florida high school students had used ecstasy at least once in their lifetime. The 2007 YRBS reported the proportion at 6.9 percent (CI=5.9–8.1) for Florida high school students, compared with the national proportion of 5.8 percent (CI=5.0–6.6). The lifetime use of ecstasy was 7.5 percent (CI=6.4–8.7) in Miami/Dade County, 6.3 percent (CI=4.6–8.7) in Broward County, and 7.3 percent (CI=5.9–9.1) in Palm Beach County. The prevalence was 8.8 percent (CI=6.7–11.4) in the Tampa area and 5.1 percent (CI=3.7–6.9) among Orlando high school students.

Gamma Hydroxybutyrate (GHB)

Abuse of the anesthetic GHB has declined significantly in recent years. There are several compounds that are converted by the body to GHB, including gamma butyrolactone (GBL) and 1,4 butanediol (1,4 BD). Most recently, GHB abuse has involved the abuse of 1,4 BD. Commonly used with alcohol, these substances have been implicated in drug-facilitated rapes and other crimes. GHB was declared a federally controlled Schedule I drug in March 2000, and indicators of its abuse have declined since that time. More recently, GHB and its related substances are reported to be used by those seeking to come down from stimulant effects of methamphetamine.

There were five GHB-related deaths statewide during 2007. The drug was considered the cause of death in two of these cases. There were 4 GHB-related deaths reported statewide during 2006 and 9 deaths in 2005, with 11 deaths in both 2003 and 2004. In all of Florida, GHB-related deaths increased from 23 in 2000 to 28 in 2001 and then declined to 19 in 2002 before declining to 11 in 2003 and 2004.

Unweighted data accessed from DAWN *Live!* for Miami/Dade County revealed seven GHB-related ED reports 2007. There was one such DAWN *Live!* report in Broward County.

The NFLIS reported 17 crime lab cases of 1,4 BD in Miami/Dade County in 2007, along with 3 GBL cases but none for GHB. The Broward Sheriff's Office crime lab reported 18 cases of 1,4 BD, 10 cases of GBL, and 3 cases of GHB in 2007.

Benzodiazepines

Benzodiazepines in general and alprazolam (Xanax®) in particular were a substantial problem in 2007. There were 2,627 benzodiazepine-related deaths across Florida in 2007, representing a 32-percent increase over the 1,987 such deaths in the previous year. Of the benzodiazepine-related deaths in 2007, a benzodiazepine was identified as the cause of death in 743 cases (28 percent). Among the benzodiazepine-related deaths

statewide, 1,448 were attributed to alprazolam and 767 were attributed to diazepam.

In Miami/Dade County, there were 101 alprazolam-related deaths during 2007, of which 39 percent were alprazolam induced. Seventy-seven percent of the deaths involved at least one other drug (exhibit 4). There were also 31 diazepam-related deaths in Miami/Dade County; 16 percent were caused by the drug; 84 percent of these deaths involved at least one other drug. These 132 combined mentions for alprazolam and diazepam represented a 39-percent increase over the 95 such deaths in 2006 and follows an 83-percent increase from 2005 to 2006. Three (or 2 percent) of the combined mentions in 2007 involved a person younger than 18; 6 percent of the decedents were between 18 and 25; 12 percent were age 26–34; 44 percent were age 35–50; and 36 percent were older than 50.

Broward County recorded 133 alprazolam-related deaths during 2007, of which 78 (or 59 percent) were drug-induced. Only seven of the deaths involved alprazolam alone (exhibit 5). There were also 89 diazepam-related deaths in Broward County; 29 (33 percent) were caused by the drug; 85 percent of these deaths involved at least one other drug. These 222 combined mentions for alprazolam and diazepam represented a 57-percent increase over the 141 such deaths in 2006.

Palm Beach County recorded 124 alprazolam-related deaths during 2007, of which 58 (47 percent) were drug induced. Only four of the deaths involved alprazolam alone. There were also 67 diazepam-related deaths in Palm Beach County; 28 percent were caused by the drug; and 90 percent of these deaths involved at least one other drug. These 191 combined mentions for alprazolam and diazepam represented a 12-percent increase over the 170 such deaths in 2006.

Unweighted DAWN *Live!* data for Miami/Dade showed 633 benzodiazepine reports (exhibit 6).

Unweighted data accessed from DAWN *Live!* for Broward County EDs during 2007 revealed

a total of 1,693 nonmedical use reports for benzodiazepines (exhibit 7).

There were no primary admissions for benzodiazepines reported from the sample of Miami/Dade County treatment admissions provided by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported 35 primary admissions for methamphetamine during the first half of 2007, or 3 percent of 1,311 primary admissions (excluding alcohol).

The NFLIS reported that Miami/Dade had 361 benzodiazepine samples (or 1.9 percent of all samples) in 2007, including 352 alprazolam items, 24 diazepam items, 17 clonazepam samples, and 17 for other benzodiazepines. In 2007, the Broward Sheriff's Office Crime Lab analyzed 386 benzodiazepine samples (4.2 percent of all items), including 335 alprazolam cases, 43 unspecified benzodiazepine cases, and 8 clonazepam samples.

The 2007 Florida Youth Survey on Substance Abuse found that 1.2 percent of State middle school students and 3.8 percent of high school students reported nonmedical use of a prescription depressant (e.g., Xanax®) at least once in the past 30 days. The 2007 combined prevalence for all students was 2.7 percent, reflecting a 59-percent increase from 1.7 percent reported in 2000 and an 8-percent increase from 2.5 percent in 2006.

Muscle Relaxants

Muscle relaxants may be abused in combination with MDMA and other drugs. There were 337

deaths related to carisoprodol or meprobamate across Florida in 2007, of which 88 (or 26 percent) were considered to be caused by the drug. The number of these deaths increased by 8 percent in 2007 as compared to the 313 such deaths in 2006.

Unweighted DAWN *Live!* data for Miami/Dade County in 2007 showed 26 reports on non-medical use of muscle relaxants. Carisoprodol was specifically cited in 50 percent of the reports.

Unweighted DAWN *Live!* data on nonmedical muscle relaxants use showed 160 ED reports involving these pharmaceuticals in Broward County in 2007. Carisoprodol was specifically cited in 89 percent of the reports.

There were no primary admissions for muscle relaxants reported from the sample of Miami/Dade County treatment admissions provided by the South Florida Provider Coalition in the first half of 2007.

In Broward County, the BARC treatment programs reported two primary admissions for muscle relaxants during the first half of 2007, or 0.2 percent of 1,311 primary admissions (excluding alcohol).

The NFLIS reported five carisoprodol crime lab cases in Miami/Dade County in 2007, and Broward County reported 26 carisoprodol lab cases in 2007.

For inquiries regarding this report, please contact James N. Hall, Center for the Study and Prevention of Substance Abuse, Up Front, Inc., 13287 SW 124 Street, Miami, FL 33186, Phone: 786-242-8222, E-mail: upfrontin@aol.com.

Exhibit 1. DAWN ED Miami/Dade County Sample and Reporting Information: 2007

| Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | 90–100% | 50–89% | <50% | |
| 21 | 19 | 19 | 6–9 | 0–1 | 0–2 | 10-12 |

¹Short-term, general, non-Federal hospitals with 24-hour EDs based on the American Hospital Association Annual Survey.

²Some hospitals have more than one emergency department.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated May 2, 2008

Exhibit 2. DAWN ED Ft. Lauderdale Division Sample and Reporting Information: 2007

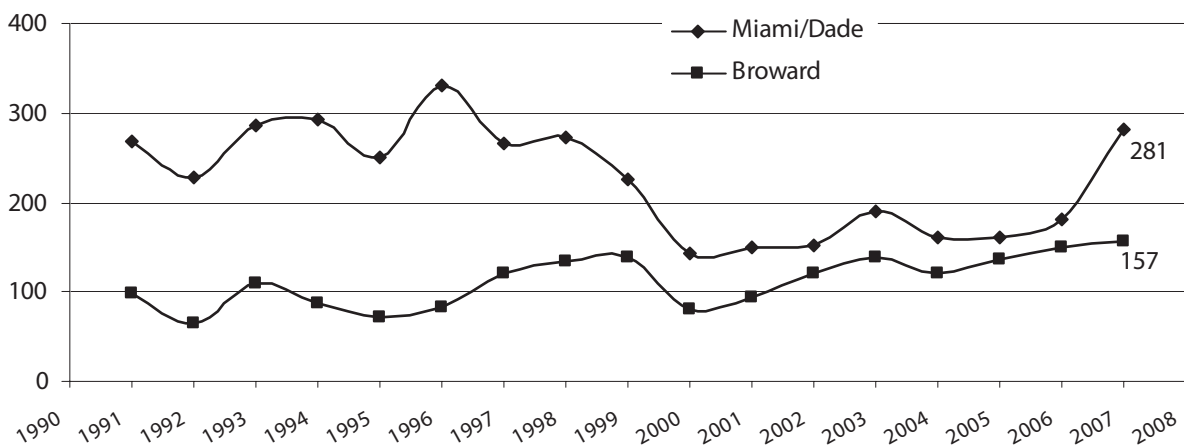
| Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | 90–100% | 50–89% | <50% | |
| 27 | 22 | 22 | 8 | 0–1 | 0–1 | 13 |

¹Short-term, general, non-Federal hospitals with 24-hour EDs based on the American Hospital Association Annual Survey.

²Some hospitals have more than one emergency department.

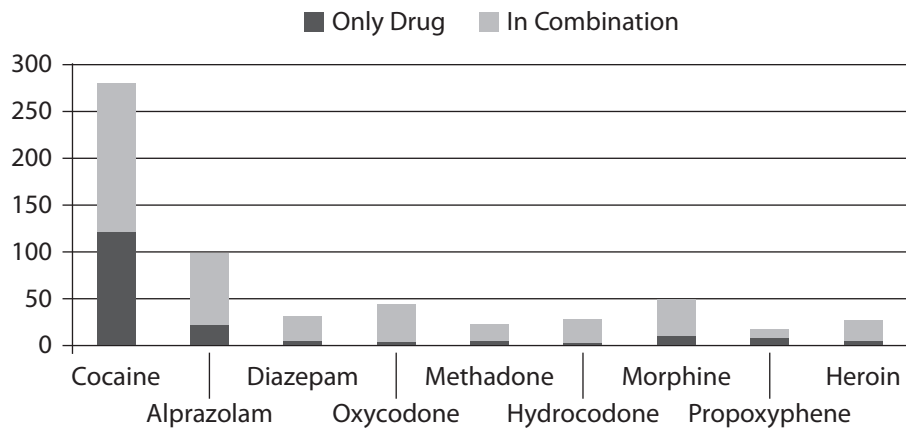
SOURCE: DAWN *Live!*, OAS, SAMHSA, updated May 16, 2008

Exhibit 3. Cocaine-Related Deaths in South Florida: 1991–2007



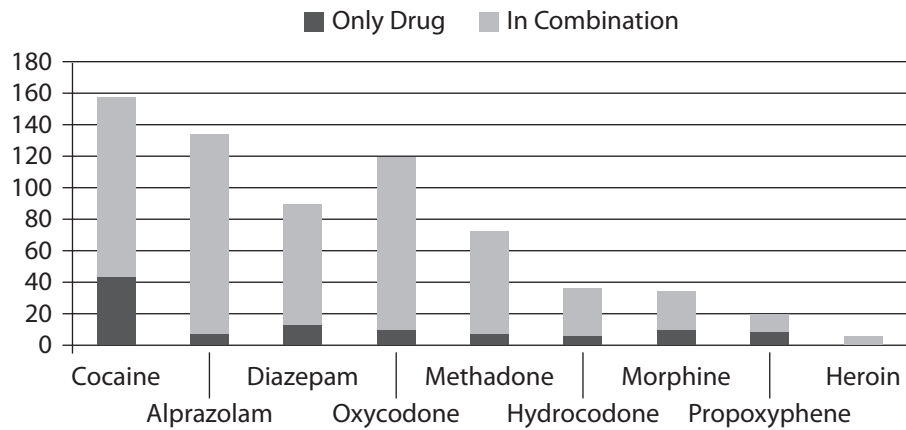
SOURCE: FDLE Florida Medical Examiners Commission Report 2007

Exhibit 4. Miami/Dade County Drug-Related Deaths: 2007, by Single Drug or In-Combination



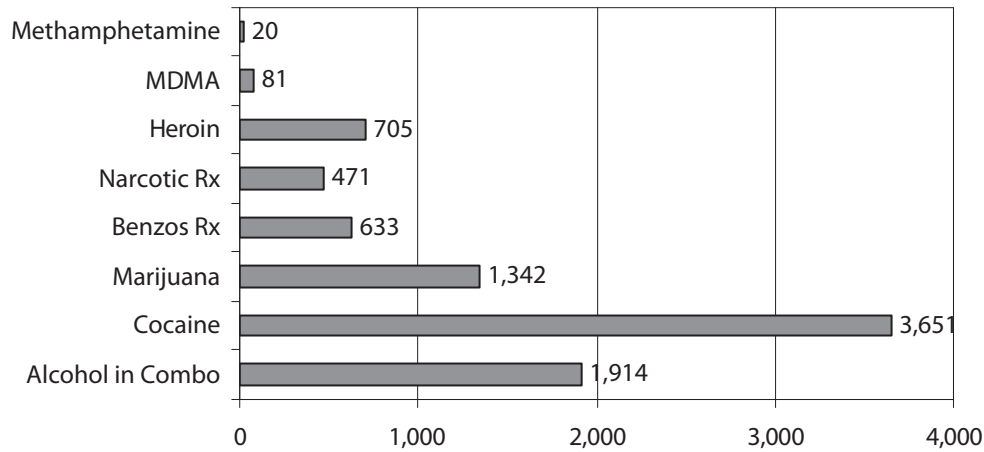
SOURCE: FDLE Florida Medical Examiners Commission Report 2007

Exhibit 5. Broward County Drug-Related Deaths: 2007, by Single Drug or In-Combination



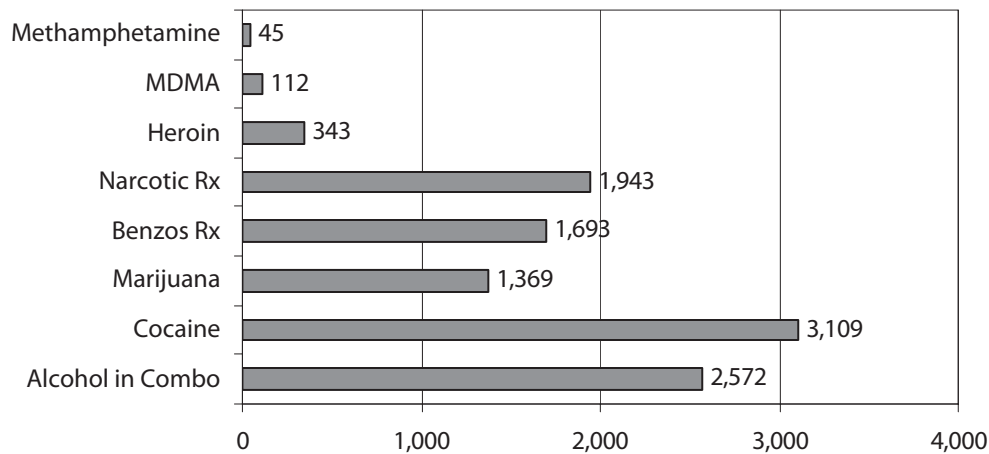
SOURCE: FDLE Florida Medical Examiners Commission Report 2007

Exhibit 6. Numbers of Selected Drug Reports in Miami/Dade County DAWN ED Data (Unweighted¹), by Drug Category: 2007



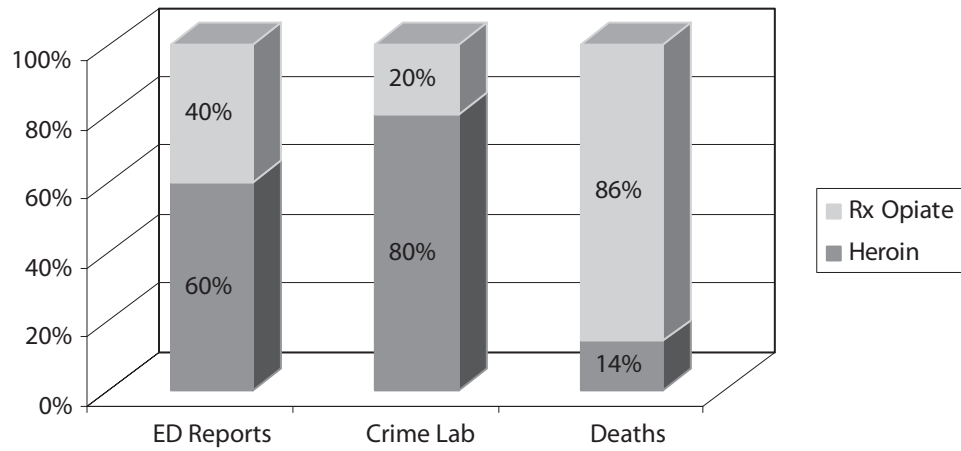
¹The unweighted data are from 8–9 Miami/Dade EDs reporting to DAWN in 2007. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.
 SOURCE: Miami/Dade County Division EDs DAWN *Live!*, OAS, SAMHSA, updated May 2, 2008

Exhibit 7. Numbers of Selected Drug Reports in Broward County DAWN ED Data (Unweighted¹), by Drug Category: 2007



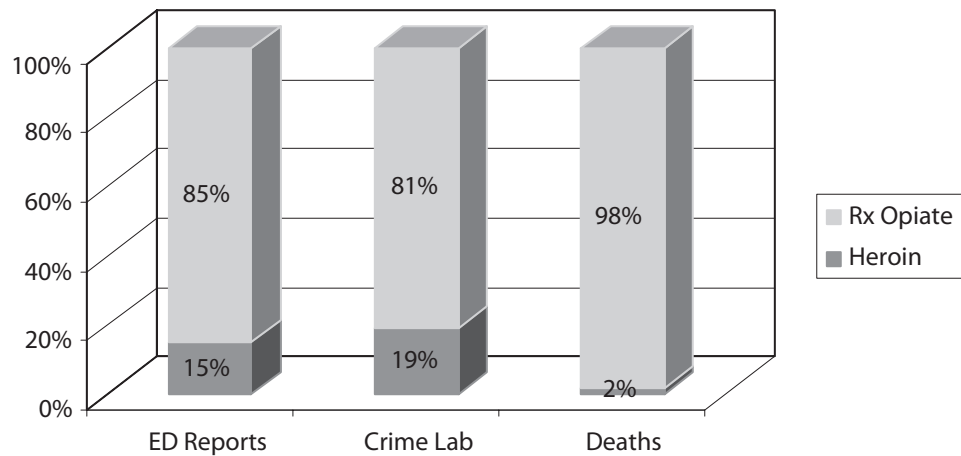
¹The unweighted data are from 9 Ft. Lauderdale EDs reporting to DAWN 2007. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change.
 SOURCE: Miami/Ft. Lauderdale Division EDs DAWN *Live!*, OAS, SAMHSA, updated May 16, 2008

Exhibit 8. Heroin and Rx Opiate Consequences in Miami/Dade County: 2007



SOURCE: FDLE Medical Examiners Commission DEA, NFLIS, DAWN Live!, OAS, SAMHSA, updated May 2, 2008

Exhibit 9. Heroin and Rx Opiate Consequences in Broward County: 2007



SOURCE: FDLE Medical Examiners Commission DEA, NFLIS, DAWN Live!, OAS, SAMHSA, updated May 16, 2008

Drug Abuse Trends in Minneapolis/St. Paul

Carol Falkowski¹

ABSTRACT

Methamphetamine abuse and addiction showed continuous signs of decline in the Minneapolis/St. Paul ("Twin Cities") area in 2007, in the wake of rising indicators from 2000 through 2005. Only 6.7 percent of admissions to Twin Cities area addiction treatment programs were for methamphetamine in 2007, compared with nearly 12 percent in 2005. Methamphetamine-related accidental deaths, use among high school students, and methamphetamine labs declined as well. Treatment admissions with cocaine as the primary substance problem also declined and accounted for 11.6 percent of total treatment admissions in 2007, compared with 13.8 percent in 2006. While the actual number of admissions for cocaine declined 30 percent since 2005, cocaine-related deaths increased somewhat, with 70 in 2007, compared with 61 in 2006 (Hennepin and Ramsey Counties combined). Opiate-related treatment admissions increased in 2007, particularly for opiates other than heroin, which included prescription narcotics. Admissions for other opiates accounted for 4.9 percent of total treatment admissions in 2007, compared with 1.4 percent in 2000. Combining Hennepin and Ramsey Counties, there were 106 opiate-related deaths in 2007, up from 96 in 2006. Marijuana use (any use in the past year) increased among high school seniors. Thirty-three percent reported use in 2007, compared with 29.2 percent in 2004. Marijuana continued to account for more admissions to addiction treatment programs than any other illicit drug, with 3,067 admissions that

represented 16.1 percent of total admissions in 2007.

INTRODUCTION

This report is produced twice annually for participation in the Community Epidemiology Work Group (CEWG) of the National Institute on Drug Abuse (NIDA), an epidemiological surveillance network of researchers from 21 U.S. areas who monitor emerging patterns and trends in drug abuse. It is a compilation of the most recent data and information obtained from multiple sources and is available online at www.dhs.state.mn.us, under "disabilities" and "chemical health."

Area Description

The Minneapolis/St. Paul ("Twin Cities") metropolitan area includes Minnesota's largest city, Minneapolis (Hennepin County), the capital city of St. Paul (Ramsey County), and the surrounding counties of Anoka, Dakota, and Washington. Recent estimates of the population of each county are as follows: Anoka, 313,197; Dakota, 375,462; Hennepin, 1,239,837; Ramsey, 515,274; and Washington, 213,395, for a total of 2,557,165, or roughly one-half of the Minnesota State population. In the five-county metropolitan area, 84 percent of the population are White. African Americans constitute the largest minority group in Hennepin County, while Asians are the largest minority group in Ramsey, Anoka, Dakota, and Washington Counties.

Outside of the Twin Cities metropolitan area, the remainder of the State is less densely populated and more rural in character. Minnesota shares an international border with Canada, a southern border with Iowa, an eastern border with Wisconsin, and a western border with North Dakota and South Dakota, two of the country's most sparsely populated States. Illicit drugs are sold and distributed within Minnesota by Mexican drug trafficking organizations, street gangs, independent entrepreneurs, and other criminal

¹The author is affiliated with the Chemical Health Division, Minnesota Department of Human Services, St. Paul, Minnesota.

groups. Drugs are typically shipped or transported into the Minneapolis/St. Paul area for further distribution across and within the State.

Data Sources

Information used in this report was gathered from the following sources:

- **Treatment data** came from addiction treatment programs in the five-county metropolitan area, as reported on the Drug and Alcohol Abuse Normative Evaluation System (DAANES) of the Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services (through December 2007).
- **Mortality data** on drug-related deaths were provided by the Hennepin County Medical Examiner and the Ramsey County Medical Examiner (through December 2007). Hennepin County cases included 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 included those in which drug toxicity was the immediate cause of death and those in which drugs were present at the time of death.
- **Student survey data** came from the Minnesota Student Survey, which is administered statewide every 3 years to students in grades 6, 9, and 12. Results presented in this report are from students in the five-county metropolitan area.
- **Crime lab data** for St. Paul were gathered by the National Forensic Laboratory Information System (NFLIS). This system, which began in 1997, is sponsored by the U.S. Drug Enforcement Administration (DEA) and collects solid dosage drug analyses conducted by State and local forensic laboratories across the country on drugs seized by law enforcement (through December 2007).
- **Human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) data** for 2007 were obtained from the Minnesota Department of Health.
- **Additional information** came from interviews with treatment program staff, narcotics agents, and school-based drug and alcohol specialists conducted in May 2007.

DRUG ABUSE PATTERNS AND TRENDS

Crack/Cocaine

Cocaine was the primary substance problem for 11.6 percent of total treatment admissions in 2007, compared with 13.8 percent in 2006, and 14.1 percent in 2005 (exhibit 1). The actual number of admissions for cocaine has declined 30 percent since 2005 (exhibit 2). For the first time, treatment admissions for heroin and other opiates (combined) accounted for almost as many admissions as for cocaine (exhibit 3).

Most cocaine treatment admissions in 2007 were for crack/cocaine (exhibit 4). Almost one-half (46 percent) were African American. The average age of first cocaine use was 24.5 years, and two-thirds of clients receiving treatment for cocaine were age 35 or older. Alcohol was the most frequent secondary substance problem, reported by 39.8 percent of clients (exhibit 4). The average length of time from the first reported use of cocaine to the first treatment episode for cocaine was 10.7 years (exhibit 5).

There were 70 accidental cocaine-related deaths in 2007, compared with 61 in 2006 (combining both Hennepin and Ramsey Counties) (exhibit 6). In Hennepin County, this included the deaths of two newborns where maternal use of cocaine was cited as a significant condition contributing to the death.

Cocaine accounted for 27.3 percent of the drug seizures reported to NFLIS in St. Paul in 2007 (exhibit 7). Cocaine generally sold for \$100 per gram, \$200–\$250 per “eightball” (one-eighth ounce), \$700–\$1,200 per ounce, and up to \$23,000 per kilogram. The price of a rock of crack was unchanged at \$10–\$20. Gangs in both cities

remained involved in the street-level retail distribution of crack/cocaine.

Heroin/Opiates/Other Opiates

Treatment admissions reporting heroin as the primary substance problem accounted for 6.4 percent of total admissions in 2007, compared with 5.6 percent in 2006, and 5.3 percent in 2005 (exhibit 1). Of these 1,215 clients with heroin as the primary substance problem, very few (1 percent) were younger than 18, and injecting was the most common route of administration (63 percent). The average age of first heroin use was 22.9 years. Cocaine was the most frequently reported secondary substance problem (36.3 percent) (exhibit 4). The average length of time from the first reported heroin use to the first treatment episode for heroin was 7.7 years (exhibit 5).

Treatment admissions for opiates other than heroin continued to increase in 2007 (exhibit 2). Other opiates were reported as the primary substance problem by 942 patients in the Twin Cities in 2007, which is 4.9 percent of all treatment admissions (exhibit 3). This compared with 3.7 percent of total treatment admissions in 2006 and only 1.4 percent in 2000 (exhibit 1). The treatment category “opiates other than heroin” included the nonmedical use of prescription narcotic analgesics (painkillers) as the primary substance problem. The most common route of administration was oral (76 percent) (exhibit 4). The average length of time from the first reported use of other opiates to the first treatment episode for them was 7.3 years (exhibit 5).

Combining Hennepin and Ramsey Counties, there were 106 opiate-related deaths in 2007, up from 96 in 2006 and 102 in 2005 (exhibit 6). More than one-quarter (27.3 percent) of the opiate-related deaths involved methadone (18 in Hennepin and 11 in Ramsey County.) Three deaths in Hennepin County and two in Ramsey County involved fentanyl, a potent prescription synthetic narcotic analgesic. Oxycodone, another prescription narcotic, was involved in 9 deaths in Hennepin and 11 deaths in Ramsey County. Six of

the opiate-related deaths in Ramsey County also involved cocaine use, as did seven in Hennepin County.

Heroin accounted for 1.5 percent of the drug seizures analyzed by NFLIS in 2007. Oxycodone accounted for roughly 1.7 percent, and hydrocodone represented 1.0 percent (exhibit 7). All levels of law enforcement reported an increase in the seizure of prescription drugs in the form of pills.

Heroin generally sold for \$20–\$40 per dosage unit or “paper” and for up to \$2,000 per ounce. Mexican black tar heroin was available in both cities.

A small segment of Minnesota’s Hmong immigrant population regularly smokes opium, and packages concealing opium continue to be shipped from Asia to residents of this Twin Cities community.

Methamphetamine/Other Stimulants

In the wake of rising consequences related to methamphetamine abuse from 2000 through 2005, notable downward trends continued into 2007.

Methamphetamine labs in Minnesota declined significantly since enactment of a Minnesota State law in July 2005 that restricted retail sales of pseudoephedrine-containing products. Methamphetamine use by high school students in the metropolitan area showed downward trends as well, according to data from the 2007 Minnesota Student Survey. Among high school seniors, 2.2 percent reported past-year methamphetamine use in 2007, compared with 4.8 percent in 2004 and 5.3 percent in 2001.

Methamphetamine-related admissions to addiction treatment programs also declined, especially among adolescents. Clients addicted to methamphetamine accounted for 6.7 percent of total treatment admissions in the Twin Cities in 2007, compared with 7.7 percent in 2006 and 11.8 percent in 2005 (exhibit 1). In 2007, only 3.0 percent of these clients were younger than 18 (exhibit

4), compared with 11.5 percent in the first half of 2005.

Most methamphetamine-related treatment admissions were White (87 percent). Asians accounted for 3 percent, the highest percentage of Asians within any drug category. The average age of first use was 21.5. Smoking was the most common route of administration for methamphetamine (72 percent). Marijuana was the most frequently reported secondary substance problem (30.3 percent) (exhibit 4). The average length of time from the first reported use of methamphetamine to the first treatment episode was 7.2 years, the shortest time of any drug category (exhibit 5).

Combining Hennepin and Ramsey Counties, there were 13 methamphetamine-related deaths in 2007, compared with 14 in 2006, and a high of 28 in 2004 (exhibit 6).

Seizures of methamphetamine by law enforcement accounted for 31.7 percent of the samples reported to the NFLIS in 2007 (exhibit 7). Methamphetamine prices were \$90–\$100 per gram, \$900–\$1,700 per ounce, and \$16,000–\$20,000 per pound.

Khat, a plant indigenous to East Africa and the Arabian Peninsula and used for its stimulant effects in East Africa and the Middle East, maintained a presence within the Somali immigrant community in the Twin Cities. Its active ingredients, cathinone and cathine, are controlled substances in the United States. Cathinone, a Schedule I drug, is present only in the fresh leaves of the flowering plant and converts to the considerably less potent cathine in about 48 hours. Users chew the leaves, smoke it, or brew it in tea.

Methylphenidate (Ritalin®), a prescription drug used in the treatment of attention deficit hyperactive disorder, has been used nonmedically as a drug of abuse to increase alertness and suppress appetite by some adolescents and young adults. It is sometimes known as a “hyper pill” or “the study drug.” Crushed and snorted or ingested orally, each pill was typically sold for \$5 or was simply shared with fellow middle school or high school students at no cost.

Marijuana

Marijuana remained a popular drug among adolescents. Marijuana use (any use in the past year) was reported by 33.0 percent of high school seniors in 2007, compared with 29.2 percent in 2004. The 2007 figure represented a reverse of a slight downward trend since a rate of 35 percent in 1995.

Marijuana accounted for more admissions into addiction treatment programs than any other illicit drug in the Twin Cities, with 3,067 admissions in 2007 (16.1 percent of total treatment admissions) (exhibit 1). Of these, 33 percent were younger than 18, and an additional 37 percent were age 18–25. Only 23 percent were female, and the average age of first marijuana use was 14.1. Alcohol was the most frequently reported secondary substance problem (51.3 percent) (exhibit 4). The average length of time from the first reported use of marijuana to the first treatment episode for it was 7.9 years (exhibit 5).

Marijuana (cannabis) accounted for 26 percent of drugs seized according to 2007 NFLIS data (exhibit 7). Marijuana sold for \$5 per joint. Standard, commercial grade marijuana sold for \$50 per one-quarter ounce, \$150–\$175 per ounce, and \$600–\$900 per pound. Higher potency “BC Bud” from British Columbia sold for up to \$100 per quarter ounce, \$600 per ounce, and up to \$4,000 per pound. Marijuana joints that are dipped in formaldehyde, which is often mixed with phencyclidine (PCP), are known as “wet sticks,” “water,” or “wet daddies.” Joints containing crack are known as “primos.”

Club Drugs/Hallucinogens

The drug 3,4 methylenedioxymethamphetamine (MDMA), which is also known as “ecstasy,” “X,” or “e,” sold for \$20 per pill. Lysergic acid diethylamide (LSD or “acid”) is a strong, synthetically produced hallucinogen, typically sold as saturated, tiny pieces of paper known as “blotter acid,” for \$5 to \$10 per dosage unit.

From 2004 to 2007, use of MDMA and LSD increased among Minneapolis/St. Paul metropolitan area high school seniors. MDMA use (any use in the past year) rose from 4.3 percent in 2004 to 5.7 percent in 2007, and reported LSD use increased from 4.9 to 6.2 percent.

Gamma hydroxybutyrate (GHB) is a concentrated liquid abused for its stupor-like depressant effects. It is also used as a predatory, knockout, drug-facilitated rape drug. Ketamine, also known as “Special K,” is a veterinary anesthetic that first appeared as a drug of abuse among young people in Minnesota in 1997. In 2006, neither of these drugs appeared in hospital emergency room data to a significant extent.

Dextromethorphan (also known as “DXM”) is the active cough suppressant ingredient in Coricidin® HBP Cough and Cold (known as “Triple Cs”) and Robitussin®. Over-the-counter cough and cold products that contain dextromethorphan continued to be abused for their hallucinogenic effects by ingesting doses many times in excess of the recommended amount. Excessive dosages produce long-acting hallucinations, altered time perception, slurred speech, profuse sweating, uncoordinated movements, and high blood pressure.

Alcohol and Tobacco

Alcohol remained the most widely abused substance in the Twin Cities area. Alcohol consumption (any use in past year) was reported by 60.8 percent of metropolitan area high school seniors in 2007, virtually unchanged from the 2004 survey (60.6 percent), but lower than the highest proportion of 78.1 percent in 1992.

Roughly one-half of the total admissions to addiction treatment programs (51.1 percent) reported alcohol as the primary substance

problem in 2007 (exhibit 1). More than one-half (61 percent) were age 35 or older, and 79 percent were White. The average age of first alcohol use was 15.6 years (exhibit 4). The average length of time from the first reported use of alcohol to the first treatment episode for alcohol was 19.8 years, the longest of any drug category (exhibit 5).

In Hennepin County in 2007, 91 deaths were alcohol-involved—10 in which alcohol toxicity was the cause of death, and 81 in which alcohol intoxication was listed as a significant contributing condition.

Nicotine use remained widespread among patients in addiction treatment programs.

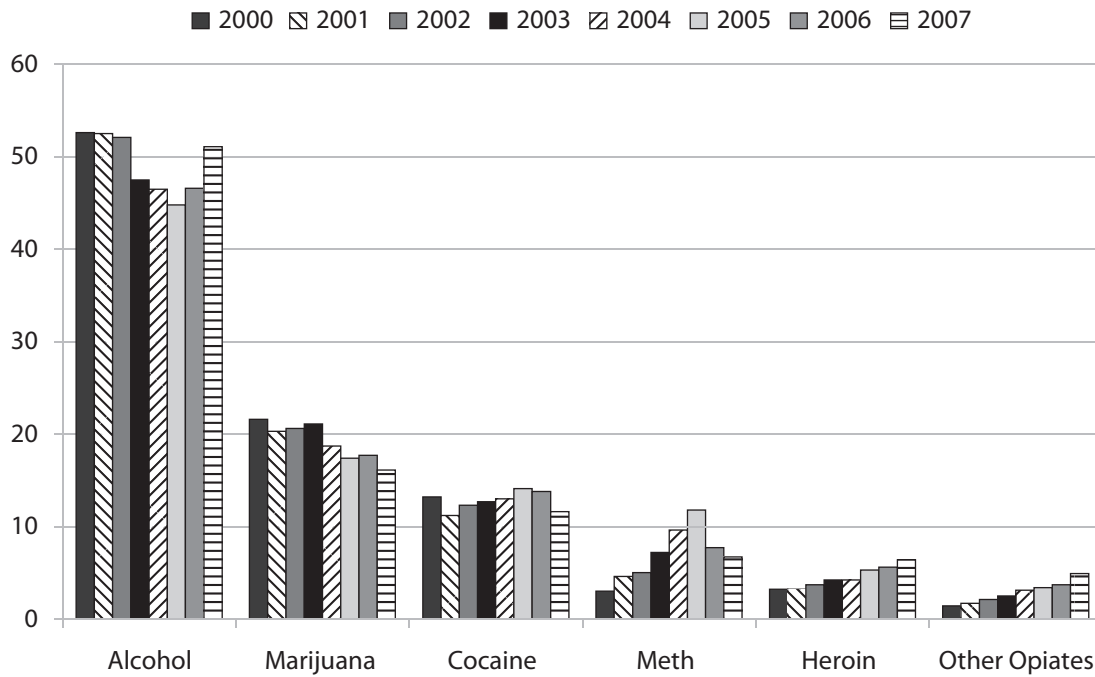
DRUG ABUSE-RELATED DISEASES

Most cases of HIV infection and AIDS in Minnesota in 2007 were in the Minneapolis/St. Paul area. Exposure categories for all Minnesota cases of HIV and AIDS combined were as follows: men who have sex with men (MSM), 51 percent; injection drug use (IDU), 7 percent; MSM/IDU, 5 percent; heterosexual contact, 16 percent; perinatal, 1 percent; and other/unspecified/no interview, 20 percent (exhibit 8).

The level of hepatitis C virus (HCV), a blood-borne liver disease, remained prevalent among IDUs, with estimates as high as 90 percent among patients in some methadone treatment programs.

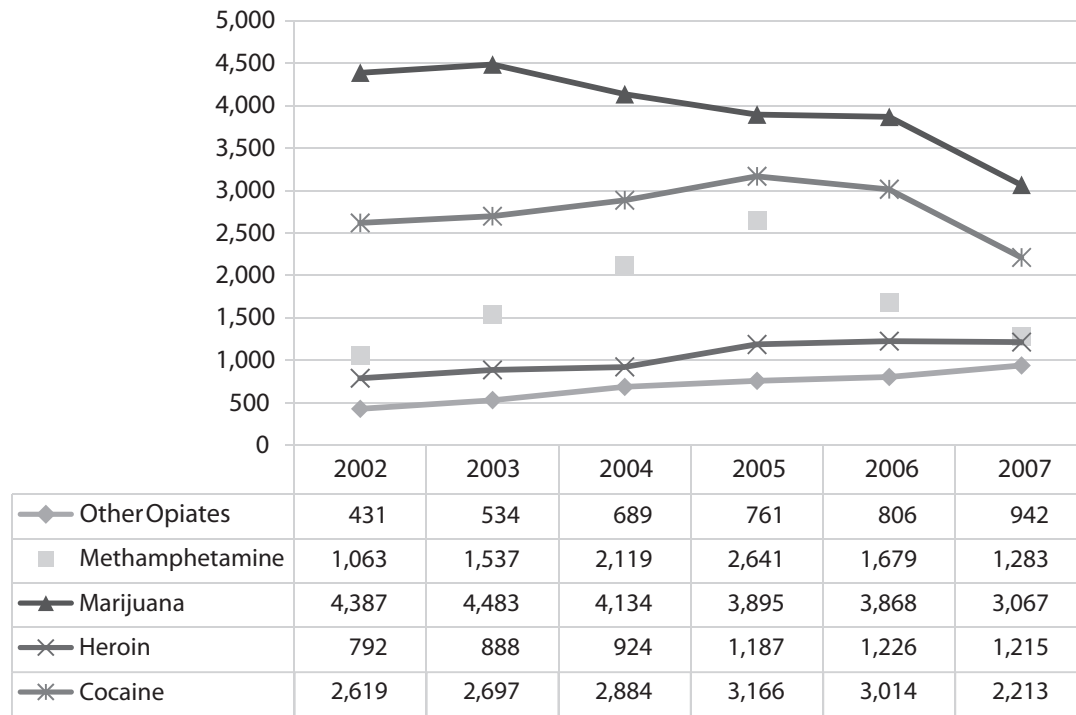
For inquiries concerning this report, please contact Carol Falkowski, Director, Chemical Health Division, Minnesota Department of Human Services, 540 Cedar Street, St. Paul, MN 55115, Phone: 651-431-2457, Fax: 651-431-7449, E-mail: carol.falkowski@state.mn.us.

Exhibit 1. Admissions to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem and Percent: 2000–2007



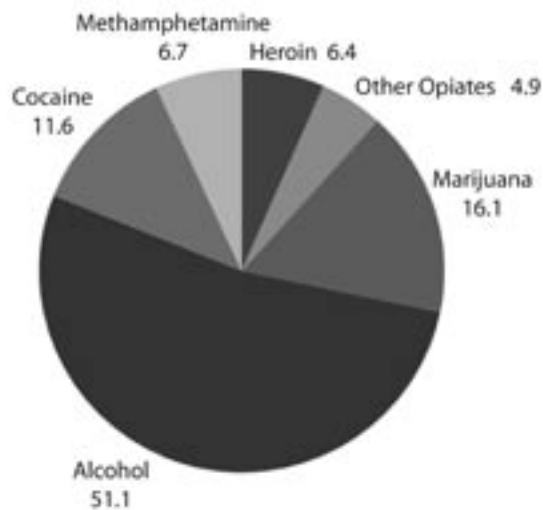
SOURCE: DAANES, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2008

Exhibit 2. Number of Nonalcohol Admissions to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem: 2002–2007



SOURCE: DAANES, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2007

Exhibit 3. Admissions to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem and Percent: 2007



SOURCE: DAANES, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2007

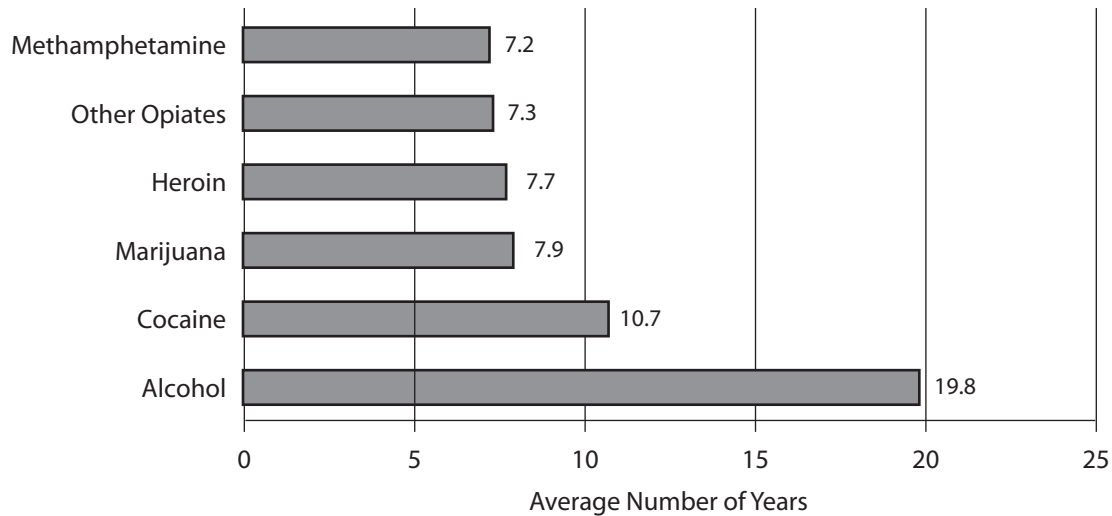
Exhibit 4. Characteristics of Patients Admitted to Twin Cities Area Addiction Treatment Programs, by Primary Substance Problem and Percent¹: 2007

| Total Admissions (N = 19,092) | Alcohol n = 9,754 51.1% | Marijuana n = 3,067 18.3% | Cocaine n = 2,213 11.6% | Metham- phetamine n = 1,283 6.7% | Heroin n = 1,215 6.4% | Other Opiates n = 942 4.9% |
|---|--|--|--|---|--------------------------------------|---|
| Gender | | | | | | |
| Male | 69 | 77 | 63 | 60 | 69 | 53 |
| Female | 31 | 23 | 37 | 40 | 31 | 47 |
| Race/Ethnicity | | | | | | |
| White | 79 | 60 | 44 | 87 | 63 | 85 |
| African American | 12 | 26 | 46 | 1 | 29 | 5 |
| Hispanic | 4 | 4 | 3 | 5 | 3 | 2 |
| A Indian/Other | 5 | 8 | 6 | 4 | 5 | 6 |
| Asian | 1 | 2 | 0 | 3 | 1 | 2 |
| Age | | | | | | |
| 17 and younger | 3 | 33 | 3 | 3 | 1 | 2 |
| 18–25 | 17 | 37 | 11 | 31 | 23 | 22 |
| 26–34 | 19 | 17 | 20 | 34 | 26 | 27 |
| 35 and older | 61 | 13 | 66 | 32 | 49 | 50 |
| Route of Administration | | | | | | |
| Smoking | – | – | 73 | 72 | 5 | 4 |
| Sniffing | – | – | 23 | 10 | 30 | 10 |
| Injecting | – | – | 2 | 12 | 63 | 8 |
| Other/Multiple | – | – | 0 | 4 | 0 | 76 |
| Unknown | – | – | 2 | 2 | 2 | 3 |
| Secondary Drug | None 44 | Alcohol 51.3 | Alcohol 39.8 | Marijuana 30.3 | Cocaine 36.3 | Other 24.5 |
| Average Age 1st Use (in years) | 15.6 | 14.1 | 24.5 | 21.5 | 22.9 | 26.4 |
| Daily Use of Nicotine | 52.9 | 57.4 | 66 | 69.4 | 75.6 | 66.5 |

¹Percentages do not add to 100 due to "other" category not displayed.

SOURCE: DAANES, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2007

Exhibit 5. Average Number of Years from First Use to First Treatment Episode, by Primary Substance Problem¹



¹Data are for patients receiving treatment for the first time in 2007 who cite one of the drugs above as the primary substance problem. Number of cases for alcohol=2,965, methamphetamine=334, other opiates=283, cocaine=374, marijuana=1,262, and heroin=179. SOURCE: DAANES, Performance Measurement and Quality Improvement Division, Minnesota Department of Human Services, 2008

Exhibit 6. Drug-Related Deaths by County: 2000–2007

| County | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------|------|------|------|------|------|------|------|
| Hennepin County | | | | | | | | |
| Cocaine | 43 | 37 | 34 | 44 | 39 | 50 | 48 | 59 |
| Opiates | 41 | 58 | 59 | 50 | 47 | 60 | 69 | 67 |
| Methamphetamine | 6 | 8 | 11 | 15 | 19 | 10 | 8 | 6 |
| MDMA | 3 | 1 | 3 | 1 | 8 | 3 | 1 | 2 |
| Ramsey County | | | | | | | | |
| Cocaine | 17 | 11 | 11 | 10 | 10 | 12 | 13 | 11 |
| Opiates | 17 | 19 | 18 | 10 | 25 | 42 | 27 | 39 |
| Methamphetamine | 11 | 2 | 3 | 10 | 9 | 7 | 6 | 7 |
| MDMA | 3 | – | – | – | – | – | – | – |

SOURCE: Office of the Hennepin County Medical Examiner and Office of the Ramsey County Medical Examiner, 2008

Exhibit 7. Drug Seizures in the Twin Cities Area: 2007

| Drug | Number of Items | Percent of Total Items |
|-----------------|-----------------|------------------------|
| Methamphetamine | 1,476 | 31.7 |
| Cocaine | 1,267 | 27.3 |
| Cannabis | 1,209 | 26.0 |
| MDMA | 192 | 4.1 |
| Oxycodone | 77 | 1.7 |
| Heroin | 70 | 1.5 |
| Hydrocodone | 49 | 1.0 |
| All other | 309 | 6.6 |
| Total | 4,649 | 100.0 |

SOURCE: NFLIS data from Anoka, Dakota, Carver, Scott, Hennepin, Ramsey and Washington Counties in 2007. DEA, 2008

Exhibit 8. Persons Living with HIV (non-AIDS) and AIDS in Minnesota by Gender and Mode of Exposure: 2007

| Mode of Exposure | Males | | Females | | Total | |
|---------------------------|--------------------------|------------|--------------------------|------------|--------------------------|------------|
| | Total HIV and AIDS Cases | Percent | Total HIV and AIDS Cases | Percent | Total HIV and AIDS Cases | Percent |
| MSM ¹ | 3,009 | 66 | 0 | 0 | 3,009 | 51 |
| IDU ² | 261 | 6 | 156 | 11 | 417 | 7 |
| MSM/IDU ^{1,2} | 311 | 7 | 0 | 0 | 311 | 5 |
| Heterosexual ³ | 165 | 4 | 808 | 59 | 973 | 16 |
| Perinatal ⁴ | 23 | 1 | 36 | 3 | 59 | 1 |
| Other ⁵ | 40 | 1 | 14 | 1 | 54 | 1 |
| Unspecified ⁶ | 297 | 6 | 8 | 1 | 305 | 5 |
| No interview ⁷ | 477 | 10 | 345 | 25 | 822 | 14 |
| Total | 4,583 | 100 | 1,367 | 100 | 5,950 | 100 |

¹MSM=Men who have sex with men.

²IDU=Injection drug user.

³Heterosexual=For males, heterosexual contact with a female known to be HIV-positive, an injection drug user, or a hemophiliac/blood product or organ transplant recipient. For females, heterosexual contact with a male known to be HIV-positive, bisexual, an injection drug user, or a hemophiliac/blood product or organ transplant recipient.

⁴Perinatal=Mother-to-child HIV transmission.

⁵Other=Hemophilia patient/blood product or organ transplant recipient.

⁶Unspecified=Cases who did not acknowledge any of the risks listed above.

⁷No interview=Cases who refused to be, could not be, or have not yet been interviewed.

SOURCE: Minnesota Department of Health, 2008

Drug Use Trends in New York City

Rozanne Marel, Ph.D., John Galea, M.A., and Robinson B. Smith, M.A.¹

ABSTRACT

This report describes current drug abuse trends in New York City. For the five boroughs, there were 17,435 unweighted Drug Use Warning Network (DAWN) Live! reports for cocaine in 2007, and among the 71,918 drug treatment admissions, 40,325 (56 percent) reported cocaine as a primary, secondary, or tertiary substance of abuse. Of the 52,849 drug items analyzed and reported by the Drug Enforcement Administration's (DEA's) National Forensic Laboratory Information System (NFLIS) for 2007, 27,354 (52 percent) were cocaine. There were 8,547 preliminary unweighted DAWN Live! heroin emergency department (ED) reports for 2007, and primary heroin admissions numbered 22,612—31 percent of New York City's 71,918 drug treatment admissions. NFLIS data showed that 11 percent of the 52,849 drug items analyzed in 2007 (n=5,923) contained heroin. In 2007, there were 4,658 unweighted DAWN Live! reports for opiates/opioids. For the narcotic analgesics, 2,512 were for methadone, 418 for oxycodone/combinations, and 260 hydrocodone/combinations. There were relatively few ED reports, drug samples, or treatment admissions for methamphetamine. NFLIS data showed that less than 1 percent of the 52,849 drug items analyzed in 2007 contained methamphetamine. There were 191 preliminary unweighted DAWN Live! reports for stimulants in 2007, including 148 for methamphetamine and 43 for amphetamines. Marijuana indicators continued their recent steady increase. There were 8,260 preliminary unweighted DAWN

Live! reports for marijuana in 2007. Primary marijuana admissions to all treatment programs increased more than 11-fold between 1991 and 2007, from 1,374 to 17,323—the highest annual number. According to NFLIS data, 28 percent of the drug items analyzed in 2007 (n=14,756) contained cannabis. Club drugs included methylenedioxymethamphetamine (MDMA), gamma hydroxybutyrate (GHB), and ketamine. There were 239 preliminary unweighted DAWN Live! reports for MDMA in 2007. Although not generally available on the street, GHB and the analogs (GBL, BD, GHV, and GVL) could be easily obtained in many dance clubs. Several phencyclidine (PCP or “angel dust”) indicators showed signs of increasing use. There were 557 unweighted DAWN Live! reports for PCP for 2007, the most for any illicit drug other than cocaine, heroin, and marijuana. There were 509 NFLIS items analyzed in 2007 that contained PCP and 64 unweighted DAWN Live! reports for LSD in 2007. Psychoactive prescription drugs continued to be widely available and popular, some for as little as \$0.50 per pill. In 2007, there were 2,569 unweighted DAWN Live! reports for benzodiazepines. According to the New York State Office of Alcoholism and Substance Abuse Services Street Studies Unit, the three most commonly sold pharmaceuticals on the street in this category were Xanax®, Elavil®, and Catapres®. Since AIDS surveillance began in New York City, 197,592 cases of HIV and AIDS have been diagnosed and reported, and 97,870 people have died. As of December 2006, 98,861 New Yorkers had been diagnosed with HIV or AIDS; 37,272 (38 percent) were living with HIV and 61,589 (62 percent) were living with AIDS. The New York City Department of Health and Mental Hygiene, Bureau of Communicable Diseases, reported that as of December 2007, there were 16,738 newly reported individuals with a 2006 hepatitis C diagnosis date.

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INTRODUCTION

Area Description

New York City, with 8 million people, is the largest city in the United States. It is situated in the southeastern corner of the State on the Atlantic coast and encompasses an area of 320 square miles. It has nearly 600 miles of waterfront and one of the world's largest harbors.

Historically, New York City has been home to a large multiracial, multiethnic population. New York City is the largest and most racially/ethnically diverse city in the country. As has been true throughout its history, immigration continues to shape the character of New York City. It has contributed to a substantial shift in the racial/ethnic composition of New York. Findings from the 2000 census show that the population diversity continues: 35 percent are White; 27 percent are Black; 27 percent are Hispanic of any race; and 10 percent are Asian/Pacific Islander. The five largest Asian groups in the city are Chinese, Asian Indian, Korean, Filipino, and Pakistani, and the five largest groups of Hispanic origin are Dominican, Mexican, Puerto Rican, Colombian, and Ecuadorian. Moreover, New York City includes people who identify with races/ethnicities from all over the world. Nearly 3 million New York City residents are foreign born (2,871,032), which represents 36 percent of the resident population, and about 1.2 million legal immigrants became New York City residents between 1990 and 2000. The Dominican Republic remains the city's largest source of immigrants.

The highest percentage of foreign-born New Yorkers resides in Queens (46 percent). It is estimated, for example, that in Queens alone more than 120 languages are spoken. Brooklyn has the next highest percentage of foreign-born residents (38 percent), followed by Manhattan (29 percent), the Bronx (29 percent), and Staten Island (16 percent). According to the New York City Department of Health and Mental Hygiene, foreign-born New Yorkers are less likely than those born in the United States to have health insurance and

primary care providers, and more likely to face barriers to accessing health care and treatment.

The city remains the economic hub of the Northeast. Its main industries include services and wholesale and retail trade. Of the more than 3.7 million people employed in the city, 22 percent commute from surrounding areas. Overall, the unemployment rates were higher this year than last. The unemployment rate in New York City for April 2008 was 4.7 percent, the same as that for New York State. The unemployment rate for the Nation was 5.0 percent. The unemployment figures for April 2007 were 4.4 percent for New York City, 4.1 percent for New York State, and 4.5 percent for the Nation.

Data Sources

This report describes drug abuse trends in New York City from 1995 to 2006, using the data sources summarized below:

- **Emergency department (ED) data** were derived for 2007 from the Drug Abuse Warning Network (DAWN) *Live!* restricted-access online query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Eligible hospitals in the New York City Five Boroughs Division totaled 52; hospitals in the DAWN sample numbered 42, with the number of EDs in the sample totaling 63 (some hospitals have more than one emergency department). During this 12-month period, between 38 and 39 EDs reported data each month. The completeness of data reported by participating EDs varied by month (see exhibit 1). Exhibits in this paper reflect cases that were received by DAWN as of May 2–7, 2008. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, the data presented in this paper are subject to change. Data derived from DAWN *Live!* represented drug reports in drug-related ED visits. Drug reports exceeded the number of ED visits, since a patient could report use of multiple drugs (up to six drugs and alcohol).

The DAWN *Live!* data are unweighted and are not estimates for the reporting area. These data cannot be compared to DAWN data from 2002 and before, nor can preliminary data be used for comparison with future data. Only weighted DAWN data released by SAMHSA can be used for trend analysis. A full description of the DAWN system can be found at <http://dawninfo.samhsa.gov/>. ED drug reports data before 2003 were derived from the DAWN, OAS, SAMHSA, for 1995 through 2002. These weighted data are based on a representative sample of hospitals in New York City and Westchester, Rockland, and Putnam Counties.

- **Drug abuse-related death data** were provided by the New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics. Data were made available for the period of 1995 through 2006 and covered the five counties constituting New York City. These data have been coded in accordance with the International Classification of Diseases (i.e., ICD-9 for years 1995–1998 and ICD-10 for years 1999–2006) and are defined as “Mental and Behavioral disorders due to use of cocaine/drug dependence” and “Mental and Behavioral disorders due to use of Opioids (including Heroin)/drug dependence.” The relevant codes used by the Bureau of Vital Statistics in compiling the totals for cocaine-related deaths were 304.2 for years 1995–1998 (ICD-9) and F14 for 1999–2006 (ICD-10). In compiling the totals for heroin-related deaths, the codes used were 304.0 (ICD-9) for years 1995–1998 and F11.2 (ICD-10) for years 1999–2006.
- **Treatment admissions data** were provided by the New York State Office of Alcoholism and Substance Abuse Services (OASAS) for 1995–2007 and included both State-funded and non-funded admissions. Demographic data were for 2007.
- **Forensic laboratory testing data** for New York City were provided by the Drug Enforcement Administration (DEA)’s National Forensic Laboratory Information System (NFLIS) for January through December 2007.
- **Drug price, purity, and trafficking data** were provided by the DEA’s Domestic Monitor Program (DMP) for heroin. These data were supplemented by information from the OASAS Street Studies Unit (SSU) reports and *National Illicit Drug Prices—December 2007*, a National Drug Intelligence Center (NDIC) Intelligence Bulletin.
- **Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) data** were provided by the New York City Department of Health and Mental Hygiene, HIV Epidemiology Program for 1981–2006, including the HIV Epidemiology and Field Services Semiannual Report, Vol. 2, No. 2, January 1, 2006–December 31, 2006.
- **Hepatitis C data** were provided by the New York City Department of Health and Mental Hygiene, Bureau of Communicable Diseases, for 2003–2006.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine indicators remained stable during this reporting period. In general, the drug still accounted for major problems in New York City (exhibit 2).

For the five boroughs of New York City, there were 17,435 unweighted DAWN *Live!* reports for cocaine in January–December 2007.

According to the New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics, there were 236 cocaine-related deaths in 2006, a higher number than preceding years.

While primary cocaine treatment admissions to State-funded and nonfunded programs in New York City had declined from 17,572 in 1998 to 14,059 in 2000, they increased to 17,450 in 2006, but fell to 16,606 in 2007 (exhibit 2). It should be noted that even when the cocaine treatment

admissions were in decline, they did not show the same type of dramatic long-term decline that was seen in other indicators. In 2007, cocaine admissions constituted 23 percent of New York City's 71,918 total drug and alcohol treatment admissions (excluding alcohol-only). In addition to these primary cocaine admissions, there were 19,949 admissions who reported cocaine as a secondary substance and 3,770 who reported cocaine as a tertiary substance. Among the 71,918 drug treatment admissions in 2007, 40,325 (56 percent) mentioned cocaine as a primary, secondary, or tertiary substance of abuse.

Exhibit 3 shows demographic characteristics of cocaine treatment admissions for 2007 by the two primary modes of use—smoking crack (representing 60 percent of cocaine admissions) and using cocaine intranasally (representing 36 percent). Clients who smoked crack were more likely than intranasal users to be female (34 vs. 25 percent), Black (69 vs. 40 percent), and without income (41 vs. 30 percent). Clients using intranasally were more likely to be Hispanic (35 percent) or White (20 percent) and to have some criminal justice status. For both groups, the secondary drugs of abuse tended to be alcohol and marijuana. It should be noted that all admissions for primary cocaine abuse represented an aging population, and those smoking crack tended to be older than those using cocaine intranasally.

Another data source, the DEA's NFLIS, showed that of the 52,849 drug items analyzed and reported for New York City, from January through December 2007, 27,354 (52 percent) were cocaine.

The NDIC reported that prices for cocaine powder for December 2007 were \$20,000–\$28,000 per kilogram; \$650–\$1,600 per ounce (midlevel); and \$80–\$160 per one-eighth ounce, \$25–\$80 per gram, and \$5–\$20 per bag (retail). The NDIC reported that crack sold for \$23,000–\$32,000 per kilogram, \$650–\$1,450 per ounce, \$100–\$200 per one-eighth gram, \$27–\$31 per gram, and \$5–\$15 per rock. The NDIC reported a notable change in the wholesale price of powder cocaine in New York City between June and December 2007. In

December, the high price was \$28,000 per kilogram, compared with a high of \$36,000 in June, a decrease in high-end prices of \$8,000. The wholesale prices of powder cocaine fluctuated within the past year. While the December 2007 wholesale prices reflected a significant decrease at the high end since June 2007, these prices were still higher than they were in December 2006, when the prices were \$13,000–\$26,000 per kilogram. On the other hand, the retail prices for powder cocaine have remained relatively stable.

According to the OASAS SSU, cocaine hydrochloride (HCl) continued to be readily available. Although cocaine continued to be sold primarily from indoor venues, there were reports of small amounts of powder cocaine being sold on the street. Cocaine prices can fluctuate, as sellers vary the purity of the product and offer several different size packages. Prices in this report period ranged from \$25–\$60.

Cocaine HCl continues to be packaged using various methods, including vials, nail-size plastic bags, aluminum foil, glassine bags, light plastic wrap knotted at both ends, cellophane, folded paper, magazine pages, and balloons. Of these, the most frequently used methods are plastic wrap and aluminum foil.

There are three basic selling methods used in marketing cocaine. The techno method or virtual connection method is becoming increasingly utilized. A buyer makes a connection with a seller through the use of a beeper, cell phone, or Internet. In many cases, sellers use disposable cell phones, or buy phones using false identification. These phones and their numbers are changed regularly to hamper law enforcement efforts. Text messaging is also becoming popular because it avoids the vulnerability of voice recognition.

Cocaine sellers typically work out of their own apartments or ones belonging to relatives. Cocaine selling on the street, however, continued to be popular among sellers who primarily sold small amounts of cocaine with prices under \$50.

According to street sources, some cocaine dealers store their main drug supply far removed from their sales locations. For example, one

informant indicated that he keeps his cocaine supply in Newark, New Jersey. He said between “rip-offs and the cops, keeping your stuff closer is asking for trouble.” He believed that with off-site storage he was less likely to get ripped-off by users or competitors, and that it was harder for local police to track him across State lines. Once a week or so, he travels to Newark to re-supply using different routes and methods.

According to street interviews, most cocaine HCl users reported that they only snort the drug. This is so common that the old nickname for cocaine, “nose-candy,” is re-emerging. Street contacts reported that those injecting cocaine appear to be older users (older than 40) who may be involved in speedballing cocaine and heroin.

Crack users reported that crack continued to be highly available. Crack selling operations tend to be clustered in and around public housing developments and street corners. Because of law enforcement targeting of crack sellers and selling locations, selling techniques are less overt. There has been a substantial decline in “open-air” market activity, and the number of sellers operating on the street appears to have declined significantly. Those who operate on the street may work from multiple locations on a regular schedule. During the day, the sellers move from one location to another.

There are three basic packaging methods associated with crack in New York City. These are the plastic vial, thumbnail-size plastic bag, and glassine bag. The thumbnail-size bag continues to be the most common packaging method used by sellers. The vials are not as popular as they once were because of their rigidity, which makes it easier for police to find hidden ones in “stop and frisk” operations. Street informants have reported that \$90 can buy a “clip” consisting of 10 vials of crack.

The use of brand names in the selling of crack has essentially stopped. Brand names attract attention from law enforcement, and competitors can easily duplicate them.

Today, most street-level crack sellers tend to be independent entrepreneurs with no direct

connection with the midlevel dealers. These independent sellers, which are best described as floaters, operate within a known small area but do not claim any specific location. The sellers usually reflect the racial and ethnic composition of the community.

Heroin

Heroin continues to be a major drug problem in New York City (exhibit 4). For example, almost one-third of New York City’s primary treatment admissions in 2007 were for heroin. Over the last several years, there has been a marked change in the price and purity of heroin, with a substantial decrease in purity and increase in price.

For the five boroughs of New York City, there were 8,547 preliminary unweighted DAWN *Live!* heroin ED reports for January through December 2007.

According to the New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics, there were 146 heroin-related deaths in 2006, a slight increase over the 2 years before, but substantially lower than the years preceding that.

Primary heroin admissions to treatment programs in New York City gradually increased between 1995 and 2004, from 18,287 to 23,802, a 30-percent increase (exhibit 4). Although they have decreased slightly since then, in 2007 primary heroin admissions numbered 22,612 and constituted 31 percent of New York City’s 71,918 drug treatment admissions. In addition to the primary heroin admissions, 2,455 clients reported heroin as a secondary substance of abuse and 1,270 reported it as a tertiary drug. Most treatment admissions with heroin as a substance of abuse reported it as the primary drug of abuse. This contrasts with cocaine; almost 59 percent of clients reporting cocaine considered it a secondary or tertiary drug of abuse.

Intranasal heroin use may have peaked in the second half of 1998, with 62 percent of heroin admissions to all New York City drug treatment programs reporting this as their primary route of administration. Since then, the proportions

reporting intranasal use declined slightly, and ranged from 59 to 61 percent. In 2007, the proportion using intranasally was 60 percent. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 39 percent in 2007.

Exhibit 5 highlights general demographic characteristics of heroin abusers admitted to all New York City treatment programs in 2006 by mode of use. In general, primary heroin admissions were overwhelmingly male (77 percent), older than 35 (76 percent), more likely to be Hispanic (49 percent) than Black (27 percent) or White (19 percent), and likely to report cocaine as a secondary drug of abuse (46 percent). Compared with heroin injectors, intranasal users were more likely to be Black (35 vs. 15 percent) and have some criminal justice status (28 vs. 20 percent). In contrast, primary heroin injectors were more likely than intranasal users to be White (30 vs. 12 percent), to report cocaine as a secondary drug of abuse (53 vs. 41 percent), and to have started use before reaching age 20 (58 vs. 43 percent).

In addition to heroin admissions to traditional treatment programs, heroin admissions for detoxification or crisis services in New York City have become sizable in number. These special services are usually short term, provided in a hospital or community-based setting, and medically supervised. In 1995, 4,503 such admissions were reported for heroin abuse. By 2007, the number of heroin admissions was 14,738.

NFLIS data showed that 11 percent of the 52,849 drug items analyzed for New York City in 2007 ($n=5,923$) contained heroin.

From 1992 to 2000, the DMP found average heroin purities to be generally above 60 percent. Since 2003, the price and purity of heroin in New York City have fluctuated greatly. Findings for 2004 showed an average purity for South American heroin of 43.3 percent, and an associated price of \$0.62 per milligram pure; the figures for 2005 were 49.4 percent pure and a price of \$0.46; and for 2006 the purity was 44.5 and price \$0.67. According to the NDIC, most of the heroin in New York City was from South America, and kilogram

prices in December 2007 were \$43,000–\$75,000 for South American heroin and \$50,000–\$90,000 for Southwest Asian heroin. The price for Southeast Asian heroin was \$150,000 per kilogram. The retail prices of South American heroin were \$100–\$110 per bundle, \$40–\$75 per gram, and \$5–\$12 per bag. Mexican black tar, which is very uncommon in New York City, sold for \$200–\$350 per gram.

According to the SSU field staff, heroin in New York City continues to be highly available. Although there appear to be fewer heroin sellers operating in public, street sources reported that they are not having problems locating heroin sellers. The majority of heroin coping sites are indoor or off-the-street operations. If sellers operate on the street, they may disguise their activity as CD/DVD sellers, or another activity commonly observed on the street. In certain “high drug” areas, there are “roaming” street sellers. These individuals sell from several sites during the day and make rounds from one location to another. For example, one heroin seller walks through a city park using the same path, a route that takes approximately 10 minutes. He takes this route once an hour on the quarter-hour. Buyers approach the seller, quickly make their transaction, and both parties proceed on their separate ways. The sellers tend to keep on the move in order to not attract attention. Most sellers know that loitering is an activity that elicits complaints from local residents. These scheduled rounds eliminate the need to be continuously present at a given location. However, despite these adaptations, there are still sellers sitting on stoops, standing near grocery stores, or at subway stations.

The amount sold in the standard \$10 bag appears to be unchanged. Each package contains approximately 0.10 to 0.13 grams of powder. The most popular packaging method is the glassine bag, which varies by color to denote a given area or dealer. In addition, brand names are sometimes used, but this practice is not as common as it once was. Some brand names recently encountered were Red Devil, checkmate, Stingray, knockdown, American gangster, X-men, Blackout, and Nitro.

Although most heroin users describe themselves as snorters, there are an increasing number of users injecting. A number of users are reporting that they regularly use the needle exchange.

Other Opiates/Narcotics

For the five boroughs of New York City for 2007, there were 4,658 unweighted DAWN *Live!* reports for January through December 2007 for opiates/opioids. For the narcotic analgesics, most were for methadone, with 2,512 DAWN *Live!* reports in 2007. There were 418 oxycodone/combinations and 260 hydrocodone/combinations unweighted DAWN *Live!* reports in 2007.

According to the SSU, OxyContin® sold on the street for \$10 for a 40-milligram tablet, but was not readily available. Some sellers will not sell individual pills, but only the whole bottle. SSU staff reported that OxyContin® continues to be used to cut heroin or to boost methadone. Other medications being used to cut heroin included Percocet®, Xanax®, Elavil®, Dilaudid®, Klonopin®, and Tylenol® with codeine. There have also been recent reports of OxyContin® being used to cut cocaine.

On the street, Tylenol® with codeine sold for \$2 per pill, and methadone diskettes (40 milligrams) sold for \$15 each or two for \$25.

Methamphetamine/Amphetamines

Although methamphetamine is popular in other parts of the Nation, there were relatively few ED reports, drug samples, or treatment admissions related to the drug in New York City.

For the five boroughs of New York City, there were 191 preliminary unweighted DAWN *Live!* reports for stimulants in 2007, including 148 for methamphetamine and 43 for amphetamines.

NFLIS data show that less than 1 percent of the 52,849 drug items analyzed for New York City in 2007 contained methamphetamine.

According to the SSU, the general demand for crystal methamphetamine in New York City remained low, and there was little availability or

selling activity. Some nicknames include “chalk” or “glass.” The use of “crystal meth” was still primarily limited to the gay/male community. Some street sources reported that methamphetamine quality remained poor and the price high.

Marijuana

In New York City, marijuana indicators continue their recent steady increase.

For the five boroughs of New York City, there were 8,260 preliminary unweighted DAWN *Live!* reports in 2007 (exhibit 6).

Primary marijuana admissions to all treatment programs increased steadily over the past several years. Overall, the number increased more than elevenfold between 1991 and 2007, from 1,374 to 17,323—the highest annual number (exhibit 6). In 1991, primary marijuana admissions represented less than 5 percent of all treatment admissions; by 2007, these admissions represented 24 percent of admissions (excluding alcohol-only) to all New York City treatment programs.

Exhibit 7 shows demographic characteristics of primary marijuana admissions to all New York City treatment programs in 2007. The vast majority were male (80 percent), and 24 percent were younger than 21. More than one-half (59 percent) were Black, almost one-third (29 percent) were Hispanic, and 7 percent were White. Alcohol was the secondary drug of abuse for 36 percent of the marijuana admissions, and more than two-thirds (67 percent) had some criminal justice status.

According to NFLIS data, 28 percent of the drug items analyzed for New York City in 2007 ($n=14,756$) contained cannabis (marijuana).

According to the NDIC, marijuana prices for December 2007 ranged from \$400–\$1,500 per pound wholesale for commercial grade and from \$3,000–\$7,000 per pound for hydroponic marijuana. Between June and December 2007, there were significant changes in the wholesale price of hydroponic marijuana, with an increase at the low end of \$900 and a decrease at the high end of \$500. Midlevel prices were \$300–\$1,000 per ounce of hydroponic and \$65–\$1,000 per ounce

of domestic or locally produced. The retail prices for December 2007 were \$65–\$125 per ounce.

According to the SSU, marijuana continued to be widely available and in high demand. There is currently a tendency by drug users, regardless of primary drug, to mix and combine multiple drugs for simultaneous use, and marijuana in a blunt cigar often serves as the base to which other drugs are added.

The quality of marijuana varies greatly by seller and location. “Haze” marijuana comes in a variety of colors and flavors and continues to be perceived as high quality. Another popular type of marijuana is called “diesel” or “sour diesel,” selling for \$20 or more per bag. Formerly, there was a brand of heroin known by this name. Usually street sales involve thumbnail-size plastic zip-lock bags, but small brown or black bags are also used.

Club Drugs

Club drugs are a collection of various synthetic chemical compounds that are often abused by young people in social settings, such as dance clubs, after-hour clubs, and other special events. Club drugs include methylenedioxymethamphetamine (MDMA), gamma hydroxybutyrate (GHB), and ketamine. All-night parties are about endurance and sensory overstimulation, and, not surprisingly, many of the club drugs have stimulant or hallucinogenic properties.

For the five boroughs of New York City, there were 239 preliminary unweighted DAWN *Live!* reports for MDMA in 2007.

According to the SSU, street sources reported that MDMA, a stimulant with hallucinogenic properties, was easy to obtain in many areas of the city. One dealer reported that when he sells MDMA pills at a nightclub, he can sell 400 to 500 pills in one night. He attributes his good sales to the fact that customers were complaining about other dealers selling “beat” ecstasy pills. Reports continued of Excedrin®, which has an “E” on each pill, being sold as ecstasy. MDMA is available in tablet, capsule, and powder form. According to

the NDIC for December 2007, a dose sold for \$4–\$30 per tablet retail.

Available as a club drug in New York City, the veterinary anesthetic ketamine produces hallucinogenic effects similar to PCP and visual effects similar to lysergic acid diethylamide (LSD). On the street, the drug is called “Special K,” “K,” “Vitamin K,” and “Cat Valium.” It comes in liquid, powder, or tablet form, and it may be administered intranasally or injected.

Although not generally available on the street, GHB and the analogs (GBL, BD, GHV, and GVL) could be easily obtained in many dance clubs. It is usually available in liquid form.

Phencyclidine (PCP) and Lysergic Acid Diethylamide (LSD)

PCP (“angel dust”) continues to be available in some areas of New York City, and several indicators show signs of increasing use. For the five boroughs of New York City, there were 557 unweighted DAWN *Live!* reports for PCP for January through December 2007, the most for any illicit drug other than cocaine, heroin, and marijuana. There were also 509 NFLIS items analyzed in 2007 that contained PCP. According to the SSU, some sellers dip blunts in PCP then sell them for use with marijuana.

LSD is a strong hallucinogen that has not been a major problem in New York City since the late 1960s and early 1970s. For the five boroughs of New York City, there were 64 unweighted DAWN *Live!* reports for LSD in 2007.

Benzodiazepines/Barbiturates

Psychoactive prescription drugs continue to be widely available and popular. The SSU continued to report a variety of drugs readily available on the street, some for as little as \$0.50 per pill.

In 2007, for the five boroughs of New York City, there were 2,569 unweighted DAWN *Live!* reports for benzodiazepines.

According to the SSU, the three most popular or commonly sold pharmaceuticals on the

street in this category are alprazolam (Xanax®), amitriptyline (Elavil®), and clonidine (Catapres®). Xanax® is often obtained through a prescription paid by Medicaid and sold on the street for \$5 per 2-milligram pill. Most of these medications come in a variety of strengths, and not all strengths are found on the street.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The AIDS epidemic, with its impact on injection drug users (IDUs), has played a crucial role in shaping the New York City drug scene over the last two decades. HIV first entered New York City in the mid- to late-1970s. AIDS reporting was mandated in 1983, but reporting of HIV infection began in June 2000. Since AIDS surveillance began in New York City, 197,592 cases of HIV and AIDS have been diagnosed and reported, and 97,870 people have died.

As of December 31, 2006, 98,861 New Yorkers had been diagnosed with HIV or AIDS; 37,272 (38 percent) were living with HIV (non-AIDS), and 61,589 (62 percent) were living with AIDS. According to the New York City Department of Health and Mental Hygiene, the true number of people living with HIV/AIDS (PLWHA) was actually higher, since they estimate that one-quarter of persons living with HIV have never been tested and do not know that they are infected.

Of the 98,861 PLWHA in New York City as of December 31, 2006, 70 percent were male and 30 percent were female. In terms of race/ethnicity, 45 percent were Black, 32 percent were Hispanic, and 21 percent were White. For transmission risk factors, 30 percent (29,532) were men who have sex with men (MSM), 21 percent (20,915) had an IDU history, 17 percent reported a heterosexual transmission factor, 3 percent had a perinatal transmission risk factor, less than 1 percent had another risk factor, and 29 percent had an unknown risk factor or were under investigation.

Among males, the transmission risk factors were 43 percent MSM, 22 percent IDU history, 7 percent heterosexual, 2 percent perinatal, and 26 percent unknown. Among females, the transmission factors were 20 percent IDU history, 40 percent heterosexual, 4 percent perinatal, 1 percent other, and 35 percent unknown.

According to the New York City Department of Health and Mental Hygiene HIV Epidemiology Program Semiannual Report, Vol. 2, No. 2, one-third (33 percent) of PLWHA were age 50 or older at the end of 2006, compared with 21 percent at the end of 2001. Also according to this report, the total number of new HIV (non-AIDS) diagnoses in New York City declined by 5 percent between 2005 and 2006 (from 2,944 to 2,783). Increases, however, were observed in some subgroups. Among males age 13–29, new diagnoses increased by 6 percent, and they occurred predominantly in Black and Hispanic MSMs. Among females age 13–29 years, new diagnoses increased by 6 percent, mostly among Black or Hispanic females; heterosexual transmissions were the main risk factor.

The New York City Department of Health and Mental Hygiene, Bureau of Communicable Diseases, also compiles hepatitis C surveillance data. As of December 2007, there were 16,738 newly reported individuals with a diagnosis date (or specimen collection date) in 2006. For 2005, that figure was 14,297. Of these 16,738 newly reported cases, 62 percent were male. In terms of age distribution, 8 percent were younger than 30, 13 percent were 30–39, 29 percent were 40–49, 34 percent were 50–59, and 16 percent were 60 and older.

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Exhibit 1. DAWN ED Sample and Reporting Information: January–June 2007

| CEWG Area | Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|---------------|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | | 90–100% | 50–89% | <50% | |
| New York City | 52 | 42 | 63 | 25–34 | 5–11 | 0–7 | 24–25 |

¹Short-term, general, non-Federal hospitals with 24-hour EDs based on the American Hospital Association Annual Survey.

²Some hospitals have more than one ED.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated May 2–7, 2008

Exhibit 2. Semiannual Cocaine Trends for Selected Indicator Data in New York City: 1995–2007

| Year | Semiannual/ Annual Periods | Deaths Involving Cocaine ¹ | Cocaine ED Mentions/ Reports ² | Treatment Admissions: Cocaine as Primary Drug of Abuse ³ | Cocaine Arrests ⁴ | Births to Women Using Cocaine ⁵ |
|------|----------------------------------|---|---|---|---------------------------------|--|
| 1995 | 1H ⁶ | – | 9,915 | 8,371 | – | – |
| | 2H ⁷ | – | 9,808 | 7,836 | – | – |
| | Total | 221 | 19,715 | 16,207 | 40,846 | 1,059 |
| 1996 | 1H | – | 11,070 | 8,561 | – | – |
| | 2H | – | 10,522 | 8,817 | – | – |
| | Total | 250 | 21,592 | 17,378 | 38,813 | 1,005 |
| 1997 | 1H | – | 10,233 | 9,048 | – | – |
| | 2H | – | 9,969 | 8,401 | – | – |
| | Total | 213 | 20,202 | 17,449 | 35,431 | 864 |
| 1998 | 1H | – | 9,989 | 8,999 | – | – |
| | 2H | – | 9,560 | 8,573 | – | – |
| | Total | 205 | 19,549 | 17,572 | 35,577 | 742 |
| 1999 | 1H | – | 7,386 | 8,346 | – | – |
| | 2H | – | 7,413 | 7,567 | – | – |
| | Total | 196 | 14,799 | 15,913 | 31,781 | 626 |
| 2000 | 1H | – | 6,883 | 7,337 | – | – |
| | 2H | – | 7,367 | 6,722 | – | – |
| | Total | 180 | 14,250 | 14,059 | 31,919 | 490 |
| 2001 | 1H | – | 7,449 | 7,343 | – | – |
| | 2H | – | 6,450 | 7,032 | – | – |
| | Total | 208 | 13,898 | 14,375 | 23,498 | 438 |
| 2002 | 1H | – | 6,679 | 7,736 | – | – |
| | 2H | – | 7,282 | 7,872 | – | – |
| | Total | 183 | 13,961 | 15,608 | 26,773 | 363 |
| 2003 | 1H | – | – | 8,203 | – | – |
| | 2H | – | – | 7,911 | – | – |
| | Total | 205 | – | 16,114 | 25,868 | 354 |
| 2004 | 1H | – | 4,296 | 8,410 | – | – |
| | 2H | – | 5,866 | 8,301 | – | – |
| | Total | 214 | 10,162 | 16,711 | 27,963 | 337 |
| 2005 | 1H | – | 6,684 | 8,215 | – | – |
| | 2H | – | 7,435 | 7,741 | – | – |
| | Total | 214 | 14,119 | 15,956 | 26,773 | 301 |
| 2006 | 1H | – | 7,248 | 8,582 | – | – |
| | 2H | – | 7,820 | 8,868 | – | – |
| | Total | 236 | 15,068 | 17,450 | 27,992 | 298 |
| 2007 | 1H | – | 8,944 | 8,618 | – | – |
| | 2H | – | 8,491 | 7,988 | – | – |
| | Total | – | 17,435 | 16,606 | – | – |

¹New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics.

²The 2007 number of reports are unweighted data and are from 63 EDs in the five boroughs of New York City reporting to DAWN in 2007. During this 12-month period, however, between 38 and 39 EDs reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004–2007 are not comparable to data prior to 2003, nor are 2004–2007 data comparable to each other.

³New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

⁴New York City Police Department.

⁵New York City Department of Health and Mental Hygiene.

⁶1H is first half of calendar year.

⁷2H is second half of calendar year.

SOURCES: New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics; DAWN, OAS, SAMHSA, updated May 2–7, 2008; New York State Office of Alcoholism and Substance Abuse Services (OASAS); New York City Police Department; New York City Department of Health and Mental Hygiene

Exhibit 3. Characteristics of Primary Cocaine Admissions¹ to State-Funded² and Nonfunded³ Treatment Programs in New York City, by Route of Administration and Percent: 2007

| Demographic Characteristic | Percent Total (N=16,606) | Percent Smoking Crack (n=10,054) | Percent Using Cocaine Intranasally (n=6,047) |
|-----------------------------------|-------------------------------------|---|---|
| Gender | | | |
| Male | 69 | 66 | 75 |
| Female | 31 | 34 | 25 |
| Age at Admission | | | |
| 25 and younger | 7 | 4 | 11 |
| 26–35 | 19 | 15 | 25 |
| 36 and older | 74 | 81 | 64 |
| (Average age) | (40.6 years) | (41.6 years) | (39.0 years) |
| Race | | | |
| Black | 57 | 69 | 40 |
| Hispanic | 24 | 18 | 35 |
| White | 14 | 11 | 20 |
| No Source of Income ⁴ | 37 | 41 | 30 |
| Some Criminal Justice Status | 36 | 31 | 43 |
| Age of First Use | | | |
| 14 and younger | 6 | 5 | 8 |
| 15–19 | 30 | 25 | 37 |
| 20–29 | 44 | 47 | 39 |
| 30 and older | 20 | 23 | 15 |
| Secondary Drug of Abuse | | | |
| Alcohol | 40 | 43 | 36 |
| Marijuana | 22 | 21 | 24 |
| Heroin | 8 | 7 | 7 |

¹Figures 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.

²State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

³Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and client fees (self-pay).

⁴Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Exhibit 4. Semiannual Heroin Trends for Selected Indicator Data in New York City: 1995–2007

| Year | Semiannual/ Annual Period | Deaths Involving Heroin ¹ | Heroin/Morphine ED Mentions/ Reports ² | Treatment Admissions: Heroin as Primary Drug of Abuse ³ | Heroin Arrests ⁴ | Average Purity of Street Heroin % ⁵ |
|------|---------------------------------|--|---|--|--------------------------------|--|
| 1995 | 1H ⁶ | – | 5,288 | 9,286 | – | – |
| | 2H ⁷ | – | 5,440 | 9,001 | – | – |
| | Total | 239 | 10,706 | 18,287 | 38,131 | 69.4 |
| 1996 | 1H | – | 5,654 | 9,161 | – | – |
| | 2H | – | 5,478 | 9,617 | – | – |
| | Total | 208 | 11,132 | 18,778 | 37,901 | 56.3 |
| 1997 | 1H | – | 4,900 | 10,276 | – | – |
| | 2H | – | 4,581 | 10,431 | – | – |
| | Total | 229 | 9,481 | 20,707 | 35,325 | 62.5 |
| 1998 | 1H | – | 4,613 | 10,793 | – | – |
| | 2H | – | 4,605 | 10,203 | – | – |
| | Total | 189 | 9,218 | 20,996 | 37,483 | 63.6 |
| 1999 | 1H | – | 4,153 | 10,690 | – | – |
| | 2H | – | 5,150 | 10,189 | – | – |
| | Total | 229 | 9,302 | 20,879 | 32,949 | 61.8 |
| 2000 | 1H | – | 5,378 | 10,944 | – | – |
| | 2H | – | 5,630 | 10,672 | – | – |
| | Total | 217 | 11,009 | 21,616 | 33,665 | 62.9 |
| 2001 | 1H | – | 5,428 | 11,324 | – | – |
| | 2H | – | 5,216 | 11,455 | – | – |
| | Total | 192 | 10,644 | 22,779 | 27,863 | 56.0 |
| 2002 | 1H | – | 4,954 | 11,357 | – | – |
| | 2H | – | 5,443 | 11,157 | – | – |
| | Total | 179 | 10,397 | 22,514 | 34,098 | 61.4 |
| 2003 | 1H | – | – | 11,540 | – | – |
| | 2H | – | – | 12,023 | – | – |
| | Total | 181 | – | 23,563 | – | 53.5 |
| 2004 | 1H | – | 2,804 | 12,059 | – | – |
| | 2H | – | 3,596 | 11,743 | – | – |
| | Total | 128 | 6,400 | 23,802 | – | 43.3 |
| 2005 | 1H | – | 4,049 | 11,127 | – | – |
| | 2H | – | 4,558 | 10,665 | – | – |
| | Total | 131 | 8,607 | 21,792 | – | 49.4 |
| 2006 | 1H | – | 3,883 | 11,189 | – | – |
| | 2H | – | 4,087 | 11,055 | – | – |
| | Total | 146 | 7,970 | 22,244 | – | 44.5 |
| 2007 | 1H | – | 4,199 | 11,356 | – | – |
| | 2H | – | 4,348 | 11,256 | – | – |
| | Total | – | 8,547 | 22,612 | – | – |

¹New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics.

²The 2007 number of reports are unweighted data and are from 63 EDs in the five boroughs of New York City reporting to DAWN in 2007. During this 12-month period, however, between 38 and 39 EDs reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted, and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data, based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004–2007 are not comparable to data prior to 2003, nor are 2004–2007 data comparable to each other.

³New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

⁴New York City Police Department.

⁵DEA.

⁶1H is first half of calendar year.

⁷2H is second half of calendar year.

SOURCES: New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics; DAWN, OAS, SAMHSA, updated May 2–7, 2008; New York State Office of Alcoholism and Substance Abuse Services (OASAS); New York City Police Department; DEA

Exhibit 5. Characteristics of Primary Heroin Admissions¹ to State-Funded² and Nonfunded³ Treatment Programs in New York City, by Route of Administration and Percent: 2007

| Demographic Characteristic | Percent Total (N=22,594) | Percent Using Heroin Intranasally (n=13,555) | Percent Injecting Heroin (n=8,743) |
|-----------------------------------|-------------------------------------|---|---|
| Gender | | | |
| Male | 77 | 76 | 78 |
| Female | 23 | 24 | 22 |
| Age at Admission | | | |
| 25 and younger | 5 | 3 | 7 |
| 26–35 | 19 | 15 | 26 |
| 36 and older | 76 | 82 | 67 |
| (Average age) | (42.0 years) | (43.0 years) | (40.4 years) |
| Race | | | |
| Black | 27 | 35 | 15 |
| Hispanic | 49 | 49 | 51 |
| White | 19 | 12 | 30 |
| No Source of Income ⁴ | 33 | 33 | 33 |
| Some Criminal Justice Status | 25 | 28 | 20 |
| Age of First Use | | | |
| 14 and younger | 13 | 11 | 16 |
| 15–19 | 36 | 32 | 42 |
| 20–29 | 35 | 37 | 33 |
| 30 and older | 16 | 20 | 9 |
| Secondary Drug of Abuse | | | |
| Alcohol | 11 | 12 | 10 |
| Marijuana | 8 | 9 | 6 |
| Cocaine | 46 | 41 | 53 |

¹Figures 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.

²State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

³Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and client fees (self-pay).

⁴Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Exhibit 6. Semiannual Marijuana Trends for Selected Indicator Data in New York City: 1995–2007

| Year | Semiannual/ Annual Period | Marijuana ED Mentions/Reports ¹ | Treatment Admissions: Marijuana as Primary Drug of Abuse ² | Cannabis Arrests ³ |
|------|------------------------------|---|---|----------------------------------|
| 1995 | 1H ⁴ | 1,516 | 2,171 | – |
| | 2H ⁵ | 1,460 | 2,159 | – |
| | Total | 2,974 | 4,330 | 12,357 |
| 1996 | 1H | 1,723 | 2,845 | – |
| | 2H | 1,848 | 3,185 | – |
| | Total | 3,571 | 6,030 | 18,991 |
| 1997 | 1H | 1,939 | 3,794 | – |
| | 2H | 1,900 | 3,657 | – |
| | Total | 3,839 | 7,451 | 27,531 |
| 1998 | 1H | 1,986 | 4,554 | – |
| | 2H | 1,696 | 4,473 | – |
| | Total | 3,682 | 9,027 | 42,030 |
| 1999 | 1H | 1,799 | 5,119 | – |
| | 2H | 1,692 | 5,100 | – |
| | Total | 3,491 | 10,219 | 43,122 |
| 2000 | 1H | 1,856 | 5,664 | – |
| | 2H | 1,688 | 5,487 | – |
| | Total | 3,544 | 11,151 | 60,455 |
| 2001 | 1H | 1,904 | 6,677 | – |
| | 2H | 1,598 | 6,593 | – |
| | Total | 3,502 | 13,270 | 47,651 |
| 2002 | 1H | 1,827 | 7,512 | – |
| | 2H | 2,097 | 6,798 | – |
| | Total | 3,924 | 14,310 | 47,250 |
| 2003 | 1H | – | 6,844 | – |
| | 2H | – | 6,627 | – |
| | Total | – | 13,471 | – |
| 2004 | 1H | 1,387 | 6,835 | – |
| | 2H | 1,732 | 6,468 | – |
| | Total | 3,119 | 13,303 | – |
| 2005 | 1H | 2,226 | 7,161 | – |
| | 2H | 2,530 | 6,954 | – |
| | Total | 4,756 | 14,115 | – |
| 2006 | 1H | 2,798 | 8,158 | – |
| | 2H | 2,758 | 8,128 | – |
| | Total | 5,556 | 16,286 | – |
| 2007 | 1H | 4,026 | 8,809 | – |
| | 2H | 4,234 | 8,514 | – |
| | Total | 8,260 | 17,323 | – |

¹The 2007 number of reports are unweighted data and are from 63 EDs in the five boroughs of New York City reporting to DAWN in 2007. During this 12-month period, however, between 38 and 39 EDs reported data each month. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted and, therefore, are subject to change. Prior to 2003, DAWN, OAS, SAMHSA, weighted data based on a representative sample of hospitals for New York City and Westchester, Rockland, and Putnam Counties. Data for 2004–2007 are not comparable to data prior to 2003, nor are 2004–2007 data comparable to each other.

²New York State Office of Alcoholism and Substance Abuse Services (OASAS)-funded and nonfunded treatment admissions.

³New York City Police Department.

⁴1H is first half of calendar year.

⁵2H is second half of calendar year.

SOURCES: DAWN, OAS, SAMHSA, updated May 2–7, 2008; New York State Office of Alcoholism and Substance Abuse Services; New York City Police Department

Exhibit 7. Characteristics of Primary Marijuana Admissions¹ to State-Funded² and Nonfunded³ Treatment Programs in New York City, by Percent: 2007

| Demographic Characteristic | Percent of Total (N=17,323) |
|-----------------------------------|--|
| Gender | |
| Male | 80 |
| Female | 20 |
| Age at Admission | |
| 20 and younger | 24 |
| 21–25 | 25 |
| 26–35 | 31 |
| 36 and older | 19 |
| (Average Age) | (27.6 years) |
| Race | |
| Black | 59 |
| Hispanic | 29 |
| White | 7 |
| No Source of Income ⁴ | 29 |
| Some Criminal Justice Status | 67 |
| Age of First Use | |
| 14 and younger | 49 |
| 15–19 | 43 |
| 20–29 | 7 |
| 30 and older | 1 |
| Secondary Drug of Abuse | |
| Alcohol | 36 |
| Cocaine | 12 |

¹Figures 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.

²State-funded programs receive some or all funding through the New York State Office of Alcoholism and Substance Abuse Services (OASAS).

³Nonfunded programs receive funding through sources other than OASAS, including Medicaid and private insurance reimbursements and client fees (self-pay).

⁴Defined as not earning income, not receiving support from family or significant others, and not receiving any public assistance.

SOURCE: New York State Office of Alcoholism and Substance Abuse Services

Drug Use in Philadelphia, Pennsylvania

Samuel J. Cutler, Marvin F. Levine, M.S.W.,
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ABSTRACT

This report updates data on drug abuse indicators for Philadelphia, Pennsylvania since the last CEWG report for this area in January 2008 and covers calendar year 2007. Cocaine abuse, particularly in the form of crack, continues to lead the consequence data with respect to treatment admissions, deaths with the presence of drugs, and laboratory tests performed by the National Forensic Laboratory Information System (NFLIS). It was the second most frequently encountered substance in urine/drug screens performed by the Philadelphia Adult Probation and Parole Department (APPD). Cocaine and alcohol were the most common combination of drugs in decedents, as they have been since 2003. Marijuana ranked third in treatment admissions, second in the NFLIS, and first in the APPD. Its use remained common by itself or in combination with cocaine, alcohol, and phencyclidine (PCP), among others. Treatment admission trends have been stable since 2001 and range from 78 to 82 percent male. The 21–30 age group continued to increase its share of admissions since 2003. Alcohol in combination with other drugs ranked second in treatment, second in mortality, and seventh in the APPD urinalysis study. African

Americans have constituted a steadily increasing share of treatment admissions from 2002 to 2007. All heroin indicators were stable in 2007. Heroin ranked fourth in treatment admissions and third in mortality, NFLIS, and the APPD study. Benzodiazepines remained fairly high as adjunct drugs and ranked fourth in both mortality data and the APPD study. Alprazolam ranked seventh in mortality data and sixth in the NFLIS data. Diazepam ranked tenth in mortality and fourteenth in NFLIS data. Drugs in the other opiates category were characterized by medium levels of use. The only drug in this group that showed an increase in mortality data was propoxyphene. Users are beginning to show increasing preference for (5mg) Percocet® over (10mg or 20mg) OxyContin®. PCP showed medium levels of use and is primarily smoked in combination with marijuana in blunts. Treatment admissions showed increases among African Americans, Hispanics, females, and the 31–40 age group and decreases among Asians/others and the 21–30 age group. PCP increased in APPD data. Relatively low levels of antidepressant use have been detected, but 2007 data exceeded all previous years. Use of methamphetamine and other amphetamines remained at very low levels. Deaths with the presence of methamphetamine or amphetamines declined and there were no deaths with the presence of MDMA. A significant event during 2007 was the ending of the lethal fentanyl outbreak that occurred from mid-April 2006 until early spring 2007.

INTRODUCTION

Area Description

Philadelphia, the largest city in the State, is located in the southeastern corner of Pennsylvania. The 2000 U.S. census count of 1,517,550 Philadelphia residents was updated in 2006 at 1,448,394, a decline of almost 4.6 percent. The population is 53.2 percent female, 44.3 percent Black/African American, 41.8 percent White, 5.3 percent Asian, 7.0 percent other races, and 1.6 percent two or

¹The authors are affiliated with the City of Philadelphia, Department of Behavioral Health and Mental Retardation Services, Office of Addiction Services, Philadelphia, Pennsylvania (Dr. Arthur C. Evans, Jr., Director). Alan Dashoff, Lisa Mundy, William Wingert, Ph.D., Tracey Scott, Michael Eberhart, MPH, Nelson E. Martin, Rhonda L. Johnson, and Kate Myerson provided data and other assistance in preparing this paper. We are appreciative of the assistance provided by clients in treatment and those who utilize the sterile syringe exchange program and the staff of their programs for their assistance with our ethnographic endeavors.

more races. People identified as being of Hispanic or Latino origin (of any race) were estimated at 10.5 percent of the population. The median age is 35.2 years, and the population density is 11,570 persons per habitable square mile.

Data Sources

This report focuses primarily on the city/county of Philadelphia and includes data from the sources shown below. Unless otherwise noted, fiscal year (FY) refers to a year starting July 1 and ending the following June 30.

- **Treatment admissions data** for programs in Philadelphia County were provided by the Behavioral Health Special Initiative Client Data System (BHSI/CDS). The data represent mentions of use of different drugs by clients admitted to treatment from 2003 through 2007. This database covers the uninsured population in the treatment provider network.
- **Mortality data** from January 1, 1995, through December 31, 2007 were provided by the Philadelphia Medical Examiner's (ME) Office. These data cover mortality cases with toxicology reports indicating the detection of drugs in decedents in Philadelphia. The cases included people 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 distinguished between people who appeared to have a lethal reaction to what might be considered a light or moderate amount of drugs and people whose toxicology reports showed a high level of drugs in their systems. Alcohol cases were only reported in combination with one or more other drugs. The ME did not test for the presence of marijuana/tetrahydrocannabinol (THC)/cannabis.
- **Criminal justice urinalysis data** for adults who were in probation or parole status were derived from reports from the First Judicial District of Pennsylvania, Adult Probation/Parole

Department (APPD), from January 1, 2006, through May 31, 2008.

- **Heroin purity and price data** were provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through 2006.
- **The National Forensic Laboratory Information System (NFLIS)** provided data on the analysis of drug samples tested by the Philadelphia Police Department forensic laboratory in 2007.
- **Drug prices** were provided by the U.S. Department of Justice, National Drug Intelligence Center (NDIC), and report for the period June–December 2007. The NDIC report indicated that price information was derived from undercover purchases and informants.
- **Acquired immunodeficiency syndrome (AIDS) data** were provided by the Philadelphia Department of Public Health's AIDS Activities Coordinating Office on AIDS cases reported from November 1, 1981, to December 31, 2006.
- **Data on drug usage patterns** were obtained from focus group discussions with former drug users currently enrolled in treatment programs and current users who participate in the sterile syringe exchange harm reduction program.

DRUG ABUSE PATTERNS AND TRENDS

The four major drugs of abuse in Philadelphia continue to be cocaine, heroin, marijuana, and alcohol. These are frequently used in combination with each other and with other supplemental drugs. In 2007, 88.6 percent of drugs mentioned by people entering treatment were one of these four drugs. In addition, clients entering treatment in 2007 mentioned their problem drugs in the same rank order as in 2006 for the top eight drugs/drug groups (exhibit 1a).

Demographic distributions and route of administration of drugs for clients who entered treatment in 2007 are shown in exhibit 1b. There

was very little variance in treatment admissions by age between 2006 and 2007. Among clients younger than 21 who entered treatment for the first time, the majority, 43.5 percent, mentioned marijuana as their problem drug in 2006, and 47.2 percent mentioned marijuana in 2007. Seventy percent of the clients who were 46 or older—and were admitted to treatment for the first time—mentioned cocaine or alcohol as their problem drugs in both 2006 and 2007.

The outbreak of the inclusion of lethal fentanyl placed in heroin packets that began in mid-April 2006 and ended in the early spring of 2007 profoundly affected the average number of drugs detected in decedents by the Philadelphia ME. In 2006, this average was 4.16 drugs per decedent. With the relatively small numbers of deaths with the presence of fentanyl in 2007, however, the average number of deaths for 2007 (3.66) was the lowest since 2003 (3.18) (exhibit 2). In 2007, 16.4 percent of deaths with the presence of drugs were single drug cases, and 2007 saw declines in positive toxicology reports for all major drugs that were tested by the ME.

There were 964 mortality cases with positive toxicology reports in 2007. Of these, adverse effect of drugs accounted for 33.2 percent; other deaths were attributed to overdose (7.6 percent), homicide (19.6 percent), suicide (9.0 percent), and “other causes” (30.6 percent) (exhibit 3).

In 2007, African American male decedents ($n=330$) outnumbered White male decedents ($n=317$), while White female decedents ($n=130$) outnumbered African American female decedents ($n=108$). There were 70 deaths with the presence of drugs among Hispanics, and 9 deaths among Asians and others.

Overall, Whites accounted for 46.4 percent of the deaths; African Americans constituted 45.4 percent; Hispanics represented 7.3 percent; and Asians and others accounted for 0.9 percent. These figures vary slightly from the makeup of Philadelphia’s population for Whites and African Americans, but more so for other groups.

In addition to disparities in the types of drugs, drug combinations, and demographic categories

of decedents, there were differences with respect to the average quantities of drugs by cause of death. The trend for average number of drugs per decedent by cause of death is shown in exhibit 4.

The total number of drug samples detected during calendar year 2007 in Philadelphia through the NFLIS was 26,286, with no count of alcohol. Of these, 85.8 percent were cocaine, marijuana, or heroin (exhibit 5).

Urinalysis tests of adults on probation or parole (APPD data) by drug/drug group from January 1, 2006, through May 31, 2008, revealed stable results for most of the drugs/drug groups. However, the 2008 data may reveal increases in the use of PCP and amphetamines (exhibit 6).

Cocaine/Crack

Cocaine/crack remains the major drug of abuse in Philadelphia. Treatment admissions data from 2003 through 2007 revealed cocaine as having the most mentions, ranging from 25.5 percent to 29.4 percent (exhibit 1a). African Americans accounted for 61.5 percent of cocaine treatment mentions in 2007, followed by Whites (28.9 percent), Hispanics of any race (11.3 percent), Asians and others (4.7 percent), and unknown/unrecorded (4.9 percent). Males constituted 72.5 percent of cocaine/crack treatment admissions, and 62.5 percent were age 36 or older.

ME data showed that cocaine was present in 423 of the 904 decedents in 2005 (46.8 percent), 552 of the 1,153 decedents in 2006 (47.9 percent), and 389 (40.4 percent) of the 964 drug positive decedents in 2007. Cocaine continued to be detected in the highest percentage of all mortality cases ($n=9,555$) since 1995, at 45.6 percent (exhibit 2). In 2007, 12.9 percent of the deaths ($n=50$) with the presence of cocaine were single drug deaths.

NFLIS data revealed that cocaine was detected in the highest number of lab tests ($n=10,714$) in 2007, accounting for 40.8 percent of all tests (exhibit 5).

APPD urinalysis data of adults on probation or parole revealed declines in the presence of

cocaine from 36.3 percent of the tests in 2006 to 32.3 percent in the first 5 months of 2008 (exhibit 6). Cocaine continued to rank second to marijuana in the APPD data.

The NDIC reported the 2007 prices for powder cocaine as \$23,000–\$36,000 per kilogram wholesale, \$800–\$1,200 per ounce at midlevel, and \$70–\$100 per gram and \$10–\$20 per bag at the retail level. Cocaine/crack cost \$800–\$1,500 per ounce for midlevel sales; at the retail level, it cost \$160 per 3.5 grams and \$5–\$20 per rock.

According to key informants, the predominant form of crack sold in Philadelphia was the “rock,” which usually cost \$5. The availability of “treys” (\$3 rocks) declined between 2005 and 2006 and remained relatively infrequently encountered in 2007. Shapes of crack range from circular, to bumpy-circular, to pieces cut into the shape of a parallelogram. Powder cocaine was sold in \$10 and \$20 bags. Focus group participants who were in treatment consistently reported that powder cocaine was acquired to use intranasally, while active users who utilize the sterile syringe exchange program indicated the powder was used for injecting, mostly straight, but sometimes in a speedball. Autumn 2007 and spring 2008 focus group participants also reported that the size/volume of the rock has been decreasing since 2002.

Crack users continue to report frequent use in combination with 40-ounce bottles of malt liquor or beer, or other drugs, including alprazolam, marijuana, heroin, or occasionally carisoprodol.

Heroin/Morphine

According to DEA DMP data, the average street-level purity of heroin in Philadelphia declined every year from 2000 (73.0 percent) through 2004 (51.6 percent) (exhibit 7). The average purity was reported as 54.9 percent in both 2005 and 2006. The primary source of heroin sold to users in Philadelphia is South America.

Treatment admissions data revealed heroin as constituting the third highest percentage of mentions in 2003, but the fourth highest percentage from 2004 through 2007 (exhibit 1a). Heroin is

the only major drug with a majority of the treatment admissions being Whites. Whites accounted for 63.9 percent of heroin treatment mentions in 2007, followed by African Americans (23.5 percent), Hispanics of any race (13.9 percent), Asians and others (7.5 percent), and unknown/unrecorded (5.1 percent). The majority (74.1 percent) were male, and 40.4 percent, age 21–30.

ME data showed that heroin/morphine was present in 228 of the 964 decedents in 2007 (the third most commonly detected substance in 2007), and it continued to rank second, cumulatively, in illicit drug detections since 1994 (exhibit 2). Only 5 of the 228 deaths with the presence of heroin in 2007 had no other drug present.

NFLIS data revealed that heroin was detected in the third highest number of lab tests ($n=2,494$) in 2007, representing 9.5 percent of the total sample (exhibit 5).

APPD urinalysis data of adults on probation or parole revealed stability in percents positive for opiates from January 2006 through May 2008, but a decline in the ranking of opiates from fourth to fifth (exhibit 6).

The NDIC reported the 2007 prices for heroin as \$95,000–\$105,000 per kilogram and \$45,000–\$55,000 per pound at the wholesale level. The midlevel price was \$18,000–\$35,000 per ounce, and retail prices were \$50–\$150 per gram, \$70–\$200 per bundle, and \$10–\$20 per bag.

Focus group participants indicated that a bundle consisted of 10–13 bags. They continued to report that the \$10 bag of heroin remained the standard unit of purchase. The \$10 bag usually yields one hit, and \$20 bags were also available.

Other Opiates and Narcotics

Fentanyl

When the supply of fentanyl to Philadelphia was disrupted in early spring 2007, consequences of fentanyl use ceased to exist.

NFLIS data revealed that fentanyl was detected in the 15th highest number of lab tests

in 2007, but it only represented 0.2 percent of the total sample.

Oxycodone

The nonmedical use of oxycodone products, including OxyContin®, Percocet®, Percodan®, Roxicet®, and Tylox®, continues to be reported by individuals in treatment. Mentions of these drugs by people admitted to treatment programs declined precipitously after 2004 (see exhibit 1a, “Other Opiates/Synthetics”).

Oxycodone was detected in 811 decedents from 1995 through 2007 (the eighth most frequently detected drug during that time period), but with 127 decedents in 2007, oxycodone ranked sixth among drugs detected for that year (exhibit 2). Detections of oxycodone had been rapidly increasing since 2000, but 2007 saw the first decline in the number of such cases since 1999. In 2007, oxycodone was present in 13.2 percent of all drug-positive deaths.

NFLIS data revealed that oxycodone was detected in the fourth highest number of lab tests ($n=803$) in 2007, accounting for 3.1 percent of the samples tested.

Methadone

The reader is cautioned against making prejudicial interpretation of data in this section. Throughout all indicators, it is uncertain whether methadone was used as directed by a physician for the management of pain, as a prescribed adjunctive measure in addictions treatment, or in an abusive manner.

In 2007, five individuals were admitted to treatment indicating nonprescription methadone as a problem drug. There were 139 deaths with the presence of methadone in 2006 and 116 in 2007. Deaths with methadone present ranked eighth in 2007 (exhibit 2).

Hydrocodone

Hydrocodone detections in mortality cases had shown some increases in recent years. There were 40 positive ME toxicology reports for hydrocodone in 2003, followed by 51 in 2004, 66 in 2005, and 63 in 2006. However, there were only 46 deaths with the presence of hydrocodone in 2007, with the drug ranking 22nd that year.

Methamphetamine

Methamphetamine and amphetamines remain a relatively minor problem in Philadelphia. Use of these drugs appears to be confined to a small portion of the population.

Treatment admissions data from 2003 through 2007 revealed a miniscule proportion of methamphetamine mentions—0.01 percent over these 5 years—including two admissions each in 2006 and 2007 (exhibit 1a).

There were 98 deaths with the presence of methamphetamine from 1994 through 2004, an additional 20 detections each year in 2005 and 2006, and 10 detections in 2007. Deaths with the presence of methamphetamine ranked 61st in 2007 and 42nd cumulatively since 1994.

NFLIS data for 2007 revealed that methamphetamine was detected in the 11th highest number of lab tests ($n=98$), 0.4 percent.

The NDIC reported the following December 2007 prices for methamphetamine: \$8,000–\$20,000 per pound (powder) wholesale, \$1,500–\$2,500 per ounce of “ice,” and \$700–\$2,400 per ounce of powder methamphetamine at midlevel. Retail prices were \$350–\$400 per one-eighth ounce of ice, \$125–\$175 per one-eighth ounce of powder, or \$42–\$100 per gram of powder methamphetamine.

Focus group participants in the spring of 2008 described methamphetamine use among two groups: club goers and mothers who snort the drug to “get through the day” and to assist in weight loss.

Other Amphetamines

Treatment admissions data from 2003 through 2007 also revealed a small proportion of amphetamine mentions (constituting 0.3 percent in 2007) (exhibit 1a).

There were 90 deaths with the presence of other amphetamines from 1994 through 2004, plus 18 additional detections in 2005, 17 in 2006, and 10 in 2007, for a total of 135 for the 14-year period (1994 through 2007). Deaths with amphetamines rank 46th in this period.

NFLIS data revealed that amphetamine was detected in the 26th highest number of lab tests ($n=7$) in 2007, representing less than 0.1 percent.

APPD urinalysis data of adults on probation or parole revealed the presence of amphetamines in 0.4 percent of the tests in 2006, 0.6 percent in 2007, and 2.1 percent in the first 5 months of 2008. Amphetamines continued to rank last among the nine substances tested for by the APPD (exhibit 6).

Marijuana

Treatment admissions data revealed marijuana as constituting the fourth most mentions in 2003 and the third most from 2004 through 2007 (exhibit 1a). African Americans accounted for 69.7 percent of marijuana treatment mentions in 2007, followed by Whites (20 percent), Hispanics of any race (12 percent), Asians and others (3.3 percent), and unknown/unrecorded (7.2 percent). The majority (82.2 percent) were male, and 48.4 percent were age 21–30.

NFLIS data revealed that marijuana (cannabis) was detected in the second highest number of lab tests in 2007 ($n=9,335$), representing 35.5 percent (exhibit 5).

APPD urinalysis data of adults on probation or parole revealed the presence of marijuana in 44.0 percent of the tests in 2006, 46.8 percent in 2007, and 46.1 percent in the first 5 months of 2008, the highest amount in the APPD data throughout these time periods (exhibit 6).

The NDIC reported the 2007 prices for marijuana as \$800–\$2,500 per pound, commercial grade, wholesale; \$150–\$200 per ounce, commercial grade, midlevel; and \$10–\$20 per “nickel bag.” Users reported that \$5 and \$10 bags were readily available in the spring of 2008 on the street.

Focus group participants since the spring of 2004 continued to report the increasing use of blunts, especially the use of flavored cigars. Either crack or PCP was frequently added to blunts. These groups continued to report the widespread use of marijuana use throughout Philadelphia.

Phencyclidine (PCP)

PCP began to gain popularity as an additive to blunts in 1994, and its use increased up to around the beginning of 2004. Since then, users reveal that use is declining, identifying an aversion to “bad trips” and unpredictable experiences while on PCP, but the consequence indicators have been mixed.

Mentions of PCP as the primary problem drug at admission to treatment declined from 3.3 percent of total drug mentions in 2003 to 2.1 percent in 2007 (exhibit 1a). African Americans accounted for 59.7 percent of PCP treatment mentions in 2007, followed by Hispanics of any race (24.9 percent), Whites (20.3 percent), Asians and others (5.2 percent), and unknown/unrecorded (14.8 percent). Males represented 77.5 percent of PCP admissions and 67.4 percent were age 30 or younger.

PCP was detected in 70 decedents in 2007, making it the fifteenth most frequently detected drug that year. PCP ranked as the ninth most detected drug overall since 1995 (exhibit 2).

NFLIS data revealed that PCP was detected in the fifth highest number of lab tests in 2007 ($n=795$), accounting for 3 percent of the total (exhibit 5).

APPD urinalysis data of adults on probation or parole revealed the presence of PCP in 9.5 percent of the tests in 2006, 10.9 percent in 2007, and 11.5 percent in the first 5 months of 2008, the

sixth ranking drug in the APPD data throughout these time periods (exhibit 6).

Focus groups of users new to treatment conducted in autumn 2007 and spring 2008 described typical PCP users as younger and being of any race, but with increasing use among Hispanics. Regarding how PCP is taken, the practice of dipping cigarettes into PCP oil is still common (known as “Sherms,” “dippies,” or “dip-sticks”). PCP is also available sprayed onto mint leaves; these are usually added to blunts. PCP sold in vials for \$10 each.

Benzodiazepines

Benzodiazepines, particularly alprazolam (Xanax), continue to be used in combination with other drugs.

Treatment admissions data revealed that benzodiazepines constituted the fifth most mentions from 2003 through 2005, but the seventh most in 2006 and 2007 (exhibit 1a). African Americans accounted for 58.8 percent of benzodiazepine treatment mentions in 2007, followed by Whites (27.2), Hispanics of any race (10.7 percent), Asians and others (2.2 percent), and unknown/unrecorded (11.8 percent). Males represented 79.8 percent and 57.4 percent were age 30 or younger.

Diazepam was detected in 117 mortality cases in 2006, but there were only 89 such detections in 2007. ME personnel indicated that tests for benzodiazepines are omitted if there is a clear indication that the cause of death was an adverse reaction to illicit drugs (exhibit 2).

NFLIS data revealed that diazepam was detected in the 14th highest number of lab tests in 2007 ($n=76$), accounting for less than 1 percent.

Alprazolam was detected in 129 decedents in 2006 and 121 decedents in 2007, making it the eighth most frequently detected drug in 2007. Decedents with alprazolam exceeded decedents with diazepam in their system since the beginning of 2006 (exhibit 2).

NFLIS data for 2007 revealed that alprazolam was detected in the sixth highest number of lab tests ($n=768$), accounting for 2.9 percent.

NFLIS data also revealed clonazepam as the 10th highest-ranking drug in the study ($n=122$) in 2007 (exhibit 5).

APPD urinalysis data of adults on probation or parole revealed the presence of benzodiazepines in 11.1 percent of the tests in 2006, 12.0 percent in 2007, and 13.2 percent in the first 5 months of 2008. Benzodiazepines were the fifth ranked drug/drug group in the APPD data in 2006, but they have ranked fourth since January 2007 (exhibit 6).

Benzodiazepine abuse continued to be reported by focus group participants as common among users of heroin, oxycodone, cocaine, marijuana, and cough syrup. From spring 2000 through spring 2008, all focus groups reported that alprazolam has overtaken diazepam as the “most popular pill” on the street. Since the spring of 2007, focus groups have consistently reported that almost nobody seeks diazepam anymore. The demand has increased for alprazolam to such an extent, that when the supply cannot satisfy the demand, users seek Tylenol PM[®], which contains acetaminophen and diphenhydramine, or more recently oxycodone in the form of Percocet[®].

From 1994 through 2007, there were 297 positive toxicology reports for oxazepam (Serax[®]), making this drug the 22nd most frequently detected drug. This includes 48 detections in 2006 and 54 in 2007.

From 1994 through 2007, there were 228 positive toxicology reports for olanzapine (Zyprexa[®]) (2006 $n=22$ and 2007 $n=19$), making this drug the 30th most frequently detected drug.

Other Prescription Drugs of Note

Prescription drugs are most frequently detected among decedents in combination with other drugs of the same type and/or in combination with cocaine, heroin, or alcohol. ME mentions for the most frequently detected prescription drugs among decedents (not already noted above) included propoxyphene (Darvon[®]) ($n=515$ cases in the 14-year data and ranked 12th). Propoxyphene was the only prescription pain reliever to

show an increased presence in decedents between 2006 and 2007. Fluoxetine (Prozac®) was detected in 250 cases in the 14-year data; ranking 25th.

Dextromethorphan is a common ingredient in numerous cough and cold medications. Focus group participants beginning in the spring of 2004 indicated that its use was increasing among people age 30–40, particularly in combination with benzodiazepines. Groups held since autumn 2007 indicated that most users were male, in their mid-teens to 30, and more likely to be African American. Commonly reported drugs used in combination with dextromethorphan included alprazolam, oxycodone (Percocet®), and/or Tylenol 3°. The Philadelphia ME detected dextromethorphan in 58 cases in 2006 and 49 cases in 2007, with a 14-year total of 315 detections, ranking 21st.

Diphenhydramine is an ingredient in numerous over-the-counter medications that are abused in Philadelphia. Negative consequences appeared most markedly among decedents in combination with other drugs. The Philadelphia ME detected diphenhydramine in 129 cases in 2004, 113 cases in 2005, 179 cases in 2006, and 170 in 2007. Deaths with the presence of diphenhydramine ranked fifth from 1995 through 2007, but they ranked fourth in detections in 2007 (exhibit 2).

Quetiapine (Seroquel®), an antipsychotic, has only been on the market for about 9 years. Through 2007, there have been 126 quetiapine detections by the ME, including 29 in 2007.

Club Drugs

In 2007, methylenedioxymethamphetamine (MDMA) was detected in 127 NFLIS lab tests (0.5 percent), making it the ninth highest drug in the Philadelphia data. MDMA has been detected by the ME since 1999. Through 2006, this drug was detected in 68 decedents, including 16 cases in 2006, the most for any year to date, but there were no detections of this drug in 2007. Focus groups held from spring 2001 through autumn 2006

reported that MDMA was used in combination with marijuana and lysergic acid diethylamide (LSD), which helps describe its use among club goers. The participants in the spring 2007 groups had scanty knowledge of both MDMA and LSD. Relatively few participants in autumn 2007 and spring 2008 had knowledge of club drug use, but those who did described MDMA users as White or Hispanic, and from midteens to 30. Use was once, sometimes twice per day, with the effects being long-lasting. The tablets were described as single thickness, double-stack, or triple-stack, which affects the length of the drug's effectiveness.

The Philadelphia ME first detected methylenedioxyamphetamine (MDA) in the second half of 1999. There were 57 positive toxicology reports for MDA since then, including 15 cases in 2006, but only 2 in 2007. MDA was detected in eight samples tested by the NFLIS in 2007.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

As of December 31, 2006, Philadelphia recorded 18,725 cumulative AIDS cases among adults (exhibit 8). Among those cases, 6,498 involved injection drug users (IDUs) or needle-sharers. Another 935 were in the dual exposure category of IDUs who were also men who have sex with men (MSM).

Cases reported as of December 31, 2006, with heterosexual contact as a risk factor continued to exceed the historical proportion. Heterosexual contact was the identified exposure category in 22.1 percent of all AIDS cases.

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Exhibit 1a. Drugs of Abuse Mentioned at Admission to Treatment by Uninsured Clients in Philadelphia: 2003–2007

| Drugs Mentioned | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| Cocaine | 4,935 | 4,818 | 5,151 | 4,701 | 3,859 |
| Alcohol | 4,383 | 4,232 | 3,835 | 3,893 | 3,406 |
| Marijuana | 3,069 | 3,153 | 3,120 | 3,647 | 3,384 |
| Heroin | 3,313 | 3,124 | 3,107 | 3,578 | 2,775 |
| Other Sedatives/Hypnotics | 11 | 34 | 489 | 968 | 692 |
| PCP | 618 | 563 | 347 | 368 | 325 |
| Benzodiazepines | 1,129 | 1,165 | 626 | 307 | 272 |
| Other Hallucinogens | 180 | 101 | 106 | 261 | 192 |
| Other (Not Listed) | 94 | 133 | 160 | 140 | 84 |
| Other Opiates/Synthetics | 713 | 1,042 | 483 | 105 | 87 |
| Other Amphetamines | 74 | 41 | 29 | 79 | 49 |
| Inhalants | 1 | 6 | 9 | 10 | 11 |
| Methamphetamine | 17 | 37 | 33 | 2 | 2 |
| Barbiturates | 121 | 80 | 26 | 1 | 1 |
| Other Tranquilizers | 7 | 17 | 14 | 1 | 1 |
| Over-the-Counter | 4 | 6 | 3 | -- | 5 |
| Total | 18,669 | 18,552 | 17,538 | 18,061 | 15,145 |

SOURCE: Behavioral Health Special Initiative Client Data System

Exhibit 1b. Profiles of Clients Who Entered Treatment in Philadelphia: 2007

| | Percent |
|--------------------------------|---------|
| Gender | |
| Male | 76.5 |
| Female | 23.5 |
| Race / Ethnicity | |
| African American | 55.2 |
| White | 34.2 |
| Asian/Other Race | 4.7 |
| Unknown/Unrecorded | 5.9 |
| Hispanic (any race) | 5.4 |
| Route of Administration | |
| Smoking | 45.2 |
| Oral | 28.3 |
| Injection / Skin Popping | 8.0 |
| Intranasal | 0.4 |
| Unknown Route | 18.1 |
| Age | |
| Younger than 21 | 4.1 |
| 21–25 | 17.8 |
| 26–30 | 18.1 |
| 31–35 | 13.1 |
| 36–40 | 15.2 |
| 41–45 | 14.3 |
| 46 and older | 17.3 |

SOURCE: Behavioral Health Special Initiative Client Data System

Exhibit 2. Mortality Cases in Philadelphia with the Presence of the 10 Most Frequently Detected Drugs by the ME: 1995–2007

| ME-Identified Drugs | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | Total |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Cocaine | 336 | 277 | 304 | 218 | 238 | 321 | 300 | 270 | 326 | 399 | 423 | 552 | 389 | 4,353 |
| Heroin/Morphine | 318 | 290 | 336 | 249 | 236 | 332 | 316 | 275 | 208 | 214 | 215 | 337 | 228 | 3,554 |
| Alcohol-in-Combination | 254 | 182 | 214 | 157 | 179 | 197 | 185 | 153 | 290 | 219 | 323 | 386 | 264 | 3,003 |
| Codeine | 39 | 19 | 20 | 3 | 15 | 19 | 45 | 57 | 120 | 120 | 139 | 191 | 153 | 940 |
| Diazepam | 44 | 35 | 58 | 39 | 67 | 46 | 56 | 28 | 66 | 88 | 77 | 117 | 89 | 810 |
| Diphenhydramine | 13 | 5 | 4 | 9 | 25 | 33 | 53 | 42 | 116 | 129 | 113 | 179 | 170 | 891 |
| Methadone | 12 | 26 | 24 | 10 | 36 | 36 | 46 | 55 | 79 | 132 | 113 | 139 | 116 | 824 |
| Oxycodone | 2 | 1 | 14 | 29 | 17 | 49 | 53 | 68 | 81 | 103 | 119 | 148 | 127 | 811 |
| Phencyclidine (PCP) | 44 | 29 | 46 | 19 | 35 | 48 | 45 | 51 | 58 | 28 | 42 | 74 | 70 | 589 |
| Alprazolam | 8 | 17 | 18 | 19 | 8 | 16 | 31 | 27 | 45 | 72 | 68 | 129 | 121 | 579 |
| Total Deaths with the Presence of Drugs | 632 | 565 | 607 | 534 | 533 | 680 | 661 | 593 | 841 | 888 | 904 | 1,153 | 964 | 9,555 |
| Total Drugs Mentioned | 1,245 | 1,121 | 1,282 | 1,039 | 1,232 | 1,637 | 1,857 | 1,589 | 2,672 | 3,330 | 3,336 | 4,797 | 3,531 | 28,668 |
| Avg. Number of Drugs Per Death | 1.97 | 1.98 | 2.11 | 1.95 | 2.31 | 2.41 | 2.81 | 2.68 | 3.18 | 3.75 | 3.69 | 4.16 | 3.66 | 3.00 |

SOURCE: Philadelphia Medical Examiner's Office

Exhibit 3. Causes of Annual Mortality Cases among Decedents with Positive Toxicology Reports for Drugs, in Philadelphia, as Determined by the ME, by Percent: 2000–2007

| ME-Identified Cause | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------|------|------|------|------|------|------|------|------|
| Adverse Effect of Drugs | 56.6 | 56.4 | 57.7 | 30.4 | 31.0 | 40.2 | 41.1 | 33.2 |
| Overdose | 2.1 | 3.8 | 2.5 | 6.3 | 10.1 | 6.7 | 6.2 | 7.6 |
| Homicide | 13.0 | 10.0 | 11.6 | 17.2 | 16.3 | 17.4 | 17.1 | 19.6 |
| Suicide | 5.6 | 6.2 | 5.6 | 10.5 | 8.3 | 9.2 | 6.2 | 9.0 |
| Other Causes ¹ | 22.7 | 23.6 | 22.6 | 35.6 | 34.2 | 26.5 | 29.4 | 30.6 |

¹“Other Causes” includes deaths with the presence of drugs caused by accident, injury, drowning, fire, or a health or physical malady.
SOURCE: Philadelphia Medical Examiner’s Office

Exhibit 4. Average Number of Drugs Detected in Decedents by Cause of Death in Philadelphia, as Determined by the ME: 2004–2007

| ME-Identified Cause | 2004 | 2005 | 2006 | 2007 |
|---------------------------|------|------|------|------|
| Adverse Effect of Drugs | 4.68 | 4.15 | 5.28 | 4.25 |
| Overdose | 5.12 | 5.30 | 5.68 | 4.39 |
| Homicide | 2.84 | 2.73 | 2.86 | 2.55 |
| Suicide | 2.91 | 3.00 | 2.73 | 3.08 |
| Other Causes ¹ | 3.18 | 3.46 | 3.30 | 3.28 |
| Average | 3.75 | 3.69 | 4.16 | 3.66 |

¹“Other Causes” includes deaths with the presence of drugs caused by accident, injury, drowning, fire, or a health or physical malady.
SOURCE: Philadelphia Medical Examiner’s Office

Exhibit 5. Top 10 Drugs Detected in the NFLIS in Philadelphia: 2007

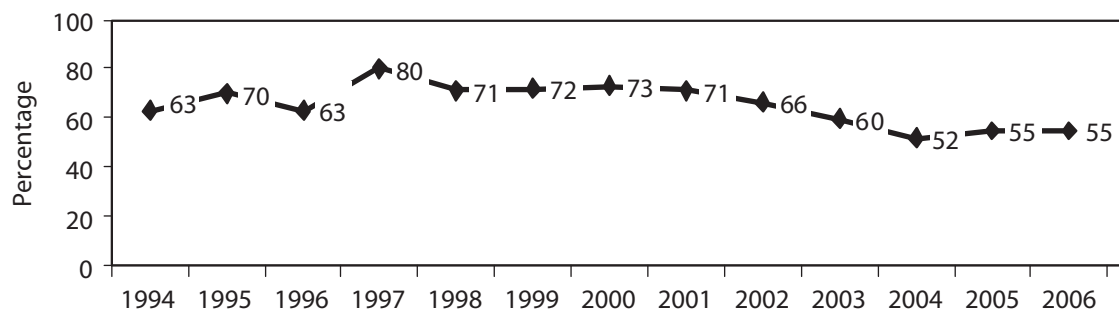
| Drug | Count | Percent |
|--------------------------------|---------------|---------|
| Cocaine | 10,714 | 40.8 |
| Marijuana | 9,335 | 35.5 |
| Heroin | 2,494 | 9.5 |
| Oxycodone | 803 | 3.1 |
| Phencyclidine (PCP) | 795 | 3.0 |
| Alprazolam | 768 | 2.9 |
| Noncontrolled nonnarcotic drug | 252 | 1.0 |
| Hydrocodone | 197 | 0.7 |
| MDMA | 127 | 0.5 |
| Clonazepam | 122 | 0.5 |
| Total Count | 26,286 | |

SOURCE: NFLIS, DEA

Exhibit 6. Percent¹ Positive Urinalysis Results for Adults in Probation or Parole Status in Philadelphia: January 2006–May 2008

| Drug/Drug Group | 2006 | 2007 | 1/1 to 5/31/08 |
|------------------------------------|---------------|---------------|----------------|
| Marijuana | 44.0 | 46.8 | 46.1 |
| Cocaine | 36.3 | 34.1 | 32.3 |
| Methadone | 14.5 | 13.6 | 13.8 |
| Opiates | 11.7 | 11.2 | 11.8 |
| Benzodiazepines | 11.1 | 12.0 | 13.2 |
| Phencyclidine (PCP) | 9.5 | 10.9 | 11.5 |
| Alcohol | 5.4 | 5.4 | 5.0 |
| Barbiturates | 1.6 | 1.5 | 1.5 |
| Amphetamines | 0.4 | 0.6 | 2.1 |
| Total tests per time period | 41,689 | 47,388 | 23,681 |
| Total positive tests | 18,019 | 20,551 | 10,229 |
| Percent positive tests | 43.2 | 43.4 | 43.2 |

¹Note: Results exceed 100 percent because some tests were positive for more than one drug.
SOURCE: Adult Probation and Parole, First Judicial District, Philadelphia

Exhibit 7. Average Percentage¹ of Purity of Street-Level Heroin in Philadelphia: 1994–2006

¹Percentages rounded.
SOURCE: DEA, Domestic Monitor Program

Exhibit 8. Adult AIDS Cases in Philadelphia by Exposure Category: Cumulative Totals Through December 31, 2006

| Exposure Category | November 1, 1981 to December 31, 2006 | |
|---------------------------|---------------------------------------|---------|
| | Number | Percent |
| IDU | 6,498 | (34.7) |
| MSM and IDU | 935 | (5.0) |
| MSM | 6,870 | (36.7) |
| Heterosexual Contact | 4,129 | (22.1) |
| Blood Products | 91 | (0.5) |
| No Identified Risk Factor | 202 | (1.1) |
| Total Adult Cases | 18,725 | |

SOURCE: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

Drug Abuse Patterns and Trends in Phoenix and Arizona

James K. Cunningham, Ph.D.¹

ABSTRACT

After rising for multiple years and plateauing in 2006, amphetamine-related hospital admissions in the Phoenix area declined in 2007. Cocaine-related hospital admissions also declined in 2007, while heroin/opioid-related admissions remained flat. Moreover, amphetamine-related hospital admissions in 2007 fell in absolute number below those for heroin/opioid-related admissions, the first time this has occurred since the early 2000s. In the Tucson area, amphetamine- and cocaine-related hospital admissions also declined in 2007, while heroin/opioid admissions remained flat. Amphetamine-related admissions in the Phoenix area slightly outnumbered cocaine-related admissions, while amphetamine-related admissions in the Tucson area were outnumbered by cocaine-related admissions by three to one. Amphetamine-related hospital admissions in Arizona's rural counties also declined in 2007. In contrast to the Phoenix and Tucson areas, however, cocaine-related admissions in the rural counties were flat, and heroin/opioid-related admissions increased. Urinalysis tests for marijuana in the Maricopa County Juvenile Program were flat. Methylenedioxymethamphetamine (MDMA) indicators were low. Regarding prescription-type opioids, indicators were higher for oxycodone than for hydrocodone. The Drug Enforcement Administration reported more than 60 pharmacy robberies targeting OxyContin® (oxycodone) in the Phoenix Metropolitan Area. The price for OxyContin® pills ranged from \$20–\$80 for 80-milligram tablets and

from \$20–\$25 for 40-milligram tablets. Emergent HIV/AIDS rates related to injection drug use appear to have declined slowly but steadily over the past several years.

INTRODUCTION

Area Description

Arizona, the 16th largest State in the Nation, increased in population by 26.7 percent from 2000 to 2007, from 5,130,632 to 6,500,194 (U.S. Census, Arizona Department of Economic Security). Maricopa County, which includes the State's capital, Phoenix, is Arizona's primary population center, with an estimated 3,907,492 residents in 2007, an increase of 27.2 percent since 2000. It ranks fourth in population among the Nation's counties. In 2006, 60.4 percent of the population were White (non-Latino), 30.0 percent were Latino, 4.5 percent were Black, 2.9 percent were Asian, and 2.0 percent were American Indian/Alaska Native.

Maricopa County is located in the central part of the State and includes more than 20 cities/towns, as well as multiple Indian reservations, the largest of which are the Salt River Pima Maricopa Indian Community and the Gila River Indian Community.

Pima County—which is located south of Phoenix, borders Mexico, and includes Tucson—is the second largest population center in Arizona (population estimate: 1,003,235 in 2007). Counties other than Maricopa and Pima are grouped together and referred to here as the Arizona rural counties.

Data Sources

This report is based on the most recent available data obtained from the following sources:

- **Treatment data** came from the Arizona Department of Health Services (ADHS), Division of Behavioral Health Services (DBHS), Division

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of Clinical Recovery Services, Bureau of Grants Management, Training and Administration, Evaluation Unit, for 2005, 2006, and 2007.

- **Hospital admissions (inpatient) data** for 2000 through 2007 came from analyses conducted by the University of Arizona, Department of Family and Community Medicine, using hospital discharge records from the Arizona Hospital Discharge Data System operated by the Arizona Department of Health Services.
- **Emergency department (ED) drug mentions data** for 2007 were accessed on May 7, 2008 through DAWN *Live!*, a restricted-access online service administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Participation by EDs in the DAWN sample was incomplete; the completeness of data reported by participating EDs varied by month (exhibit 1). Unweighted numbers are presented. These numbers represent drug reports involved in drug-related visits for illicit drugs and the non-medical use of selected prescription drugs. Drug reports exceeded the number of ED visits, because a patient could report use of multiple drugs (up to six drugs plus alcohol). Since all DAWN cases are reviewed for quality control, the data may be corrected or deleted, and, therefore, are subject to change. The DAWN *Live!* data do not represent weighted estimates of ED visits and cannot be compared across CEWG areas or across data collection years. A full description of the DAWN system can be found at <<http://dawninfo.samhsa.gov>>.
- **Urine screening data** were provided by the Treatment Assessment Screening Center, Inc. (TASC) headquartered in Phoenix, Arizona, for the Maricopa County Diversion Program (adults) and the Maricopa County Juvenile Program.
- **Law enforcement data**, including purity and price information, were obtained from the Drug Enforcement Administration (DEA) Phoenix

Field Division, *Intelligence Quarterly Trends Report*, fourth quarter 2007.

- **Forensic drug analysis data** for 2007 were from the National Forensic Laboratory Information System (NFLIS), DEA.
- **Clandestine lab data** were from the National Clandestine Laboratory Database, DEA, for 2000 through 2007.
- **Mortality drug mentions data** included mentions of drugs in mortality cases as reported by the Maricopa County Medical Examiner (ME). These drug mentions did not indicate the cause of death, and they do not indicate drug overdoses. Drug mentions exceeded the number of drug-mention mortality cases, as one mortality case could include the mention of multiple drugs. Not all mortality cases that involved drugs were identified for use in this analysis.
- **Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS)** were provided by the Arizona Department of Health Services, Bureau of Epidemiology and Disease Control, Office of HIV/STD Services, *HIV/AIDS Annual Report*, February 2007. The data cover 5-year incremental data from 1990 through 2006.
- **Population data** came from the Arizona Department of Economic Security and the U.S. Census Bureau.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

and were lower than heroin/

opioid- and amphetamine-related admissions (amphetamine admissions include methamphetamine). Cocaine-related inpatient hospital admissions also declined in Pima County (Tucson area) (exhibit 5), though cocaine admissions in Arizona's rural counties changed little in 2007 (exhibit 6).

Approximately 13 percent of the positive urine screening tests for adults in the Maricopa County Diversion Program in the first quarter of 2008 involved cocaine, making it the fourth most common drug identified in those tests (exhibit 7). Among urine screens in the Maricopa County Juvenile Program, cocaine was the second most common drug identified in those tests, slightly higher than those positive for amphetamine (exhibit 8). The percentage of positive tests for cocaine among juveniles declined from the third quarter of 2005 to the third quarter of 2006 to the first quarter of 2008 (exhibit 9).

Cocaine was the third most common item reported by NFLIS for Maricopa County (exhibit 10). It was among the three most common drugs reported to DAWN *Live!* (exhibit 11). It was also among the three most common drugs mentioned in deaths as reported by the Maricopa ME (exhibit 12). In the fourth quarter of 2007, the average purity of cocaine was estimated to be around 77 percent (exhibit 13). The price of an ounce of crack cocaine was about \$500–\$600; the price of an ounce of powder cocaine was about \$480–\$650 (exhibit 14). Note that purity estimates in this report are based on relatively small numbers of seizures and should be considered with caution.

Heroin

ADHS/DBHS data indicated that primary heroin treatment episodes ($n=345$) in Maricopa County in 2007 slightly outnumbered cocaine episodes (exhibit 2). Counts of heroin treatment episodes declined in 2007 compared with 2006 (exhibit 15).

Heroin/opioid-related inpatient hospital admissions in Maricopa County were flat in 2007

(exhibit 4), as were heroin/opioid admissions in Pima County (Tucson area) (exhibit 5). In contrast, heroin/opioid hospital admissions in Arizona's rural counties rose in 2007 (exhibit 6).

Approximately 22 percent of the positive urine screening tests for adults in the Maricopa County Diversion Program (first quarter of 2008) involved opiates (including heroin), making them the second most common drug identified in those tests (exhibit 7). Among positive urine screens for the Maricopa County Juvenile Program, only about 3 percent involved opiates (exhibit 8). The percentage of positive tests for opiates among juveniles increased by approximately 2 percentage points from the third quarter of 2005 to the first quarter of 2008 (exhibit 9).

In 2007, 436 heroin items were reported to NFLIS—about one-sixth the number of methamphetamine items submitted, but substantially more than the number of items for any of the other opioids, including oxycodone and hydrocodone (exhibit 10). It was the fifth most common drug reported to DAWN *Live!* (exhibit 11). Heroin was among the three most common drugs mentioned in deaths as reported by the Maricopa ME (exhibit 12). In the fourth quarter of 2007, the average purity of heroin was estimated to be around 63 percent (exhibit 13). The price of an ounce of heroin was reported to range from \$1,000–\$2,000 (exhibit 14).

Other Opiates/Narcotics

In 2007, approximately 3 percent ($n=109$) of the treatment episodes in Maricopa County had opioids other than heroin/morphine identified as the primary drug of abuse (exhibit 2). Oxycodone and hydrocodone were the fifth and sixth most common items, respectively, reported by NFLIS (exhibit 10), as well as the fifth and sixth most common drugs mentioned in deaths as reported by the Maricopa ME (exhibit 12). They were the sixth and seventh most commonly identified drugs reported to DAWN *Live!* in 2007 (exhibit 11).

Methamphetamine/Amphetamines

The number of methamphetamine treatment episodes ($n=1,007$) in Maricopa County in 2007 was more than double that for any of the other illicit drugs, including cocaine, marijuana, and heroin/morphine (exhibit 2). The number of methamphetamine treatment episodes in 2007 was less than those reported in 2006 (exhibit 16).

After rising for multiple years and plateauing in 2006, amphetamine-related hospital admissions in Maricopa County declined in 2007 (exhibit 4). Amphetamine-related hospital admissions in Pima County and the rural counties also declined in 2007 (exhibits 5 and 6).

In the first quarter of 2008, about one in four positive urine screening tests for adults in the Maricopa County Diversion Program involved amphetamines, making it the most common drug identified in those tests (exhibit 7). Among urine screens for the Maricopa County Juvenile Program, detection of amphetamines was far less common than marijuana (THC—tetrahydrocannabinol) detection and about the same as that for cocaine (exhibit 8). The percentage of positive tests for amphetamines among juveniles was slightly lower in the first quarter of 2008 compared with the first quarter of 2007 (exhibit 9).

Methamphetamine was the second most common drug item submitted to NFLIS (exhibit 10). It was among the three most common drugs reported to DAWN *Live!* (exhibit 11). It was also among the three most common drugs mentioned in deaths as reported by the Maricopa ME (exhibit 12). In the fourth quarter of 2007, the average purity of an ounce of methamphetamine was estimated to be around 57 percent (exhibit 13). The price of an ounce of powder methamphetamine was \$600–\$2,000 in the fourth quarter of 2007 (exhibit 14).

Clandestine laboratory incidents in Arizona as reported to the National Clandestine Laboratory Database have been declining steadily since 2001, with only 25 incidents reported in 2007 (exhibit 17).

Marijuana

In 2007, 13 percent ($n=462$) of treatment episodes reported marijuana as the primary drug of abuse, slightly higher than heroin/morphine episodes (exhibit 2). Marijuana treatment episodes in Maricopa County declined in 2007 compared with 2006 (exhibit 18).

Approximately 21 percent of the positive urine screening tests for adults in the Maricopa County Diversion Program involved marijuana (exhibit 7). Among positive urine screens for the Maricopa County Juvenile Program, more than three-quarters of the tests involved marijuana (exhibit 8), making it the most common drug identified in those tests. The percentage of positive tests for marijuana changed little from the third quarter of 2005 to the third quarter of 2006 to the first quarters of 2007 and 2008 (exhibit 9).

Marijuana (cannabis) was the most common drug item submitted to NFLIS in 2007 (exhibit 10). The price of an ounce of marijuana was \$65–\$100 in the fourth quarter of 2007 (exhibit 14).

Club Drugs

Ecstasy (methylenedioxymethamphetamine or MDMA) was not identified in the urine screening tests for adults in the Maricopa County Diversion Program (exhibit 7). MDMA was relatively uncommon among ED admissions reported by DAWN *Live!* in 2007 (exhibit 11). Seventy-three items containing MDMA were reported to NFLIS in 2007 (exhibit 10).

Lysergic acid diethylamide (LSD) was not found in the urine screening tests for adults in the Maricopa County Diversion Program in the first quarter of 2008 (exhibit 7). LSD urine screening tests for the Juvenile Program were not reported. There were no reports of LSD items being submitted to NFLIS in 2007.

Phencyclidine (PCP)

PCP was not found in the urine screening tests for adults or juveniles in Maricopa County in the first

quarter of 2008 (exhibits 7 and 8). Nineteen items containing PCP were reported to NFLIS in 2007 (note that PCP items are not shown in exhibit 10).

Benzodiazepines/Barbiturates

Benzodiazepines were found in 4.2 percent of the urine screening tests for adults in the Maricopa County Diversion Program in the first quarter of 2008 (exhibit 7). No benzodiazepines or barbiturates were found in the urine screening tests of juveniles in the Maricopa County program (exhibit 8). Benzodiazepines were among the three most common drugs identified in the DAWN *Live!* ED visit system in 2007 (exhibit 11).

Other Drugs

The DEA reported the abuse of Soma® (carisoprodol) in combination with analgesic controlled substances, including Ultram® (tramadol) and Nubain® (nalbuphine). When used licitly, carisoprodol is commonly prescribed for the treatment

of injuries and other painful musculoskeletal conditions. Fifty-one items containing carisoprodol were reported to NFLIS in 2007 (exhibit 10). A small number of mortality cases in 2005–2007 mentioned carisoprodol (exhibit 12).

The DEA also reported that prescription controlled drugs are often smuggled into Arizona from Mexico. Prices for illicit prescription drugs are listed in exhibit 19.

HIV/AIDS

In Arizona, 5-year emergent HIV/AIDS rates related to injection drug use (IDU) appear to have declined slowly but steadily over the past several years (exhibit 20).

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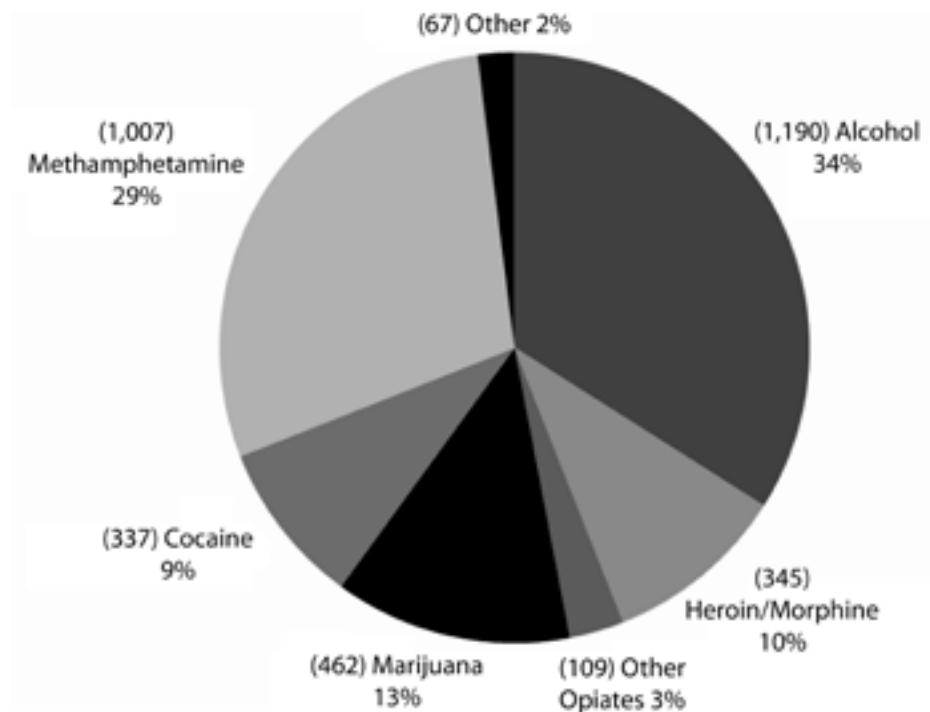
Exhibit 1. DAWN ED Sample and Reporting Information: January–December 2007

| CEWG Area | Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|-----------|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | | 90–100% | 50–89% | <50% | |
| Phoenix | 27 | 27 | 28 | 8–12 | 0–2 | 0–3 | 14–16 |

¹Short-term, general, non-Federal hospital with 24-hour EDs based on the American Hospital Association Annual Survey.

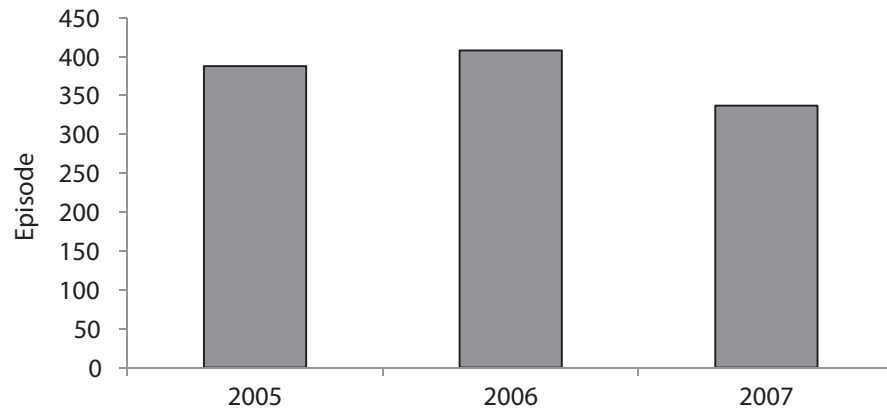
²Some hospitals have more than one ED.

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 5/7/2008

Exhibit 2. Maricopa County Treatment Episodes by Primary Substance Used: 2007

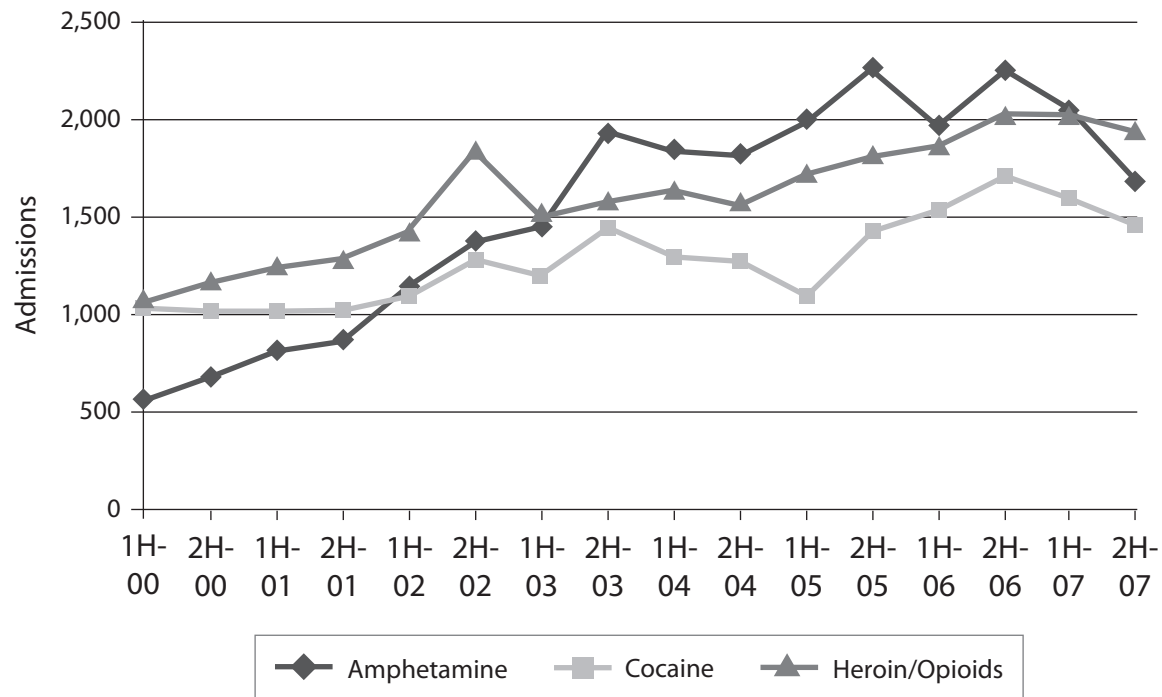
SOURCE: Arizona Department of Health Services

Exhibit 3. Cocaine Treatment Episodes in Maricopa County: 2005–2007



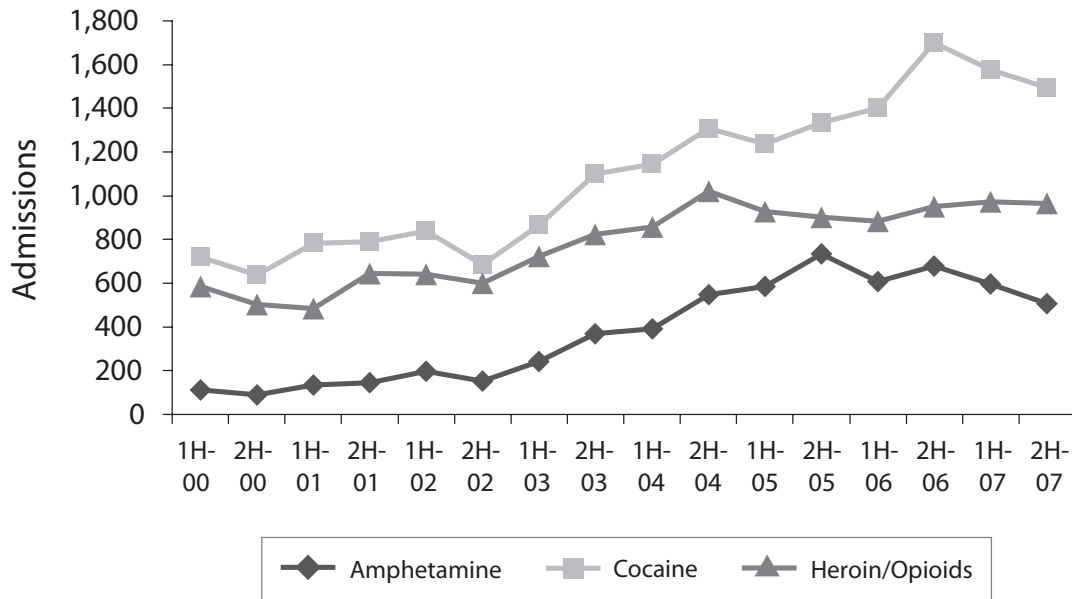
SOURCE: Arizona Department of Health Services

Exhibit 4. Maricopa County (Phoenix Area)—Amphetamine, Cocaine, and Heroin/Opioid-Related Hospital Admissions by First (1H) and Second Halves (2H) of the Year: 2000–2007



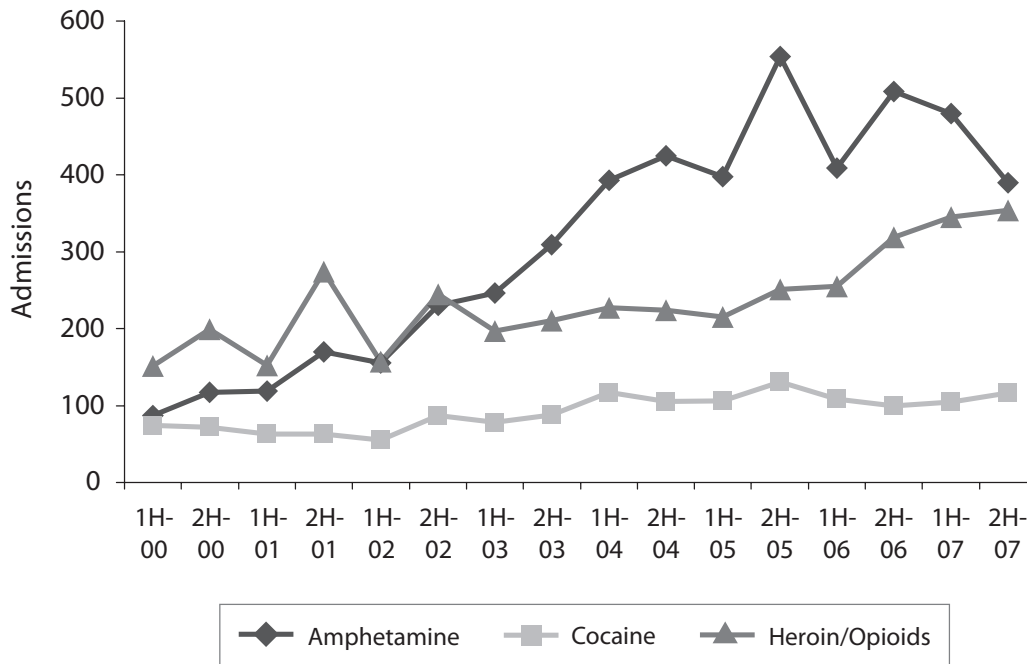
SOURCE: The University of Arizona, Department of Family and Community Medicine

Exhibit 5. Pima County (Tucson Area)—Amphetamine, Cocaine, and Heroin/Opioid-Related Hospital Admissions by First (1H) and Second Halves (2H) of the Year: 2000–2007



SOURCE: The University of Arizona, Department of Family and Community Medicine

Exhibit 6. Arizona Rural Counties—Amphetamine, Cocaine, and Heroin/Opioid-Related Hospital Admissions by First (1H) and Second Halves (2H) of the Year: 2000–2007



SOURCE: The University of Arizona, Department of Family and Community Medicine

Exhibit 7. Percentage of Positive Client Drug Tests among Adults in the Maricopa County Diversion Program: First Quarter of 2008

| Drug Test-Positive | Percent |
|--------------------|---------|
| Alcohol | 0.5 |
| Amphetamines | 27.1 |
| Barbiturates | 0.0 |
| Benzodiazepines | 4.2 |
| Cocaine | 13.2 |
| Ecstasy (MDMA) | 0.0 |
| ETG (Alcohol) | 9.2 |
| LSD | 0.0 |
| Opiates | 22.0 |
| PCP | 0.0 |
| Propoxyphene | 0.3 |
| THC (Marijuana) | 21.0 |

SOURCE: Treatment Assessment Screening Center, Inc.

Exhibit 8. Percentage of Positive Client Drug Tests among Participants in the Maricopa County Juvenile Program: First Quarter of 2008

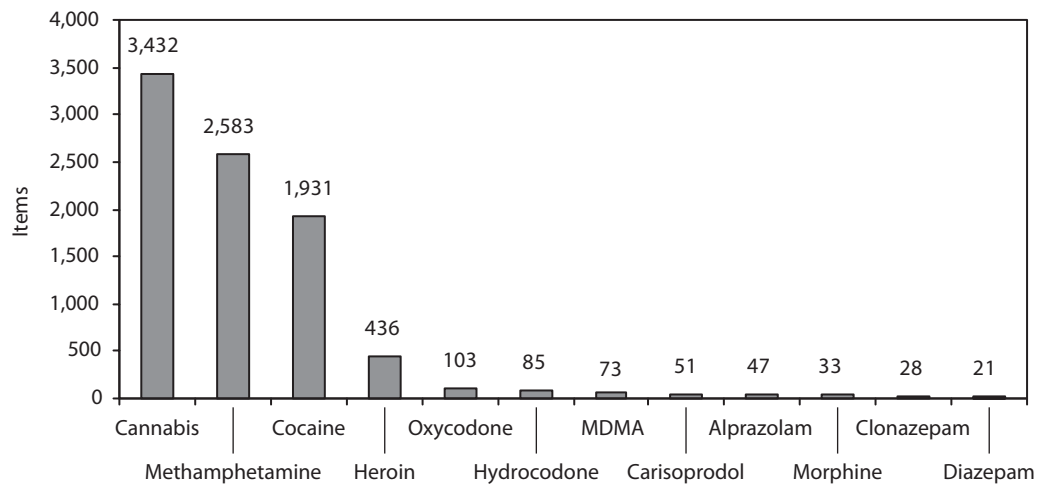
| Drug Test-Positive | Percent |
|--------------------|---------|
| Alcohol | 0.0 |
| Amphetamines | 7.3 |
| Barbiturates | 0.0 |
| Benzodiazepines | 0.0 |
| Cocaine | 8.2 |
| ETG (Alcohol) | 1.5 |
| Opiates | 3.2 |
| PCP | 0.0 |
| Propoxyphene | 0.0 |
| THC (Marijuana) | 79.8 |

SOURCE: Treatment Assessment Screening Center, Inc.

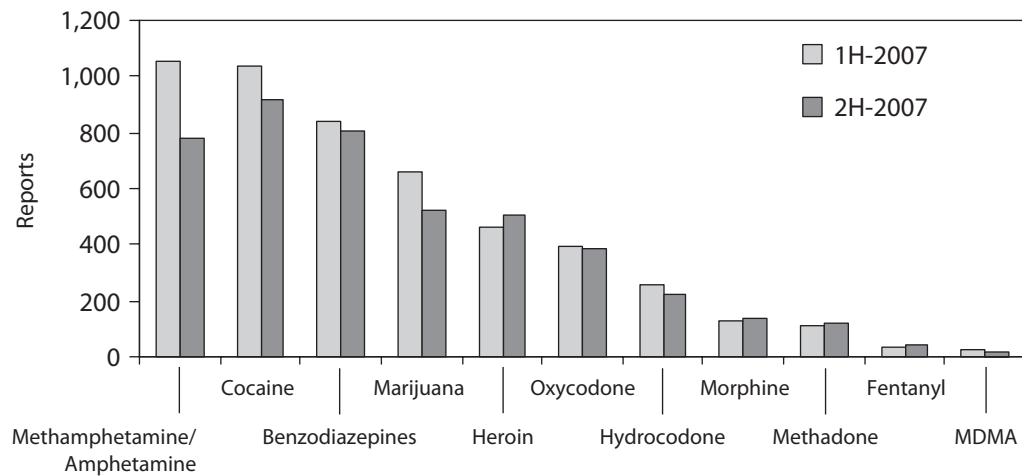
Exhibit 9. Type of Drug as a Percentage of Positive Screenings: Maricopa County Juvenile Program, 3Q 2005, 3Q 2006, 1Q 2007, and 1Q 2008

| Drug Test Positive | 3rd Quarter 2005 | 3rd Quarter 2006 | 1st Quarter 2007 | 1st Quarter 2008 |
|--------------------|------------------|------------------|------------------|------------------|
| Marijuana | 75.6 | 76.2 | 76.4 | 79.8 |
| Cocaine | 15.2 | 11.6 | 10.1 | 8.2 |
| Amphetamines | 7.9 | 10.4 | 10.5 | 7.3 |
| Opiates | 1.3 | 1.8 | 1.9 | 3.2 |

SOURCE: Treatment Assessment Screening Center, Inc.

Exhibit 10. Counts of Drug Items by Forensic Labs in Maricopa County: 2007

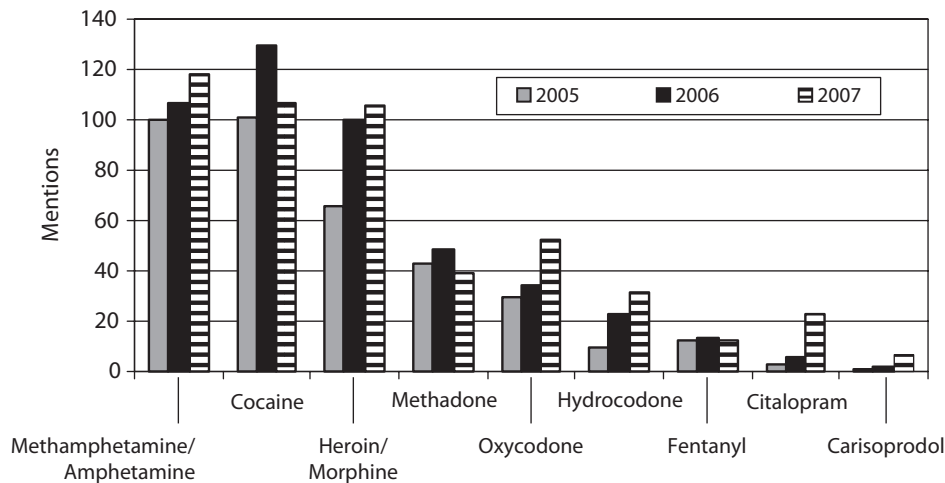
SOURCES: NFLIS, DEA

Exhibit 11. ED Visits from DAWN Live!: First Half (1H) and Second Half (2H) of 2007

¹The data were accessed on 5/7/08 and include raw counts from selected hospitals. These numbers do not constitute estimates of the total number of ED visits in the Maricopa County area. All DAWN cases are reviewed for quality control. Based on this review, cases may be corrected or deleted. Therefore, these data are subject to change.

SOURCE: DAWN Live!, OAS, SAMHSA

Exhibit 12. Drug Mentions in Mortality Cases in Maricopa County: 2005–2007



SOURCE: Maricopa County Medical Examiner (see qualifications of data noted at beginning of report)

Exhibit 13. Drug Purity in Maricopa County Area: Fourth Quarter of 2007

| Drug | Estimated Average Purity |
|-----------------|----------------------------|
| Cocaine | 77% (unspecified quantity) |
| Heroin | 63% (unspecified quantity) |
| Methamphetamine | 57% (ounce quantities) |

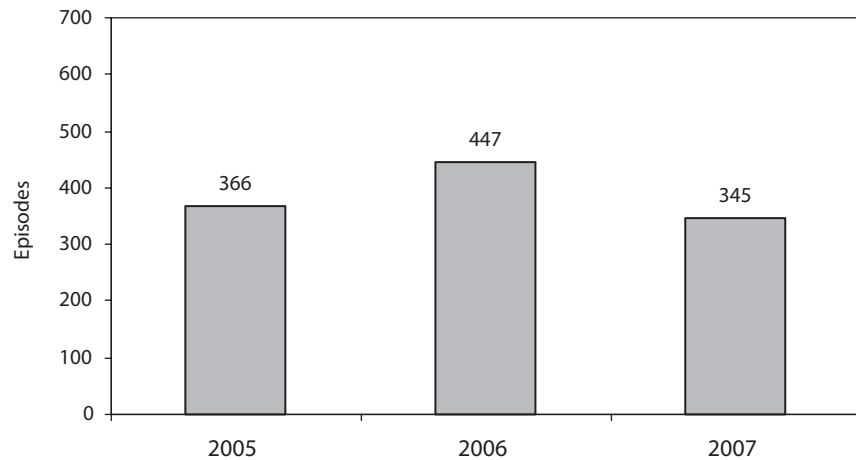
SOURCE: DEA Phoenix Field Division

Exhibit 14. Heroin, Methamphetamine, Cocaine, and Marijuana Retail Price Ranges per Ounce in Central/Southern Arizona Area: Fourth Quarter of 2007

| | Heroin | Powder Methamphetamine | Crack Cocaine | Powder Cocaine | Marijuana |
|-----------------|-----------------|------------------------|---------------|----------------|------------|
| Price per Ounce | \$1,000–\$2,000 | \$600–\$2,000 | \$500–\$600 | \$480–\$650 | \$65–\$100 |

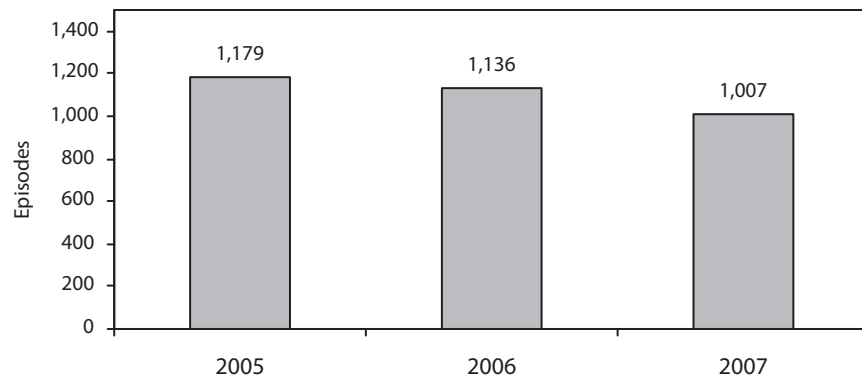
SOURCE: DEA Phoenix Field Division

Exhibit 15. Heroin Treatment Episodes in Maricopa County: 2005–2007



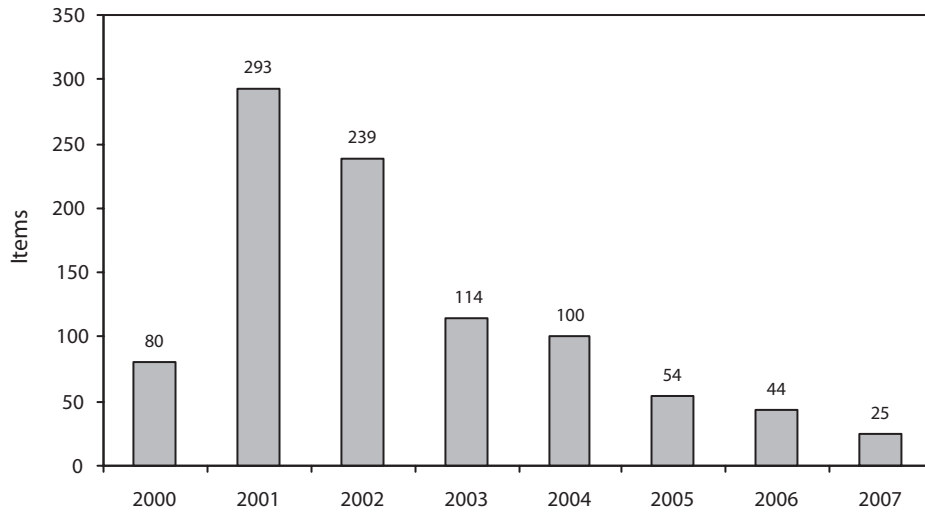
SOURCE: Arizona Department of Health Services

Exhibit 16. Methamphetamine Treatment Episodes in Maricopa County: 2005–2007



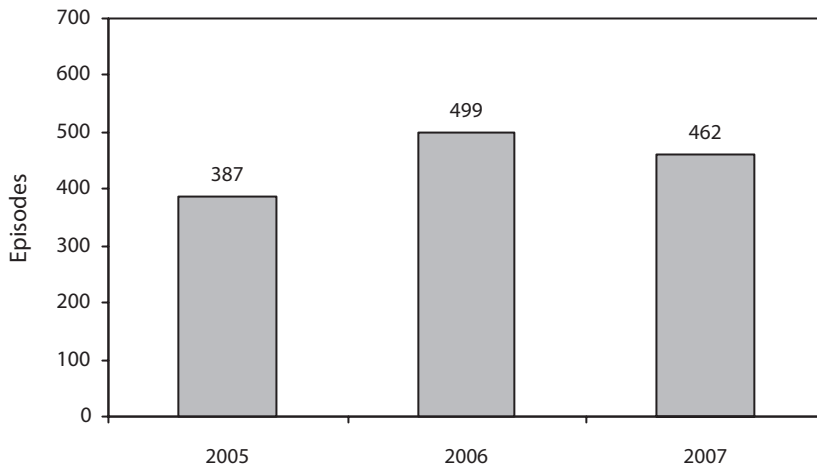
SOURCE: Arizona Department of Health Services

Exhibit 17. Methamphetamine Clandestine Laboratory Incidents (Including Labs, Dumpsites, Chemical/Glass/Equipment) in Arizona: 2000–2007



SOURCE: National Clandestine Laboratory Database, DEA

Exhibit 18. Marijuana Treatment Episodes in Maricopa County: 2005–2007

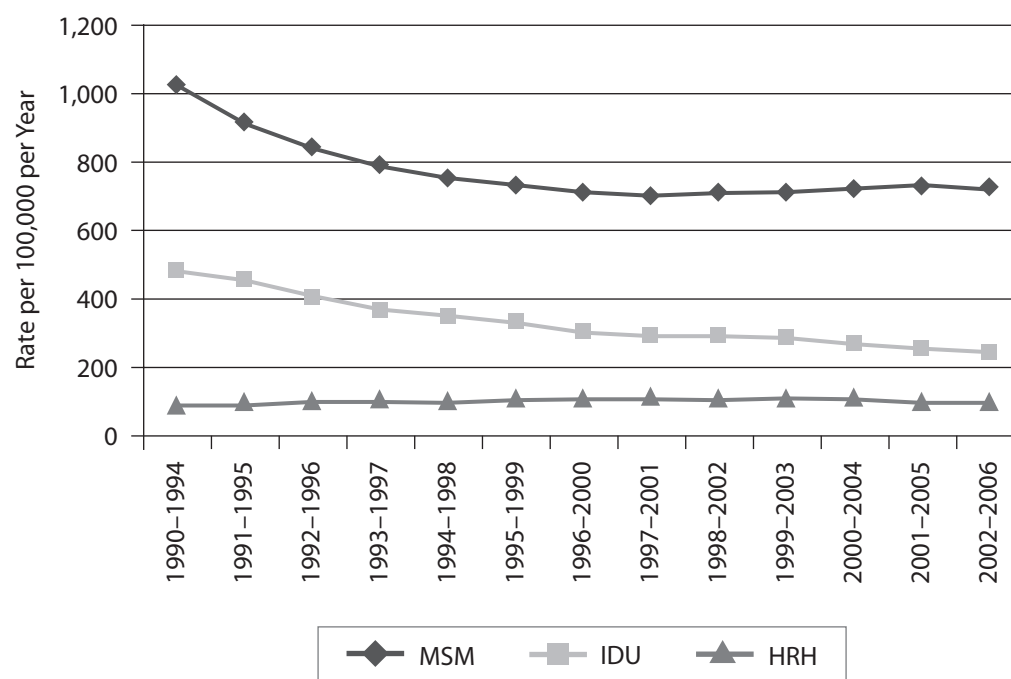


SOURCE: Arizona Department of Health Services

Exhibit 19. Street Prices for Illicit Prescription Drugs in the Maricopa County Area: Fourth Quarter of 2007

| Drug | Price per Tablet |
|---------------------------|------------------|
| OxyContin®, 80 milligrams | \$20–\$80 |
| OxyContin®, 40 milligrams | \$20–\$25 |
| Percocet® | \$5 |
| Vicodin ES® | \$5 |
| Valium®, 10 milligrams | \$4 |
| Lortab®, 10 milligrams | \$5–\$6 |
| Soma® | \$2–\$5 |

SOURCE: DEA Phoenix Field Division

Exhibit 20. Five-Year Emergent HIV/AIDS Rates per 100,000 Population in Arizona, by Reported Risk: 1990–2006¹¹MSM=Men who have sex with men; IDU=Injection drug user; HRH=High-risk heterosexual activity.

SOURCE: Arizona Department of Health Services

Patterns and Trends in Drug Abuse in St. Louis

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and Jim Topolski, Ph.D.²

ABSTRACT

Methamphetamine use has stabilized in St. Louis and no longer produces the statewide clandestine laboratory issues discussed in previous reports. Legislation has reduced access to pseudoephedrine-based cold medications, resulting in a reduction in clandestine lab activity. Clandestine lab incidents dropped more than 42 percent in the St. Louis metropolitan statistical area (MSA) from 2005 to 2007. However, access to methamphetamine from Mexico and the Southwest is considered to be the major component of the methamphetamine problem in the city and county of St. Louis and the surrounding five Missouri counties, but not nearly as significant a problem as the methamphetamine "ice" that is available in Kansas City. Treatment admissions in the St. Louis area for methamphetamine abuse decreased 20.7 percent from 2006 to 2007. A problem of immediate concern is both the heroin availability and use of prescription opiates. It is clear that heroin activity has become more widespread. Three types of heroin are currently available in the St. Louis MSA. St. Louis area admissions for the treatment of heroin abuse increased 11.2 percent from 2006 to 2007, and admissions of clients abusing other opiates increased 342 percent during the same period although the total number was only 190. Crack/cocaine continued to be the major stimulant problem in the area, but most indicators have remained relatively stable or down. Treatment

admissions were down slightly for powder cocaine (4.8 percent) and also down for clients smoking crack/cocaine (16.6 percent). However, preliminary death data for St. Louis City and County show a marked upturn. Marijuana indicators were relatively stable. Club drug abuse continued to be sparse and anecdotal reports of increasing MDMA abuse have not yet been substantiated. In the St. Louis area, less than 5 percent of HIV cases had a risk factor of injection drug use (IDU) with most new cases identified among men who have sex with men (MSM) (79.2 percent) or heterosexual contact (15.7 percent).

INTRODUCTION

Area Description

The St. Louis metropolitan statistical area (MSA) includes approximately 2.7 million people and is the 18th largest MSA in the country. Most of the population lives in the city of St. Louis and St. Louis County; others live in the surrounding rural Missouri counties of Franklin, Jefferson, Lincoln, St. Charles, and Warren. Recent redefinition of the MSA has resulted in an area that includes a total of eight Missouri counties and eight Illinois counties, reflecting the population sprawl since the last census. St. Louis City's population continued to decrease to less than 350,000, many of whom were indigent and minorities. However, recent increases to the city's population have been noted. Most crime statistics for the city decreased in 2007, except for homicides, which increased 7 percent and which have increased in the first 5 months of 2008. St. Louis County, which surrounds St. Louis City, has more than 1 million residents, many of whom fled the inner city. The county is a mix of established affluent neighborhoods and middle and lower class housing areas on the north and south sides. The most rapidly expanding population areas are in St. Charles and Jefferson Counties in Missouri and St. Clair and Madison Counties in southern Illinois, which have a mixture of classes and both small towns

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and farming areas. The populations in these rural counties total more than 800,000. Living conditions and cultural differences between the urban and rural areas have resulted in contrasting drug use patterns.

Much of the information included in this report is specific to St. Louis City and County, with caveats that apply to the total MSA. Anecdotal information and some treatment data were provided for rural areas and for the State. Although data was limited for other parts of Missouri and most of the Illinois counties, it offered a contrast to the St. Louis drug-use picture.

Policy Issues

Methamphetamine production and use has been a major concern for both law enforcement and the State legislature. In 2005, the State legislature took bold moves to require precursor drugs, such as pseudoephedrine, that are sold in local retail stores to be locked up or placed behind pharmacy counters. This policy has slowed local producers, but high rates of methamphetamine use continue for several reasons. First, the policy does not address the major source of methamphetamine in the Midwest—Mexico. Increasing availability of Mexican “ice” from the southwestern region of the country has maintained the drug supply. Second, the legislation requires purchasers of products containing pseudoephedrine to sign log books documenting the transaction. Currently, there is no electronic database of these log entries, although there is pending legislation to establish such a database (SB 732/HB 1619). A buyer purchasing products at multiple pharmacies that do not have computer tracking systems cannot be readily detected. There is some evidence that local cooks may be collaborating and pooling resources. Illinois recently passed similar legislation addressing access to pseudoephedrine. Attention to methamphetamine has masked ongoing problems with cocaine, opiates, and marijuana.

Missouri has been in a budget crisis for years, resulting in cuts in services, particularly in health services, including drug treatment and mental

health. Limited treatment continues to be available for drug abusers. The addiction model as understood through experience and research has shown that treatment services are cost effective to both society and the individual, yet the trend is to offer these services on a limited outpatient basis. The result is that some of these indicators do not fully reflect the degree of use or abuse of the substances tracked.

While Missouri maintains its State Epidemiology Work Group (SEWG), an additional work group has been created as part of the Strategic Prevention Framework—the State Incentive Grant (SPF-SIG) sponsored by the Center for Substance Abuse Prevention. Hopefully, this work group will provide additional perspectives for future reports. In addition, there are a number of research projects being conducted in the area that may soon provide useful information about drug trends.

Data Sources

The sources used in this report are listed below:

- **Drug treatment data** were derived from the Treatment Episode Data Set (TEDS) database for calendar year (CY) 2007. Private treatment programs in St. Louis County provided anecdotal information.
- **Heroin price and purity information** was provided by the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), through 2006.
- **Drug-related mortality data** were provided by the St. Louis City and County Medical Examiner’s (ME’s) Office for CY 2007.
- **Intelligence data** were provided by the Missouri State Highway Patrol; Aubrey Grant, Program Specialist/Policy Bureau, Office of the Illinois Attorney General; and the DEA.
- **Data on drug seizures** were provided by the National Forensic Laboratory Information System (NFLIS) for 2007.

- **Toxicology laboratory drug testing results** for probation and parole offenders were provided by the Missouri Department of Corrections for 2007.
- **Human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and sexually transmitted disease (STD) data** were derived from the St. Louis Metropolitan Health Department and the Missouri Department of Health and Senior Services for 2007.
- **Uniform Crime Report data** for Missouri counties and **Missouri clandestine methamphetamine lab incidents** were provided by the Missouri State Highway Patrol for 2007.
- **Clandestine methamphetamine incidents for Illinois for 2007** were provided by the DEA and by the Illinois State Highway Patrol.

The number of hospitals in the St. Louis area reporting to the Drug Abuse Warning Network (DAWN) *Live!* system was insufficient to produce reliable and valid emergency department estimates for the city. It is hoped that another source of hospital emergency room, admissions, or discharge data will be found in the future to fill this information gap.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine indicators are stable in St. Louis. While methamphetamine has become a prominent drug of abuse in other cities and in the rural areas of Missouri, cocaine has retained its dominance in the St. Louis urban area. Possible reasons for this situation include racial differences, with Caucasians using methamphetamine and African Americans using cocaine, and the strong influence of the distribution networks. The distribution of cocaine and heroin is primarily conducted by African Americans. Most of the methamphetamine is imported into St. Louis from Mexico.

Three types of heroin have continued to be available in the area, but the heroin is not as pure

and is more expensive when compared with other cities. St. Louis is a destination market, with small entrepreneurial groups marketing the drug. Heroin is available in the suburbs and in some of the surrounding rural areas on a limited basis, illustrating that the drug is not confined to the lower socioeconomic strata in the city. St. Louis was one of several cities affected by the availability of heroin/fentanyl combinations. There were numerous media reports of overdoses attributed to fentanyl-laced heroin in 2006. Publicly available indicators verifying these deaths as related to fentanyl were difficult to obtain and recent fentanyl-related deaths have been attributed to diversion of prescription fentanyl patches.

Drug education and prevention activities have continued at the community level. The National Council on Alcoholism and Drug Abuse (NCADA) and other local education programs target prevention of drug use in the area. Faith-based initiatives are also involved in prevention. These groups are particularly active in the surrounding counties of St. Louis. The poor city economy continues to foster drug abuse and distribution. Marijuana continues to be a very popular drug of abuse among younger adults. Gangs continue to be involved in the drug trade and related violence, with Latino, African American, and Asian youth and young adults involved in these groups. Interdiction programs include Operation Jetway and Operation Pipeline.

While not reported separately, alcohol abuse and underage use of alcohol continue to be community concerns. Many traffic accidents and personal violence incidents include alcohol use in the situation. In St. Louis in 2007, 25.7 percent of treatment admissions were for alcohol alone, and alcohol used in combination with other drugs accounted for another 10.0 percent of treatment admissions.

With the severe cuts in services in the State, treatment admissions data, an important indicator of longer-term use of drugs, may not accurately reflect the severity of the drug abuse problem. However, the data are indicative of the

relative prevalence of abuse of substances in the region.

Crack/Cocaine

The preliminary ME data report for 2007 for the St. Louis area showed that cocaine was the most cited drug, with 110 mentions in the city and 52 in the county. In 2006, cocaine accounted for 42 deaths in these two areas (exhibit 1). These 2007 data are preliminary and should be interpreted with caution until verified.

Among treatment admissions for illicit drug abuse in 2007, the number for primary cocaine abuse reflected a 16.6-percent decrease compared with 2006 admissions for crack abuse and a decrease of 4.8 percent in admissions for abusers of powder cocaine during the same time period. After alcohol and alcohol in combination, cocaine remained the most common primary drug of abuse among all admissions (22.8 percent), followed by marijuana (20.3 percent) and heroin (15.5 percent) (exhibit 1). In 2007, males constituted 56.6 percent and females represented 43.4 percent of cocaine admissions. Admissions for African Americans (71.3 percent) were more than two and one-half times the proportion for White cocaine abusers (26.9 percent). Most clients were age 35 or older (76.3 percent). Marijuana and alcohol were the most frequently cited secondary and tertiary drugs of abuse.

Although the DEA's emphasis has shifted from cocaine to methamphetamine and heroin, law enforcement sources, the DEA, and street informants continued to report high quality, wide availability, and low prices for cocaine. In December 2007, the National Drug Intelligence Center (NDIC) reported cocaine prices for St. Louis. Crack prices ranged from \$20–\$100 per rock (exhibit 2) on the street corner. Historically, the price has been closer to the lower end of the range so this may reflect an increase in price. All cocaine in St. Louis is initially in powder form and is converted to crack for distribution. Cocaine was readily available on the street corner in rocks or grams. The price of a rock of crack in Kansas

City was lower at \$15–17. The rock price was the same in smaller cities outside St. Louis when it is available, but the gram price was higher.

NFLIS data indicated that 3,752 (22.5 percent) drug items analyzed in 2007 for the St. Louis MSA were cocaine. This placed cocaine as the second most frequently identified substance in the NFLIS program during the calendar year.

The Missouri Department of Corrections probation and parole toxicology data indicated that the Kansas City Region had the highest percent of positive cocaine toxicology screens among its corrections population (34.2 percent) in 2007. St. Louis City (33.5 percent) and St. Louis County (30.2 percent) demonstrated similar percentages, but as expected, the more rural correctional institutions and offices in the Eastern Region showed a smaller percentage of positive screens for cocaine (17.7 percent). These percentages were down slightly but may reflect the addition of other substances in the testing pool starting in the second half of 2006.

The continued use of cocaine has potentially severe long-term consequences by contributing to the spread of STDs through multiple partners. Crack/cocaine is considered to be a primary risk for HIV in many research trials.

Most cocaine users reported smoking crack/cocaine, though some used powder cocaine. Eighty-eight percent of primary cocaine abusers admitted for treatment in 2007 smoked the drug. Only injection drug users (IDUs) who combine cocaine and heroin ("speedball") use cocaine intravenously. Younger users tended to smoke cocaine. Polydrug use was also evident in the treatment data. The reported use of marijuana, heroin, and alcohol in addition to cocaine suggests this trend will likely continue.

Heroin

The preliminary ME data report for 2007, covering St. Louis and St. Louis County, identified 29 deaths as involving heroin. In 2006, heroin accounted for 47 deaths in St. Louis. While available primarily in the St. Louis and Kansas City areas, heroin was

also found in small pockets of IDUs residing in small university towns throughout the State, and in small rural towns along major highways in the Missouri/Illinois St. Louis MSA. Heroin consistently appeared in all indicators (exhibit 1). St. Louis had been one of several cities experiencing a sharp rise in opiate (including heroin) overdose deaths in 2006—many attributed to fentanyl use. Since then, the problem has gained the attention of prevention, treatment, and law enforcement.

While heroin treatment admissions increased dramatically as a proportion of all admissions between 1996 and 2000, they leveled off in 2001–2003. However, admissions increased 15.5 percent from 2006 to 2007. Admissions to some available treatment depended on ability to pay. Some heroin abusers in need of treatment utilize private pay methadone programs. Rapid detoxification, using naltrexone or buprenorphine, is still a treatment option at private centers, but it is expensive. Twenty-seven percent of heroin admissions in 2007 were 25 years old or younger. Of the methods of administration, inhalation accounted for 41.4 percent of the admissions, while injection use was 55.8 percent (exhibit 1). The increased availability of higher purity, and the resulting ability to either snort or smoke the heroin, has led to a wider acceptance of the drug in social circles.

In 2007, males accounted for 55.5 percent and females represented 44.5 percent of heroin admissions. Admissions for African Americans (47 percent) were less common than those for White heroin abusers (50.4 percent). Most admissions were younger than 35 (67.6 percent) (exhibit 1). Cocaine and marijuana were the most frequently cited secondary and tertiary drugs of abuse. Most persons entering treatment referred themselves or were referred by the courts.

A steady supply of Mexican heroin remained available; both the DEA and DMP made heroin buys in the region. Mexican black tar heroin showed a peak of 24.0-percent purity in 1998; purity dropped to 19.0 percent in 2006. South American (Colombian) heroin averaged around 17.6 percent. Southwest Asian heroin had a purity

of 16.0 percent. While these purities were lower than many cities, the consistent higher purity allowed for expansion into a larger market where a more conventional method of administration can be used. Most heroin was purchased in aluminum foil or the number-5 gel capsule (one-tenth-gram packages of heroin in plastic wrap and aluminum foil) for \$10 (exhibit 2).

The city is an end-user market and is dependent on transportation of the heroin from points of entry into the Midwest. The wholesale price remained at \$100–400 per gram (exhibit 2), depending on heroin type. On street corners, heroin now sells for \$180–225 per gram, according to a recent NDIC report. Most business is handled by cellular phone, which has decreased the seller's need to have a regular location. Runners continue to be used as middlemen between users and sellers to deliver small quantities of the drug. In St. Louis and other smaller urban areas, small distribution networks sell heroin.

NFLIS reported that 6.2 percent of the items analyzed in 2007 were heroin. The Missouri Department of Corrections probation and parole toxicology data indicated that the St. Louis area reporting offices had higher percentages of positive opiate screens by Kansas City offices (8.1 percent). Results for the Eastern Region in 2007 indicated that 21.4 percent of the positive screens by St. Louis probation and parole offices indicated opiate use. In St. Louis County, the percentage of positive screens identifying opiates was similar, at 19.4 percent. Positive screens by probation and parole offices in surrounding Missouri counties showed 18.5 percent positive for opiates. It is important to remember that positive screens for opiates might indicate use of any of the opiate-type drugs: heroin, illegally obtained narcotic analgesics, or legitimate use of narcotic analgesics.

Kansas City's heroin supply differed from that of St. Louis. Most heroin in Kansas City was black tar and is typically of poorer quality. White heroin did not appear to be available in the Kansas City metropolitan area.

Other Opiates/Narcotics

Other opiates represented slightly less than 2 percent of all treatment admissions in 2007. However, the 190 admissions for abuse of other opiates represented a 342-percent increase in the number of admissions for this class of drug. While the gross number of admissions was not great, the large increase reflected an upward trend in the abuse of narcotic analgesics, both licit and illicit. Methadone remained available, most likely due to prescription abuse as well as patient diversion. NFLIS data for 2007 indicated that hydrocodone (1.2 percent of samples identified) and oxycodone (1.1 percent) were the two most frequently analyzed opiates following heroin and were the seventh and eighth most frequently identified substances in the St. Louis MSA NFLIS report.

OxyContin® (a long-lasting, time-release version of oxycodone) abuse remained a concern for treatment providers and law enforcement officials. Prescription practices were closely monitored for abuse, and isolated deaths have been reported, but no consistent reports were available on the magnitude of this potential problem. OxyContin® was \$40 for an 80-milligram tablet on the street. The use of hydromorphone remained common among a small population of White chronic addicts. The drug was \$50–\$80 per 4-milligram pill (exhibit 2).

Marijuana

Marijuana treatment admissions more than doubled from 1997 (1,573 admissions) to 2001 (3,210 admissions), possibly reflecting the increased utilization of the treatment system by the criminal justice system. Admissions in 2007 accounted for 20.3 percent of all admissions in the St. Louis region (exhibit 1). Those admissions were lower than the number in 2006 by 10.6 percent. Marijuana, viewed by young adults as acceptable to use, was often combined with alcohol. Almost two-thirds of clients admitted to treatment were referred by the courts. The 25-and-younger age

group accounted for 58.2 percent of primary marijuana treatment admissions in 2007. Some prevention organizations reported a resurgence in marijuana popularity, and a belief by users that it is not harmful. Prevention programs were targeting this belief through education.

Because of the heroin, cocaine, and methamphetamine abuse problems in St. Louis, law enforcement officials have focused less attention on marijuana abuse. Limited resources required establishing enforcement priorities. Often, probation for younger marijuana offenders who did not identify themselves as drug dependent required participation in treatment.

Marijuana was available from Mexico or domestic indoor growing operations. Marijuana from Mexico was classed as lower grade and less expensive (\$40–50/oz), all indoor-grown marijuana was a higher grade and more expensive (\$350–400/oz) as reported by the NDIC. Mexican marijuana is cheaper in the Kansas area, selling for \$20–40/oz. Indoor production makes it possible to produce marijuana throughout the year. In addition to the Highway Patrol Pipeline program, which monitors the transportation of all types of drugs on interstate highways, Operations Green Merchant and Cash Crop identify and eradicate crops. Much of the marijuana grown in Missouri is shipped out of the State. NFLIS reported that more than one-half of all items identified (51.4 percent) in the St. Louis MSA in 2007 were cannabis samples. This was the most frequently identified substance for the area.

The Missouri Department of Corrections probation and parole toxicology data results for the Eastern Region reported that the percentage of positive screens indicating marijuana use at probation and parole offices was relatively consistent in the offices in the city of St. Louis (60.0 percent of positive screens), in St. Louis County (55.7 percent), and in the surrounding Missouri counties (47.9 percent). Marijuana was the most frequently identified substance statewide and showed consistently high levels of detection in the screening program.

Stimulants

Methamphetamine, along with alcohol, remained a primary drug of abuse in both the outlying rural areas and statewide (most of Missouri, outside of St. Louis and Kansas City, is rural). Methamphetamine continued to be identified as a huge problem in rural communities.

Methamphetamine (“crystal” or “speed”) was found at very low levels in city indicators in 1995, but reported use has slowly increased over the last nine years. In rural areas, methamphetamine appeared regularly in the treatment data, but methamphetamine has been identified as a problem in all parts of the State. The urban, street-level distributors in St. Louis are more likely to deal in cocaine, so methamphetamine use was not as widespread in the St. Louis area. This could also indicate differences in dealing networks and access. However, an increase in availability and purity of Mexican methamphetamine and a growth in Hispanic groups in the St. Louis metropolitan area may change this trend in the future. With the recent pseudoephedrine-access laws, these sources may replace homegrown supplies. Methamphetamine use was reported in the gay male and club communities in the city. However, treatment admissions dropped by 16.6 percent from 2006 to 2007 (exhibit 1). Traditionally, cocaine and methamphetamine use have been split along racial lines in the State. However, preliminary data for 2007 indicated that of the eight deaths attributed to methamphetamine, three were African American males. The number of methamphetamine treatment admissions in St. Louis was 256 (2.5 percent of total admissions) in 2007. In rural treatment programs, methamphetamine was the drug of choice after alcohol.

In 2007, the percentage of males entering treatment was slightly higher than the percentage of females (53.5 vs. 46.5) (exhibit 1). Admissions for African Americans were almost nonexistent (1.2 percent); 97.3 percent of admissions were White methamphetamine abusers. Most clients admitted were age 26–34 (41.8 percent) or 35 and older (42.2 percent), reflecting a younger population

of users entering treatment than cocaine and heroin abusers, but slightly older than the most frequently reported age group entering for marijuana abuse. Marijuana and alcohol were the most frequently cited secondary and tertiary drugs of abuse. Clients entering treatment were typically referred by the courts or self-referred.

The DEA Midwest Field Division decreased its cleanup of clandestine methamphetamine labs after training local enforcement groups. Data for 2007 indicated that recent legislation has had an impact on the number of clandestine lab incidents, which fell to approximately 1,189 statewide. In the St. Louis MSA, the number of clandestine laboratory incidents decreased to 503 in 2007, down from 868 in 2005. This decrease in incidents was attributed to Senate Bill 10, the pseudoephedrine control law in effect as of July 14, 2005. During the first full month of implementation, methamphetamine incidents (chemicals, glassware, dumpsites, and operational labs) decreased 54 percent compared with the same month in 2004. However, the number of lab incidents had started to fall prior to implementation of Senate Bill 10. This may be related to the increased availability of higher potency ice imported from Mexico and the Southwestern region of the country.

In the current methamphetamine scene, Hispanic traffickers are the predominant distributors. Shipments from “super labs” in the Southwest are trucked in via the interstate highway system. This network is in contrast to the old local “mom and pop” labs that fueled much of the methamphetamine debate in the State over the past 10 years. Most of the currently available methamphetamine is produced in Mexico and trafficked through the Hispanic traffickers. The purity of the methamphetamine obtained through this source has improved in recent years. While much of the law enforcement resources and personnel are directed at local production, most of the methamphetamine that is available in the area comes through the Hispanic organizations. Crystallized methamphetamine has been noted in the local market, usually indicating increased purity in the

product; this crystalized form, or ice, was readily available in Kansas City.

Mexican ice sold for \$1,500 per ounce in St. Louis at the midlevel and for as little as \$100 per gram in the Kansas City area (exhibit 2). Methamphetamine was represented in 4.5 percent of the NFLIS analyses in 2007, the fourth most frequently identified substance in the St. Louis MSA. Pseudoephedrine was 1 percent of the identified substances during this period.

The Missouri Department of Corrections probation and parole toxicology data indicated that the Southwest Region had the highest percentage of positive tests for amphetamines among this population. Results for the Eastern Region are indicative of the diversity of amphetamine use in the area, with a lower percentage of positive screens identifying amphetamine in the city of St. Louis (4.4 percent) and a higher percentage of positive screens (16.6 percent) identifying the drug in the five Missouri counties surrounding St. Louis City and County. Because methamphetamine is so inexpensive and appeals to a wide audience, it is likely that its use will continue.

Depressants

The remaining few private treatment programs in the State often provide treatment for benzodiazepine, antidepressant, and alcohol abusers. Social setting detoxification has become the treatment of choice for individuals who abuse these substances. Since many of the private treatment admissions are polysubstance abusers, particular drug problems are not clearly identified.

Hallucinogens

Over the years, lysergic acid diethylamide (LSD) has sporadically reappeared in local high schools and rural areas. Blotters sell for \$20 per 50-microgram dose (exhibit 2).

Phencyclidine (PCP) has been available in limited quantities in the inner city and has generally been used as a dip on marijuana joints. While PCP was not seen in quantity, it remained

in most indicator data and police exhibits and as a secondary drug in ME data. Few items (0.34 percent) were identified in 2007 as PCP by NFLIS. The Missouri Department of Corrections probation and parole toxicology data indicated that the Kansas City area (15.9 percent of positive screens) had the highest percentage of positive tests for PCP among this population followed by the city of St. Louis offices at 3.9 percent of positive drug screens. PCP appeared to be more readily available and used in Kansas City. Most of the users of this drug in the inner city were African American.

Club Drugs

Methylenedioxyamphetamin (MDMA) accounted for 2.9 percent of items identified in the 2007 NFLIS for St. Louis. The 483 items analyzed ranked fifth among all substances analyzed in St. Louis MSA laboratories. Reports of other club drugs were almost nonexistent, with few items analyzed in 2007. The number of items identified as MDMA may support anecdotal reports of a resurgence of this substance in the St. Louis area. NDIC reported retail prices of \$10–12 per tablet, up slightly from the last report of \$10 per tablet. The DEA reported that local distributors received this substance from suppliers in California, Florida, New York, Texas, and Washington.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV

New seropositive HIV cases among IDUs remained low in the St. Louis HIV Region, which includes St. Louis City and County and Franklin, Jefferson, St. Charles, Lincoln, and Warren Counties. The predominant number of new HIV cases occurred among men who have sex with men (MSM) (79.2 percent), followed by cases resulting from heterosexual contact (15.7 percent). The largest increases were found among young African American females, who were infected through

heterosexual or bisexual contact, and young homosexual African American males. Of new HIV cases in the St. Louis Region, African American women (13.6 percent) and African American men (49 percent) accounted for more than one half of new cases. As a result, increased specialized minority prevention efforts were initiated.

Of the total cases of those living with AIDS in the St. Louis region (2,554), the same primary exposure categories are reflected—MSM, 69.8 percent and heterosexual contact, 17.8 percent. Injection drug use is noted in less than 5 percent of HIV cases and less than 7 percent of AIDS cases.

STDs and Hepatitis C

A resurgence of syphilis among MSMs has led to increased surveillance and targeted prevention programs for this population. In 2007, in the St. Louis region, 89 new cases of primary and secondary syphilis cases were reported with case rates among African Americans at 18.8 per 100,000 population. This rate was exceeded by the case rate for the same population in the Kansas City region equal to 29.4 per 100,000 population. These rates have climbed steadily since the turn of the century. Rates of gonorrhea and chlamydia remained stable and high in the urban STD clinics. St. Louis had more than one-half of the

State's gonorrhea cases (5,069 of 9,876) during the year and almost one-half of the State's chlamydia cases (10,276 out of 23,208). Syphilis/gonorrhea rates were high in neighborhoods known to have high levels of drug abuse, underscoring the concept of assortative mixing in cohorts. In the St. Louis Region, there were 137 cases of Hepatitis B, and 1,012 cases of Hepatitis C reported in 2007. Exhibits 3 and 4 include historic HIV and Hepatitis C data for the immediate St. Louis City area, but not the St. Louis HIV Region.

REFERENCE

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Exhibit 1. Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 1996–2007

| Indicator | Cocaine | Heroin | Marijuana | Methamphetamine |
|---|---------|--------|-----------------|-----------------|
| Number of Deaths by Year | | | | |
| 1996 | 93 | 51 | NA ¹ | 9 |
| 1997 | 43 | 67 | NA | 11 |
| 1998 | 47 | 56 | NA | 9 |
| 1999 | 51 | 44 | NA | 4 |
| 2000 | 66 | 47 | NA | 9 |
| 2001 | 75 | 20 | NA | 3 |
| 2002 | 76 | 50 | NA | – |
| 2003 | 78 | 61 | NA | – |
| 2004 | 38 | 64 | NA | – |
| 2005 | 106 | 31 | NA | – |
| 2006 ² | 42 | 47 | NA | – |
| Treatment Admissions Data | | | | |
| Percent of All Admissions (2007) | 22.8 | 15.5 | 20.3 | 2.5 |
| Percent of All Admissions (2006) | 25.6 | 13.2 | 22.7 | 3.0 |
| Gender (%) (2007) | | | | |
| Male | 56.6 | 55.5 | 75.1 | 53.5 |
| Female | 43.4 | 44.5 | 24.9 | 46.5 |
| Age (%) (2007) | | | | |
| 12–17 | 0.5 | 0.6 | 27.7 | 1.6 |
| 18–25 | 5.2 | 26.4 | 30.5 | 14.5 |
| 26–34 | 18.0 | 40.6 | 23.9 | 41.8 |
| 35 and older | 76.3 | 32.4 | 17.9 | 42.2 |
| Race/Ethnicity (%) (2007) | | | | |
| White | 26.9 | 50.4 | 42.0 | 97.3 |
| African American | 71.3 | 47.0 | 55.8 | 1.2 |
| Hispanic | 0.8 | 1.3 | 1.1 | 0 |
| Route of Administration (%) (2007) | | | | |
| Smoking | 88.0 | 1.8 | 95.6 | 55.1 |
| Intranasal | 7.8 | 41.4 | 0.3 | 13.7 |
| Injecting | 1.2 | 55.8 | 0.1 | 26.2 |
| Oral/other | 3.0 | 1.0 | 4.0 | 5.0 |

¹NA=Not applicable.

²St. Louis City/County Medical Examiner's Office Data for 2006 incomplete.

SOURCE: St. Louis City/County Medical Examiner's Office; TEDS database

Exhibit 2. Other Combined Indicators for Cocaine, Heroin, Marijuana, and Methamphetamine in St. Louis: 2002–2006

| Indicator | Cocaine | Heroin | Marijuana | Methamphetamine and Other Drugs |
|-----------------------------|--|--|--|--|
| Multisubstance Combinations | Older users combine with heroin, alcohol | Older users combine with cocaine, alcohol | Alcohol | Marijuana commonly used in combination, alcohol use common |
| Market Data (2006) | Powder \$60–\$80/g, 70% pure; Crack \$20/rock, 50–90% pure; 8-ball \$200 | \$20/cap or foil; \$10 per number-5 gel capsule; depending if MBT, SA, SWA; \$100–400/g, 16–19% pure | Low grade: \$100/oz High grade (indoor grow, includes various types): \$ 1,400 / oz | Methamphetamine \$100/g, Mexican (80%) and local (80% pure); hydromorphone \$80/4-mg pill; LSD blotters \$20–50 microgram, OxyContin® \$40 |
| Qualitative Data | Readily available, urban choice | Younger users, 1/3 younger than 25, general availability | Readily available, younger users in treatment | Rural/suburban users of amphetamine |
| Other Data of Note | N/R ¹ | Mexican black tar, South American, Southwest Asian—young users smoke/snort | N/R | Methamphetamine lab seizures decreasing; fewer mom/pop labs; producers are superlabs—controlled by Hispanic groups |

¹N/R=Not reported.

SOURCE: DEA; client ethnographic information; St. Louis City/County Medical Examiner’s Office

Exhibit 3. New HIV and Hepatitis C Cases St. Louis City 2002–2006

| New Cases | HIV | Hepatitis C |
|-----------|-----|-------------|
| 2002 | 178 | 227 |
| 2003 | 197 | 488 |
| 2004 | 122 | 540 |
| 2005 | 171 | 512 |
| 2006 | 227 | 305 |

SOURCE: St. Louis City Health Department

Exhibit 4. Persons Living with HIV Disease in St. Louis Metropolitan Area by Exposure Category, Gender, Race/Ethnicity, and Age: Year-to-Date and Cumulative Totals Reported Through 2006

| Category | Cumulative Through June 2004 | | 2005–2006 |
|----------------------------------|------------------------------|---------|--------------|
| | Number | Percent | |
| Exposure Category | | | |
| MSM | 4,583 | 70.0 | – |
| IDU | 301 | 5.0 | – |
| IDU/MSM | 319 | 5.0 | – |
| Hemophilia | 58 | 1.0 | – |
| Heterosexual | 920 | 14.0 | – |
| Blood transfusion | 34 | 0.2 | – |
| Perinatal | 41 | 1.0 | – |
| Unknown | 416 | 6.0 | – |
| Total | 6,672 | | – |
| Gender and Race/Ethnicity | | | |
| Male | | | |
| White | 2,914 | 45.0 | – |
| African American | 2,582 | 40.0 | – |
| Hispanic | 79 | 1.0 | – |
| Other | 19 | 0.0 | – |
| Unknown | 208 | 3.0 | – |
| Female | | | |
| White | 170 | 2.0 | – |
| African American | 671 | 10.0 | – |
| Hispanic | 15 | 0.0 | – |
| Other | 13 | 0.0 | – |
| Age | | | |
| 12 and younger | 53 | 1.0 | – |
| 13–19 | 160 | 2.4 | – |
| 20–29 | 1,644 | 25.2 | – |
| 30–39 | 2,799 | 43.0 | – |
| 40–49 | 1,332 | 20.4 | – |
| 50 and older | 522 | 8.0 | – |
| Unknown | 162 | 2.0 | 398 |
| Total | 6,672 | | 7,070 |

SOURCE: St. Louis Metropolitan AIDS Program

Drug Use and Abuse in San Diego County, California

Robin A. Pollini, Ph.D., M.P.H.

ABSTRACT

Methamphetamine is the drug of primary concern in San Diego County; however, the most recent indicator data suggest that use and abuse of the drug is decreasing. The number of treatment admissions for primary methamphetamine abuse reached a 7-year low in 2007 (n=5,185), accounting for 36 percent of all admissions (including alcohol). After reaching an all time high in 2005, prevalence of methamphetamine in urine sampled from arrestees in 2006 decreased among female adults (47 percent), male adults (36 percent), and juveniles (10 percent). In 2007, only 8 percent of juvenile arrestees tested positive for methamphetamine—an 8-year low. Concurrently, the street price of methamphetamine has risen at larger volumes, with pound quantities reaching \$10,000–20,000—a substantial increase over the \$3,500–8,500 price reported 3 years earlier. Indicators for marijuana are mixed. The proportion of juvenile arrestees testing positive for marijuana decreased from 43 percent in 2006 to 40 percent in 2007, but primary drug treatment admissions for marijuana increased by 5 percent during the same period. There were few changes in heroin and cocaine/crack indicators. Data from both drug treatment admissions and arrestees suggest increasing use and abuse of ecstasy/MDMA, particularly among juvenile arrestees. Lifetime use among these younger arrestees more than doubled (from 13 to 28 percent) between 2004 and 2007 and past-year use almost tripled (from 7 to 20 percent) during the same period.

INTRODUCTION

Area Description

San Diego County is the southwestern-most county in California and shares 80 miles of border with Mexico. The San Ysidro border crossing, which links San Diego with its sister city of Tijuana, Mexico, is the busiest border crossing in the world, accommodating more than 41 million legal crossings annually. It is also a busy location for illicit drug smuggling, and San Diego County serves as a major transshipment point for both marijuana and methamphetamine shipments from Mexico. Methamphetamine has been the drug of primary concern in San Diego County for a number of years.

The population of San Diego County is increasing and is home to a growing Hispanic (predominantly Mexican) population (exhibit 1). The County's total population was estimated at 3.1 million in 2007, up from 2.8 million in 2000. More than one-half (52 percent) of the population is White non-Hispanic, followed by 29 percent Hispanic. The remaining population is comprised of Asian/Pacific Islanders (10 percent), Black or African Americans (5 percent), and other races/ethnicities.

Data Sources

Data sources for this report are listed below:

- **Arrestee data** came from the San Diego Association of Governments (SANDAG) Substance Abuse Monitoring (SAM) program, a regional continuation of the Federal Arrestee Drug Abuse Monitoring (ADAM) program that was discontinued in 2003. This report presents 2006 data for both adult (n=736) and juvenile (n=160) arrestees. Data on juvenile arrestees for 2007 (n=173) are also presented. Adult arrestee data for 2007 were not yet available.

- **Drug price data** came from the San Diego Law Enforcement Coordination Center's "2008 Street Drug Price List," which reported on street-level drug buys conducted in San Diego County in 2007.
- **Forensic laboratory data** were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA), for calendar year (CY) 2007. There were 20,246 drug items analyzed by local forensic laboratories between January and December 2007.
- **Treatment data** were provided by the San Diego Department of Alcohol and Drug Programs (ADP) (tables produced by the California Department of Alcohol and Drug Programs) using the California Outcomes Measurement System (CalOMS). CalOMS is a statewide client-based data collection and outcomes measurement system for alcohol and other drug (AOD) prevention and treatment services. Submission of admission/discharge information for all clients is required of all counties and their subcontracted AOD providers, all direct contract providers receiving public AOD funding, and all private-pay licensed narcotic treatment providers. Data for the current report included admissions to San Diego County for the period January–December 2007. Note that CalOMS was implemented in early 2006 (replacing the earlier CADDs system); data reported for periods prior to July 2006 may not be comparable to more recent periods.
- **Emergency department (ED) data** for CY 2007 came from the Drug Abuse Warning Network (DAWN) *Live!*, a restricted access on-line query system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). The completeness of data reported by participating EDs varied by month (exhibit 2). The 2007 data for San Diego represented reports of major substances of abuse ($n=4,905$), including illicit drugs and alcohol-only reports for patients <21 years. These data were accessed on May 2, 2008, and are subject to change due to corrections and/or deletions arising from quality control reviews. Data represented drug reports in drug-related ED visits and may exceed the number of ED visits due to patients reporting multiple drugs. A full description of the DAWN data system can be found at <http://dawninfo.samhsa.gov/>.
- **Mortality data** were obtained from the Emergency Medical Services Medical Examiner Database, which is maintained by the County of San Diego Health and Human Services Agency. Data for 2007 were preliminary.
- **Acquired immunodeficiency syndrome (AIDS) data and human immunodeficiency virus (HIV) data** were taken from the San Diego County Health and Human Services Agency's 2008 HIV/AIDS Epidemiology Report.

DRUG ABUSE PATTERNS AND TRENDS

Methamphetamine

In 2007, primary methamphetamine abuse accounted for more than one-third (35.6 percent) of all drug and alcohol treatment admissions in San Diego County (exhibit 3). Overall, 5,185 treatment admissions cited methamphetamine as their primary drug of abuse. Although methamphetamine has accounted for the highest number of treatment admissions since at least 2002, the absolute number of methamphetamine admissions has decreased substantially from a high of 7,330 in 2002 (a reduction of 29.3 percent) (exhibit 4). Females accounted for 43.5 percent of admissions in 2007. The most common secondary drugs of abuse were marijuana (30.9 percent) and alcohol (24.6 percent) (exhibit 3).

In a comparison of treatment admissions data with 2002 (2002 data not shown; 2007 data in exhibit 3), there was a shift in racial composition of methamphetamine treatment admissions; 51.2 percent and 32.5 percent of admissions were attributed to White non-Hispanics and Hispanics in 2007, respectively, compared to 59.3 percent and 26.0 percent in 2002. There was also a

decrease in the proportion of clients citing inhalation as their primary route of administration in 2007 compared to 2002 (11.4 percent vs. 18.4 percent) and an increase in those citing smoking as the primary route (72.1 percent vs. 63.2 percent). In addition, 49.5 percent of clients admitted for primary methamphetamine abuse were ≥ 35 years old, up from 43.0 percent in 2002.

Among San Diego County arrestees, positive urine tests for methamphetamine (exhibit 5) reached an all-time high for adult males (44 percent), adult females (51 percent), and juveniles (21 percent) in 2005. However, 2006 survey data indicated lower levels of methamphetamine use, with 36 percent of adult males, 47 percent of adult females, and 10 percent of juveniles testing positive. Juvenile data, released just before this report went to press, showed a further decrease to 8 percent in 2007—the lowest level in 8 years. These reductions in recent use are consistent with results from a related survey of arrestees' perceptions of methamphetamine market trends conducted in 2006. More than one-half (51 percent) of the arrestees who used methamphetamine interviewed in 2006 thought that the price of methamphetamine was higher than the previous year, compared to only 28 percent in 2005. There was also an increase in the proportion of arrestees who thought methamphetamine was less available (28 percent vs. 13 percent) and in the proportion of those who said demand for the drug was increasing (73 percent vs. 65 percent).

These perceptions of the methamphetamine market are consistent with findings regarding the street price of methamphetamine in the past 4 years (exhibit 6). While price has remained relatively stable at smaller volumes (i.e., quarter gram, gram), the price of higher volume purchases has been rising since 2005. Specifically, the street price of one pound of methamphetamine increased from \$3,500–8,500 in 2005 to \$10,000–20,000 in 2008. The price per ounce increased less dramatically over the same period, from \$550–900 to \$500–1,500.

There were 88 overdose deaths in San Diego County in 2006 that involved amphetamines

(including methamphetamine), which was the lowest number of amphetamine-involved overdose deaths in the past 5 years (exhibit 7). However, preliminary data suggested that the number of deaths will be higher in 2007 when finally totaled; at the time of this report, 97 overdose deaths involving amphetamines had been documented.

Methamphetamine ranked second only to alcohol in ED reports submitted to the DAWN system in 2007 (exhibit 8). There were 826 reports involving methamphetamine (16.8 percent) among 4,905 reports for major substances of abuse.

Among items tested in forensic labs and entered into NFLIS (exhibit 9), 4,903 (24.2 percent) contained methamphetamine, which ranked second to cannabis (9,685 items; 48.7 percent).

Cocaine/Crack

There were 999 primary treatment admissions for cocaine/crack in 2007 (exhibit 3), down slightly from 2006 ($n=1,030$) and accounting for 6.8 percent of primary treatment admissions. One-third (31.5 percent) of admissions were among females and almost three-quarters (74.3 percent) were ≥ 35 years old. A majority of those admitted for primary treatment of cocaine/crack cited a secondary substance of abuse, most commonly alcohol (36.4 percent) and marijuana (22.3 percent), while 28.6 percent cited no other substance of abuse.

Comparison of 2007 with 2002 admissions data for cocaine/crack (2002 data not shown; 2007 data in exhibit 3) found a decrease in the proportion of admissions in the 26–34 age category, from 20.1 percent in 2002 to 12.4 percent in 2007, which was offset by smaller increases in the three other age categories. There was also a decrease in the proportion of Black non-Hispanics, from 61.2 percent to 54.7 percent, and an increase in inhalation as the primary route of administration, from 13.2 percent in 2002 to 17.5 percent in 2007. Overall the number of admissions had remained stable from 2006 to 2007 (exhibit 4).

Thirteen percent of male adult arrestees tested positive for cocaine/crack in 2006, while one in every five female arrestees (21 percent) tested positive (exhibit 5). The latter is a substantial increase from 2005, when 15 percent of female arrestees tested positive for cocaine/crack. Among juvenile arrestees, 5 and 3 percent tested positive in 2006 and 2007, respectively, down from 6 percent in 2005.

Cocaine prices have remained relatively steady since 2005 (exhibit 6). The most recent street price (2008) for one gram was \$60–150 and pound quantities sold for \$8,000–10,000.

Cocaine ranked fourth (after alcohol, methamphetamine, and marijuana) in ED reports submitted to the DAWN system in 2007 (exhibit 8). There were 562 reports involving cocaine (11.5 percent) among 4,905 reports for major substances of abuse.

Of the drug items analyzed by forensic labs in 2007, 13.8 percent were cocaine items (exhibit 9), ranking third after cannabis (marijuana) and methamphetamine.

Heroin

There were 2,515 primary treatment admissions (17.2 percent) for heroin in 2007 (exhibit 3), a slight increase from the 2,436 admissions (17.0 percent) in 2006 (exhibit 4). Clients admitted to treatment in 2007 were predominantly male (72.4 percent) and ≥ 35 years old (57.2 percent). Of note, there has been a substantial increase in the proportion of admissions in the 26–34 year age range, from 18.7 percent in 2002 to 27.0 percent in 2007. Heroin admissions in 2007 were also predominantly White non-Hispanic (52.1 percent), followed by Hispanic (37.9 percent) and Black non-Hispanic (4.9 percent). Most (79.6 percent) reported injection as the primary route of administration, although this was down from 87.1 percent in 2002. Smoking increased as a primary route of administration, from 6.2 percent in 2002 to 14.3 percent in 2007.

More than one-half (52.6 percent) of clients admitted for primary heroin treatment reported

no other drug of abuse. Secondary drugs of abuse were methamphetamine (14.4 percent), cocaine/crack (11.5 percent), alcohol (7.8 percent), and marijuana (7.3 percent).

Few arrestees tested positive for heroin, and the proportion of positives has remained relatively stable over time (exhibit 5). In 2006, 5 percent of male arrestees, 8 percent of female arrestees, and 1 percent of juveniles tested positive for heroin, compared to 5 percent, 9 percent, and 2 percent in 2005, respectively.

Heroin street prices have also remained stable (exhibit 6). The 2008 prices per quarter gram and gram were \$15–50 and \$80–100, respectively. Larger volumes sold for \$600–1,200 per ounce and \$10,000–17,000 per pound.

There were 84 overdose deaths in San Diego County in 2006 that involved heroin/morphine, the lowest number heroin/morphine involved overdose deaths in the past 5 years (exhibit 7). However, preliminary data for 2007 already showed 106 deaths involving heroin/morphine, a substantial increase from prior years.

Heroin ranked fifth in ED reports submitted to the DAWN system in 2007 (exhibit 8). There were 442 reports involving cocaine (9.0 percent) among 4,905 reports for major substances of abuse.

Of the drug items analyzed by forensic labs in 2007, only 3.2 percent were heroin items (exhibit 9), ranking fourth after cannabis, methamphetamine, and cocaine.

Other Opiates/Narcotics

Exhibit 3 shows admissions for “other opiates,” an aggregate category for prescription opiates including oxycodone, hydrocodone, and similar drugs. CalOMS allows these drugs to be further split into two categories: oxycodone and “other” opiates or synthetics (data not shown). In 2007, there were 299 primary admissions for oxycodone and 270 for other opiates. These two admissions groups differed substantially from one another with regard to demographics; for example, 24.1 percent of oxycodone admissions were female compared to 54.4 percent of other opiates admissions.

Oxycodone admissions were also younger; distributions among the age groups were: <18:1.3 percent; 18–25:41.5 percent; 26–34:26.4 percent; and ≥35:30.8 percent, respectively, compared to 0.4, 8.5, 30.4 and 60.7 for the other opiates. In addition, while 90.4 percent of other opiate admissions cited oral administration as their primary route, only slightly more than one-half (58.9) did so for oxycodone; 29.1 percent inhaled the drug, 6.0 percent injected, and 4.7 percent smoked.

There were 991 emergency department reports citing nonheroin opioids (data not shown). These included 226 oxycodone reports, 258 hydrocodone, 100 methadone, 44 fentanyl, and 15 buprenorphine.

Of the drug items analyzed by forensic labs in 2007, 331 (1.6 percent) were hydrocodone, ranking fifth behind cannabis, methamphetamine, cocaine, and heroin. There were also 135 oxycodone items, 38 methadone items, 32 codeine items, 31 morphine items, and 5 methadone items.

Marijuana

There were 2,278 primary treatment admissions (15.6 percent) for marijuana in 2007 (exhibit 3), up from 2,175 (12.3 percent) in 2006 (exhibit 4). A majority of 2007 admissions (73.9 percent) were male, although this was down slightly from 78.6 percent in 2002. In addition, although clients under age 18 made up the majority of admission in 2002 (57.7 percent), they constituted only 39.2 percent of admissions in 2007, while the proportion of those age 18–25 rose from 20.5 percent to 30.9 percent over the same 5-year period. The racial and ethnic distribution of primary marijuana admissions also shifted; Hispanics represented the largest proportion of admissions in 2007 (42.4 percent), followed by White non-Hispanics (32.7 percent) and Black non-Hispanics (15.9 percent) (exhibit 3). In comparison, White non-Hispanics constituted the largest group (40.5 percent) of primary marijuana treatment admissions in 2002, followed by Hispanics (34.7 percent) and Black non-Hispanics (17.6 percent) (data not shown).

Alcohol was the leading secondary substance of abuse among primary marijuana users, with 41 percent citing alcohol as a secondary substance. This was followed by no secondary substance (27.3 percent), methamphetamine (20.9 percent), and cocaine (6 percent) (exhibit 3).

Among arrestees (exhibit 5), the proportion testing positive for marijuana was at a 5-year high for males (40 percent), while remaining relatively stable among females (31 percent) and juveniles (43 percent). In 2007, 40 percent of juvenile arrestees tested positive for marijuana, which represented an 8-year low for this group.

After at least 3 years of relative stability, there were indications that marijuana street prices increased in 2008 (exhibit 6). A quarter ounce sold for \$40–100 in 2008, compared to \$30–50 in 2005 and 2006. Ounce prices rose slightly to \$80–150, compared to \$80–100 in the 2 previous years. Pound quantities sold for \$300–400 in 2008, up from \$250–300 in 2005 and 2006.

Marijuana ranked third in ED reports submitted to the DAWN system in 2007 (exhibit 8). There were 804 reports involving marijuana (16.4 percent).

Of the drug items analyzed by forensic labs in 2007, almost one-half (48.7 percent) were cannabis items (exhibit 9). This made cannabis the leading item analyzed by San Diego County labs, with twice as many items as the second leading drug, methamphetamine.

Ecstasy (MDMA)

There were few primary treatment admissions for ecstasy in 2007 ($n=31$) (data not shown). These admissions were evenly split among men ($n=17$) and women ($n=14$) and were mostly among ages <18 ($n=11$) or 18–25 ($n=17$). An additional 85 cited ecstasy as their secondary drug of abuse, most commonly secondary to marijuana ($n=43$) or methamphetamine ($n=28$).

Data from the arrestee-monitoring program suggest that ecstasy use may be increasing in San Diego County. Urine samples are not tested for MDMA, so these findings rely on self-report.

However, among juveniles, the proportion reporting lifetime use more than doubled, from 13 percent in 2004 to 28 percent in 2007. Past-year use almost tripled from 7 to 20 percent during the same time period. Lifetime and past-year use has also increased among adult arrestees, although not as substantially. Lifetime use rose from 17 to 21 percent and past-year use from 7 to 10 percent between 2004 and 2007.

There were 58 ED reports involving MDMA in 2007 (exhibit 8).

Of the drug items analyzed by forensic labs in 2007, 209 (1.0 percent) were MDMA (exhibit 9).

Alcohol

There were 2,889 primary treatment admissions (19.8 percent) for alcohol (exhibit 3). This represents a 13.2-percent increase from 2006 but a substantial decrease from 2002, when there were 4,219 primary treatment admissions for alcohol (exhibit 4). Overall, alcohol admissions in 2007 were predominantly male (72.5 percent), White non-Hispanic (60.7 percent) and age ≥ 35 (65.9 percent). There was no substantial change in these demographics compared to 2002. Forty percent of primary alcohol admissions cited no secondary drug of abuse. Among clients who did, methamphetamine was the most common (21.8 percent), followed closely by marijuana (21.5 percent) and cocaine/crack (10.7 percent). Few reported secondary abuse of heroin (3.2 percent), oxycodone (0.5 percent), or other opiates (1.1 percent).

There were 1,868 ED reports for patients <21 years in 2007 (exhibit 8); 596 of these reports were for alcohol only.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

AIDS

There were 13,436 cumulative AIDS cases in San Diego County through December 31, 2007, including 6,403 currently living with AIDS.

Thirty-four percent of AIDS cases among women between 1981 and 2007 were attributed to injection drug use (IDU) and 21 percent to sex with an IDU. Focusing just on the more recent period 2003–2007, the proportion of cases attributed to IDU was lower, with 20 percent attributed directly to IDU and 17 percent to sex with an IDU. There is also evidence of substantial shifts in the demographic makeup of injection-related cases over time. While the proportion of AIDS cases attributed to IDU among White women remained relatively constant at 38 percent in 1988–1992 and 39 percent in 2003–2007, the proportion of cases attributed to IDU among Black women decreased from 54 percent to 17 percent during the same time periods. Similarly, the proportion of cases among Hispanic women attributed to IDU decreased from 21 percent to 12 percent. It should be noted that these reductions among Black and Hispanic women were offset by substantial increases in cases attributed to heterosexual transmission, which may include sex with IDUs.

Among males, IDUs and men who have sex with men (MSM) and also inject drugs (MSM/IDU) accounted for 7 and 11 percent of cumulative cases, respectively, from 1981–2007. Roughly the same proportions (8 and 10 percent) were reported for the more recent period 2003–2007. Black men shouldered a disproportionate burden of AIDS in San Diego County, with 17 and 12 percent of AIDS cases among Black men in 1988–1992 and 2003–2007, respectively, attributed to IDU, compared with only 3 and 7 percent among Whites and 10 and 7 percent among Hispanics. The same is true of cases attributed to MSM/IDU; 13 and 12 percent of cases among black men were attributed to MSM/IDU in 1988–1992 and 2003–2007, respectively, compared to 9 and 12 percent among Whites and 10 and 7 percent among Hispanics.

HIV

In 2006, the State of California transitioned to name-based reporting of HIV cases, consistent with the Centers for Disease Control and

Prevention (CDC) recommendations. Effective April 2006, the State stopped reporting updated statistical information on HIV cases reported before implementation of the name-based system. Accordingly, cumulative HIV case counts now reflect unduplicated HIV case counts reported by name to the California Department of Health Services Office of AIDS beginning April 17, 2006. From April 17, 2006 through December 31, 2007 there were 3,113 cumulative HIV cases in San Diego County, of which 2,804 (90.1 percent) were male. Among males, 4 percent of these cases were IDUs and 8 percent were MSM/IDUs. Among females, 23 percent of cases were IDUs.

Among male cases, 9.8 percent of cases among Blacks were IDUs, compared to 3.4 and 3.2 percent of cases among Whites and Hispanics,

respectively. Black men also had the highest proportion of MSM/IDUs (9.5 percent), compared to 8.9 percent among White men, 6.1 percent among Asian/Pacific Islander (PI) men, and 5.4 percent among Hispanic men. Among women, White women had the largest proportion of IDU cases (30.1 percent), followed by Black (27.6 percent), Asian/PI (16.7 percent), and Hispanic (12.1 percent) women.

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Exhibit 1. San Diego County Demographics: 2007 (by percent)

| Race/Ethnicity | 2007 (N=3,098,269) |
|------------------------------------|---------------------------|
| White | 51.6 |
| Black or African American | 5.4 |
| Asian/Pacific Islander | 9.9 |
| American Indian | 0.5 |
| Other race | 3.4 |
| Hispanic/Latino | 29.3 |
| Median age | 35.0 |
| Median household income (adjusted) | \$51,808 |

SOURCE: San Diego Association of Governments Population and Housing Estimates

Exhibit 2. DAWN ED Sample and Reporting Information: January–December 2007

| Total Eligible Hospitals | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample | No. of EDs Reporting per Month: Completeness of Data (percent) | | | No. of EDs Not Reporting |
|---------------------------------|--|---------------------------------|---|----------------------|-----------------------|---------------------------------|
| | | | 90–100 percent | 50–89 percent | <50 percent | |
| 17 | 17 | 17 | 6–7 | 0–1 | 0 | 10 |

SOURCE: DAWN *Live!*, OAS, SAMHSA, updated May 2, 2008

Exhibit 3. Characteristics of Clients Admitted to Treatment, San Diego County: 2007

| | Primary Drug | | | | | | | Total (%) |
|-------------------------|------------------------|--------------------------|------------------------|-------------------------|------------------------|-----------------------------|---------------------|--------------------------|
| | Alcohol (%) | Cocaine/ crack (%) | Heroin (%) | Other opiates (%) | Marijuana (%) | Meth- amphetamine (%) | All other (%) | |
| Total admissions | 2,889 (19.8) | 999 (6.8) | 2,515 (17.2) | 569 (3.9) | 2,278 (15.6) | 5,185 (35.6) | 150 (1.0) | 14,585 (100.0) |
| Gender | | | | | | | | |
| Male | 2,095 (72.5) | 684 (68.5) | 1,820 (72.4) | 350 (61.5) | 1,684 (73.9) | 2,924 (56.4) | 94 (62.7) | 9,651 (66.2) |
| Female | 793 (27.4) | 315 (31.5) | 694 (27.6) | 219 (38.5) | 594 (26.1) | 2,260 (43.5) | 56 (37.3) | 4,931 (33.8) |
| Race/ethnicity | | | | | | | | |
| White (non-Hispanic) | 1,753 (60.7) | 268 (26.8) | 1,310 (52.1) | 454 (79.8) | 746 (32.7) | 2,657 (51.2) | 81 (54.0) | 7,269 (49.8) |
| Black (non-Hispanic) | 297 (10.3) | 546 (54.7) | 123 (4.9) | 20 (3.5) | 363 (15.9) | 313 (6.0) | 33 (22.0) | 1,695 (11.6) |
| American Indian | 80 (2.8) | 3 (0.3) | 34 (1.4) | 2 (0.4) | 18 (0.8) | 71 (1.4) | 1 (0.7) | 209 (1.4) |
| Asian/PI | 31 (1.1) | 16 (1.6) | 13 (0.5) | 7 (1.2) | 43 (1.9) | 231 (4.5) | 2 (1.3) | 343 (2.4) |
| Hispanic | 617 (21.4) | 120 (12.0) | 953 (37.9) | 70 (12.3) | 967 (42.4) | 1,686 (32.5) | 28 (18.7) | 4,441 (30.4) |
| Other | 111 (3.8) | 46 (6.8) | 82 (3.3) | 16 (2.8) | 141 (2.8) | 227 (4.4) | 5 (3.3) | 628 (4.3) |
| Age | | | | | | | | |
| ≤17 | 147 (5.1) | 31 (3.1) | 5 (0.2) | 5 (0.9) | 892 (39.2) | 133 (2.6) | 19 (12.7) | 1,232 (8.4) |
| 18–25 | 325 (11.2) | 102 (10.2) | 394 (15.7) | 147 (25.8) | 703 (30.9) | 994 (19.2) | 43 (28.7) | 2,708 (18.6) |
| 26–34 | 513 (17.8) | 124 (12.4) | 678 (27.0) | 161 (28.3) | 347 (15.2) | 1,493 (28.8) | 40 (26.7) | 3,356 (23.0) |
| ≥35 | 1,904 (65.9) | 742 (74.3) | 1,438 (57.2) | 256 (45.0) | 336 (14.7) | 2,565 (49.5) | 48 (32.0) | 7,289 (50.0) |

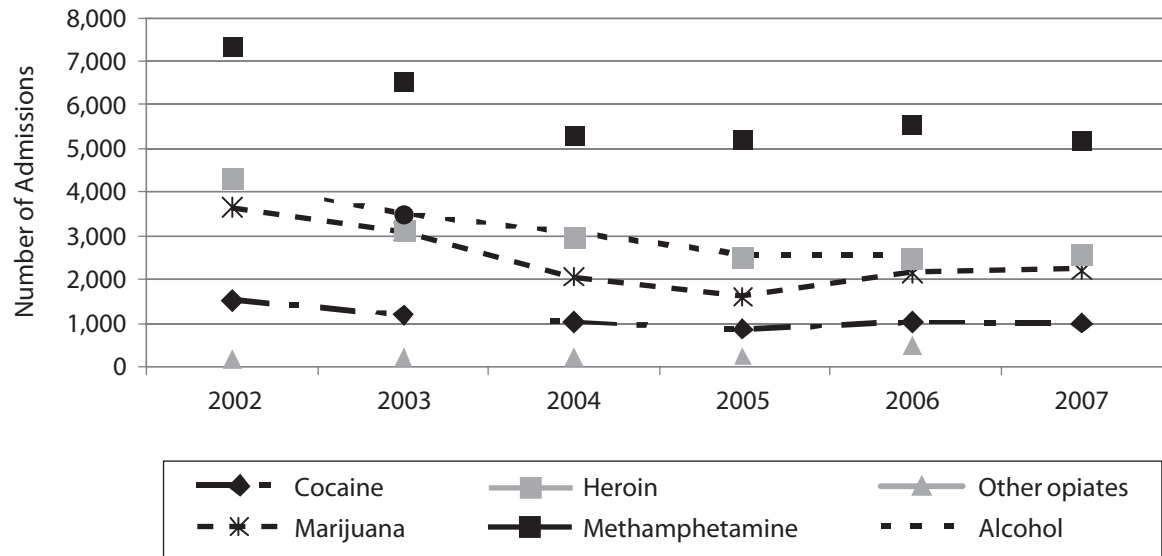
SOURCE: California Outcomes Monitoring System (CalOMS)

Exhibit 3 (continued). Characteristics of Clients Admitted to Treatment, San Diego County: 2007

| | Primary Drug | | | | | | Total (%) | |
|-----------------------|------------------|-------------------|-----------------|-------------------|-----------------|---------------------|--------------|-----------------|
| | Alcohol (%) | Cocaine/crack (%) | Heroin (%) | Other opiates (%) | Marijuana (%) | Methamphetamine (%) | | All other (%) |
| Route | | | | | | | | |
| Oral | 2,889 (100.0) | 9 (0.9) | 20 (0.8) | 420 (73.8) | 28 (1.2) | 80 (1.5) | 94 (62.7) | 3,540 (24.3) |
| Smoking | 0 (0.0) | 801 (80.2) | 359 (14.3) | 20 (3.5) | 2,244 (98.5) | 3,736 (72.1) | 40 (26.7) | 7,200 (49.4) |
| Inhalation | 0 (0.0) | 175 (17.5) | 132 (5.2) | 92 (16.2) | 5 (0.2) | 589 (11.4) | 14 (9.3) | 1,007 (6.9) |
| Injection | 0 (0.0) | 13 (1.3) | 2,003 (79.6) | 32 (5.6) | 1 (0.0) | 777 (15.0) | 2 (1.3) | 2,828 (19.4) |
| Unknown/other | 0 (0.0) | 1 (0.3) | 1 (0.1) | 5 (2.3) | 0 (0.0) | 3 (0.1) | 0 (0.0) | 10 (0.0) |
| Secondary drug | | | | | | | | |
| None | 1,150 (39.8) | 286 (28.6) | 1,324 (52.6) | 297 (52.2) | 621 (27.3) | 1,818 (35.1) | 37 (24.7) | 5,533 (37.9) |
| Alcohol | – | 364 (36.4) | 197 (7.8) | 39 (6.9) | 933 (41.0) | 1,277 (24.6) | 29 (19.3) | 2,839 (19.5) |
| Cocaine/crack | 308 (10.7) | – | 290 (11.5) | 19 (3.3) | 136 (6.0) | 213 (4.1) | 15 (10.0) | 981 (6.7) |
| Heroin | 93 (3.2) | 31 (3.1) | – | 58 (10.2) | 20 (0.9) | 167 (3.2) | 4 (2.7) | 373 (2.6) |
| Other opiates | 47 (1.6) | 3 (0.3) | 111 (4.4) | 53 (9.3) | 8 (0.4) | 35 (0.7) | 8 (5.3) | 265 (1.8) |
| Marijuana | 622 (21.5) | 223 (22.3) | 183 (7.3) | 60 (10.5) | – | 1,601 (30.9) | 35 (23.3) | 2,724 (18.7) |
| Methamphetamine | 629 (21.8) | 83 (8.3) | 361 (14.4) | 25 (1.4) | 475 (20.9) | – | 16 (10.7) | 1,589 (10.9) |
| All other | 40 (1.4) | 9 (0.9) | 49 (1.9) | 18 (3.2) | 85 (3.7) | 74 (1.4) | 6 (4.0) | 281 (1.9) |
| Total | 2,889 | 999 | 2,515 | 569 | 2,278 | 5,185 | 150 | 14,585 |

SOURCE: California Outcomes Monitoring System (CalOMS)

Exhibit 4. Number of Treatment Admissions by Primary Drug, San Diego County: 2002–2007



SOURCE: California Outcomes Monitoring System (CalOMS)

Exhibit 5. Percent Positive Tests for Illicit Drugs among Adult and Juvenile Arrestees¹, San Diego County: 2002–2007

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------|------|------|------|------|------|
| Methamphetamine | | | | | | |
| Male adults | 34 | 38 | 42 | 44 | 36 | – |
| Female adults | 37 | 47 | 43 | 51 | 47 | – |
| Juveniles | 12 | 15 | 13 | 21 | 10 | 8 |
| Cocaine | | | | | | |
| Male adults | 12 | 10 | 11 | 11 | 13 | – |
| Female adults | 21 | 15 | 23 | 15 | 21 | – |
| Juveniles | – | – | 6 | 6 | 5 | 3 |
| Heroin | | | | | | |
| Male adults | 5 | 6 | 5 | 5 | 5 | – |
| Female adults | 6 | 9 | 7 | 9 | 8 | – |
| Juveniles | – | – | 1 | 2 | 1 | 1 |
| Marijuana | | | | | | |
| Male adults | 37 | 39 | 38 | 34 | 40 | – |
| Female adults | 33 | 29 | 28 | 31 | 31 | – |
| Juveniles | 46 | 49 | 42 | 44 | 43 | 40 |

¹Currently only juvenile data are available for 2007.

SOURCE: San Diego Association of Governments Substance Abuse Monitoring Program

Exhibit 6. Retail Prices for Selected Drugs, San Diego County: 2005–2008

| Drug | 2005 | 2006 | 2007 | 2008 |
|---------------------------|-----------------|----------------|----------------|-------------------|
| Cocaine | | | | |
| One-quarter gram | \$20–40 | \$30–100 | \$50–100 | \$50–100 |
| Gram | \$80–120 | \$60–160 | \$60–150 | \$60–150 |
| Ounce | \$500–800 | \$500–800 | \$600–1,000 | \$600–1,000 |
| Pound | \$6,000–10,000 | \$6,500–10,000 | \$6,000–10,000 | \$8,000–10,000 |
| Heroin (black tar) | | | | |
| One-quarter gram | \$5 | \$20 | \$25–40 | \$15–50 |
| Gram | \$40–100 | \$50–100 | \$80 | \$80–100 |
| Ounce | \$850–1,300 | \$500–1,200 | \$600 | \$600–1,200 |
| Pound | \$15,000 | \$17,000 | \$17,000 | \$10,000–17,000 |
| Marijuana | | | | |
| One-quarter ounce | \$20–40 | \$30–50 | \$30–50 | \$40–100 |
| Ounce | \$75–100 | \$80–100 | \$80–100 | \$80–150 |
| Pound | \$250–300 | \$250–300 | \$250–300 | \$300–400 |
| Methamphetamine | | | | |
| One-quarter gram | \$20 | \$20–25 | \$20–25 | \$20–25 |
| Gram | \$40–50 | \$50–100 | \$50–100 | \$75–100 |
| Ounce | \$550–900 | \$600–1,000 | \$750–1,000 | \$500–1,500 |
| Pound | \$3,500–\$8,500 | \$6,000–10,000 | \$9,000–12,500 | \$10,000–\$20,000 |

SOURCE: San Diego Law Enforcement Coordination Center

Exhibit 7. Deaths Due to Drug Overdose Involving Amphetamine and/or Heroin/Morphine, San Diego County: 2002–2007¹

| Year | Amphetamine-involved drug deaths | | Heroin/morphine-involved drug deaths | |
|------|----------------------------------|-------------------|--------------------------------------|------|
| | Number | Rate ² | Number | Rate |
| 2002 | 93 | 3.08 | 129 | 4.42 |
| 2003 | 99 | 3.33 | 116 | 3.90 |
| 2004 | 104 | 3.42 | 87 | 2.89 |
| 2005 | 112 | 3.67 | 90 | 2.95 |
| 2006 | 88 | 2.87 | 84 | 2.74 |
| 2007 | 97 | 3.13 | 106 | 3.42 |

¹Preliminary data for 2007—updated 6/4/08.

²Rates per 100,000.

SOURCE: County of San Diego Health and Human Services Agency, Emergency Medical Services Medical Examiner Database, 2002–2007

Exhibit 8. Numbers and Percentages¹ of ED Reports for Selected Substances of Abuse (Unweighted²): 2007

| Drug | Number | Percent |
|-----------------|--------|---------|
| Alcohol | 1,868 | 38.1 |
| Cocaine | 562 | 11.5 |
| Heroin | 442 | 9.0 |
| Marijuana | 804 | 16.4 |
| Methamphetamine | 826 | 16.8 |
| Amphetamines | 234 | 4.8 |
| MDMA | 58 | 1.2 |
| PCP | 25 | 0.5 |
| GHB | 13 | 0.3 |

¹Represents the percentage of all major substances of abuse ($n=4,905$), including Alcohol-Only cases for persons younger than 21.

²The unweighted data are from 6–7 EDs reporting basically complete (≥ 90 percent) data to San Diego hospitals in 2007.

SOURCE: DAWN Live!, OAS, SAMHSA, updated May 2, 2008

Exhibit 9. Number and Percentage of Selected Items Analyzed by Forensic Laboratories, San Diego County: 2007

| Drug | Number | Percent |
|-----------------|---------------|------------|
| Cocaine | 2,794 | 13.8 |
| Heroin | 640 | 3.2 |
| Cannabis | 9,865 | 48.7 |
| Methamphetamine | 4,903 | 24.2 |
| All other drugs | 2,044 | 10.1 |
| Total | 20,246 | 100 |

SOURCE: NFLIS, DEA

Patterns and Trends of Drug Use in the San Francisco Bay Area

John A. Newmeyer, Ph.D.¹

ABSTRACT

Most indicators suggest that cocaine use prevalence in the San Francisco Bay Area has declined since 2003, albeit more slowly in the most recent period. In 2006 and 2007 the drug continued to provide a greater degree of problem indicators—overdoses, deaths, admissions, and arrests—than any other illicit drug. However, users were aging; about one-half of all problem users were older than 42. Heroin usage appeared to level off after significant declines from 2000 through 2004, and heroin prices have declined. As with cocaine, the problem users were aging; most were older than 40, with very few younger than 25. There were 11,100 heterosexual heroin injectors in San Francisco County in 2006, about one-fifth fewer than in 2001. Prevalence of methamphetamine use appeared to have turned slightly downward after yearly steep rises until 2004. Surveys of gay men found an especially sharp decline in methamphetamine use. Problem users remained mostly male and White, and not as young as cocaine or heroin problem users. Marijuana use peaked in 2001, and has gradually declined since then. Problem-related use of club drugs and hallucinogens remained rare. The incidence of new AIDS cases among injection drug users (IDUs) continued to decelerate.

INTRODUCTION

Area Description

The San Francisco Bay area consists of the following counties: San Francisco, San Mateo, Alameda, Contra Costa, and Marin. The population was 4,416,000 as of January 2008, an increase of 1.8 percent in 18 months. The population is among the most multicultural of any urban region of the United States, with a particularly large, varied, and long-established Asian American representation (19 percent of the total). The Hispanic population represents a wide cross-section of people of Latin American origin. Blacks account for 11 percent of bay area residents. San Francisco County has long been a mecca for gays; gay men constitute more than 15 percent of the adult male population.

The bay area experienced its initial growth during the California gold rush. In the succeeding century and a half, it expanded greatly as a center for shipping, manufacturing, finance, and tourism. In recent years, Pacific Basin trade and high technology, such as software and biotechnology development, have led to further expansion and to a highly diversified economy. The bay area is similar to Boston and Seattle with its strong presence of knowledge-based companies.

From 1994 to 2001, there was a steep rise in the cost of rental housing in the bay area, especially in San Francisco, Marin, and San Mateo Counties. This caused significant out-migration of lower income people, which may have exerted downward pressure on local drug-use prevalence. Unemployment rose from 2 to 6 percent during the “dot-com bust” of 2001–2003, and rental rates declined significantly during those years. From 2003 onward, the economy of the bay area gradually recovered. By April 2008 unemployment was down to 4.2 percent in the west bay area (San Francisco, Marin, and San Mateo Counties) and to 5.3 percent in the east bay area (Alameda and Contra Costa Counties).

¹The author is affiliated with Haight-Ashbury Free Clinics, Inc., in San Francisco, California.

Data Sources

The sources of data for the drug abuse indicators in this report are described below:

- **Treatment admissions data** were available for all five bay area counties for calendar years (CYs) 2000 through 2005, as well as fiscal year (FY) 2007. These data were compiled by the California Department of Alcohol and Drug Programs (DADP). In addition, admissions data for San Francisco County were provided by the San Francisco Department of Public Health (SFDPH) for FYs 2006 and 2007.
- **Emergency department (ED) data** came from the Drug Abuse Warning Network (DAWN), Substance Abuse and Mental Health Services Administration (SAMHSA). Data for 2007 were for the five-county San Francisco Bay area. Eligible hospitals in the area totaled 34; hospitals in the DAWN sample numbered 33, with the number of EDs in the sample totaling 35 (some hospitals have more than one ED). In 2007, between 12 and 15 EDs reported data each month, with most reporting data that were basically complete (90 percent or greater; see exhibit 1). Unweighted DAWN *Live!* data for CY 2007 were accessed on May 27, 2008, to examine the sociodemographic characteristics of this preliminary and partial 2007 caseload. DAWN *Live!* data cannot be compared with weighted DAWN data. Only weighted ED data released by SAMHSA can be used for trend analysis. The data represented drug reports involved in drug-related visits for illicit drugs (derived from the category of “major substances of abuse,” excluding alcohol) and the nonmedical use of selected prescription drugs (derived from the category of “other substances”). Drug reports exceeded the number of ED visits because a patient could report use of multiple drugs (up to six drugs plus alcohol). A full description of the DAWN system can be found at the DAWN Web site <<http://dawninfo.samhsa.gov>>.
- **Poisonings data** were available from the California Poison Control System for the five bay area counties for 2004 through 2007.
- **Medical examiner (ME) data on drug mentions** in decedents were provided by the San Francisco County Medical Examiner for that county for FYs 2000 through 2005.
- **Reports of arrests for drug law violations and counts of reported burglaries** were provided by the San Francisco Police Department (SFPD) for 2001 through 2006.
- **Price and purity data** came from the Drug Enforcement Administration (DEA), Domestic Monitor Program (DMP), and referenced heroin buys, mostly made in San Francisco County. Data for 2006 were compared with those for 1994–2005. Data on trafficking in heroin and other drugs were available in the March 2008 report, “*National Illicit Drug Prices*,” of the National Drug Intelligence Center (NDIC) and pertained to wholesale, midlevel, and retail prices prevailing in San Francisco in December 2007.
- **Population sizes and human immunodeficiency virus (HIV) prevalence and incidence rates** were estimated by the “Consensus Meeting,” a large body of local experts (community and academic researchers, epidemiologists, and behavioral scientists). Meetings were convened in 2001 and 2006 by the SFDPH AIDS Office to examine findings by reviewing current studies and data from prevalence, incidence, and behavioral studies conducted in San Francisco with the goal of determining HIV prevalence and incidence for the San Francisco Behavioral Risk Populations (BRP), and to provide data on incidence and prevalence estimates for specific BRP subpopulations. These estimates were for San Francisco County for 2006.
- **Acquired immunodeficiency syndrome (AIDS) surveillance data** were provided by the SFDPH and covered the period through March 31, 2008.

- **Reported drug use by students** was provided by the Youth Risk Behavior Survey (YRBS) for the year 2007.
- **The National Survey on Drug Use and Health (NSDUH)** provided two reports: use of drug, alcohol, and tobacco by substate areas for 2002–2004; and use in the 15 largest metropolitan statistical areas (MSAs) for 2002–2005.
- **Surveys of gay and bisexual men** in San Francisco were conducted in 2003 and 2005 by the Stop AIDS Project.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Most indicators suggest that cocaine use prevalence has been declining since 2003, albeit more slowly in the most recent period. The drug continued to provide a greater degree of problem indicators—overdose, death, admissions, and arrests—than any other illicit drug. However, users were aging; about one-half of all problem cocaine/crack users were older than 42.

In the five-county bay area, the number of admissions for cocaine declined gradually from 2000 onward (exhibit 2). The decline in treatment episodes from FY 2006 to FY 2007 amounted to 4 percent in San Francisco County (exhibit 3).

The unweighted DAWN *Live!* cocaine ED reports in 2007 showed that 56 percent were Black and 65 percent were male; race was unknown for 8 percent of reports, and gender was unknown for less than 1 percent. There were far more patients older than 45 (42 percent) than younger than 35 (26 percent); age was unknown for less than 1 percent of reports.

Cocaine-related deaths in San Francisco County declined from 95 in FY 2000 to 65 in FY 2004, then rose slightly to 71 in FY 2005. In FY 2005, these decedents were 65 percent male; 48 percent were White and 34 percent Black; the mean age was 43.

There were about 3,800 arrests for cocaine-related charges in San Francisco in 2004, and approximately 3,170 in 2005.

Lifetime cocaine use reported by San Francisco students in 2007 was only 4.6 percent, compared with 7.2 percent reported by all U.S. students.

Cocaine/crack prices were steady or slightly higher, according to the NDIC. Local prices for powder cocaine in December 2007 were \$13,000–\$19,500 per kilogram, \$500–\$700 per ounce, and \$80 per gram. Crack prices were \$100 per gram and \$20 per rock.

Heroin

Heroin usage appears to have leveled off after significant declines from 2000 through 2004, and heroin prices have declined. As with cocaine, the problem users (treatment admissions, overdoses, and decedents) were aging; most were older than 40, with very few younger than 25. There were about 11,100 heterosexual heroin injectors in San Francisco County in 2006, about one-fifth fewer than in 2001.

The number of treatment admissions for primary heroin problems in the five-county bay area fell by more than two-thirds between CY 2000 and FY 2007 (exhibit 2). That decline has leveled off; there were just 3 percent fewer treatment episodes in San Francisco County in FY 2007 than in FY 2006 (exhibit 3).

Unweighted DAWN *Live!* data for 2007 showed a count of 1,504 heroin-related ED visits, less than one-third the count of cocaine-related visits. Of these patients reporting heroin, 67 percent were male, 40 percent were White, and 40 percent were Black. The gender was unknown for less than 1 percent of reports; the race was unknown for 7 percent. Forty-six percent were older than 45, and only 26 percent were younger than 35. Less than 1 percent of reports fell into the unknown age category.

Between FY 2000 and FY 2005 in San Francisco County, heroin-related deaths declined by 65 percent (122 to 42). In FY 2005, decedents

were 74 percent male; 67 percent were White and 19 percent were Black; the mean age was 44.

Arrests in San Francisco for narcotics-related offenses reached a peak of 6,136 in 2002. This was followed by a steep decline; the count in 2005 was 66 percent below that of 2002.

Because many heroin users support their habits through property crimes, reported burglaries may be a good indicator of use. The number of such reports in San Francisco fell by 49 percent between 1993 and 1999 (11,164 to 5,704). After that low point, the count rose to 6,706 in 2001, fell to 5,507 in 2003, and rose gradually to 6,465 in 2006, the highest in nearly a decade. These changes may reflect the price of heroin more than the prevalence of users; it is noteworthy that reported burglaries and the local price of heroin are both barely one-quarter of what they were 20 years ago.

The DMP tested heroin bought on the street in the San Francisco area during 2006. The 18 samples from that year, all Mexican brown, averaged 10 percent pure and \$0.69 per pure milligram (exhibit 4). This represents a modest downward trend from 2004 to 2006.

Prices of Mexican black tar heroin were \$7,200–\$22,000 per kilogram and \$190–\$800 per ounce in December 2007. Gram prices ranged from \$60–\$100. These prices represented significant decreases at the wholesale level: in 2002, prices were \$16,000–\$30,000 per kilogram, \$450–\$850 per ounce, but only \$60 per gram.

The Consensus Meeting estimated a resident population of 11,100 heterosexual injection drug users (IDUs) in San Francisco in 2006, down from an estimated 13,850 in 2001. The author surmises that more than 90 percent of IDUs were primary heroin users, which suggests a heroin user prevalence of about 11,100.

Other Opiates/Narcotics

Unweighted DAWN *Live!* data for 2007 showed a count of 560 ED reports for hydrocodone and hydrocodone combinations; 59 percent were female, 36 percent were White, and 46 percent

were older than 45. Race/ethnicity was unknown for 31 percent of the reports, and age was unknown for less than 1 percent. None of the reports fell into the unknown gender category. DAWN ED methadone reports totaled 401 (55 percent male, 50 percent White, and 58 percent older than 45). All of these reports had a gender specified, and less than 1 percent fell into the unknown age category. For race/ethnicity, however, 14 percent were in the unknown category. For oxycodone and oxycodone combinations, ED reports totaled 218 (56 percent male, 44 percent White, and 46 percent older than 45). None of these oxycodone/combinations reports fell into the unknown gender category; less than 1 percent had an unknown age; and 29 percent fell into the unknown race/ethnicity category. The count for fentanyl and fentanyl combination ED reports was 71, with 59 percent female, 58 percent White, and 69 percent older than 45. None of these reports fell into the unknown gender or age categories, and 13 percent had an unknown race/ethnicity.

Poison control data for the bay area showed a slight increase in mentions of hydrocodone and oxycodone between CYs 2004 and 2005 and CYs 2006 and 2007.

Methamphetamine/Amphetamines

Prevalence of methamphetamine/amphetamine use appeared to have turned slightly downward after steep rises until about 2004. Surveys of gay men found an especially sharp decline. Problem users remained mostly male and White, though not as young as cocaine or heroin users.

The number of treatment admissions for primary amphetamine problems in the five-county bay area increased 150 percent between 2000 and 2004, but then fell by almost 15 percent between 2004 and FY 2007 (exhibit 2). A 7-percent decline was seen among treatment episodes in San Francisco County between FY 2006 and FY 2007 (exhibit 3).

Unweighted DAWN *Live!* ED methamphetamine reports for 2007 numbered 1,213, which put this drug in third place behind cocaine

(4,632) and heroin (1,504). Compared with those two drugs, the methamphetamine patients were more often male (74 percent), White (55 percent), and young (45 percent were younger than 35 and 21 percent were older than 45). Less than 1 percent of the methamphetamine ED reports fell into the unknown gender or age categories; 11 percent were in the unknown race/ethnicity category.

In San Francisco County, amphetamine-related deaths rose from 15 to 48 between FY 2000 and FY 2005. In FY 2005, decedents were 85 percent male and 63 percent White; the mean age was 42.

In San Francisco in December 2007, pounds of “ice” methamphetamine sold in the \$7,000–\$12,500 range; grams sold for \$75. These prices were lower than in 2004, but not as low as 1999 prices.

Just 3.6 percent of San Francisco students in 2007 reported lifetime use of “speed,” a proportion slightly less than for U.S. students as a whole (4.4 percent).

The Consensus Meeting arrived at an estimate of 5,234 males who were both IDUs and men who have sex with men (MSM/IDU) and resided in San Francisco in 2006. For at least 90 percent of this population, speed was the preferred drug.

The Stop AIDS Project, in surveying gay and bisexual men about their use of crystal methamphetamine in the prior 6 months, found that only 10 percent admitted to such use in 2005, compared with 18 percent in 2003. Recent use of speed was frequent among gay/bisexual men in treatment for HIV disease; 40 percent reported use in the prior three months.

Marijuana

Among bay area residents, recent use of marijuana is almost as common as that of tobacco. Marijuana was somewhat cheaper in 2006 than in 2004. The drug has recently become less commonly reported among treatment program admissions. Overall, marijuana use peaked in 2001 and has gradually declined since then.

Drug treatment episodes for primary marijuana use in San Francisco County have been steadily declining since FY 2003. The decline between FY 2006 and FY 2007 amounted to 9.4 percent (exhibit 3).

Arrests for marijuana-related offenses in San Francisco County numbered 1,736 in 2000. They then ranged between 1,300 and 1,450 over the next 3 years before returning to the 2000 level in 2004. Only 1,141 arrests were reported in 2005, a 35-percent drop from 2004. The arrest count in 2006 dropped slightly more to 1,080.

According to the NDIC, ounce prices for sinsemilla marijuana were \$300–\$600, and domestic ounces cost \$150–\$200 in December 2007. A large and increasing quantity of marijuana is sold legally from medical marijuana outlets to certified purchasers. These outlets offer a great variety of products—smokable or edible, mild or strong, local or imported—with the retail price evidently closely correlated with tetrahydrocannabinol (THC) content.

An NSDUH study found that among the 15 largest MSAs in the Nation, the San Francisco/Oakland MSA had the highest recent use of illicit drugs (12.7 percent) among adults during from 2002 to 2005. That study also found that the San Francisco/Oakland MSA had the lowest recent use of tobacco (17.9 percent) among the 15 MSAs. The likeliest explanation is that the bay area has more older adults using illicit drugs, especially marijuana, than most U.S. cities; fully 84 percent of FY 2005 treatment admissions in San Francisco County were 26 or older. A somewhat earlier (2002–2004) compendium of NSDUH data found that recent use of any illicit drug in the five bay area counties was significantly higher (10.9 percent) than for California as a whole (9.1 percent) or the Nation as a whole (8.1 percent). Data for any illicit drug use but marijuana, however, showed the bay area (3.9 percent) differed little from California (3.8 percent) or the Nation (3.6 percent). Marijuana use was evidently a driving force with the bay area’s illicit drug use patterns as compared with the rest of the State or the Nation. By contrast, the YRBS found just 22.8 percent

(CI=20.3–25.5) of San Francisco students in 2007 reporting lifetime marijuana use, compared with 38.1 (CI=35.5–40.7) percent nationally, representing a statistically significant difference.

The NSDUH study also found that reported illicit drug use among nonmetropolitan areas of northern California was even greater than that in the bay area; this suggests that an out-migration of substance use patterns may have occurred. Marijuana use was driving most, but not all, of this excess.

Club Drugs

The NDIC reported that in December 2007, wholesale prices of methylenedioxyamphetamine (MDMA) were \$2,000–\$2,300 per thousand tablets. There were 171 MDMA reports to the DAWN *Live!* system in 2007—mostly male (69 percent) and young (66 percent younger than 25), but with a notably high proportion of Blacks (44 percent). Less than 1 percent of the MDMA ED reports had an unknown age or gender specified; 5 percent had unknown race/ethnicity.

Gamma hydroxybutyrate (GHB) ED reports to DAWN *Live!* numbered 64; most were male (80 percent) and White (66 percent). Sixteen percent of these ED patients were younger than 25, and 39 percent were older than 35. Gender was specified for 100 percent of the GHB reports, and less than 1 percent of the reports fell into the unknown age category. Six percent of the GHB reports fell into the unknown race/ethnicity category.

Phencyclidine (PCP) and Lysergic Acid Diethylamide (LSD)

In the bay area in 2007, there were 86 ED reports for PCP and 57 ED reports for LSD to the DAWN *Live!* system. The demography of the LSD patients was predominately male (86 percent), White (75 percent), and young (61 percent younger than 25). All of the LSD ED reports had a gender and an age specified; 7 percent fell into the unknown race/ethnicity category. The PCP patients were also mostly male (83 percent), but much more

often Hispanic (53 percent) and older (72 percent were age 35 or older). Less than 1 percent of the PCP ED reports fell into the unknown gender category, and 7 percent fell into the unknown race/ethnicity category. All of the ED reports had an age specified.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

AIDS

San Francisco County had a cumulative total of 27,599 AIDS cases among residents through March 2008. Of these cases, 2,052 (7.4 percent) were heterosexual IDUs. Another 3,893 AIDS cases (14.1 percent) were MSM/IDUs. There were just 55 reported cases among lesbian IDUs, barely one-hundredth the number among MSM/IDUs. A total of 376 AIDS cases have been reported for transgender San Franciscans.

Since March 2007, cumulative AIDS cases have increased by 1.9 percent, heterosexual IDU cases by 1.9 percent, MSM/IDU cases by 2.3 percent, transgender cases by 4.4 percent, and MSM (non-IDU) cases by 1.9 percent. Except for non-IDU MSMs, these increases were all less than in the previous year, which suggests that incidence is shifting back from IDUs to the larger gay male population.

Among San Franciscans diagnosed in 2006 through 2008, heterosexual IDUs accounted for 10 percent, as compared with 10 percent among those diagnosed in 1994–1996, 14 percent of those diagnosed in 1997–1999, 14 percent of those diagnosed in 2000–2002, and 13 percent of those diagnosed in 2003–2005. The overall case numbers in 2003–2008 were far lower than those of the late 1980s and early 1990s. The AIDS epidemic, therefore, appears to be easing among heterosexual IDUs, whose proportion among the cumulative caseload will probably not increase significantly from the last reported level of 7.4 percent.

The demography of the cumulative heterosexual IDU caseload with AIDS has changed very

little in the past 16 years. This caseload was 67 percent male, 50 percent Black, 35 percent White, 11 percent Hispanic, and 2 percent Asian/Pacific Islander. By contrast, the gay/bisexual IDU caseload was 70.8 percent White, 16.0 percent Black, 10.2 percent Hispanic, and 1.7 percent Asian/Pacific Islander. The heterosexual IDU demography is like that of heroin users except for an overrepresentation of Blacks, while the gay male IDU demography is similar to that for male speed users.

The Consensus Meeting estimated that in San Francisco in 2006, 13.5 percent of 7,100 heterosexual male IDUs, 10.5 percent of 4,000 female

IDUs, and 42.0 percent of 5,200 MSM/IDUs were HIV-positive. The Consensus Meeting also estimated very low annual HIV-incidence rates for heterosexual men and women (0.5 percent each) but higher incidence rates for MSM/IDUs (2.6 percent).

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Exhibit 1. DAWN ED Sample and Reporting Information, San Francisco/Oakland Metropolitan Area: 2007¹

| Total Eligible Hospitals | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|--------------------------|---------------------------------|--------------------------|--|--------|-------|--------------------------|
| | | | 90–100% | 50–89% | < 50% | |
| 34 | 33 | 35 | 12–15 | 0 | 0–2 | 20–21 |

¹Represents short-term, general, non-Federal hospitals with 24-hour EDs based on the American Hospital Association Annual Survey. Some hospitals have more than one ED.
SOURCE: DAWN, OAS, SAMHSA

Exhibit 2. Admissions to Drug Treatment Programs in the 5-County San Francisco Bay Area, by Primary Drug of Abuse (Excluding Alcohol Admissions): CYs 2000, 2002, 2004, and FY 2007

| Drug | 2000 | 2002 | 2004 | FY 2007 |
|--------------------------|--------|--------|--------|---------|
| Cocaine | 7,718 | 6,746 | 6,814 | 6,059 |
| Heroin | 17,416 | 11,461 | 9,089 | 5,481 |
| Amphetamine ¹ | 4,469 | 5,636 | 6,701 | 5,727 |
| All Drugs | 32,034 | 28,329 | 26,381 | |

¹Includes methamphetamine.
SOURCE: California Department of Alcohol and Drug Programs (DADP)

Exhibit 3. Admissions¹ to Drug Treatment Programs in San Francisco County, by Primary Drug of Abuse (Excluding Alcohol Admissions): FY 2006–FY 2007

| Drug | FY 2006 | FY 2007 |
|--------------------------|----------------|----------------|
| Cocaine | 4,822 | 4,649 |
| Heroin | 6,222 | 6,033 |
| Amphetamine ² | 2,159 | 2,006 |
| Marijuana | 1,222 | 1,107 |
| All Drugs | 14,807 | 14,140 |

¹Treatment episodes for primary drugs at admission.

²Includes methamphetamine.

SOURCE: San Francisco Department of Public Health

Exhibit 4. Price and Purity of Heroin Samples: 1996–2006

| Year | Price per Milligram Pure | Purity (Percent) |
|-------------|---------------------------------|-------------------------|
| 1996 | \$0.83 | 24 |
| 1997 | \$0.63 | 26 |
| 1998 | \$0.33 | 26 |
| 1999 | \$0.47 | 20 |
| 2000 | \$0.70 | 15 |
| 2002 | \$0.99 | 12 |
| 2003 | \$0.98 | 11 |
| 2004 | \$0.98 | 11 |
| 2005 | \$0.89 | 12 |
| 2006 | \$0.69 | 10 |

SOURCE: DMP, DEA

Recent Drug Abuse Trends in the Seattle/King County Area: 2007

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ABSTRACT

Cocaine continued to be a major drug of abuse in 2007, with substantial associated morbidity and mortality. Drug-caused deaths involving cocaine totaled 86 in 2007, down from a high of 111 in 2006, but remained second to those involving prescription-type opiates. Treatment admissions with cocaine as the primary drug were second only to alcohol and continued to be disproportionately African American. Cocaine was the most commonly abused drug, licit or illicit, reported in area emergency departments (EDs) and the most common drug submitted for testing by local law enforcement in King County. Heroin-involved, drug-caused deaths have been relatively level the past 5 years, with 65 in 2007. Treatment admissions declined slowly overall, as has the proportion of heroin clients in methadone maintenance treatment (MMT). Heroin was the second most

common illicit drug reported in EDs at one-half the level of cocaine. Drug-caused deaths involving prescription-type opiates increased slightly in 2007. Methadone continues to be the most common drug type, followed by oxycodone. Treatment admissions where prescription-type opiates were primary leveled off in 2007, after several years of increases. Eighteen to 25-year-olds were the largest age group among primary prescription-type opiate users, with 35 percent of admissions. Prescription-type opiate ED reports totaled 3,109 in 2007, third after cocaine and alcohol. Oxycodone was reported slightly more often than methadone in EDs. Methamphetamine use appeared to be more common in the areas of King County outside of Seattle proper, and drug-caused deaths (18 in 2007) remained steady since 2003. Methamphetamine primary treatment admissions remained level with about 11 percent of all admissions from 2005 to 2007. Methamphetamine incidents (a combination of labs and dump sites) totaled 42 in King County, down from 63 the previous year and the peak of 271 in 2001. Statewide numbers were also down substantially. Law enforcement reported that "ice" is commonly available and the majority comes from Mexico. Marijuana was the primary drug in 16 percent of all treatment admissions, with 38 percent under the age of 18 in 2007. ED reports for marijuana totaled 1,660, third among illegal drugs behind cocaine and heroin. Indoor marijuana grow operations in western Washington and outdoor grows in eastern Washington were pervasive, as reported by law enforcement. MDMA morbidity and mortality remained low, with a total of three drug-caused deaths involving MDMA and 127 ED reports in 2007. Washington State appears to be a major transshipment point for MDMA manufactured in and transported out of British Columbia, Canada. HIV prevalence remained low. From 2005 to 2007, injection drug users (IDUs) represented 4 percent of new infections, and men who have sex with men (MSM) and were IDUs, another 8 percent. These proportions were unchanged from previous years. A total of 2,125,850 syringes were exchanged at eight different locations throughout King County in 2007.

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INTRODUCTION

Area Description

Located on Puget Sound in western Washington, King County spans 2,126 square miles, of which the city of Seattle occupies 84 square miles. The combined ports of Seattle and nearby Tacoma make Puget Sound the second largest combined cargo loading center in the United States. Seattle-Tacoma International Airport, located in King County, is the largest airport in the Pacific Northwest. The Interstate 5 corridor runs from Tijuana, Mexico, in the south, passes through King County, and continues northward to Canada. Interstate 90's western terminus is in Seattle; it runs east over the Cascade Mountain range, through Spokane, and across the United States to Boston.

The estimated 2006 population of King County was 1,826,732. King County's population was the twelfth largest in the United States in 2000. Of Washington's 6.4 million residents, 29 percent live in King County. The city of Seattle's population was 569,101 as of 2003; the suburban population of King County is growing at a faster rate than Seattle itself.

The county's population is 76.2 percent White, 12.9 percent Asian/Pacific Islander, 6.7 percent Hispanic, 5.9 percent African American, 1.0 percent Native American or Alaska Native, and 0.6 percent Native Hawaiian and Other Pacific Islander. Those reporting two or more races constitute 3.4 percent of the population. Income statistics show that 10 percent of King County residents live below the Federal poverty level, lower than the State average of 11.6 percent.

Data Sources

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

- **Treatment data** were extracted from the Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse's Treatment and Assessment Report Generation Tool (TARGET) via the Treatment

Analyzer system. TARGET is the department's statewide alcohol/drug treatment activity database system. Data were compiled for King County residents from January 1, 1999, through December 31, 2007. Data are included for all treatment admissions that had any public funding. Department of Corrections (DOC) and private pay clients (at methadone treatment programs) are also included. Treatment data are for King County residents admitted to any modality of care between 1999 and 2007. Note that it is difficult to determine trends in race due to the increasing use of the categories "multiple race" and "other." Also, any injection drug use in the prior 30 days is reported for 2007, with changes in reporting procedures over time precluding trend analyses. The hallucinogen category appears to be predominately MDMA.

- **Emergency department (ED) drug data** are from the Drug Abuse Warning Network (DAWN) *Live!* system administered by the Office of Applied Studies (OAS), Substance Abuse and Mental Health Services Administration (SAMHSA). Preliminary, unweighted data for 2007 are presented, based on an update accessed on May 13, 2008. Eligible hospitals in the area totaled 23; hospitals in the DAWN sample totaled 23 (exhibit 1). A total of 25 emergency departments were selected for inclusion in the sample (some hospitals have more than one ED). During 2007, between 10 and 11 hospitals reported data each month. Data were incomplete, with less than 50 percent complete data for 0–4 of these hospitals in each month. These data are preliminary, meaning that they may change. Data represent drug reports, are unweighted, and are not estimates for the reporting area. Data are utilized for descriptive purposes only. Available data are for King County and neighboring Snohomish County combined; Pierce County (where Tacoma is located) is part of the statistical sample, but no EDs in Pierce were reporting during 2007. The most relevant case type presented here is the "other" case type, which includes "all ED visits related to recreational use, drug abuse, drug dependence, withdrawal, and

any misuse” not classified in other categories, such as overmedication and seeking detoxification treatment. For the sake of clarity, “other” will be referred to as “drug abuse/other” in this report.

- **Drug-related mortality data** were provided by the King County Medical Examiner (ME) through 2007. The data include deaths directly caused by licit or illicit drug overdose and exclude deaths caused by antidepressants and other nonabusive drugs in isolation. Totals may differ slightly from drug death reports published by the King County ME office, which include fatal poisonings such as those due to carbon monoxide or acetaminophen. Documentation of alcohol in deaths has changed over the years, precluding definitive statements about the role of alcohol in trends for drug-caused deaths. Because more than one drug is usually identified in drug overdose deaths, the total number of drugs identified far exceeds the number of actual deaths.
- **Forensic drug analysis data** came from the Washington State Patrol’s Toxicology Laboratory solid-state chemistry unit and represent drug test results on local law enforcement seizures. Data are presented for King, Snohomish, and Pierce counties from October 2006 through September 2007. These data are based on the county where the drug was seized and are not comparable to previous years’ data presented in earlier reports.
- **Law enforcement data** were provided by the Northwest High Intensity Drug Trafficking Area (NW HIDTA) officials and include the Federal-wide Drug Seizure System (FDSS), which tallies all Federal law enforcement drug seizures in the State of Washington (e.g., Drug Enforcement Administration and U.S. Customs) for calendar years 2001–2007 as well as the NW HIDTA’s survey of local law enforcement seizures for 2007.
- **Methamphetamine production data** came from the Washington State Department of

Ecology (DOE), which is mandated to respond to and document all “Methamphetamine Incidents,” including operating labs, dump sites, and other sites associated with the manufacture of methamphetamine.

- **Data on infectious diseases related to drug use and injection drug use (IDU)**, including the human immunodeficiency virus (HIV), were provided by Public Health-Seattle/King County (PHSKC). Data on HIV cases diagnosed in King County were available from 1981 through 2007.
- **Key informant data** were obtained from discussions with treatment center staff, street outreach workers, and drug users.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine involved, drug-caused deaths declined to 86 in 2007, from a peak of 111 in 2006 (exhibit 2). Cocaine remained second only to prescription-type opiates. The overall trend for cocaine mortality was up over the past 7 years, with substantial inter-year variability.

Treatment admissions with cocaine as the primary drug were second only to alcohol and continued to be disproportionately African American (exhibit 3). Primary cocaine treatment admissions were steady at about 17 percent of admissions from 2005 to 2007, but were up compared to the prior 6 years. The age composition of clients changed substantially, increasing from 31 to 58 percent of patients age 40 and older. The most common secondary drug was alcohol, reported by approximately one-half of clients, unchanged over time. Among primary alcohol users, 22 percent reported cocaine as secondary in 2007 (the use of cocaine and alcohol concomitantly produces the substance cocaethylene, which has a unique and desired euphoric effect). The second most common drug, mentioned by about 20 percent of clients, was marijuana, also unchanged.

Past 30-day injection of any drug was reported by just 5 percent of primary cocaine users, similar to the total proportion that reported heroin as their secondary drug, at 6 percent (most heroin is injected in the area).

Cocaine was the most common drug reported in area ED reports, totaling 4,401, more than double the number for heroin (exhibit 4). Cocaine was the most common drug identified in testing of law enforcement evidence for King County (42 percent of submissions, $n=1,673$), and was present at somewhat lower levels in the surrounding counties (FY 2007). Most cocaine involved, drug-caused deaths also involved other drugs. In 2007, 79 percent involved other drugs, similar to most prior years, except 2006, when 39 percent of cocaine-involved deaths had no other drug present.

Heroin

Heroin/opiate involved, drug-caused deaths have been relatively level the past 5 years, with 65 in 2007 (exhibit 2). Heroin/opiate drug-caused deaths involved other drugs in 83 percent of deaths in 2007, similar to prior years.

Heroin primary treatment admissions declined proportionately from 20 to 12 percent of all treatment admissions to all modalities of care during the period from 1999 to 2007 (exhibit 3). The number of admissions declined from 1,962 to 1,478. This occurred despite increases in methadone maintenance treatment (MMT) capacity and average caseload, due to increasing numbers and proportions of primary prescription-type opiate users entering MMT. These MMT numbers include clients served at private pay facilities who are much more likely to be primary prescription-type opiate users. Heroin-primary clients continued to be mostly White, with African Americans, at 16 percent of 2007 admissions, being somewhat over-represented compared with the overall demographics of the county. Cocaine has remained the most common secondary drug, at 50 percent. Prescription-type opiates were the most common secondary drug in 2007, at 10

percent, up from 4 percent in 1999. Methamphetamine as secondary has increased from 1 to 6 percent. The age composition of primary heroin users has shifted since 1999, with increases in both younger and older groups. Specifically, there was a change from 17 to 23 percent of clients being under the age of 30; a slight decline in the proportion in their 30s, from 32 to 26 percent in 2007; a substantial decrease among those in their 40s, from 41 to 27 percent; and a large increase among those age 50 and older, from 10 percent to 23 percent. This likely indicates the continued aging of an older cohort and the apparent emergence of a younger cohort of users.

ED reports for heroin, the second most common illegal drug among all ED case types, totaled 2,172. This was somewhat less than the 2,396 reports for prescription-type opiates, or for the case types seeking detoxification treatment, over-medication and other/drug abuse (exhibit 4, note that the subtotal for prescription-type opiates was not available and therefore is not shown in the exhibit). Purity data from the DEA indicate that the average purity of street purchases in Seattle and Tacoma, from December 2006 through July 2007, was 12 percent, similar to prior years. However, there was significant variability, with a median of 10 percent and a range from 0–62 percent purity. The use of unexpectedly high purity heroin could result in overdoses.

Heroin is relatively infrequent in local law enforcement seizures compared with other major drugs of abuse. In fiscal year 2007, 5 percent of tests on substances seized in King County tested positive for heroin, similar to Snohomish County and slightly more than Pierce County (exhibit 5). The generally low level was similar across these adjacent counties, all of which have large metropolitan centers.

Other Opiates/Narcotics

The growth in primary prescription-type opiate use is important in terms of the overall drug abuse scene. There are some indications of a slowing of the rate of increase across indicators

of prescription-type opiate abuse, but morbidity and mortality indicators are at high levels. Treatment admissions were at a disproportionately low level compared with other indicators among the available data sources. This may be due to the lack of data on private pay treatment for non-MMT modalities. Private pay MMT clients are much more likely to be primary prescription-type opiate users, and it is possible this pattern is also present among those clients receiving private pay non-MMT treatment. The lack of information about the full population receiving drug treatment may represent a particularly large blind spot when it comes to prescription drugs.

Drug-caused deaths involving prescription-type opiates totaled 151 in 2007, up slightly from 2006, and up substantially from 1997, when there were 22 (exhibit 2). The majority of prescription-type, opiate involved, drug-caused deaths had methadone present, with oxycodone being the second most common type of opioid. In 2007, 84 percent of these deaths involved multiple drugs, a somewhat smaller proportion than in recent years.

A polydrug-caused death occurred in the first half of 2007 in King County, in which buprenorphine, alcohol, and several prescription sedatives were detected. This was the first known case of a drug-caused death in which buprenorphine was detected. Toxicological testing for buprenorphine is not routinely done and must be specifically requested. The patient was receiving buprenorphine for opiate addiction treatment.

A recently completed analysis of methadone involved deaths throughout Washington State between 2001 and 2004, in which methadone was listed on the death certificate ($n=627$), found that 5 percent of decedents were currently in a methadone maintenance, drug treatment program (either nonprofit or for profit clinics) and that an additional 5 percent had been in a program at some time in the prior 3 years. Washington State does not yet have a universal, electronic prescription monitoring program, so other sources are not systematically available.

Prescription-type opiate primary users increased as a proportion of all treatment admissions, from 1 to 4 percent from 1999 to 2007—an increase in absolute numbers from 87 to 511 (exhibit 3). Calendar year 2007 was the first year since 2002 in which there was no increase in the proportion. The proportion of females declined somewhat to 45 percent in 2007, although this is still the highest proportion of females among the major drugs of abuse. The proportion of primary prescription-type opiate users who were White increased from 67 to 79 percent.

A striking change in the age distribution of primary prescription-type opiate users has occurred over the past 9 years, with the largest group being those under the age of 30, at 56 percent in 2007, up from 16 percent in 1999. The proportion reporting heroin as secondary was 12 percent, cocaine, 15 percent, “other” (a category including benzodiazepines), 9 percent, alcohol, 14 percent, and marijuana, 18 percent. Trends in secondary drugs are not discernable due to small numbers in earlier years.

Prescription-type opiates totaled 3,109 for all ED reports (exhibit 4), with 2,396 reports total for the case types of seeking detoxification, overmedication, and other/drug abuse (data not shown). Among these three case types, oxycodone ($n=633$) and methadone ($n=613$) predominated, with an additional 250 reports for hydrocodone. The distribution of case types varied across these three drugs, with 72 percent of methadone reports of the other/drug abuse case type compared with 60 and 47 percent for oxycodone and hydrocodone, respectively. Note, that although currently unavailable, DAWN reports for prescription-type opiates involved other drugs in combination in a majority of cases. Buprenorphine reports totaled 19, with 5 seeking detoxification treatment and 14 other/drug abuse.

Testing of local law enforcement evidence indicates that the combined class of opioids represented 7 percent of tests conducted ($n=297$) (exhibit 5). The most common substances identified include oxycodone ($n=144$), hydrocodone ($n=72$), and methadone ($n=51$). The proportion

of prescription-type opiates was lower in Pierce County and higher in Snohomish County. According to the NW HIDTA, diverted prescription-type opiates are generally available throughout most of Washington.

Methamphetamine

Methamphetamine use was more prevalent outside the urban core of Seattle and was used throughout much of Washington State. Drug-caused deaths with methamphetamine present remained relatively steady over the past 6 years, with 18 deaths in 2007 (exhibit 2). A substantial minority of drug-caused deaths with methamphetamine involved no other drugs—44 percent in 2007. The proportion of methamphetamine-only, drug-caused deaths was higher in the previous 3 years than the several years prior. The median age for methamphetamine-only deaths was 42.5 years, higher than those in which other drugs were also present (37.0 years) during the past 11 years.

Methamphetamine primary treatment admissions, as a proportion of all admissions, increased from 4 percent ($n=390$) in 1999 to 11 percent ($n=1,367$) in 2007, and the proportion remained steady from 2005 to 2007 (exhibit 3). Methamphetamine users were disproportionately White, although Whites declined from 90 to 80 percent of admissions (coding issues preclude trend analyses). The main change in age distribution was an increase in clients age 40 and older, from 9 to 22 percent between 1999 and 2007. The proportion under age 30 was relatively large, at 45 percent, compared to cocaine, 15 percent, and heroin, 23 percent, but smaller than for marijuana and prescription-type opiates. Recent injection drug use was reported by just 12 percent of primary methamphetamine clients in 2007. The most common secondary drug of abuse was marijuana, at 34 percent, followed by alcohol, at 26 percent, and cocaine, at 13 percent in 2007, similar to prior years. Methamphetamine ED reports for all case types totaled 924, which was less than one-quarter the level of cocaine, lower than heroin and

cocaine, but much more common than MDMA and PCP (exhibit 4).

Methamphetamine positive drug seizures by local law enforcement were more prevalent in the counties surrounding King County, although they still constituted 16 percent ($n=658$) of tests in King County (exhibit 5). Newly available Domestic Monitoring Program (DMP) data from the DEA indicate that there was enormous variability in the purity of methamphetamine, most of which was “crystal/ice”. From November 2006–September 2007, local DEA made 33 street level buys in 12 different cities throughout Washington, reporting an average purity of 59 percent and a range of 0–99 percent.

Methamphetamine incidents (a combination of labs and dump sites) totaled 42 in King County, down from 63 the previous year and the peak of 271 in 2001 (exhibit 6). Statewide numbers were down substantially as well. Law enforcement reported that ice is commonly available and the majority comes from Mexico. Data from the Federal Drug Seizure System indicate an upturn in methamphetamine seizures, totaling 97 kilograms in 2007, after a steady decline from the 206 kilograms seized in 2003.

Marijuana

Marijuana was reported as the primary drug of abuse by 16 percent of clients, similar to the previous year, but down from 20 percent in 2003. The absolute number of admissions was 2,016 in 2007, compared with 1,665 in 1999 (exhibit 3). Female primary marijuana users made up the smallest proportion of admissions among all drugs, at 23 percent, down from an already low level of 29 percent in 1999. From 1999 to 2007, the proportion of Whites declined from 58 to 42 percent, whereas the proportions for African Americans increased from 21 to 31 percent. These low and declining proportions of females and Whites may be related to the relatively high and increasing proportion of criminal justice referrals among marijuana cases detailed in the June 2006 Seattle Area CEWG report. These demographic changes

may also be related to the dramatic changes in the ages of clients entering treatment with marijuana as the primary abuse problem. In 1999, 63 percent of clients were under 18, dropping to 38 percent in 2007. The factors driving this change were unclear, but appear to be due in part to declines in youth referrals associated with fewer social services staff in area schools. Some shifts in secondary drugs of abuse have occurred, with a decline in alcohol to 57 percent, and increases for cocaine, up to 11 percent, and methamphetamine, up to 7 percent. These shifts were likely driven by the changes in age composition of treatment admissions. Marijuana is the most common secondary drug of abuse among clients reporting alcohol as primary, at 32 percent. Marijuana ED reports totaled 1,660 for all case types, lower than heroin and cocaine, but more common than methamphetamine (exhibit 4).

Marijuana was the second most common drug in tests of local law enforcement seizures from King County, at 19 percent ($n=754$) (exhibit 5). Marijuana was the most common such substance in Pierce County, 34 percent ($n=606$), and second in Snohomish County, at 25 percent ($n=272$). Indoor marijuana grow operations in western Washington and outdoor grows in eastern Washington were reported by law enforcement to be pervasive. Federal drug seizures for marijuana totaled 2,121 kilograms in 2007, down compared to previous years.

Hallucinogens/Club Drugs

Hallucinogens were relatively uncommon in drug-caused deaths. Deaths involving MDMA remained infrequent, with three in 2007 and a total of 17 since 1997 (exhibit 2). The average age for MDMA involved deaths (26) was much younger than for fatalities overall (42). Polydrug deaths were the norm with MDMA, constituting 82 percent of MDMA-involved deaths since 1997. Dextromethorphan was present in seven drug-caused deaths in 2007, a level similar to previous years. Each of the 46 deaths with dextromethorphan since 1997 has involved multiple drugs,

one-half of them cocaine, heroin, and/or methamphetamine. The average age of dextromethorphan involved, drug-caused deaths was 42. There was one phencyclidine (PCP) involved death in 2007, with a total of four since 1997. Every PCP case involved other drugs, and decedents averaged just 28 years of age. No deaths with the presence of lysergic acid diethylamide (LSD) or psilocin/psilocybin (psychedelic mushrooms) have been reported in the past decade.

Hallucinogens were infrequently mentioned as a primary drug of abuse, although the numbers did increase from 1999 to 2007, from 16 to 77 (exhibit 3). Despite these small numbers, some important trends were evident. The proportion of African Americans increased from 0 to 22 percent, and the proportion under 18 declined from 63 to 16 percent. While the majority of primary hallucinogen users reported marijuana as secondary in 1999, the most common secondary drug was cocaine in 2007, at 38 percent. The proportion reporting recent IDU (35 percent) was high. In sum, treatment data indicate a very different group of hallucinogen users that is more likely to be African American, older, and an IDU compared with past years.

A total of 127 ED reports involved MDMA, similar to PCP, with 114, but much lower than for other drugs of abuse (exhibit 4). Of the 127 reports, 22 percent were age 12–17; 23 percent were age 18–20; 20 percent were age 21–24; and 17 percent were age 25–29. Overall, this age distribution was much younger than for other major drugs of abuse. Of the 114 PCP reports, the modal group was age 25–29, at 26 percent, with another 23 percent age 35–44, representing an older group than those reporting MDMA use. (Note that the majority of race data were missing in DAWN.)

Local law enforcement tests indicated that MDMA was more common in Seattle/King County than the surrounding counties, but that it was still present in about 3 percent of tests in both Snohomish and Pierce counties (exhibit 5). For evidence obtained in King County, there were 249 MDMA positive tests (6 percent), with 31 tests positive for psilocin/psilocybin, and 22

positive for PCP. There were also four positive tests for foxy methoxy, a research chemical, which has been present for several years in the Seattle area. LSD was detected once. Washington State appears to be a major transshipment point for MDMA manufactured in and transported out of British Columbia, Canada.

Benzodiazepines

Benzodiazepines were present in 16 percent ($n=43$) of drug-caused deaths in 2007, a proportion similar to the prior 6 years (exhibit 2). Ninety-nine percent of all benzodiazepine involved, drug-caused deaths were polydrug. Muscle relaxants, another class of drugs with sedating effects, were present in 4 percent of cases in 2007, also similar to previous years. Eighty-three percent of muscle relaxant involved deaths were polydrug.

Benzodiazepines and sedatives were reported twice as often as secondary drugs than as primary drugs among clients entering treatment (exhibit 3, data not shown for primary drug use). Prescription-type, opiate primary users were the most likely to report secondary use of prescription-type sedatives.

The combined category of anxiolytics, sedatives, and hypnotics totaled 2,090, two-thirds of the level of prescription-type opiates (exhibit 4). This category includes benzodiazepines and

barbiturates. Muscle relaxant ED reports totaled 249 (data not shown).

Law enforcement seizures of benzodiazepines were uncommon, representing 2 percent of all seizures in King County in 2007 (exhibit 5).

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

HIV prevalence remained low overall in King County and relatively low among IDUs. IDUs represented 4 percent of new HIV diagnoses between 2005 and 2007 (exhibit 7), statistically unchanged from prior years. MSM/IDUs totaled 8 percent of cases in 2005 and 2007, also statistically unchanged.

The syringe exchanges throughout King County provided 2,125,850 syringes in 2007 through nine different venues. This volume has been relatively steady since 1999.

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Exhibit 1. DAWN ED Sample and Reporting Information for King and Snohomish Counties: January–December 2007

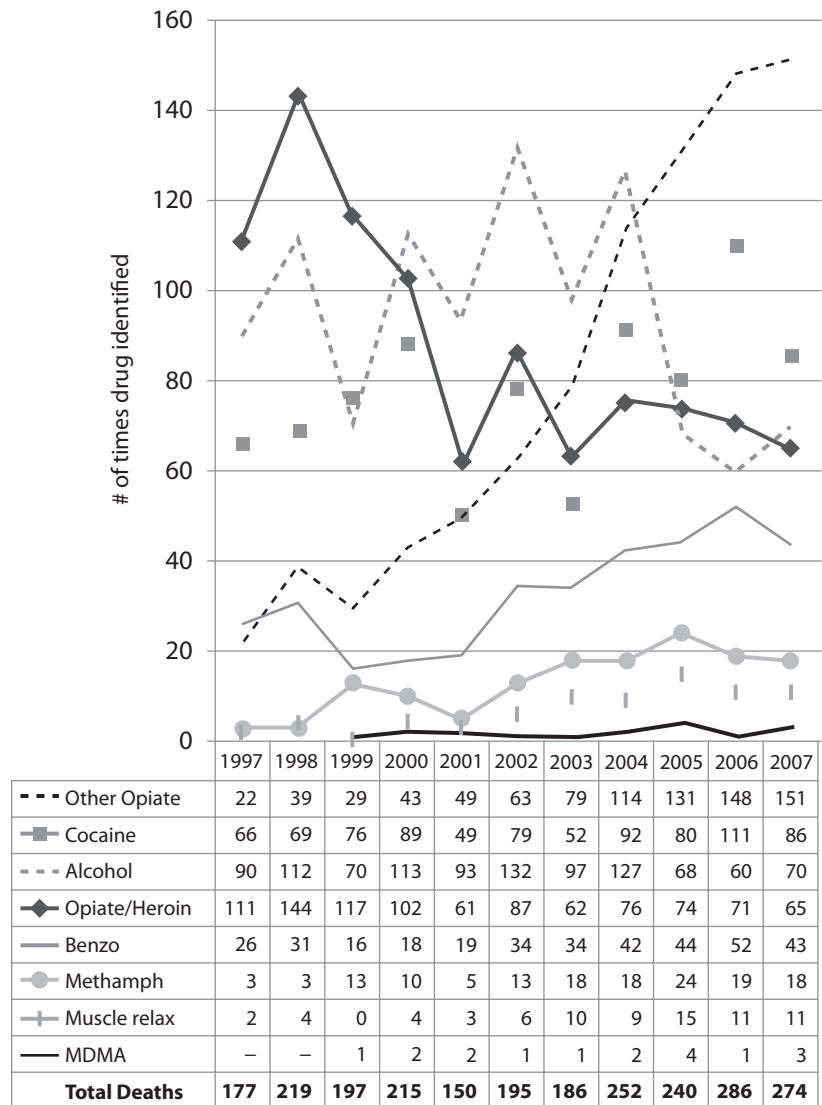
| Total Eligible Hospitals ¹ | No. of Hospitals in DAWN Sample | Total EDs in DAWN Sample ² | No. of EDs Reporting per Month: Completeness of Data (%) | | | No. of EDs Not Reporting |
|---------------------------------------|---------------------------------|---------------------------------------|--|--------|------|--------------------------|
| | | | 90–100% | 50–89% | <50% | |
| 23 | 23 | 25 | 6–10 | 0–2 | 0–4 | 14–15 |

¹Short term, general, non-Federal hospitals with 24-hour EDs based on the American Hospital Association Annual Survey.

²Some hospitals have more than one ED.

SOURCE: DAWN Live!, OAS, SAMHSA, updated 5/13/08

Exhibit 2. Drug-caused Deaths in King County, WA



SOURCE: King County Medical Examiner

Exhibit 3. Drug Treatment Admissions in King County, 1999 compared to 2007

| | Primary Drug | | | | | | | | | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|--------------|------------------|--------------|--------------|--------------|--------------|-----------|-----------------|------------|--------------|---------------|
| | Alcohol | | Cocaine | | Heroin | | Methamphetamines | | Marijuana | | Hallucinogen | | Rx type opiates | | Total | |
| | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 | 1999 | 2007 |
| Gender | | | | | | | | | | | | | | | | |
| Male | 73% | 72% | 57% | 64% | 58% | 64% | 55% | 62% | 71% | 77% | 75% | 64% | 49% | 55% | 6,561 | 8,495 |
| Female | 27% | 28% | 43% | 36% | 42% | 36% | 45% | 38% | 29% | 23% | 25% | 36% | 51% | 45% | 3,283 | 3,981 |
| Ethnicity | | | | | | | | | | | | | | | | |
| White | 59% | 50% | 39% | 36% | 71% | 68% | 90% | 80% | 58% | 42% | 88% | 52% | 67% | 79% | 5,929 | 6,642 |
| African American | 18% | 18% | 49% | 47% | 16% | 16% | 3% | 3% | 21% | 31% | 0% | 29% | 6% | 7% | 2,114 | 2,857 |
| Asian/PI | 4% | 5% | 2% | 3% | 1% | 1% | 1% | 3% | 5% | 4% | 6% | 5% | 15% | 3% | 295 | 469 |
| Native American | 9% | 8% | 3% | 3% | 3% | 4% | 3% | 3% | 5% | 4% | 6% | 4% | 8% | 4% | 602 | 612 |
| Hispanic | 7% | 10% | 4% | 5% | 5% | 7% | 3% | 4% | 6% | 10% | 0% | 6% | 3% | 3% | 609 | 977 |
| Multiple Race | 1% | 5% | 1% | 4% | 1% | 3% | 0% | 4% | 1% | 7% | 0% | 3% | 0% | 3% | 88 | 556 |
| Other | 2% | 4% | 2% | 3% | 2% | 2% | 0% | 3% | 2% | 2% | 0% | 1% | 1% | 2% | 207 | 363 |
| Age | | | | | | | | | | | | | | | | |
| Less than 18 | 8% | 8% | 3% | 2% | 1% | 1% | 7% | 2% | 63% | 38% | 63% | 16% | 0% | 4% | 1,510 | 1,313 |
| 18–25 | 12% | 13% | 5% | 7% | 8% | 12% | 22% | 24% | 18% | 28% | 25% | 27% | 5% | 35% | 1,132 | 2,106 |
| 26–29 | 9% | 9% | 11% | 6% | 8% | 10% | 19% | 19% | 6% | 10% | 0% | 16% | 11% | 18% | 882 | 1,264 |
| 30–39 | 36% | 24% | 51% | 27% | 32% | 26% | 42% | 33% | 9% | 15% | 13% | 16% | 36% | 22% | 3,200 | 3,005 |
| 40–49 | 27% | 30% | 27% | 43% | 41% | 27% | 8% | 19% | 3% | 7% | 0% | 13% | 30% | 12% | 2,434 | 3,212 |
| 50+ | 9% | 16% | 4% | 15% | 10% | 23% | 1% | 3% | 1% | 2% | 0% | 13% | 18% | 10% | 686 | 1,576 |
| Intravenous Drug Use¹ Any Substance Past 30 Days | | | | | | | | | | | | | | | | |
| Yes | ... | 2% | ... | 5% | ... | 70% | ... | 12% | ... | 1% | ... | 35% | ... | 14% | ... | 1,560 |
| No | ... | 98% | ... | 95% | ... | 30% | ... | 88% | ... | 99% | ... | 65% | ... | 86% | ... | 10,916 |
| Secondary Substance | | | | | | | | | | | | | | | | |
| Alcohol | 0% | 0% | 57% | 47% | 19% | 10% | 32% | 26% | 72% | 57% | 13% | 18% | 25% | 14% | 2,483 | 2,842 |
| Cocaine | 27% | 22% | 0% | 0% | 50% | 50% | 13% | 13% | 5% | 11% | 13% | 38% | 15% | 15% | 2,293 | 2,307 |
| Heroin | 3% | 1% | 9% | 6% | 0% | 0% | 3% | 4% | 1% | 1% | 0% | 4% | 17% | 12% | 288 | 357 |
| Methamphetamines | 3% | 4% | 3% | 5% | 1% | 6% | 0% | 0% | 4% | 7% | 0% | 6% | 1% | 3% | 242 | 558 |
| Marijuana | 33% | 32% | 19% | 20% | 7% | 7% | 38% | 34% | 0% | 0% | 63% | 19% | 5% | 18% | 1,999 | 2,630 |
| Amphetamines | 1% | 1% | 1% | 1% | 1% | 2% | 2% | 1% | 1% | 3% | 0% | 1% | 0% | 2% | 94 | 202 |
| Hallucinogens | 1% | 1% | 0% | 1% | 0% | 0% | 2% | 1% | 2% | 2% | 0% | 0% | 0% | 0% | 69 | 119 |
| Rx type opiates ² | 1% | 2% | 0% | 1% | 4% | 10% | 0% | 2% | 0% | 2% | 0% | 4% | 2% | 9% | 125 | 408 |
| Prescribed opiate substitute ³ | 0% | 0% | 0% | 0% | 1% | 2% | 0% | 0% | 0% | 0% | 0% | 1% | 5% | 4% | 34 | 89 |
| None | 16% | 24% | 3% | 12% | 3% | 4% | 3% | 13% | 4% | 9% | 0% | 3% | 10% | 9% | 852 | 1,864 |
| Other ⁴ | 2% | 1% | 1% | 1% | 3% | 3% | 3% | 2% | 2% | 3% | 0% | 5% | 14% | 9% | 199 | 273 |
| Tobacco | 14% | 10% | 6% | 5% | 12% | 5% | 4% | 4% | 10% | 4% | 6% | 0% | 6% | 5% | 1,095 | 822 |
| Unknown | 1% | 0% | 1% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 6% | 0% | 0% | 0% | 71 | 5 |
| Total⁵ | 4,307 | 4,564 | 1,279 | 2,154 | 1,962 | 1,478 | 390 | 1,367 | 1,665 | 2,016 | 16 | 77 | 87 | 511 | 9,844 | 12,476 |

¹IDU data from 1999 not comparable with 2007 so excluded.

²Rx-type opiates = other opiates, oxy/hydrocodone or non-Rx methadone.

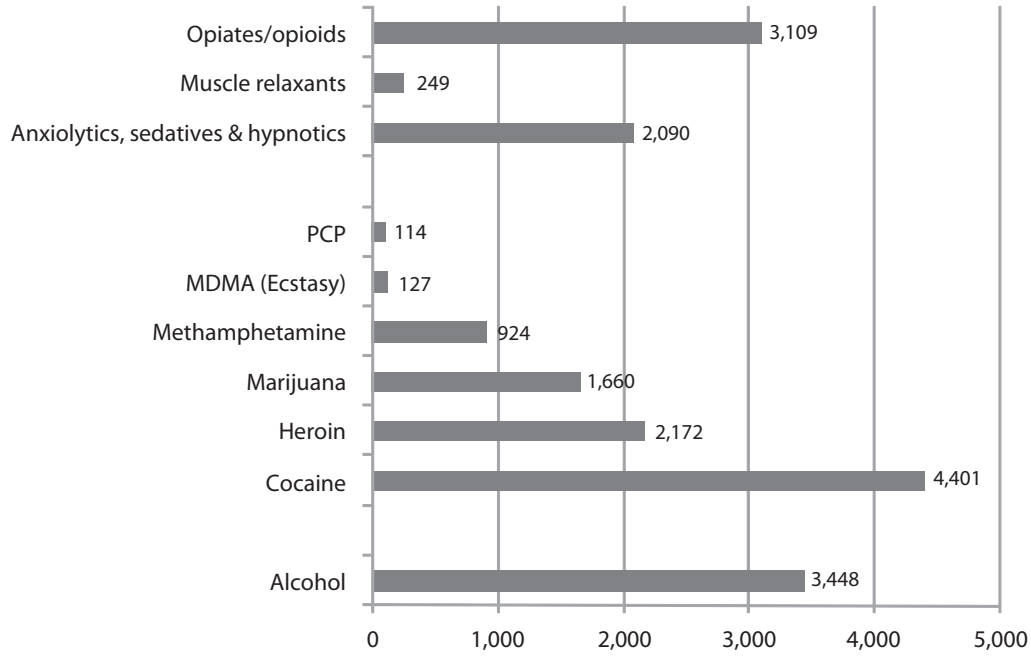
³Prescribed opiate substitute is not clearly defined and therefore is not combined with prescription-type opiates.

⁴Other = other, barbiturates, benzodiazepines, inhalants, major tranquilizers, other sedatives, over-the-counter, or PCP.

⁵Several categories with low numbers are excluded and therefore the total is more than the sum of the data elements presented.

SOURCE: Outpatient, Intensive Inpatient, Recovery House, Long-Term Residential and Opiate Substitution Admissions King County Residents via Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse's Treatment and Assessment Report Generation Tool (TARGET)

Exhibit 4. DAWN ED Reports by Drug Type, All Case Types: January–December 2007



SOURCE: DAWN *Live!*, OAS, SAMHSA, updated 5/13/08

Exhibit 5. Local Law Enforcement Drug Seizure Test Results, National Forensic Laboratory Information System (NFLIS), October 2006–September 2007

| Substance | King County | | Pierce County | | Snohomish County | |
|------------------------------|--------------|-------------|---------------|-------------|------------------|-------------|
| | Count | Percentage | Count | Percentage | Count | Percentage |
| Cocaine | 1,673 | 41.6% | 513 | 28.7% | 251 | 22.7% |
| Cannabis | 754 | 18.7% | 606 | 33.9% | 272 | 24.6% |
| Methamphetamine | 658 | 16.3% | 429 | 24.0% | 337 | 30.4% |
| MDMA | 249 | 6.2% | 50 | 2.8% | 29 | 2.6% |
| Heroin | 189 | 4.7% | 60 | 3.4% | 54 | 4.9% |
| Oxycodone ¹ | 144 | 3.6% | 30 | 1.7% | 56 | 5.1% |
| Hydrocodone ¹ | 72 | 1.8% | 21 | 1.2% | 21 | 1.9% |
| Methadone ^{1,2} | 51 | 1.3% | 5 | 0.3% | 14 | 1.3% |
| Clonazepam ³ | 23 | 0.6% | 9 | 0.5% | 5 | 0.5% |
| Diazepam ³ | 21 | 0.5% | 6 | 0.3% | 7 | 0.6% |
| Psilocin | 19 | 0.5% | 1 | 0.1% | 14 | 1.3% |
| Alprazolam ³ | 17 | 0.4% | 10 | 0.6% | 6 | 0.5% |
| Phencyclidine | 22 | 0.5% | 6 | 0.3% | – | 0.0% |
| Morphine ¹ | 20 | 0.5% | 5 | 0.3% | 1 | 0.1% |
| Amphetamine | 16 | 0.4% | 4 | 0.2% | 4 | 0.4% |
| Psilocybine | 12 | 0.3% | 2 | 0.1% | 10 | 0.9% |
| Methylphenidate | 10 | 0.2% | 3 | 0.2% | 3 | 0.3% |
| Buprenorphine ^{1,2} | 8 | 0.2% | 3 | 0.2% | 3 | 0.3% |
| Lorazepam ³ | 7 | 0.2% | 5 | 0.3% | 1 | 0.1% |
| Codeine ¹ | 4 | 0.1% | 3 | 0.2% | 5 | 0.5% |
| Other | 57 | 1.4% | 15 | 0.8% | 14 | 1.3% |
| Total | 4,026 | 100% | 1,786 | 100% | 1,107 | 100% |

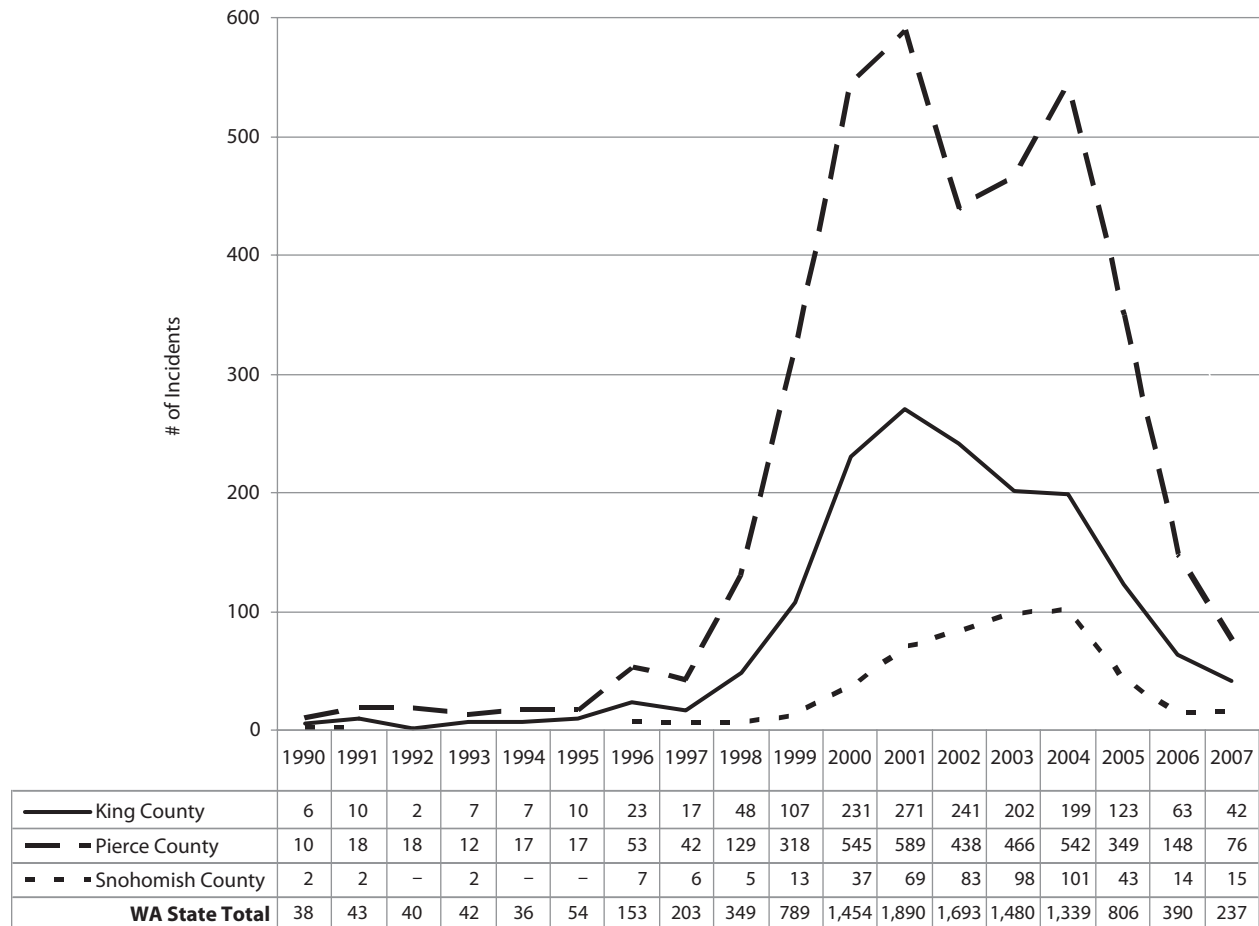
¹Prescription-type opiate.

²May be used for opiate substitution treatment or other medical indications.

³Benzodiazepine.

SOURCE: NFLIS, Data submitted by WSP Toxicology Lab, Solid State Chemistry

Exhibit 6. Methamphetamine Incidents Reported to the Washington State Department of Ecology



SOURCE: Washington State Department of Ecology

Exhibit 7. Demographic characteristics of King County residents diagnosed with HIV 1981–2007

| | 1981–1998 | | 1999–2001 | | 2002–2004 | | 2005–2007 ¹ | | Trend ² 1999– 2007 |
|--|--------------|------------|--------------|------------|--------------|------------|------------------------|------------|-------------------------------------|
| | No. | % | No. | % | No. | % | No. | % | |
| TOTAL | 7,420 | 100 | 1,160 | 100 | 1,097 | 100 | 965 | 100 | |
| HIV Exposure Category | | | | | | | | | |
| Men who have sex with men (MSM) | 5,578 | 75 | 764 | 66 | 718 | 65 | 591 | 61 | down |
| Injection drug user (IDU) | 415 | 6 | 80 | 7 | 68 | 6 | 42 | 4 | – |
| MSM/IDU | 779 | 10 | 83 | 7 | 87 | 8 | 80 | 8 | – |
| Heterosexual contact | 275 | 4 | 134 | 12 | 108 | 10 | 54 | 6 | down |
| Blood product exposure | 93 | 1 | 9 | 1 | 3 | 0 | 2 | 0 | – |
| Perinatal exposure | 22 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | – |
| <i>SUBTOTAL- known risk</i> | <i>7,162</i> | <i>–</i> | <i>1,075</i> | <i>–</i> | <i>984</i> | <i>–</i> | <i>769</i> | <i>–</i> | <i>–</i> |
| Undetermined/other ³ | 258 | 3 | 85 | 7 | 113 | 10 | 196 | 20 | – |
| Gender & Race/Ethnicity | | | | | | | | | |
| <i>Male</i> | <i>6,984</i> | <i>94</i> | <i>1,021</i> | <i>88</i> | <i>977</i> | <i>89</i> | <i>849</i> | <i>88</i> | <i>–</i> |
| White Male ⁴ | 5,689 | 77 | 702 | 61 | 625 | 57 | 526 | 55 | down |
| Black Male ⁴ | 655 | 9 | 158 | 14 | 166 | 15 | 137 | 14 | – |
| Hispanic Male | 412 | 6 | 106 | 9 | 118 | 11 | 116 | 12 | up |
| Other Male ⁴ | 228 | 3 | 55 | 5 | 68 | 6 | 70 | 7 | up |
| <i>Female</i> | <i>436</i> | <i>6</i> | <i>139</i> | <i>12</i> | <i>120</i> | <i>11</i> | <i>116</i> | <i>12</i> | <i>–</i> |
| White Female ⁴ | 230 | 3 | 45 | 4 | 33 | 3 | 32 | 3 | – |
| Black Female ⁴ | 141 | 2 | 74 | 6 | 66 | 6 | 67 | 7 | – |
| Hispanic Female | 26 | 0 | 14 | 1 | 8 | 1 | 6 | 1 | – |
| Other Female ⁴ | 39 | 1 | 6 | 1 | 13 | 1 | 11 | 1 | – |
| Race/Ethnicity | | | | | | | | | |
| White ⁴ | 5,919 | 80 | 747 | 64 | 658 | 60 | 558 | 58 | down |
| Black ⁴ | 796 | 11 | 232 | 20 | 232 | 21 | 204 | 21 | – |
| Hispanic | 438 | 6 | 120 | 10 | 126 | 11 | 122 | 13 | – |
| Asian & Pacific Islander ⁴ | 127 | 2 | 35 | 3 | 35 | 3 | 55 | 6 | up |
| Native American or Alaskan Native ⁴ | 106 | 1 | 14 | 1 | 22 | 2 | 7 | 1 | – |
| Multiple Race ⁴ | 32 | 0 | 9 | 1 | 22 | 2 | 14 | 1 | – |
| Unknown Race ⁴ | 2 | 0 | 3 | 0 | 2 | 0 | 5 | 1 | – |
| Place of Birth⁵ | | | | | | | | | |
| Born in U.S. or Territories | 6,764 | 91 | 898 | 77 | 857 | 78 | 686 | 71 | down |
| Born outside U.S. | 480 | 6 | 207 | 18 | 224 | 20 | 209 | 22 | up |
| Birthplace unknown | 176 | 2 | 55 | 5 | 16 | 1 | 70 | 7 | up |
| Age at diagnosis of HIV | | | | | | | | | |
| 0–19 years | 138 | 2 | 21 | 2 | 9 | 1 | 10 | 1 | – |
| 20–24 years | 578 | 8 | 95 | 8 | 89 | 8 | 106 | 11 | up |
| 25–29 years | 1,466 | 20 | 172 | 15 | 151 | 14 | 138 | 14 | – |
| 30–34 years | 1,774 | 24 | 259 | 22 | 211 | 19 | 178 | 18 | down |
| 35–39 years | 1,530 | 21 | 267 | 23 | 257 | 23 | 173 | 18 | down |
| 40–44 years | 924 | 12 | 174 | 15 | 190 | 17 | 146 | 15 | – |

Exhibit 7. (continued) Demographic characteristics of King County residents diagnosed with HIV 1981–2007

| | 1981–1998 | | 1999–2001 | | 2002–2004 | | 2005–2007 ¹ | | Trend ² 1999– 2007 |
|---------------------------------------|-----------|----|-----------|----|-----------|----|------------------------|----|-------------------------------------|
| | No. | % | No. | % | No. | % | No. | % | |
| 45–49 years | 528 | 7 | 94 | 8 | 95 | 9 | 105 | 11 | up |
| 50–54 years | 248 | 3 | 51 | 4 | 52 | 5 | 46 | 5 | – |
| 55–59 years | 141 | 2 | 17 | 1 | 27 | 2 | 34 | 4 | up |
| 60–64 years | 51 | 1 | 4 | 0 | 9 | 1 | 18 | 2 | up |
| 65+ years | 42 | 1 | 6 | 1 | 7 | 1 | 11 | 1 | – |
| Residence | | | | | | | | | |
| Seattle residence | 6,415 | 86 | 960 | 83 | 847 | 77 | 714 | 74 | down |
| King Co. residence outside Seattle | 1,005 | 14 | 200 | 17 | 250 | 23 | 251 | 26 | up |

¹Due to delays in reporting, data from recent years are incomplete.

²Statistical trends ($p < .05$) were identified from the chi-square test for trend, calculated for the periods 1998–2000, 2001–03, and 2004–06.

³Includes individuals for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), patients still under investigation, patients whose only risk was heterosexual contact and where the risk(s) of the sexual partner(s) was (were) undetermined, individuals exposed to HIV through their occupation, and patients whose mode of exposure remains undetermined.

⁴And not Hispanic. The groups Asian, Native Hawai'ian, and other Pacific Islanders were grouped due to small cell sizes. All race and ethnicity categories are mutually exclusive.

⁵Among cases where country of birth is known.

SOURCE: Public Health-Seattle/King County (PHSKC), Reported through 12/31/2007, by date of HIV diagnosis

Substance Abuse Trends in Texas

Jane C. Maxwell, Ph.D.

ABSTRACT

This report updates indicators of drug abuse in Texas since the June 2007 report and describes trends by calendar year from 1987 through 2007. Important changes to drug patterns in Texas include increases in heroin inhalation by younger Hispanics. This was first noticed with the “cheese heroin” situation in Dallas, but further investigation has found that heroin inhalation is increasing statewide. Some treatment admissions are young teenagers, many of the users are not novices and are using other illicit drugs, and those in their twenties are shifting to injecting. Another change is a decrease in methamphetamine indicators since 2005, with supplies down, prices increasing, and purity decreasing. The influx of Mexican methamphetamine to replace the locally produced product has not been as great as expected. With the higher price of “ice,” the profit motive may encourage local manufacturers to return to cooking, using over-the-counter pseudoephedrine. Other changes include continuing shifts in demographics of cocaine users and ecstasy users, severity of problems among noncoerced marijuana treatment admissions, increasing problems with alprazolam and carisoprodol, and possible reappearance of gamma hydroxybutyrate (GHB). The majority of human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) cases continue to be people of color and more cases are now due to infection through the heterosexual route than due to injection drug use (IDU).

AREA DESCRIPTION

The population of Texas in 2007 was 23,728,510, with 48 percent White, 11 percent Black, 37 percent Hispanic, and 4 percent “Other.” Illicit drugs continue to enter from Mexico through cities such as El Paso, Laredo, McAllen, and Brownsville, as well as through smaller towns along the border. The drugs then move northward for distribution through Dallas/Fort Worth and Houston. In addition, drugs move eastward from San Diego through Lubbock and from El Paso to Amarillo and Dallas/Fort Worth.

DATA SOURCES

Substance Abuse Trends in Texas is an ongoing series that is prepared annually as a report for the Community Epidemiology Work Group meetings sponsored by the National Institute on Drug Abuse (NIDA). This report updates the June 2007 report. To compare the June 2008 report with earlier periods, please access <<http://www.utexas.edu/research/cswr/gcattc/drugtrends.html>>. Data for this report are from the sources shown below:

- **Student substance use data** for 2006 came from the *Texas School Survey of Substance Abuse: Grades 7–12, 2006* and the *Texas School Survey of Substance Abuse: Grades 4–6, 2006*, which are authored by L.Y. Liu and published by the Department of State Health Services (DSHS), formerly the Texas Commission on Alcohol and Drug Abuse. Data on Texas college students came from the *2005 Texas Survey of Substance Use Among College Students: Main Findings*, also written by L.Y. Liu and published by DSHS. For 2007, the data for high school students in grades 9–12 came from the Youth Risk Behavior Surveillance Survey (YRBS)—United States, 2007, *MMWR Surveillance Summaries*, June 6, 2008/57(SS-4); 1–136.

- **Data on drug use** by Texans age 12 and older came from the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Surveys on Drug Use and Health (NSDUH). The Texas estimates for the population age 12 and older for past year use of marijuana, cocaine, and nonmedical use of pain relievers; past month use of alcohol, binge alcohol use, and any illicit drug; and perceptions of great risk of having five or more drinks are from the 2004, 2005, and 2006 NSDUH surveys. Estimates for the Dallas and Houston metropolitan areas are based on the 2005–2006 surveys.

- **Poison control center data** came from the Texas Poison Center Network, DSHS, for 1998 through 2007. Analysis was provided by Mathias Forrester, epidemiologist with the Texas Poison Center Network, and by the author. In addition, findings from five papers authored by Forrester were used in this report: “Carisoprodol Abuse in Texas, 1998–2003,” “Flunitrazepam Abuse and Malicious Use in Texas, 1998–2003,” “Oxycodone Abuse in Texas, 1998–2003,” “Methylphenidate Abuse in Texas, 1998–2004,” and “Alprazolam Abuse in Texas: 1998–2004,” *Journal of Toxicology and Environmental Health, Part A*, 69:237–243, 2006.

- **Treatment data** were provided by DSHS's client data system on clients admitted to treatment in DSHS-funded facilities from January 1, 1987, through December 31, 2007. For most drugs, characteristics of clients entering with a primary problem with the drug are discussed, but in the case of club drugs, information is provided on any client with a primary, secondary, or tertiary problem with that drug. Analysis was by the author.

Data on substance use and treatment admissions on the border were drawn from Maxwell, J.C., et al., (2006), Drug Use and Risk of HIV/AIDS on the Mexico-USA Border: A Comparison of Treatment Admissions in Both Countries, *Drug and Alcohol Dependence*, 82 Suppl. 1, S85-S93, 2006.

Information on impaired drivers entering treatment was drawn from Maxwell, J.C. & Freeman, J. E. (2007), Gender Differences in DUI Offenders in Treatment in Texas *Traffic Injury Prevention*, 8: 353-360 and Maxwell, J.C. et al. (in press), and Young DUI Offenders Seen in Substance Abuse Treatment in Texas, *Transportation Research Board Circular*, National Academy of Science, Washington.

- **Information on drug-involved deaths** through 2006 came from death certificates from the Bureau of Vital Statistics, DSHS; analysis was by the author. Because justices of the peace, who have no medical training, can sign death certificates, the actual substances involved may not be listed. Instead, a notation such as “narcotism” may be used. The 2003 death cases are incomplete.

Data on heroin overdose deaths in Dallas came from Coleman, J.J. (2007), Special Report: Cheese-Heroin in Dallas, TX, Prescription Drug Research Center, Fairfax, VA, 2007.

- **Information on drugs identified by laboratory tests** was provided by the Texas Department of Public Safety (DPS), which reported results from toxicological analyses of substances submitted in law enforcement operations for 1998 through December 2007 to the National Forensic Laboratory Information System (NFLIS) of the Drug Enforcement Administration (DEA). Analysis was by the author on data downloaded from NFLIS on May 8, 2008.

- **Information on forms of methadone** distributed in Texas came from the DEA's Automation of Reports and Consolidated Orders System (ARCOS) for 2000–2006.

- **Price, purity, trafficking, distribution, and supply** information was provided by second quarter fiscal year (FY) 2008 reports on trends in trafficking from the Dallas, El Paso, and Houston Field Divisions of the DEA and from DEA's Domestic Monitor Program (DMP).

- **Reports by users and street outreach workers** on drug trends for the first two quarters of FY 2008 were reported to DSHS by workers at local human immunodeficiency virus (HIV) counseling and testing programs across the State.
- **Sexually transmitted disease (STD), human immunodeficiency virus (HIV), and acquired immunodeficiency syndrome (AIDS)** data were provided by DSHS for annual periods through December 2007. The HIV cases exclude any that later seroconverted to AIDS. Data also come from Maxwell, J.C. & Spence, R.T. (2006), An exploratory study of inhalers and injectors who used black tar heroin, *Journal of Maintenance in the Addictions*, 3(1), 61–81.

DRUG ABUSE PATTERNS AND TRENDS

The 2004–2006 NSDUH estimated that 6.8 percent of the Texas population age 12 and older had used an illicit drug in the past month, which is below the national average of 8.1 percent, and 1.8 percent of Texans were dependent on or abused an illicit drug in the past year, as compared to 2.0 nationally. For the period 2002–2005, 6.5 percent of the population aged 12 and older in the Dallas metropolitan statistical area and 6.2 percent in the Houston area had used any illicit drug.

Crack/Cocaine

Texas Poison Center Network calls involving the use of cocaine increased from 497 in 1998 to 1,363 in 2007 (exhibit 1). Sixty-five percent of the cases in 2007 were male, and the average age was 32.

The *Texas School Survey of Substance Abuse: Grades 7–12, 2006* reported that lifetime use of powder and crack/cocaine had dropped from a high of 9 percent in 1998 to 8 percent in 2006, while past-month use dropped from 4 percent in 1998 to 3 percent in 2006. Some 7 percent of students in nonborder counties had ever used powder or crack/cocaine, and 2 percent had used it in the past month. In comparison, students in schools on the Texas border reported higher levels

of cocaine use: 12 percent lifetime and 5 percent past month. Percentages are shown for grades 7–12 in exhibit 2.

The 2007 YRBS reported that 12.6 percent (CI=10.7–14.7) of Texas high school students in grades 9–12 had ever used cocaine, as compared to 11.9 percent (CI=10.4–13.7) in 2005; 5.4 percent (CI=4.1–7.1) had used in the past month, as compared to 5.5 percent (CI=4.4–6.8) in 2005. The 2005 Texas college survey reported that 10 percent had ever used cocaine or crack, and 2 percent had used in the past month. For the period 2004–2006, the NSDUH reported that 2.5 percent of the Texas population age 12 and older had used cocaine in the past year, which is the same level as the national rate (exhibit 3).

Cocaine (crack and powder together) represented 24 percent of all admissions to DSHS-funded treatment programs in 2007 (exhibit 1), down from 32 percent in 1995. Among all cocaine admissions, cocaine inhalers were the youngest and most likely to be Hispanic and involved in the criminal justice or legal systems (exhibit 4). Cocaine injectors were older than inhalers but younger than crack smokers; they were the most likely to be White. And while 35 percent of the powder cocaine clients reported no problem with a second substance, 29 percent reported a problem with alcohol and 20 percent with marijuana. Of the crack/cocaine clients, 37 percent reported no second substance problem, with 31 percent reporting a problem with alcohol, 18 percent with marijuana, and 5 percent with powder cocaine.

The term “lag” (exhibit 4) refers to the period from first consistent or regular use of a drug to the date of admission to treatment. Powder cocaine inhalers averaged 9 years between first regular use and entrance to treatment, while injectors averaged 15 years of use before they entered treatment.

Between 1987 and 2007, the percentage of Hispanic treatment admissions using powder cocaine increased from 23 to 48 percent, while for Whites and Blacks, the percentages dropped from 48 to 33 percent and from 28 to 18 percent, respectively. Exhibit 5 shows these changes between 1993 and

2007 by route of administration. The proportion of Blacks among crack/cocaine admissions fell from 75 percent in 1993 to 46 percent in 2007, while the proportion of Whites increased from 20 percent in 1993 to 35 percent in 2007. Hispanic crack admissions rose from 5 to 18 percent in the same time period.

Cocaine is a problem on the border. Twenty-six percent of all admissions to programs on the Texas side and 22 percent of all admissions on the Mexico side in 2003 were for powder or crack/cocaine (Maxwell et al., 2006). In 2007, the percent of Texas border admissions that were powder or crack/cocaine had increased to 29 percent.

The number of deaths statewide in which cocaine was mentioned increased from 223 in 1992 to 795 in 2006 (exhibit 6). The average age of the decedents in 2006 was 40; 44 percent were White, 28 percent were Hispanic, and 28 percent were Black. Seventy-five percent were male.

Exhibit 1 shows that the proportion of substances identified as cocaine by the DPS labs is decreasing. In 1998, cocaine accounted for 40 percent of all items examined, compared with 33 percent in 2007. In the Dallas DEA Field Division, the purity of seized cocaine decreased from 69 percent in FY 2006 and 70 percent in FY 2007 to 61 percent for the first half of FY 2008.

Cocaine continued to be available across the State (exhibit 7). A gram of powder cocaine cost \$50–\$60 in El Paso, \$50–\$80 in Dallas, \$60–\$100 in Houston, \$33 in McAllen, and \$70–\$110 in San Antonio. An ounce cost \$500 in McAllen, \$600–\$950 in Dallas, \$600–\$1,000 in Houston, \$400–\$700 in Midland, \$500 in El Paso, \$400–\$700 in San Antonio, and \$400–\$500 in Laredo. A kilogram of cocaine cost \$14,200–\$22,500 in Dallas, \$14,000 in El Paso, \$16,000–\$19,000 in Houston, \$11,000–\$13,000 in Laredo, \$13,500–\$15,000 in McAllen, and \$15,500–\$17,500 in San Antonio.

Across the State, a rock of crack cost \$10–\$50, with \$10–\$20 being the most common price. An ounce of crack/cocaine cost \$500 in El Paso, \$650–\$750 in Fort Worth, \$500–\$700 in Lubbock, \$500 in Amarillo, \$800 in Midland, \$350–\$500

in Houston, \$600 in Galveston, \$400–\$600 in San Antonio, \$350–\$450 in Austin, and \$600 in Beaumont. A kilogram in Dallas ranged between \$18,500 and \$25,500, as compared to \$14,000 in El Paso, \$24,000–\$26,000 in San Antonio, and \$16,000 in Midland.

Street outreach workers in Dallas reported cocaine use among young undocumented Hispanic laborers was increasing due to availability; increased crack use was reported in West and South Dallas, as well as on the east side of Lubbock.

Alcohol

Alcohol continues to be the primary drug of abuse in Texas. In 2006, 66 percent of Texas secondary school students (grades 7–12) had ever used alcohol, and 32 percent had drunk alcohol in the last month. Of particular concern is heavy consumption of alcohol, or binge drinking, which is defined as drinking five or more drinks at one time. In 2006, 13 percent of all secondary students said that when they drank, they usually drank five or more beers at one time, and 12 percent reported hard liquor binge drinking. Binge drinking increased with grade level. Among seniors, 28 percent binged on beer and 21 percent binged on hard liquor. While the percentage of binge drinking of beer has fallen over the years, the level of binge drinking of hard liquor has remained relatively stable since 1994 (exhibit 8). Among students in grades 4–6 in 2006, 22 percent had ever drunk alcohol, and 14 percent had drunk alcohol in the past school year. Use increased with grade level, as 9 percent of fourth graders had used alcohol in the school year, compared with 19 percent of sixth graders.

The 2007 YRBS reported 78.2 percent (CI=75.6–80.6) of Texas high school students in grades 9–12 had ever drunk alcohol, 48.3 percent (CI=44.9–51.8) had drunk in the past month, and 29 percent (CI=26.1–32.0) had drunk five or more drinks in a row in the last month. In 2005, 26.2 percent (CI=22.6–30.1) of girls and 33.1 percent (CI=29.5–36.8) of boys reported binge drinking

as compared to 28.0 percent (CI=25.4–30.8) of girls and 29.9 percent (CI=26.3–33.7) of boys reporting binge drinking behavior in 2007.

The 2005 Texas college survey found that 84 percent had drunk alcohol in their lifetime, and 66 percent had drunk in the past month. Almost 30 percent of college students reported binge drinking (38 percent males and 23 percent females). Although the legal drinking age is 21, 58 percent of college students age 18 to 20 reported drinking an alcoholic beverage in the past month.

The 2004–2006 NSDUH estimated that 49 percent of Texans age 12 and older had drunk alcohol in the past month, below the national average of 51 percent, and 24 percent had drunk five or more drinks on at least one day (binge drinking) in the past month, above the national average of 23 percent (exhibit 3). The highest rate of binge drinking was in Region 1 and the lowest rate was in Region 4. Region 10 had the highest proportion of the Texas population who thought there was great risk in drinking five or more drinks once or twice a week, while Region 7 had the lowest perception of great risk.

In 2007, 25 percent of all clients admitted to publicly funded treatment programs had a primary problem with alcohol (exhibit 9). The characteristics of alcohol admissions have changed over the years. In 1988, 82 percent of the clients were male, compared with 70 percent in 2007. The proportion of White clients declined from 63 percent in 1988 to 55 percent in 2007, and the proportion of Hispanic clients increased from 28 to 31 percent. During the same period, the proportion of Black clients increased from 7 to 13 percent. The average age increased from 33 to 38 years. The proportion of alcohol clients reporting no secondary drug problem dropped from 67 to 49 percent, and the proportion with a problem with cocaine (powder or crack) increased from 7 to 25 percent. Consuming cocaine and alcohol at the same time produces cocaethylene, which intensifies cocaine's euphoric effects.

The characteristics of persons who entered treatment with a past-year offense for Driving Under the Influence (DUI) have changed over

time. The proportion of females who were sent to treatment as a result of DUI increased from 27 percent in 2000 to 32 percent in 2005 (Maxwell & Freeman, 2007). Between 1990 and 2007, the proportion of DUI treatment admissions under the legal drinking age of 21 reporting a primary problem with alcohol decreased from 75 to 21 percent; the proportion with a primary problem of marijuana increased from 19 to 63 percent; and the proportion with a primary problem with cocaine increased from 5 to 7 percent (Maxwell et al., in press).

Heroin

The proportion of Texas secondary students reporting lifetime use of heroin dropped from 2.4 percent in 1998 to 1.5 percent in 2006. The 2007 YRBS found 2.4 percent (CI=1.9–3.0) of Texas high school students had ever used heroin, as compared to a national median of 4 percent. Dallas and Houston students reported lifetime use of heroin at approximately 5 percent (CI=3.6–7.6 and CI=3.7–6.5, respectively), as compared to a median of 3 percent among other local school districts that participated across the Nation. The 2005 college survey found 5 percent of students had ever used heroin or other opiates. The 2002–2004 NSDUH reported 0.1 percent of Texans age 12 and older had used heroin in the past year.

Calls to the Texas Poison Center Network involving confirmed exposures to heroin ranged from 181 in 1998 to a high of 296 in 2000 but dropped to 208 in 2007 (exhibit 10). Seventeen percent of the 2007 heroin exposure cases involved inhalation (snorting or smoking), an increase from 9 percent in 2005.

Heroin was the primary drug of abuse for 10 percent of clients admitted to treatment. The characteristics of these addicts vary by route of administration, as exhibit 11 illustrates. Most heroin addicts entering treatment inject it, but the proportion inhaling heroin has increased from 4 percent of all heroin admissions in 1996 to 20 percent in 2007. During that time, the proportion of inhalers who are Hispanic increased from 26 to 69

percent, and the average age of inhalers decreased from 30 to 27 years.

While the number of individuals who inhale heroin is small, the lag period between first use and seeking treatment for this group is 7 years, compared with 15 years for injectors. This shorter lag period means that, contrary to the street rumors that “sniffing or inhaling is not addictive,” inhalers can become dependent on heroin. They will either enter treatment sooner while still inhaling, or they will shift to injecting, increasing their risk of hepatitis C and HIV infection, becoming more impaired, and entering treatment later.

In addition to the decrease in the age of inhalers, the age of all heroin admissions has decreased from 37 in 1996 to 34 in 2007. This increase in inhalers and decrease in age at admission is evidence of the emergence of younger heroin users. The proportion of all treatment clients with a primary problem with heroin who are Hispanic increased from 23 percent in 1996 to 55 percent in 2007 (exhibit 12).

Of all the 2007 heroin admissions, 43 percent reported no second substance problem and 26 percent reported a problem with powder cocaine (which shows the tendency to “speedball,” or use heroin and cocaine sequentially). Nine percent reported a second problem with marijuana, 7 percent with alcohol, 5 percent with crack/cocaine, and 4 percent with other opiates.

“Cheese heroin,” a mixture of Tylenol PM® and heroin (heroin + diphenhydramine + acetaminophen), continues to be a problem in Dallas and heroin inhaling is increasing across the State. Diphenhydramine has traditionally been used as a “cut” to turn tar into powder. A recent analysis of records from the Dallas County medical examiner found that only one death involved just cheese heroin. All the other cheese heroin deaths also involved combinations of cocaine, alprazolam, hydrocodone, etc., which shows that this is not a population of novice users but is a growing problem among very young experienced heroin users (Coleman, 2007). Average age of teenage admissions in Dallas in 2007 was 16 (range 12–19), and of clients in their twenties, average age was 23.

Of the 174 Dallas cases under age 19 in 2007, 52 percent were male, 92 percent were Hispanic, and 96 percent inhaled their heroin. Cases of cheese heroin were reported in other counties in the Dallas/Fort Worth area, but the term “cheese heroin” does not appear to have spread elsewhere in the State, although heroin inhaling by young users continues to increase.

In 2006, there were 392 deaths in Texas where the death certificate included a mention of heroin, narcotics, opiates, or morphine (terms used by justices of the peace were not always as specific as desired) (exhibit 13). Fifty-six percent were White, 34 percent were Hispanic, and 9 percent were Black; 78 percent were male. The average age was 39.

Exhibit 10 shows that the proportion of items identified as heroin by DPS labs has remained low at 1–2 percent over the years. The predominant form of heroin in Texas is black tar, which has a dark gummy, oily texture that can be diluted with water and injected. Heroin has seen a decline in price over the years. Depending on the location, black tar heroin sold on the street for \$5–\$20 per paper, balloon, or capsule; \$100–\$300 per gram; \$800–\$4,000 per ounce (exhibit 14); and \$25,000–\$62,000 per kilogram. An ounce of black tar cost \$1,000 in El Paso, \$3,600–\$4,000 in Midland, \$1,000–\$2,500 in Houston, \$1,300 in Galveston, \$1,300 in Laredo, \$1,000 in McAllen, \$1,200–\$1,600 in Austin, \$800–\$1,300 in Fort Worth, \$1,000 in Lubbock, and \$1,200–\$2,400 in San Antonio. Black tar heroin cost \$35,000–\$50,000 per kilogram in Dallas, \$25,000 in El Paso, \$40,000–\$50,000 in Houston, \$25,000–\$40,000 in McAllen, and \$50,000–\$62,000 in San Antonio.

Mexican brown heroin, which is black tar heroin that has been cut with lactose, diphenhydramine, or another substance and then turned into a powder to inject or inhale, cost \$10 per cap and \$25–\$250 per gram. An ounce cost \$500–\$800 in San Antonio, and \$800 in McAllen.

Colombian heroin sold for \$60–\$80 per gram and \$1,200 per ounce in McAllen and \$2,000 in Dallas. It sold for \$50,000–\$80,000 per kilogram in Houston, \$30,000 in McAllen, \$84,000–\$90,000

in El Paso, and \$65,000–\$80,000 in Dallas. A kilogram of 96 percent pure South American heroin was seized in Dallas in early 2008 and operational intelligence suggests a growing market for South American white heroin in the Dallas area.

Southwest and Southeast Asian heroin sold for \$200–\$300 per gram, \$2000–\$4000 per ounce, and \$70,000 per kilogram in Dallas. Over time, the purity of Mexican heroin in the Dallas area has remained constant at 30 percent between 2006 and 2008. Black tar heroin availability remains high with use increasing, especially in the rural areas, according to DEA.

In Houston, DEA reported seizing heroin cut with clenbuterol. Clenbuterol is described by DEA as a potent, long-lasting bronchodilator that is not prescribed for human use in the United States. It is generally abused by bodybuilders and athletes for its ability to increase lean muscle mass and reduce body fat. Clenbuterol is also associated with significant adverse cardiovascular and neurological effects, with some individuals hospitalized for several days due to clenbuterol intoxication. In the last quarter of 2007, DEA also reported that dealers from New Orleans were trafficking white South American heroin in Houston.

Exhibit 15 shows the purity and price of heroin purchased by the DEA in four Texas cities under the DMP. Heroin is much purer at the border in El Paso and decreases in purity as it moves north, since it is “cut” with other products as it passes through the chain of dealers.

Other Opiates

The other opiates group excludes heroin but includes opiates such as methadone, codeine, hydrocodone (Vicodin®, Tussionex®), oxycodone (OxyContin®, Percodan®, Percocet-5®, Tylox®), buprenorphine (Suboxone® and Subutex®), d-propoxyphene (Darvon®), hydromorphone (Dilaudid®), morphine, meperidine (Demerol®), and opium.

The 2006 Texas secondary school survey found that 8 percent reported ever having drunk codeine cough syrup to get high, and 3 percent drank it in

the past month. Lifetime use increased with grade level from 3 percent of 7th graders to 12 percent of 12th graders. The 2004–2006 NSDUH reported that 4.7 percent of Texans aged 12 and older had used pain relievers nonmedically (as compared to 4.9 percent nationally). Region 7 reported the highest level of past-year nonmedical use of pain relievers, and Region 6 had the lower levels of use (exhibit 3).

Hydrocodone is a larger problem in Texas than oxycodone, but use of oxycodone is growing, as exhibit 16 shows. A study of oxycodone reports from the Texas Poison Center Network found that the proportion of calls that involved abuse of the drug more than doubled from 1998 to 2003. Oxycodone abuse reports tended to involve males, adolescents, exposures at other residences and public areas, referral by the poison center to a health care facility, and some sort of clinical effect; one-half involved no other substance (Forrester, 2004).

Poison control reports involving methadone are increasing (exhibit 16). Methadone overdoses are occurring among new clients in narcotic treatment programs; they could be due to liquid methadone, which has been diverted from treatment; they could be caused by pain pills diverted from pain patients; or they could be overdoses by pain patients who took too many of the pills or took other drugs in combination with methadone pills. Methadone is used in liquid and 40 mg. diskette forms in narcotic treatment programs; as of January 1, 2008, the 40 mg. diskettes can no longer be used in pain management—5 and 10 mg. milligram tablets are used for pain management. DEA’s ARCOS reported that between 2000 and 2006 in Texas, the number of 5 and 10 mg. methadone tablets distributed increased from 270 grams per 100,000 population to 1,019 per 100,000. Eighty-six percent of these tablets were distributed through pharmacies, and 13 percent were distributed through hospitals. The amount of 40-milligram diskettes increased from 276 grams per 100,000 in 2000 to 706 per 100,000 in 2006; 64 percent of the diskettes were distributed through narcotic treatment programs, and 35 percent were

distributed through pharmacies to pain patients. The amount of methadone liquid distributed increased from 573 grams per 100,000 population in 2000 to 1,591 grams per 100,000 in 2006. Ninety-eight percent of the liquid methadone was distributed to narcotic treatment programs.

Between 1998 and 2007, the total number of calls to the poison control centers to identify substances or to seek advice or report abuse or misuse cases that involved methadone pills increased from 29 to 766, while the number involving liquid as used in narcotic treatment programs rose from 5 to 18. Calls for unknown formulations increased from 51 to 226, while calls for 40-milligram disettes used in pain or in some narcotic treatment programs increased from 4 to 71.

Human exposure calls involving only methadone or methadone plus alcohol constituted 53 percent of the methadone calls in 1998, as compared to 46 percent in 2007. Calls involving methadone and a combination of drugs, of which at least one was an illicit drug, were 9 percent of the calls in 1998 and 8 percent in 2007. It is assumed that this combination of drugs represents callers who were seeking euphoric effects of methadone and the illicit drugs. Calls involving a combination of methadone and licit drugs, including pain pills, constituted 38 percent of the calls in 1998 and 46 percent of the 2007 calls. While there is no way to know if the licit drugs that were ingested with the methadone were prescribed for that person, the increase in the number of calls involving methadone and licit drugs is of concern.

Of the 155 calls about human exposure to fentanyl in 2007, 107 involved patches, 15 involved lozenges, and 29 were unknown formulation.

Five percent of all clients who entered publicly-funded treatment during 2007 used opiates other than heroin. Of these, 113 used illegal methadone and 4,529 used other opiate drugs (exhibit 16). Those who reported a primary problem with other opiates differed from those who reported a problem with heroin. They were much more likely to be female (56 percent), to be White (81 percent), to have sought help in an emergency department (45 percent), and to report more

health and psychological or emotional problems in the month prior to entering treatment (exhibit 9). Forty-five percent of these clients with problems with other opiates also reported problems with other substances such as sedatives (16 percent) and alcohol (11 percent). The clients with problems with illicit methadone were more likely to be male (54 percent), 66 percent were White and 24 percent were Hispanic. They were younger (age 32) than those with problems with other opiates or heroin (age 34). Only 34 percent had no second drug problem, and of those who did have other problems, 16 percent had problems with alcohol, 15 percent with other opiates, 11 percent with sedatives, and 8 percent with heroin.

In 2006, deaths from one of the other opiates were more likely to be White and to be older than those persons whose death certificates mentioned heroin. Of the 374 deaths with a mention of hydrocodone in 2006, 55 percent were male, 88 percent were White, 3 percent were Black, 2 percent were Hispanic, and the average age was 41 (exhibit 16). Of the 78 deaths in 2006 with a mention of oxycodone, 59 percent were male, 90 percent were White, 3 percent were Black, 1 percent were Hispanic, and the average age was 40. There were 37 deaths with a mention of fentanyl in 2006. Of these, 45 percent were male, 89 percent were White, 8 percent were Hispanic, and the average age was 54. Of the 231 deaths with a mention of methadone, 65 percent were male, 85 percent were White, 6 percent were Black, 7 percent were Hispanic, and the average age was 38.

Over time, it has been possible to track deaths with a mention of methadone by the other drugs which were listed on the death certificates. In 1992, 58 percent of the death certificates listed only methadone or methadone and alcohol; in 2006, 42 percent of the methadone deaths involved this combination. Of the other methadone deaths, 24 percent in 1992 involved methadone and a combination of other substances, of which at least one was an illicit drug such as cocaine. By 2006, the combination of methadone and drugs, including illicit drugs, comprised 20 percent of the methadone deaths. These decedents were probably

combining these drugs to achieve euphoria. Death certificates that listed methadone and a combination of other drugs (primarily pain drugs but none illicit) comprised 17 percent of the methadone deaths. By 2006, the combination of methadone and pain pills comprised 39 percent of the deaths. The data showing the increase in deaths involving a combination of methadone and other pain pills may be a partial explanation of the trend of increasing methadone-related deaths.

In the Dallas DEA Field Division, hydrocodone, carisoprodol, diazepam, Adderall®, methadone, and OxyContin® are the most commonly diverted drugs. In the Houston Field Division, hydrocodone, promethazine with codeine, and other codeine cough syrups are the most commonly abused pharmaceutical drugs. Houston DEA is reporting increases in pain management clinics and independent pharmacies that are involved in the unlawful distribution of hydrocodone and Xanax®. In the El Paso Field Division, morphine, Demerol®, Darvocet®, codeine, Vicodin®, cough syrup, and fentanyl are the major diverted pharmaceutical drugs.

Promethazine or phenergan cough syrup with codeine sold for \$200–\$400 per pint in the Dallas and Houston. Hydrocodone sold for \$2–\$4 per pill, and OxyContin® cost \$1 per milligram. Dilaudid® sold for \$10–\$15 per dose in McAllen and \$20–\$40 in Dallas, and methadone cost \$7–\$10 per tablet in Fort Worth.

DPS labs reported increases in the number of exhibits of hydrocodone and methadone each year from 1998 through 2007, while the number of fentanyl exhibits has varied over the years (exhibit 16). These labs also reported 126 promethazine exhibits and 15 buprenorphine exhibits in 2007. In 2006, DPS reported 11,193 ounces of codeine syrup was seized; in 2007, 20,977 ounces were seized.

Street outreach workers in Lubbock reported pharmaceuticals were being purchased online or obtained by “working the doctors” in the South Plains area. In Galveston, abuse of codeine cough syrup continued among young Black males and

abuse of prescription drugs was primarily seen among Whites.

Marijuana

Among Texas students in 2006 in grades 4–6, 1.8 percent had ever used marijuana, with 1.2 percent reporting use in the past school year. Among Texas secondary students (grades 7–12), 26 percent had ever tried marijuana, and 11 percent had used in the past month. Past-month use shown by grade level is shown in exhibit 17. In 2007 the YRBS reported that 38 percent of Texas high school students in grades 9–12 had ever smoked marijuana, a significant decrease from 42 percent in 2005. Past month use declined from 22 percent in 2005 to 19 percent in 2007. The 2005 Texas college survey reported that 37 percent of students had ever used marijuana, and 11 percent had used in the past month. The 2004–2006 NSDUH estimated that 8.5 percent of Texans age 12 and older had used marijuana in the past year (compared to 10.5 percent nationally), with 4.4 percent using in the past month (compared to 6.1 percent nationally). Region 7 reported the highest level of past-year use of marijuana and Region 10 had the lowest level (exhibit 3).

The Texas Poison Center Network reported there were 133 calls confirming exposure to marijuana in 1998, compared with 544 in 2006 and 502 in 2007 (exhibit 18).

Marijuana was the primary problem for 23 percent of admissions to treatment programs in 2007 (exhibit 9) and while 44 percent reported no second substance abuse problem, 27 percent had a problem with alcohol and 12 percent had a problem with powder cocaine. The average age was 23. Approximately 42 percent were Hispanic, 30 percent were White, and 27 percent were Black. Seventy-nine percent had legal problems or had been referred from the criminal justice system; these clients were less frequent users of marijuana than those who came to treatment for other reasons, and they reported fewer days of problems in the month prior to admission as measured on the Addiction Severity Index (ASI).

A study of admissions to treatment in Texas programs between 2000 and 2005 found that the 69 percent of clients who were referred from the criminal justice system were more likely to complete treatment, compared with noncoerced clients. They were more likely to have received less intensive forms of treatment and to have not used marijuana in the month prior to 90-day post-discharge follow-up. This study concluded that more public health information is needed on marijuana dependence and increased availability of early and brief interventions in a variety of primary health care settings to reduce the late presentations of the more severely impaired voluntary clients (Cope-land & Maxwell, 2007).

Cannabis (marijuana) was identified in 33 percent of all the exhibits analyzed by DPS laboratories in 2000 but in only 24 percent in 2007 (exhibit 18).

Exhibit 19 shows the decline in the price of a pound of marijuana since 1992.

The Houston DEA Field Division reported hydroponic marijuana was available and Vietnamese and Chinese operators appeared to be establishing “grow houses,” with the profit from the sales used to purchase cocaine for distribution in Canada. In the Dallas/Fort Worth area, Mexican marijuana was readily available and hydroponic marijuana remained steady. “Pop-corn” marijuana was available at \$700–\$1,000 per pound. This variety is often grown in Chihuahua in shade under pine trees and it is mostly buds and is slightly greasy or oily to the touch. The Dallas Field Division also reported that in the second quarter of 2008, there were 18 new marijuana cases, of which 15 targeted marijuana of foreign origin, 2 targeted domestic marijuana, and 1 targeted an indoor-grown operation.

Hydroponic marijuana sold for \$4,000–\$5,000 per pound in Houston, \$1,300 in McAllen, \$3,000–\$4,500 in Austin, \$3,400–\$3,800 in Dallas, and \$3,000–\$5,000 in San Antonio. The average price for a pound of commercial grade marijuana was \$140–\$160 in Laredo, \$85–\$180 in McAllen, \$330–\$450 in San Antonio, \$275–\$500 in Houston, \$200 in El Paso, \$350–\$400 in Lubbock,

\$375–\$600 in Midland, \$259–\$650 in Alpine, and \$350–\$800 in Dallas. Sinsemilla sold for \$750–\$1,200 per pound in the Dallas/Fort Worth area, \$300–\$500 in Houston, and \$600 in Galveston.

Outreach workers in Dallas reported increased marijuana use among the homeless.

Stimulants

Amphetamine-type substances come in different forms and with different names. “Speed” (“meth,” “crank”) is a powdered methamphetamine of relatively low purity and is sold in grams or ounces. It can be snorted or injected. “Pills” can be pharmaceutical grade stimulants such as dextroamphetamine, Dexedrine®, Adderall®, or methylphenidate (Ritalin®), or they can be methamphetamine powder that has been pressed into tablets and sold as amphetamines, “Yaba,” or ecstasy. Pills can be taken orally, crushed for inhalation, or dissolved in water for injection. There is also a damp, sticky powder of higher purity than speed that is known as “Base” in Australia and “Peanut Butter” in parts of the United States. “Ice,” also known as “crystal” or “Tina,” is methamphetamine that has been “washed” in a solvent to remove impurities; it has longer-lasting physical effects and purity levels above 80 percent. Ice can be smoked in a glass pipe, “chased” on aluminum foil, mixed with marijuana and smoked through a bong, or injected.

The Texas secondary school survey reported that lifetime use of stimulants, or “uppers,” was 6 percent, and past-month use was 2 percent in 2006. The 2007 YRBS reported lifetime use of methamphetamine by Texas high school students was 6.7 percent (CI=5.4–8.3). The 2005 Texas college survey reported that 10 percent had ever used stimulants and 2 percent had used in the past month. The 2002–2004 NSDUH reported that past-year nonmedical use of stimulants (which included amphetamines, methamphetamine, methylphenidate, and prescription diet pills) in Texas was 1.4 percent, and past-year use of methamphetamine was 0.7 percent.

There were 144 calls to Texas poison control centers involving exposure to methamphetamine

in 1998, 336 in 2006, and 315 in 2007 (exhibit 20). Forrester's study of all calls involving Ritalin® to poison control centers in Texas between 1998 and 2004 found that 8.5 percent involved misuse and abuse. Of these Ritalin® abuse/misuse calls, 62 percent involved males, 20 percent were younger than 13, 55 percent were ages 13–19, and 25 percent were older than 19. Ninety-three percent had swallowed the drug, 7 percent had inhaled, and 67 percent of these abuse/misuse callers also had used other substances. Compared with nonabuse calls, abusers were significantly more likely to be older, to have misused the drug while at school, and to suffer minor, moderate, or major effects from using the drug.

Methamphetamine/amphetamine admissions to treatment programs increased from 5 percent of all admissions in 2000 to 11 percent in 2007 (exhibit 20), and the average age of clients admitted for a primary problem with stimulants increased. In 1985, the average age was 26; in 2007, it was 32 (exhibit 21). The proportion of White clients rose from 80 percent in 1985 to 84 percent in 2007, while the proportion of Hispanics rose from 11 percent to 12 percent, and the proportion of Blacks dropped from 9 to 2 percent. Unlike the other drug categories, more than one-half of the clients entering treatment were women. Clients with a primary problem with methamphetamine reported secondary problems with marijuana (27 percent), alcohol (15 percent), and powder cocaine (8 percent); 39 percent reported no secondary substance abuse problem.

Users of amphetamines or methamphetamine tend to differ depending on their route of administration, as exhibit 21 shows. Methamphetamine injectors were more likely to have been in treatment before (61 percent readmissions) than amphetamine pill takers (45 percent), ice smokers (46 percent), or inhalers (47 percent).

In 2006, more clients smoked ice than injected speed (exhibit 22). The proportion smoking ice increased from less than 1 percent in 1988 to 53 percent in 2006, and the percentage of clients injecting the drug dropped from 84 percent in 1988 to 30 percent in 2006.

Statewide, there were 17 deaths in which amphetamines or methamphetamine were mentioned in 1998, compared with 177 in 2005 and 116 in 2006 (exhibit 20). Of the decedents in 2006, 78 percent were male, 87 percent were White, 10 percent were Hispanic, 2 percent were Black, and the average age was 39.

Methamphetamine and amphetamine together represented 16 percent of all items examined by DPS laboratories in 2000 and reached a peak of 25 percent in 2005 before dropping to 23 percent in 2007 (exhibit 20). Nineteen percent of the exhibits were methamphetamine, and 4 percent was amphetamine.

The Texas Department of Public Safety (State police) reported that 203 methamphetamine laboratories were seized in 2006, and 130 seized in 2007. The amount of methamphetamine seized totaled 6,951 dosage units in 2006 and 207,244 in 2007; the amount of amphetamine seized was 6,829 dosage units in 2006 and 6,547 in 2007.

A pound of powdered methamphetamine sold for \$7,000–\$8,000 in San Antonio and \$6,000–\$7,500 in Laredo. A pound of ice sold for \$12,000–\$14,000 in Houston, \$8,000–\$12,000 in San Antonio, \$6,000–\$10,000 in Austin, \$9,000–\$20,000 in Dallas, and \$15,000 in McAllen. An ounce of ice sold for \$1,000–\$1,500 in San Antonio.

Statewide, the purity of methamphetamine dropped from 56 percent in 2004 to 33 percent in 2008 because it is being cut with methylsulfonylmethane (MSM). MSM is available in 5-gallon quantities at local feed stores, and it is added to melted ice. In Tulsa, MSM cost \$17.95 per pound. The mixture of ice and MSM is spread out to dry like peanut brittle and then crushed up to look like a pure ice mixture. Pure methamphetamine from Mexico, which typically sold for \$18,000–\$20,000 per pound, sold for \$18,500 per pound when cut with MSM. The typical first cut of a pound of methamphetamine with MSM can yield two pounds of medium-purity methamphetamine that retains the same crystalline appearance.

Although Texas law requires purchasers of pseudoephedrine products to register when they

buy the product, the registries are not computerized. Some methamphetamine organizations are returning to “smurfing” to obtain pseudoephedrine by paying hourly wages to people to purchase the product from every available outlet. In Tyler in 2005 and 2006, only 1 methamphetamine laboratory was found. In 2007, 4 were seized, and in the first half of 2008, 12 were located. In Tyler, a case of 60 milligram, 120 count pseudoephedrine pills sold for \$28 per bottle and, in Dallas, a case sold for \$2,400. Red phosphorus, which is used in making methamphetamine, sold for \$100 per pound. In Tyler, low to medium quality methamphetamine sold for \$17,000–\$24,000; users were reported to be unhappy with the high prices and were turning back to cocaine as a substitute.

The Dallas DEA Field Division reported that the availability of methamphetamine was stable but price was rising because of tighter border security and increasing difficulty in obtaining precursor chemicals in Mexico. The price of a pound of methamphetamine increased in Dallas from \$4,500–\$18,000 in 2005 to \$9,000–\$20,000 in the first half of 2008. Street outreach workers in Lubbock reported methamphetamine smoking in all areas of the cities and all cultures. In the rural areas of Collin and Denton Counties in the Dallas/Fort Worth area, there was an increase in methamphetamine use among White males and females age 25 and older.

The Houston Field Division reported methamphetamine was available and the price was stable, but seizures were down in the Valley. The majority of methamphetamine in the Houston area is produced in Mexico, but more small laboratories are being found in the area. In Galveston, there was a reported increase in Hispanic users.

The El Paso Field Division reported methamphetamine traffickers operating out of California, Arizona, and Texas, with sources of supply being Mexico and California. Local street gangs distribute methamphetamine, and local production continues.

Depressants

The depressant, or “downer” category, includes three groups of drugs: barbiturates, such as phenobarbital and secobarbital (Seconal); non-barbiturate sedatives, such as methaqualone, over-the-counter sleeping aids, chloral hydrate, and tranquilizers; and benzodiazepines, such as diazepam (Valium®), alprazolam (Xanax®), flunitrazepam (Rohypnol®), clonazepam (Klonopin® or Rivotril®), flurazepam (Dalmane®), lorazepam (Ativan®), and chlordiazepoxide (Librium® and Librax®). Rohypnol® is discussed separately in the Club Drugs section of this report.

The 2006 Texas secondary school survey reported lifetime use of downers was 6 percent, and past-month use was 3 percent. The 2005 Texas college survey reported 9 percent had ever used sedatives, and 2 percent had used them in the past month. The 2002–2004 NSDUH reported 0.2 percent of Texans age 12 and older had used sedatives in the past year.

A study of patterns of alprazolam calls received by several poison control centers between 1998 and 2004 found that of 25,954 alprazolam calls received, 42 percent were drug identification calls and 51 percent were human exposure calls, of which 18 percent were abuse calls. The number of drug identification calls and the number of abuse calls both increased during the 7-year period. Male patients accounted for 54 percent of abuse calls, and females accounted for 66 percent of nonabuse calls. Adolescents represented 43 percent of abuse calls but only 12 percent of nonabuse calls. Although the majority of both types of human exposures occurred at the patient’s own residence, abuse exposures were more likely than other exposures to occur at school (9 percent vs. 1 percent) and in public areas (6 percent vs. 1 percent) (Forrester, 2006).

About 1.6 percent of the clients entering DSHS-funded treatment in 2007 had a primary problem with barbiturates, sedatives, or tranquilizers. These clients were the most likely to

be female and they were highly impaired, based on their ASI scores. Users of these downer drugs used multiple drugs: only 28 percent reported no other problem substance, as compared to 42 percent of users of all other drugs. Of the downer clients, 23 percent reported a secondary problem with marijuana, 17 percent with alcohol, 12 percent with other opiate drugs, and 8 percent with powder cocaine.

In 2006, there were 216 death certificates in which alprazolam (or Xanax®) was mentioned.

Alprazolam, clonazepam, and diazepam were among the 15 most commonly identified substances according to DPS lab reports, although none of them represent more than 7 percent of all items examined in a year. In 2007, alprazolam cases outnumbered other benzodiazepine cases (exhibit 23).

Alprazolam sold for \$5 in San Antonio, \$2–\$4 in Houston, \$3–\$5 in Fort Worth, \$4 in Austin, \$2–\$3 in Ft Worth, and \$5–\$10 in Dallas.

In the Dallas area, alprazolam was used to cut black tar heroin to produce brown heroin, and there were reports that the drug was originating in Mexico. Alprazolam is a favorite drug among youth in Houston

Club Drugs and Hallucinogens

Exhibit 24 shows the demographic characteristics of clients entering DSHS-funded treatment programs statewide with a problem with a club drug. The row “Primary Drug=Club Drug” shows the percentage of clients citing a primary problem with the club drug shown at the top of the column. The rows under the heading “Other Primary Drug” show the percentage of clients who had a primary problem with another drug, such as marijuana, but who had a secondary or tertiary problem with one of the club drugs shown at the top of the table. Note that the treatment data include a broader category, “Hallucinogens,” which includes lysergic acid diethylamide (LSD), dimethyltryptamine (DMT), 2,5-Dimethoxy-4-methyl-amphetamine (STP), mescaline, psilocybin, and peyote.

Among the clients shown in exhibit 24, the gamma hydroxybutyrate (GHB) clients were the most likely to be White, phencyclidine (PCP) clients were the most likely to be Black, Rohypnol® clients were the most likely to be Hispanic and the youngest, and steroid clients were the oldest. Users of PCP were the most likely to have a primary problem with PCP (54 percent); users of Rohypnol®, ecstasy, and hallucinogens were more likely to have primary problems with marijuana. Users of GHB and ketamine tended to have a primary problem with methamphetamine (55 percent and 36 percent, respectively), and ketamine users were the most likely to have a history of injecting drug use.

Dextromethorphan

The most popular dextromethorphan (DXM) products are Robitussin-DM®, Tussin®, and Coricidin Cough and Cold Tablets HBP®, which can be purchased over-the-counter and can produce hallucinogenic effects if taken in large quantities. Coricidin HBP® pills are known as “Triple C” or “Skittles.”

The 2006 Texas school survey reported that 5 percent of secondary students indicated they had ever used DXM, and 2 percent had used in the past year. Past-month use peaked at 2 percent in the tenth grade. The 2005 Texas college survey found that 5 percent had ever used DXM, and less than 1 percent had used it in the past month.

Poison control centers reported the number of abuse and misuse cases involving DXM rose from 99 in 1998 to 236 in 2007. The average age was 22. The number of cases involving abuse or misuse of Coricidin HBP® was 7 in 1998; 189 in 2005; 288 in 2006; and 483 in 2007. The average age in 2007 was 17, which shows that youth can easily access and misuse this substance.

There were seven deaths in 2006 in which dextromethorphan was one of the substances mentioned on the death certificate.

DPS labs examined 2 substances in 1998 that were DXM, compared with 13 in 1999; 36 in 2000;

18 in 2001; 42 in 2002; 10 in 2003; 15 in 2004; 10 in 2005; 12 in 2006; and 5 in 2007.

Ecstasy (Methylenedioxymethamphetamine or MDMA)

The 2006 Texas secondary school survey reported that lifetime ecstasy use dropped from a high of 9 percent in 2002 to 5 percent in 2006, while past-year use dropped from 3 percent to 2 percent during that time. The 2007 YRBS reported that 10 percent of Texas high school students had ever used ecstasy, a significant increase from 8 percent in 2005. The 2005 Texas college survey found that 9 percent of college students had ever used ecstasy, and less than 1 percent had used in the past year. The 2002–2004 NSDUH survey reported 1.1 percent of Texans had used ecstasy in the past year.

The Texas Poison Center Network reported 23 calls involving misuse or abuse of ecstasy in 1998, compared with 46 in 1999; 119 in 2000; 155 in 2001; 172 in 2002; 284 in 2003; 302 in 2004; 343 in 2005; 292 in 2006; and 232 in 2007 (exhibit 25). In 2007, the average age was 21.

Ecstasy is often used in combination with other drugs, and the increase in use and abuse of the drug is demonstrated in the increases in the numbers of clients seeking treatment who report a primary, secondary, or tertiary problem with ecstasy (exhibit 25). In 1998, there were 63 of these polydrug admissions, as compared with 114 in 1999; 199 in 2000; 349 in 2001; 521 in 2002; 502 in 2003; 561 in 2004; 640 in 2005; 1,212 in 2006; and 1,247 in 2007 (exhibit 25). Exhibit 26 shows that ecstasy has spread outside the White rave scene and into the Hispanic and Black communities, as evidenced by the fact that only 43 percent of the clients in 2007 were White.

In 1999, there were two death certificates that mentioned ecstasy or MDMA in Texas. There was 1 death in 2000, compared with 5 in 2001, 5 in 2002, 2 in 2003, 9 in 2004, 11 in 2005, and 15 in 2006 (exhibit 25). Of the 2006 deaths, 87 percent were male, 60 percent were White, 14 percent were Hispanic, 14 percent were Black, and the

average age was 30; 9 mentioned cocaine as well as MDMA.

Exhibit 25 shows ecstasy/MDMA exhibits identified by DPS labs. The labs identified MDMA in 5 exhibits in 1998; 107 exhibits in 1999; 387 in 2000; 817 in 2001; 632 in 2002; 490 in 2003; 737 in 2004; 821 in 2005; 1,173 in 2006; and 1,077 in 2007.

According to the Houston DEA Field Division, ecstasy was readily available, with Vietnamese and Chinese operators controlling trafficking. The drug was imported from Canada with smaller amounts coming in from Europe. Logos on the drug in the Houston area included A&E, Blue Dolphins, Bear, Music Notes, Crescent Moon, Yellow Dolphins, Alladin Lamp, Yellow Alligator, Yellow Trumpets, Omega, JJ, Spade, and Footprints.

Single dosage units of ecstasy sold for \$20 in Houston, \$25 in McAllen, \$20 in Laredo, \$2.75–\$7.50 in Austin, \$12–\$20 in Dallas, \$15–\$25 in Lubbock, and \$5–\$12 in Galveston.

GHB, Gamma Butyrate Lactone (GBL), 1-4 Butanediol (1,4 BD)

The 2005 Texas college survey reported that 2 percent of the students had ever used GHB, and 0 percent reported past-month use.

The number of cases of misuse or abuse of GHB or its precursors reported to the Texas Poison Center Network was 110 in 1998; 150 in 1999; 120 in 2000; 119 in 2001; 100 in 2002; 66 in 2003; 84 in 2004; 62 in 2005; 43 in 2006; and 56 in 2007. The average age of the abusers in 2007 was 30.

Adults and adolescents with a primary, secondary, or tertiary problem with GHB, GBL, or 1,4 BD have been admitted to treatment. In 1998, there were 2 clients, compared with 17 in 1999; 12 in 2000; 19 in 2001; 33 in 2002; 31 in 2003; 45 in 2004; 48 in 2005; 111 in 2006; and 103 in 2007. In 2007, clients who used GHB tended to be older (average age 29) and were the most likely to be White (85 percent) (exhibit 24). GHB users were more likely to have used the so-called “hard-core” drugs; 32 percent had a history of injection drug use (IDU) and 55 percent had a primary problem

with amphetamines or methamphetamine. Because of the sleep-inducing properties of GHB, users will also use methamphetamine so they can stay awake while they are “high” on GHB, or they use GHB to “come down” from their use of methamphetamine.

There were three deaths that involved GHB in 1999, compared with five in 2000, three in 2001, two in 2002, two in 2003, three in 2004, three in 2005, and one in 2006.

There were 18 items identified by DPS labs as being GHB in 1998, compared with 112 in 1999; 45 in 2000; 34 in 2001; 110 in 2002; 150 in 2003; 99 in 2004; 92 in 2005; 89 in 2006; and 56 in 2007. In 2007, 75 percent of the GHB items were identified in the DPS lab in the Dallas area, which shows use of GHB is centered in this area of the State. There were no items identified as GBL in 1998, compared with four in 1999, seven in 2000, seven in 2001, nine in 2002, five in 2003, two in 2004, one in 2005, nine in 2006, and none in 2007. There were no items identified as 1,4 BD in 1988, compared with 4 in 1989, 4 in 2000, 19 in 2001, 5 in 2002, and none in 2003, 2004, 2005, 2006, and 2007.

In Houston, GHB sold for \$5–\$10 per dosage unit and \$725–\$1,000 per gallon. In Dallas, it sold for \$20 per dosage unit and \$500–\$1,600 per gallon. Dallas DEA reported that 10 gallons of GHB were seized in the second quarter of FY 2008, which is significant, since between 2000 and 2007, only 6.5 gallons were seized in total.

Ketamine

The 2005 Texas college survey found that 2 percent of the students had ever used ketamine, and 0 percent reported past-month use.

Eight cases of misuse or abuse of ketamine were reported to Texas Poison Control Centers in 1998, compared with 7 in 1999; 15 in 2000; 14 in 2001; 10 in 2002; 17 in 2003; 7 in 2004; 5 in 2005; 3 in 2006; and 1 in 2007.

In 2007, there were 28 admissions to treatment with a primary, secondary, or tertiary problem with ketamine. The average age was 28; 61

percent were male; 43 percent had an IDU history; 64 percent were White; 32 percent were Hispanic; and 4 percent were Black (exhibit 24). While 18 percent had a primary problem with ketamine, 36 percent had a primary problem with methamphetamine and a secondary or tertiary problem with ketamine.

There were two deaths in 1999 that involved use of ketamine, compared with none in 2000, one in 2001, one in 2002, none in 2003, two in 2004, one in 2005, and none in 2006.

In 1998, two substances were identified as ketamine by DPS labs. There were 26 items identified in 1999; 49 in 2000; 120 in 2001; 116 in 2002; 85 in 2003; 79 in 2004; 19 in 2005; 140 in 2006; and 154 in 2007.

Ketamine cost \$2,200–\$2,500 per liter in Fort Worth and \$65 per vial in Tyler, with a dose selling for \$20 per pill or gram in Tyler, \$20–\$40 in Lubbock, and \$15–\$20 in San Antonio.

LSD and Other Hallucinogens

The Texas secondary school survey showed that use of hallucinogens (defined as LSD, PCP, mushrooms, etc.) continued to decrease. Lifetime use peaked at 7.4 percent in 1996 and dropped to 4.7 percent in 2006. Past-month use dropped from a peak of 2.5 percent in 1998 to 1.4 percent in 2006. The 2005 Texas college survey found that 10 percent of college students had ever used hallucinogens, and less than 1 percent had used in the past month. The 2002–2004 NSDUH reported past-year use by Texans age 12 and older at 0.3 percent.

The Texas Poison Center Network reported 82 mentions of abuse or misuse of LSD in 1998, compared with 113 in 1999; 97 in 2000; 70 in 2001; 129 in 2002; 20 in 2003; 22 in 2004; 38 in 2005; 33 in 2006; and 31 in 2007. There were also 98 cases of intentional misuse or abuse of hallucinogenic mushrooms reported in 1998, 73 in 1999, 110 in 2000, 94 in 2001, 151 in 2002, 130 in 2003, 172 in 2004, 82 in 2005, 96 in 2006, and 125 in 2007. The average age in 2007 was 26 for the LSD cases and 24 for the hallucinogenic mushroom cases.

The number of adults and youths with a primary, secondary, or tertiary problem with hallucinogens entering treatment was decreasing but increased in 2007. There were 636 admissions in 2000; 486 in 2001; 436 in 2002; 319 in 2003; 266 in 2004; 223 in 2005; 338 in 2006; and 370 in 2007. Of the hallucinogen admissions in 2007, the average age was 26; 70 percent were male; 55 percent were White; 15 percent were Hispanic; and 26 percent were Black (exhibit 24). Seventy-two percent were referred from the criminal justice or legal system, and 22 percent had an IDU history.

Statewide, there were two deaths in 1999 with a mention of LSD. No deaths with a mention of LSD have been reported since then.

DPS labs identified 69 substances as LSD in 1998, compared with 406 in 1999; 234 in 2000; 122 in 2001; 11 in 2002; 10 in 2003; 25 in 2004; 14 in 2005; 1 in 2006; and 29 in 2007.

A dosage unit of LSD sold for \$1–\$10 in Dallas, \$10–\$12 in Lubbock, and \$8–\$12 in San Antonio. Psilocybin mushrooms sold for \$10–\$14 per gram in Lubbock. Salvia abuse was reported in Lubbock, where it could be purchased at local smoke shops.

PCP

The 2002–2004 NSDUH reported past-year use of PCP in Texas at 0.1 percent.

The Texas Poison Center Network reported cases of “Fry,” “Amp,” “Water,” “Wet,” “Wack,” “PCP,” or formaldehyde. Often, marijuana joints are dipped in formaldehyde that contains PCP, or PCP is sprinkled on the joint or cigarette. The number of poison cases involving PCP increased from 102 in 1998 to 285 in 2007 (exhibit 27).

Exhibit 27 shows the increases in the number of clients entering treatment with a primary problem with PCP. Of the clients in 2007, 83 percent were Black; 51 percent were male; and 65 percent were involved in the criminal justice system. While 54 percent reported a primary problem with PCP, another 19 percent reported a primary problem with marijuana, which demonstrates the link between these two drugs (exhibit 24).

There were three death certificates in 1999 and six in 2006 that mentioned PCP (exhibit 27). Among these decedents in 2006, 83 percent were male, 50 percent were Black, 50 percent were White, and the average age was 30.

DPS labs identified 10 substances as PCP in 1998 and 180 in 2007 (exhibit 27).

According to the DEA, PCP cost \$30 per dosage unit in McAllen, \$45–\$80 per ounce in San Antonio, and \$375–\$450 per ounce in Dallas.

Rohypnol®

Flunitrazepam (Rohypnol®) is a benzodiazepine that has not been approved for use in the United States. The drug is legal in Mexico, but since 1996, it has been illegal to bring it into the United States. Rohypnol® continues to be a problem along the Texas-Mexico border. As shown in exhibit 28, the 2006 secondary school survey found that students from the border area were about three times more likely to report Rohypnol® use than those living elsewhere in the State (6 percent vs. 2 percent lifetime, and 2 percent vs. 1 percent current use). Use in both the border and nonborder areas has declined since its peak in 1998. Among Texas college students in 2005, 1 percent reported lifetime use of Rohypnol®, and 0 percent reported past-month use.

The number of confirmed exposures to Rohypnol® reported to the Texas Poison Control Centers peaked at 102 in 1998, 22 in 2005, 10 in 2006, and 11 in 2007. The average age in 2007 was 15, 82 percent were male, and 70 percent lived in counties on the border. A study of all the exposure calls between 1998 and 2003 found that a significantly higher proportion of flunitrazepam abuse and malicious use calls occurred in border counties. The majority of the abuse calls involved males, while the majority of malicious use calls involved females. Most abuse calls involved adolescents, while the majority of the malicious use calls involved adults. Abuse cases occurred most frequently at the patient’s own residence or at school, while malicious use occurred most often in public areas, with the patient’s own residence

ranking second (Forrester 2004). This analysis provided evidence of two patterns of Rohypnol® use: recreational use and abuse by adolescent males; and use of the drug with criminal intent on adult women (“date rape”).

The number of youths and adults admitted into treatment with a primary, secondary, or tertiary problem with Rohypnol® varied: 247 in 1998; 364 in 1999; 324 in 2000; 397 in 2001; 368 in 2002; 331 in 2003; 221 in 2004; 198 in 2005; 278 in 2006; and 272 in 2007. In 2007, clients abusing Rohypnol® were among the youngest of the club drug clients (age 19), and they were mostly Hispanic (96 percent), reflecting the availability and use of this drug along the border. Seventy-seven percent were involved with the criminal justice or legal system. While 15 percent of these clients said that Rohypnol® was their primary problem drug, 45 percent reported a primary problem with marijuana, and 18 percent had a problem with heroin (exhibit 24).

DPS lab exhibits for flunitrazepam numbered 43 in 1988; 56 in 1999; 32 in 2000; 33 in 2001; 26 in 2002; 17 in 2003; 17 in 2004; 10 in 2005; 9 in 2006; and 1 in 2007. This decline in the number of flunitrazepam seizures paralleled declines seen in other indicators.

Although Roche is reported to no longer be making the 2-milligram Rohypnol® tablet (a favorite with abusers), generic versions are still produced, and the blue dye added to the Rohypnol® tablet to warn potential victims is not in the generic version. Unfortunately, the dye is not proving effective, since people intent on committing sexual assault still employ blue tropical drinks and blue punches into which Rohypnol® can be slipped.

Rohypnol® sold for \$2–\$4 per pill in San Antonio.

Other Abused Substances

Inhalants

The 2006 elementary school survey found that 10 percent of students in grades 4–6 had ever used

inhalants, and 7 percent had used in the school year. The 2006 secondary school survey found that 17 percent of students in grades 7–12 had ever used inhalants, and 6 percent had used in the past month. Inhalant use exhibits a peculiar age pattern not observed with any other substance. The prevalence of lifetime and past-month inhalant use was higher in the lower grades and lower in the upper grades (exhibit 29). This decrease in inhalant use as students age may be partially related to the fact that inhalant users drop out of school early and are not in school in later grades to respond to school-based surveys. In addition, the Texas school surveys have consistently found that eighth graders reported use of more different kinds of inhalants than any other grade; this may be a factor that exacerbates the damaging effects of inhalants and leads to dropping out.

The 2007 YRBS reported that 12.9 percent (CI=10.8–15.4) of Texas high school students had ever used inhalants. Respondents to the 2005 Texas college survey reported 4 percent lifetime and 0.3 percent past-month use of inhalants. The 2002–2004 NSDUH estimated that 0.7 percent of Texas age 12 and older had used inhalants in the past year.

Out of the 146 calls to the poison control centers in 2007 that involved human exposure to the inhalation of chemicals, there were 26 calls for exposure to automotive products such as carburetor cleaner, transmission fluid, and gasoline, 67 calls for misuse of air fresheners or dusting sprays, 25 calls for abuse or misuse of paint or toluene, and 9 calls involving gases such as butane, helium, nitrous oxide, or propane.

Inhalant abusers represented 0.1 percent of the admissions to treatment programs in 2007. The clients tended to be male (63 percent) and Hispanic (58 percent). The over-representation of Hispanics is related to the fact that DSHS developed and funded treatment programs targeted specifically to this group. The average age of the clients was 23. Fifty-five percent were involved with the criminal justice system; the average education was 9.2 years; 12 percent were homeless; and 15 percent had an IDU history (exhibit 9).

Of the inhalant abusers, 28 percent reported no secondary drug problem, 42 percent had a second problem with marijuana, and 13 percent had a second problem with alcohol.

The categorization of inhalant deaths is difficult and leads to underreporting. In 2000, there were 12 death certificates that reported inhalants, compared with 15 in 2001; 8 in 2002; 13 in 2003; 11 in 2004; 17 in 2005; and 4 in 2006. Three of the four reports in 2006 involved nitrous oxide.

Street outreach workers in Dallas reported that young females age 10–12 were inhaling Airwick spray freshener, and in Galveston, youth were inhaling nitrous oxide from whipped cream dispensers (“whip-its”). They are said to be popular at parties because they are cheap and can be bought without anyone questioning the youth buying them.

Steroids

The Texas school survey reported that 2 percent of all secondary students surveyed in 2006 had ever used steroids, and less than 1 percent had used steroids during the month before the survey. The 2007 YRBS found lifetime use among Texas students in grades 9–12 was 3.9 percent (CI=3.2–4.7), with 4.8 percent (CI=4.0–5.8) among boys and 3.0 percent (CI=1.9–4.5) among girls. The 2005 Texas college survey found less than 1 percent had ever used steroids, and 0.1 percent had used in the past month.

There were 32 persons admitted to DSHS-funded treatment in 2007 with a primary, secondary, or tertiary problem with steroids. Seventy-two percent were male, 66 percent were White, and 34 percent were Hispanic; the average age was 31. Seventy-two percent were involved with the criminal justice or legal system; 63 percent had a primary problem with steroids and 19 percent had a primary problem with marijuana (exhibit 24).

The NFLIS data for Texas reported testosterone was the steroid most likely to be seized and submitted for forensic testing, although it only constituted 0.18 percent of all the items tested in

2007. Most of the steroid seizures were tested in DPS laboratories located on the border.

Anabolic steroids cost \$1–\$3 per tablet and \$5–\$10 per milliliter in Houston.

Carisoprodol (Soma®)

Poison control centers confirmed that exposure cases of intentional misuse or abuse of the muscle relaxant carisoprodol (Soma®) increased from 83 in 1998 to 510 in 2007. Forrester’s 2004 study of carisoprodol cases reported to Texas poison control centers between 1998 and 2003 found that 51 percent of these cases involved males, and 83 percent involved persons older than 19. Carisoprodol is a substance that tends to be abused in combination with other substances. Only 39 percent of the cases involved that one drug; all the others involved combinations of drugs.

In 2006, carisoprodol was mentioned on 146 death certificates, up from 51 in 2003. Only one death certificate mentioned only carisoprodol. Hydrocodone and alprazolam were substances most often mentioned on the other carisoprodol death certificates. Of the 2006 deaths, 54 percent were male, 90 percent were White, 4 percent were Hispanic, 6 percent were Black, and the average age was 39.

DPS lab exhibits of carisoprodol reported to NFLIS increased from 13 in 1998 to 90 in 1999; 153 in 2000; 202 in 2001; 232 in 2002; 277 in 2003; 253 in 2004; 336 in 2005; 558 in 2006; and 700 in 2007. According to the Dallas DEA Field Division, Soma® and Soma® with codeine sold for \$2–\$5 per tablet.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

Forty-eight percent of the 200 clients in Texas narcotic treatment programs said they were positive for hepatitis C, and 54 percent said a doctor had told them they had liver problems (Maxwell & Spence, 2006). DSHS reported that the number of acute viral hepatitis C cases totaled 50 in 2003,

109 in 2004, 102 in 2005, and 56 in 2006. The case rate for syphilis increased from 3.5 per 100,000 in 1997 to 4.5 in 2006. The case rate for chlamydia increased from 260.7 per 100,000 in 1997 to 321.0 in 2006, and the case rate for gonorrhea decreased from 136.9 per 100,000 in 1997 to 129.0 in 2006.

HIV/AIDS Cases

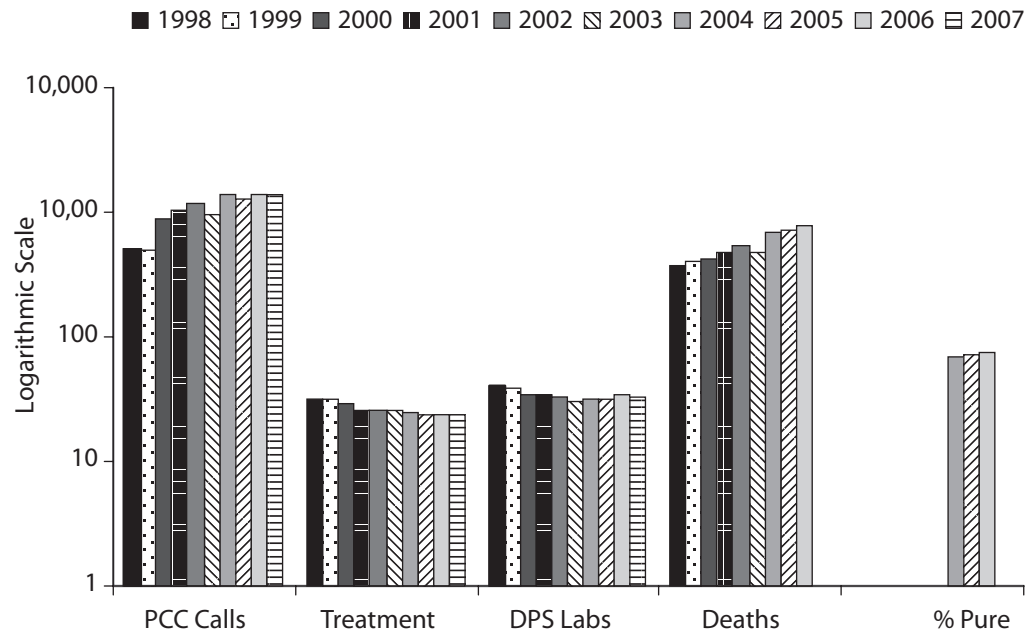
The proportion of HIV cases among men who have sex with men (MSM) increased from 46 percent in 1999 to 61 percent in 2007 (exhibit 30), and the proportion of AIDS cases among MSM decreased from 81 percent in 1987 to 54 percent in 2007 (exhibit 31). Of the HIV cases in 2007, 23 percent were heterosexual mode of exposure, and 13 percent were IDUs. Of the 2007 AIDS cases, 26 percent were heterosexual and 14 percent were IDUs. HIV cases that later seroconverted to AIDS are excluded from the HIV exhibits. The proportions of cases involving IDU or IDU/MSM have decreased over time.

Individuals infected with HIV or AIDS were more likely to be people of color. Among HIV cases in 2007, 47 percent were Black, 28 percent were White, and 26 percent were Hispanic (exhibit 32). Among AIDS cases in 2007, 41 percent were Black, 27 percent were White, and 31 percent were Hispanic (exhibit 33).

The proportion of adult IDUs entering DSHS-funded treatment programs decreased from 32 percent in 1988 to 15 percent in 2007. In 2007, 51 percent of heroin injectors were people of color, while injectors of stimulants and cocaine were far more likely to be White.

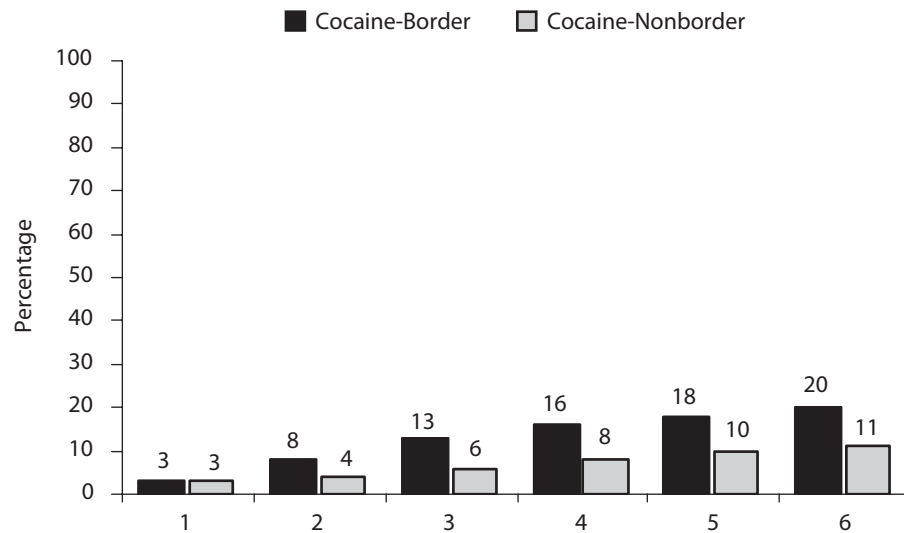
For inquiries concerning this report, please contact Jane Maxwell, Ph.D., Senior Research Scientist, Gulf Coast Addiction Technology Transfer Center, University of Texas at Austin, 1717 West 6th Street, Austin, TX 78703, Phone: 512-232-0610, Fax: 512-232-0617, E-mail: jcmaxwell@sbcglobal.net.

Exhibit 1. Texas Poison Control, Treatment Admissions, Lab Exhibits, Death, and Purity for Cocaine: 1998–2007



SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 2. Percentage of Border and Nonborder Texas Secondary Students Who Had Ever Used Powder or Crack/Cocaine, by Grade: 2006



SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 3. Marijuana, Cocaine and Nonmedical Use of Pain Relievers in Past Year; Alcohol Use, and Binge Alcohol Use in Past Month, and Perceptions of Great Risk of Having Five or More Drinks Once or Twice a Week, Among Persons Aged 12 or Older, by Substate Region, Annual Averages Based on 2004, 2005, and 2006



| | Marijuana Use in Past Year | | Cocaine Use in Past Year | | Nonmedical Use of Pain Relievers in Past Year | |
|----------------------------|----------------------------|-------------------------|--------------------------|-------------------------|---|-------------------------|
| | Estimate | 95% Prediction Interval | Estimate | 95% Prediction Interval | Estimate | 95% Prediction Interval |
| Total United States | 10.47 | (10.24-10.69) | 2.38 | (2.26-2.49) | 4.89 | (4.75-5.03) |
| Texas | 8.49 | (7.91-9.11) | 2.46 | (2.16-2.80) | 4.66 | (4.25-5.10) |
| Region 1 | 9.92 | (8.02-12.22) | 2.84 | (2.06-3.90) | 5.71 | (4.47-7.28) |
| Region 2 | 8.21 | (6.37-10.53) | 2.38 | (1.64-3.45) | 4.92 | (3.73-6.47) |
| Region 3 | 8.59 | (7.67-9.60) | 2.06 | (1.63-2.59) | 4.98 | (4.31-5.75) |
| Region 4 | 6.95 | (5.50-8.75) | 2.24 | (1.61-3.11) | 4.82 | (3.77-6.16) |
| Region 5 | 8.67 | (6.74-11.08) | 2.55 | (1.77-3.67) | 5.02 | (3.81-6.57) |
| Region 6 | 7.93 | (6.84-9.19) | 2.21 | (1.76-2.77) | 3.78 | (3.16-4.53) |
| Region 7 | 11.96 | (10.49-13.61) | 3.26 | (2.59-4.08) | 5.82 | (4.91-6.89) |
| Region 8 | 7.73 | (6.44-9.25) | 2.80 | (2.13-3.68) | 4.42 | (3.52-5.54) |
| Region 9 | 6.88 | (5.23-9.00) | 2.43 | (1.69-3.50) | 4.79 | (3.58-6.38) |
| Region 10 | 6.82 | (5.23-8.86) | 2.66 | (1.83-3.85) | 4.18 | (3.08-5.66) |
| Region 11 | 7.26 | (5.96-8.81) | 2.81 | (2.14-3.69) | 4.12 | (3.30-5.13) |

| | Alcohol Use in Past Month | | Binge Alcohol Use in Past Month ¹ | | Perceptions of Great Risk of Having 5 or More Drinks Once or Twice a Week | |
|----------------------------|---------------------------|-------------------------|--|-------------------------|---|-------------------------|
| | Estimate | 95% Prediction Interval | Estimate | 95% Prediction Interval | Estimate | 95% Prediction Interval |
| Total United States | 51.01 | (50.44-51.58) | 22.84 | (22.52-23.16) | 41.45 | (41.06-41.84) |
| Texas | 49.14 | (47.75-50.53) | 24.02 | (22.96-25.11) | 44.15 | (42.80-45.51) |
| Region 1 | 47.53 | (42.17-52.95) | 26.89 | (23.31-30.80) | 41.42 | (37.20-45.76) |
| Region 2 | 46.30 | (40.85-51.84) | 22.79 | (19.25-26.76) | 41.52 | (37.18-45.99) |
| Region 3 | 49.68 | (47.31-52.05) | 22.69 | (21.05-24.43) | 42.98 | (40.91-45.08) |
| Region 4 | 43.24 | (38.02-48.61) | 21.14 | (17.91-24.78) | 41.46 | (37.34-45.70) |
| Region 5 | 42.75 | (37.61-48.06) | 21.47 | (18.13-25.24) | 43.14 | (38.99-47.38) |
| Region 6 | 52.46 | (49.76-55.14) | 24.10 | (22.04-26.29) | 44.36 | (41.84-46.91) |
| Region 7 | 54.78 | (51.54-57.97) | 25.84 | (23.58-28.24) | 40.88 | (38.15-43.67) |
| Region 8 | 47.96 | (44.29-51.66) | 25.07 | (22.28-28.07) | 45.89 | (42.63-49.18) |
| Region 9 | 42.60 | (36.85-48.55) | 22.21 | (18.51-26.41) | 47.29 | (42.60-52.03) |
| Region 10 | 43.75 | (38.30-49.35) | 25.34 | (21.37-29.77) | 51.31 | (47.10-55.51) |
| Region 11 | 43.32 | (39.37-47.36) | 26.07 | (23.27-29.09) | 50.02 | (46.91-53.12) |

¹Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

SOURCE: 2004, 2005, and 2006 NSDUH

Exhibit 4. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem with Cocaine by Route of Administration: 2007

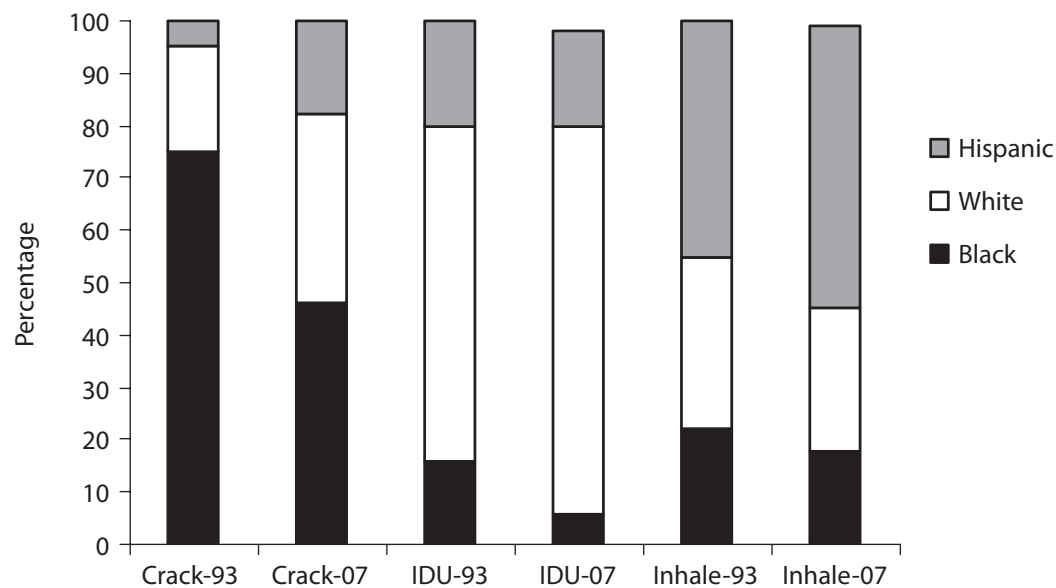
| | Crack/Cocaine Smoke | Powder Cocaine Inject | Powder Cocaine Inhale | Cocaine All ¹ |
|----------------------------|---------------------|-----------------------|-----------------------|--------------------------|
| # Admissions | 11,424 | 1,116 | 7,523 | 20,927 |
| % of Cocaine Admits | 55 | 5 | 36 | 100 |
| Lag-1st Use to Tmt-Yrs. | 13 | 15 | 9 | 11 |
| Average Age | 38 | 36 | 30 | 35 |
| % Male | 49 | 54 | 51 | 50 |
| % Black | 46 | 6 | 18 | 33 |
| % White | 35 | 74 | 27 | 34 |
| % Hispanic | 18 | 18 | 54 | 32 |
| % CJ ² Involved | 43 | 51 | 62 | 51 |
| % Employed | 15 | 17 | 36 | 23 |
| % Homeless | 21 | 17 | 5 | 14 |

¹Total includes clients with "other" routes of administration.

²CJ means criminal justice.

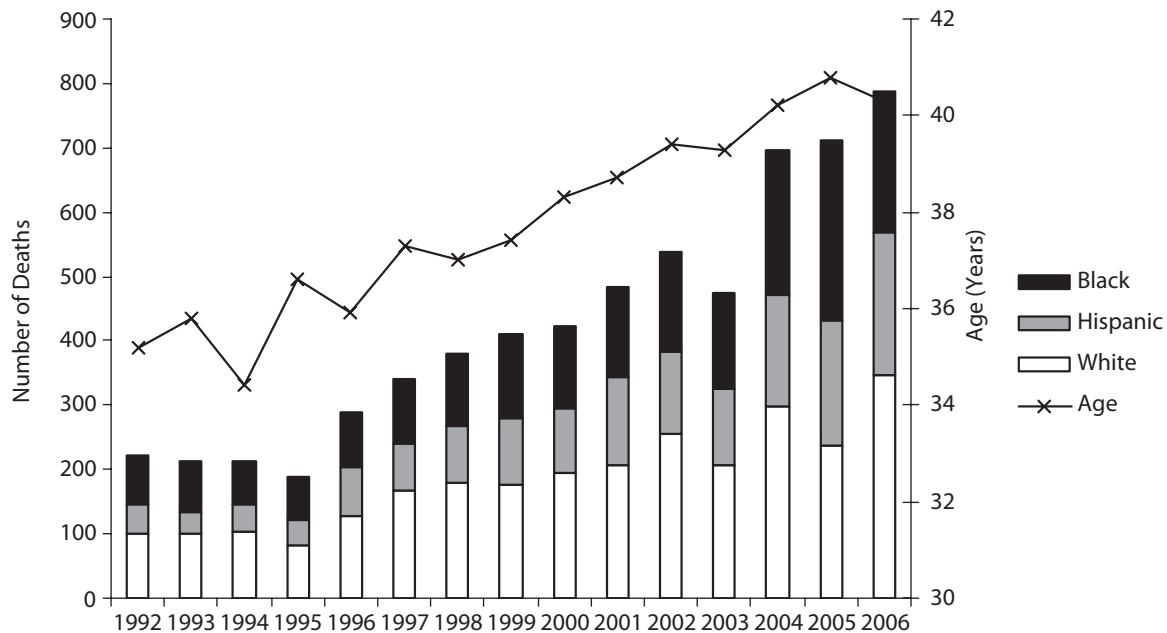
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 5. Routes of Administration of Cocaine by Race/Ethnicity from DSHS Treatment Admissions: 1993-2007



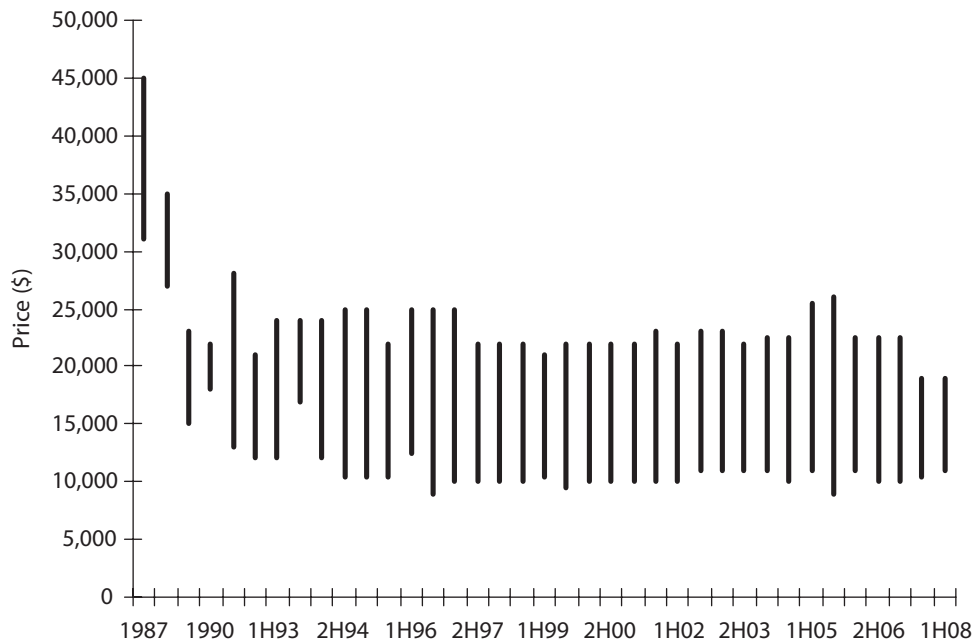
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 6. Age and Race/Ethnicity of Persons Dying with a Mention of Cocaine in Texas: 1992–2006



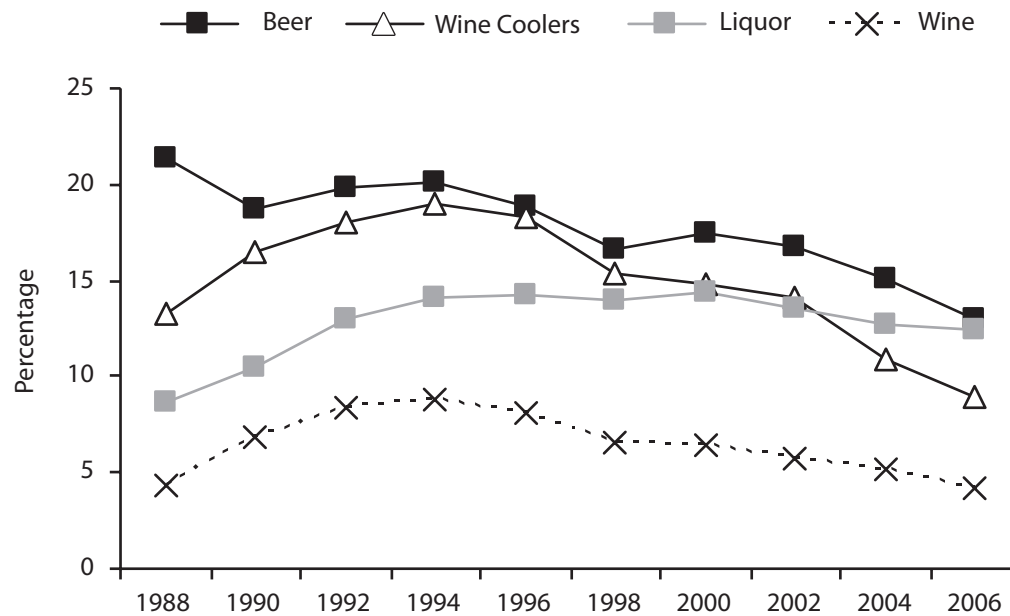
SOURCE: Texas Department of State Health Services (TDSHS)

**Exhibit 7. Price of a Kilogram of Cocaine in Texas as Reported by the DEA: 1987–2007
(Prices reported by half year since 1993)**



SOURCE: DEA

Exhibit 8. Percentage of Texas Secondary Students Who Reported They Normally Consume Five or More Drinks at One Time, by Specific Alcoholic Beverage: 1988–2006



SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 9. Characteristics of Clients at Admissions to DSHS-Funded Treatment Programs by Primary Problem Substance that Caused them to Seek Treatment: January–December, 2007

| Primary substance | Total Admissions | Percent of All Admissions | Average Age | Average Age 1st Use | Ave Lag 1st Use to Admission | Pct No Prior Treatment | Percent Married | Percent Male |
|-------------------|------------------|---------------------------|-------------|---------------------|------------------------------|------------------------|-----------------|--------------|
| Total | 88,452 | 100.0 | 32.3 | 18.8 | 14 | 42.7 | 19.1 | 59.8 |
| Heroin | 8,622 | 9.7 | 34.2 | 21.0 | 13 | 23.9 | 17.3 | 63.6 |
| Non-Rx Methadone | 113 | 0.1 | 31.6 | 23.8 | 6 | 35.4 | 18.6 | 54.0 |
| Other opiates | 4,529 | 5.1 | 34.4 | 24.4 | 10 | 37.2 | 22.7 | 43.6 |
| Alcohol | 22,073 | 25.0 | 37.7 | 15.6 | 22 | 45.4 | 19.4 | 70.4 |
| Barbiturates | 99 | 0.1 | 25.5 | 18.2 | 7 | 40.4 | 17.2 | 55.6 |
| Other sedatives | 1,328 | 1.5 | 27.5 | 20.5 | 7 | 38.9 | 17.3 | 40.1 |
| Amphet/ Methamph | 9,560 | 10.8 | 31.9 | 20.7 | 11 | 49.1 | 17.0 | 44.0 |
| Cocaine (powder) | 9,799 | 11.1 | 31.1 | 21.1 | 10 | 52.4 | 22.0 | 52.2 |
| Marijuana | 20,048 | 22.7 | 23.3 | 14.4 | 9 | 45.0 | 20.9 | 70.0 |

Exhibit 9 (continued). Characteristics of Clients at Admissions to DSHS-Funded Treatment Programs by Primary Problem Substance that Caused them to Seek Treatment: January–December, 2007

| Primary substance | Percent Using Needles | Percent w/ History of IV Drug Use | Percent Black | Percent White | Percent Hispanic | Percent Employed | Avg Months Employed Over Last 12 Involved | % Crim Just or Legal |
|-------------------|-----------------------|-----------------------------------|---------------|---------------|------------------|------------------|---|----------------------|
| Total | 15.0 | 26.0 | 19.3 | 46.8 | 32.5 | 33.4 | 4.0 | 57.9 |
| Heroin | 76.7 | 80.3 | 8.6 | 35.7 | 54.5 | 16.7 | 2.3 | 32.7 |
| Non-Rx Methadone | 17.7 | 54.9 | 9.7 | 66.4 | 23.9 | 25.7 | 3.1 | 40.7 |
| Other opiates | 13.5 | 34.8 | 8.3 | 80.6 | 9.8 | 18.8 | 3.4 | 37.4 |
| Alcohol | 4.4 | 18.4 | 12.5 | 54.6 | 31.4 | 35.8 | 4.9 | 55.4 |
| Barbiturates | 2.0 | 12.1 | 10.1 | 58.6 | 27.3 | 33.3 | 4.0 | 60.6 |
| Other sedatives | 5.2 | 19.3 | 11.0 | 68.9 | 18.0 | 25.2 | 2.9 | 61.1 |
| Amphet/ Methamph | 31.2 | 45.0 | 1.6 | 84.4 | 12.1 | 29.4 | 3.6 | 64.8 |
| Cocaine (powder) | 11.0 | 18.1 | 18.0 | 32.7 | 47.8 | 33.5 | 4.2 | 60.9 |
| Marijuana | 1.4 | 5.3 | 27.0 | 30.0 | 41.6 | 54.2 | 5.0 | 79.3 |

| Primary substance | Average Education | Percent Homeless | Average Income At Adm | # of Women Pregnant at Admission | Percent on Medication | Percent an Emergency Room Visit | Pct Sickness or Health Problems |
|-------------------|-------------------|------------------|-----------------------|----------------------------------|-----------------------|---------------------------------|---------------------------------|
| Total | 11.4 | 10.6 | \$6,852 | 1,951 | 21.3 | 28.3 | 21.9 |
| Heroin | 11.2 | 13.5 | \$3,546 | 217 | 29.6 | 26.9 | 27.5 |
| Non-Rx Methadone | 11.4 | 0.9 | \$6,455 | 1 | 22.1 | 35.4 | 24.8 |
| Other opiates | 12.2 | 8.1 | \$6,890 | 77 | 32.1 | 45.3 | 35.2 |
| Alcohol | 11.8 | 13.5 | \$9,537 | 153 | 22.3 | 31.7 | 23.6 |
| Barbiturates | 11.3 | 5.1 | \$5,569 | 2 | 33.3 | 31.3 | 25.3 |
| Other sedatives | 11.4 | 6.2 | \$5,740 | 37 | 27.4 | 39.2 | 25.8 |
| Amphet/ Methamph | 11.7 | 8.2 | \$5,703 | 312 | 19.5 | 30.4 | 21.6 |
| Cocaine (powder) | 11.2 | 6.0 | \$6,847 | 354 | 17.6 | 28.9 | 19.3 |
| Marijuana | 10.5 | 4.9 | \$6,983 | 456 | 12.2 | 14.9 | 11.9 |

| Primary substance | Pct w/ Employment Problems | Pct w/Family and/or Marital Problems | Pct w/ Social/ Peer Problems | Pct w/ Psych/ Emot. Problems | Pct Reporting Drug/Alcohol Problems |
|-------------------|----------------------------|--------------------------------------|------------------------------|------------------------------|-------------------------------------|
| Total | 43.8 | 43.4 | 37.0 | 34.7 | 57.5 |
| Heroin | 64.3 | 61.5 | 57.6 | 42.7 | 81.8 |
| Non-Rx Methadone | 49.6 | 49.6 | 40.7 | 38.9 | 69.0 |
| Other opiates | 57.6 | 58.5 | 51.4 | 51.2 | 75.9 |
| Alcohol | 44.3 | 43.7 | 39.3 | 37.9 | 58.2 |
| Barbiturates | 39.4 | 33.3 | 27.3 | 32.3 | 48.5 |
| Other sedatives | 49.5 | 49.3 | 41.6 | 43.4 | 60.0 |
| Amphet/Methamph | 42.0 | 41.9 | 33.1 | 38.1 | 54.6 |
| Cocaine (powder) | 39.4 | 41.2 | 31.8 | 31.6 | 52.6 |
| Marijuana | 28.4 | 26.7 | 20.7 | 16.7 | 38.9 |

Exhibit 9 (continued). Characteristics of Clients at Admissions to DSHS-Funded Treatment Programs by Primary Problem Substance that Caused them to Seek Treatment: January–December, 2007

| Primary substance | Total Admissions | Percent of All Admissions | Average Age | Average Age 1st Use | Ave Lag 1st Use to Admission | Pct No Prior Treatment | Percent Married | Percent Male |
|------------------------|------------------|---------------------------|-------------|---------------------|------------------------------|------------------------|-----------------|--------------|
| Hallucinogens | 97 | 0.1 | 28.3 | 19.5 | 8 | 43.3 | 16.5 | 56.7 |
| Inhalants | 67 | 0.1 | 22.5 | 15.6 | 7 | 22.4 | 31.3 | 62.7 |
| Over-the-counter drugs | 23 | 0.0 | 29.3 | 17.3 | 9 | 43.5 | 30.4 | 60.9 |
| Tranquilizers | 137 | 0.2 | 28.3 | 20.9 | 8 | 29.2 | 12.4 | 35.0 |
| Other | 110 | 0.1 | 29.3 | 20.2 | 10 | 60.0 | 19.1 | 56.4 |
| Ecstasy | 217 | 0.2 | 24.7 | 19.8 | 5 | 42.4 | 12.9 | 47.0 |
| Anabolic steroids | 20 | 0.0 | 32.7 | 18.6 | 13 | 30.0 | 25.0 | 65.0 |
| Rohypnol® | 41 | 0.0 | 19.1 | 14.3 | 4 | 12.2 | 31.7 | 58.5 |
| Crack | 11,128 | 12.6 | 38.4 | 25.5 | 13 | 36.1 | 15.2 | 48.4 |
| Ephedrine | 3 | 0.0 | 45.0 | 29.0 | 15 | 0.0 | 0.0 | 100.0 |

| Primary substance | Percent Using Needles | Percent w/ History of IV Drug Use | Percent Black | Percent White | Percent Hispanic | Percent Employed | Avg Months Employed Over Last 12 Involved | % Crim Just or Legal |
|------------------------|-----------------------|-----------------------------------|---------------|---------------|------------------|------------------|---|----------------------|
| Hallucinogens | 11.3 | 14.4 | 46.4 | 34.0 | 14.4 | 38.1 | 3.7 | 64.9 |
| Inhalants | 1.5 | 14.9 | 1.5 | 38.8 | 58.2 | 41.8 | 2.9 | 55.2 |
| Over-the-counter drugs | 0.0 | 8.7 | 13.0 | 73.9 | 13.0 | 52.2 | 3.8 | 52.2 |
| Tranquilizers | 5.1 | 18.2 | 10.2 | 62.8 | 26.3 | 21.2 | 3.3 | 56.9 |
| Other | 1.8 | 11.8 | 39.1 | 44.5 | 16.4 | 33.6 | 4.0 | 65.5 |
| Ecstasy | 1.4 | 6.9 | 42.9 | 37.8 | 15.2 | 40.1 | 3.9 | 76.0 |
| Anabolic steroids | 25.0 | 30.0 | 0.0 | 75.0 | 25.0 | 40.0 | 4.2 | 65.0 |
| Rohypnol® | 0.0 | 7.3 | 4.9 | 4.9 | 90.2 | 63.4 | 4.2 | 78.0 |
| Crack | 5.3 | 26.0 | 46.2 | 35.1 | 17.7 | 14.3 | 2.7 | 42.8 |
| Ephedrine | 0.0 | 33.3 | 0.0 | 100.0 | 0.0 | 33.3 | 4.0 | 100.0 |

| Primary substance | Average Education | Percent Homeless | Average Income At Adm | # of Women Pregnant at Admission | Percent on Medication | Percent an Emergency Room Visit | Pct Sickness or Health Problems |
|------------------------|-------------------|------------------|-----------------------|----------------------------------|-----------------------|---------------------------------|---------------------------------|
| Hallucinogens | 11.4 | 10.3 | \$4,213 | 4 | 19.6 | 33.0 | 23.7 |
| Inhalants | 9.2 | 11.9 | \$2,752 | 2 | 34.3 | 13.4 | 13.4 |
| Over-the-counter drugs | 11.2 | 0.0 | \$5,395 | 0 | 43.5 | 39.1 | 13.0 |
| Tranquilizers | 11.5 | 15.3 | \$4,437 | 5 | 42.3 | 48.2 | 24.1 |
| Other | 11.1 | 5.5 | \$4,233 | 0 | 22.7 | 22.7 | 24.5 |
| Ecstasy | 11.2 | 6.0 | \$5,427 | 7 | 19.8 | 25.3 | 12.9 |
| Anabolic steroids | 12.0 | 5.0 | \$6,115 | 0 | 20.0 | 10.0 | 20.0 |
| Rohypnol® | 9.2 | 4.9 | \$10,702 | 0 | 7.3 | 4.9 | 17.1 |
| Crack | 11.7 | 21.1 | \$5,259 | 310 | 28.4 | 36.2 | 29.1 |
| Ephedrine | 14.0 | 0.0 | \$3,200 | 0 | 66.7 | 66.7 | 0.0 |

Exhibit 9 (continued). Characteristics of Clients at Admissions to DSHS-Funded Treatment Programs by Primary Problem Substance that Caused them to Seek Treatment: January–December, 2007

| Primary substance | Pct w/ Employment Problems | Pct w/Family and/or Marital Problems | Pct w/ Social/Peer Problems | Pct w/ Psych/Emot. Problems | Pct Reporting Drug/Alcohol Problems |
|------------------------|----------------------------|--------------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| Hallucinogens | 34.0 | 30.9 | 26.8 | 34.0 | 42.3 |
| Inhalants | 41.8 | 44.8 | 35.8 | 35.8 | 59.7 |
| Over-the-counter drugs | 17.4 | 39.1 | 47.8 | 47.8 | 43.5 |
| Tranquilizers | 35.0 | 56.9 | 46.7 | 56.9 | 62.0 |
| Other | 33.6 | 25.5 | 31.8 | 33.6 | 28.2 |
| Ecstasy | 32.3 | 33.6 | 29.0 | 29.0 | 40.1 |
| Anabolic steroids | 50.0 | 45.0 | 50.0 | 35.0 | 70.0 |
| Rohypnol® | 63.4 | 65.9 | 39.0 | 39.0 | 73.2 |
| Crack | 54.6 | 55.3 | 47.4 | 46.6 | 70.5 |
| Ephedrine | 0.0 | 0.0 | 0.0 | 66.7 | 100.0 |

| Primary substance | Total Admissions | Percent Of All Admissions | Average Age | Average Age 1st Use | Ave Lag 1st Use to Admission | Pct No Prior Treatment | Percent Married | Percent Male |
|-------------------|------------------|---------------------------|-------------|---------------------|------------------------------|------------------------|-----------------|--------------|
| GHB | 21 | 0.0 | 31.0 | 23.4 | 9 | 52.4 | 9.5 | 33.3 |
| PCP | 373 | 0.4 | 27.4 | 19.5 | 8 | 52.3 | 9.1 | 46.4 |
| Ketamine | 5 | 0.0 | 30.0 | 17.0 | 12 | 20.0 | 20.0 | 60.0 |
| Klonopin® | 39 | 0.0 | 29.1 | 21.1 | 7 | 33.3 | 23.1 | 48.7 |

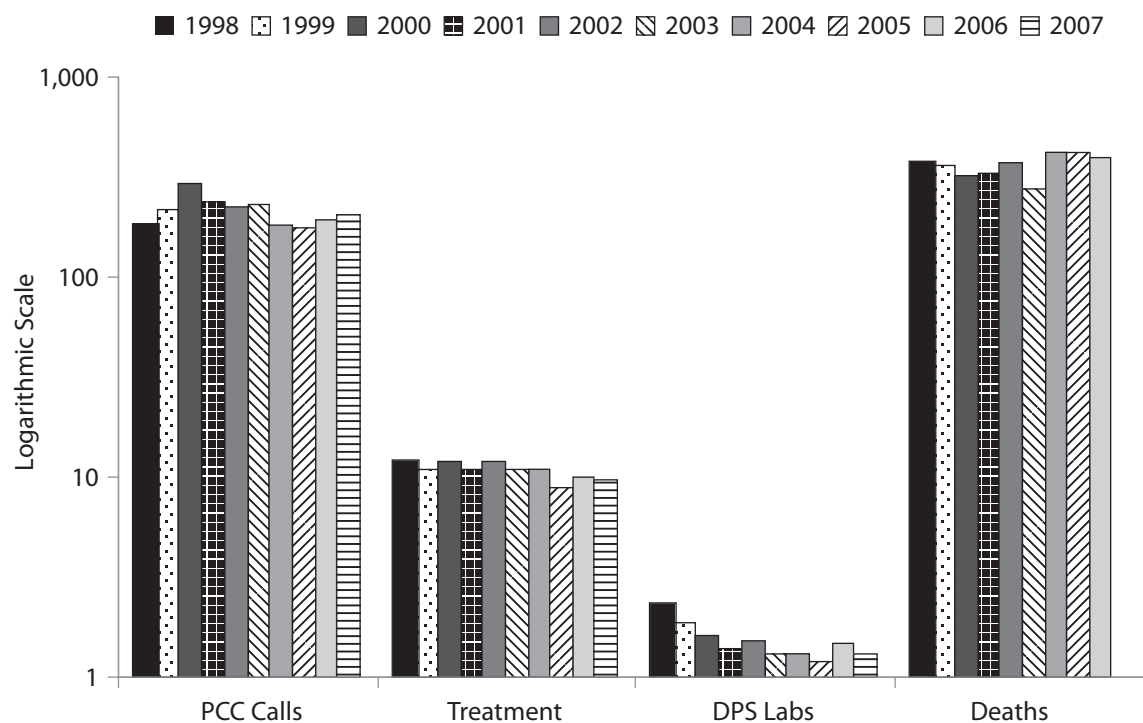
| Primary substance | Percent Using Needles | Percent w/ History of IV Drug Use | Percent Black | Percent White | Percent Hispanic | Percent Employed | Avg Months Employed Over Last 12 Involved | % Crim Just or Legal |
|-------------------|-----------------------|-----------------------------------|---------------|---------------|------------------|------------------|---|----------------------|
| GHB | 14.3 | 19.0 | 0.0 | 90.5 | 9.5 | 28.6 | 2.0 | 57.1 |
| PCP | 0.5 | 1.9 | 89.0 | 6.7 | 3.8 | 26.3 | 3.3 | 62.2 |
| Ketamine | 60.0 | 60.0 | 0.0 | 60.0 | 40.0 | 0.0 | 3.0 | 80.0 |
| Klonopin® | 7.7 | 25.6 | 15.4 | 56.4 | 20.5 | 33.3 | 2.8 | 53.8 |

| Primary substance | Average Education | Percent Homeless | Average Income At Adm | # of Women Pregnant at Admission | Percent on Medication | Percent an Emergency Room Visit | Pct Sickness or Health Problems |
|-------------------|-------------------|------------------|-----------------------|----------------------------------|-----------------------|---------------------------------|---------------------------------|
| GHB | 12.5 | 23.8 | \$667 | 0 | 38.1 | 19.0 | 23.8 |
| PCP | 11.3 | 7.8 | \$3,706 | 13 | 13.7 | 35.4 | 18.5 |
| Ketamine | 13.2 | 20.0 | \$2,800 | 0 | 60.0 | 20.0 | 60.0 |
| Klonopin® | 11.4 | 10.3 | \$6,493 | 1 | 43.6 | 25.6 | 30.8 |

| Primary substance | Pct w/ Employment Problems | Pct w/Family and/or Marital Problems | Pct w/ Social/Peer Problems | Pct w/ Psych/Emot. Problems | Pct Reporting Drug/Alcohol Problems |
|-------------------|----------------------------|--------------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| GHB | 47.6 | 47.6 | 47.6 | 47.6 | 47.6 |
| PCP | 45.0 | 37.5 | 34.3 | 28.7 | 52.3 |
| Ketamine | 60.0 | 60.0 | 60.0 | 80.0 | 80.0 |
| Klonopin® | 56.4 | 53.8 | 41.0 | 38.5 | 59.0 |

SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 10. Texas Poison Control Calls, Treatment Admissions, DPS Lab Exhibits, and Deaths for Heroin: 1998–2007



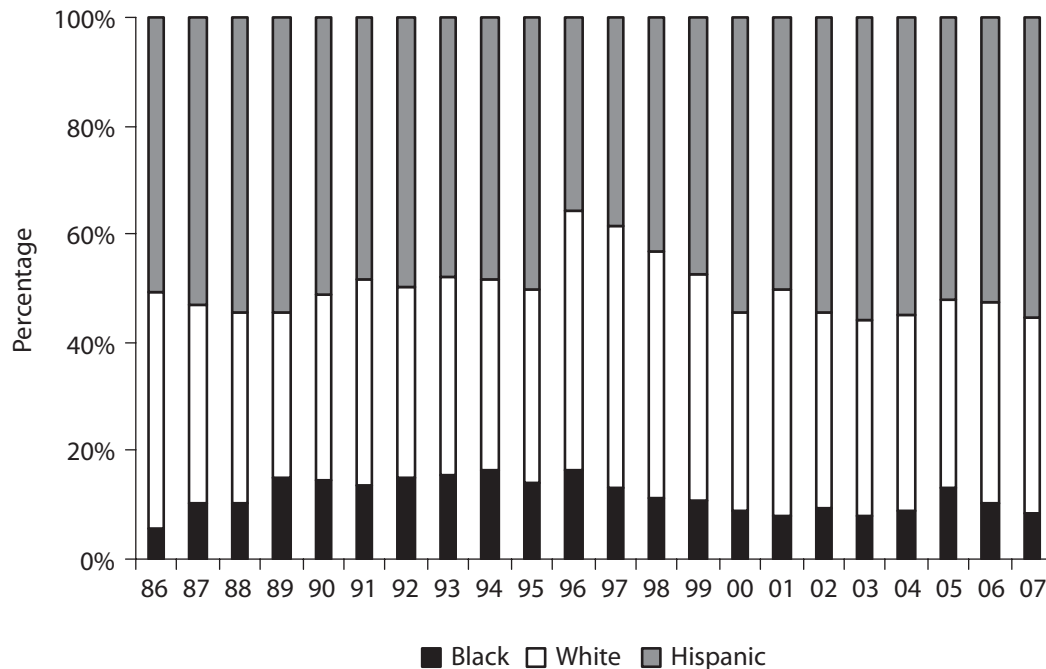
SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 11. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem with Heroin by Route of Administration: 2007

| | Inject | Inhale | Smoke | All ¹ |
|-------------------------|--------|--------|-------|------------------|
| # Admissions | 6,594 | 1,698 | 99 | 8,622 |
| % of Heroin Admits | 77 | 20 | 1 | 100 |
| Lag-1st Use to Tmt-Yrs. | 15 | 7 | 11 | 13 |
| Average Age | 36 | 27 | 31 | 34 |
| % Male | 65 | 61 | 60 | 64 |
| % Black | 8 | 14 | 9 | 9 |
| % White | 41 | 17 | 30 | 36 |
| % Hispanic | 51 | 69 | 58 | 55 |
| % CJ Involved | 32 | 36 | 35 | 33 |
| % Employed | 14 | 26 | 18 | 17 |
| % Homeless | 15 | 8 | 7 | 14 |

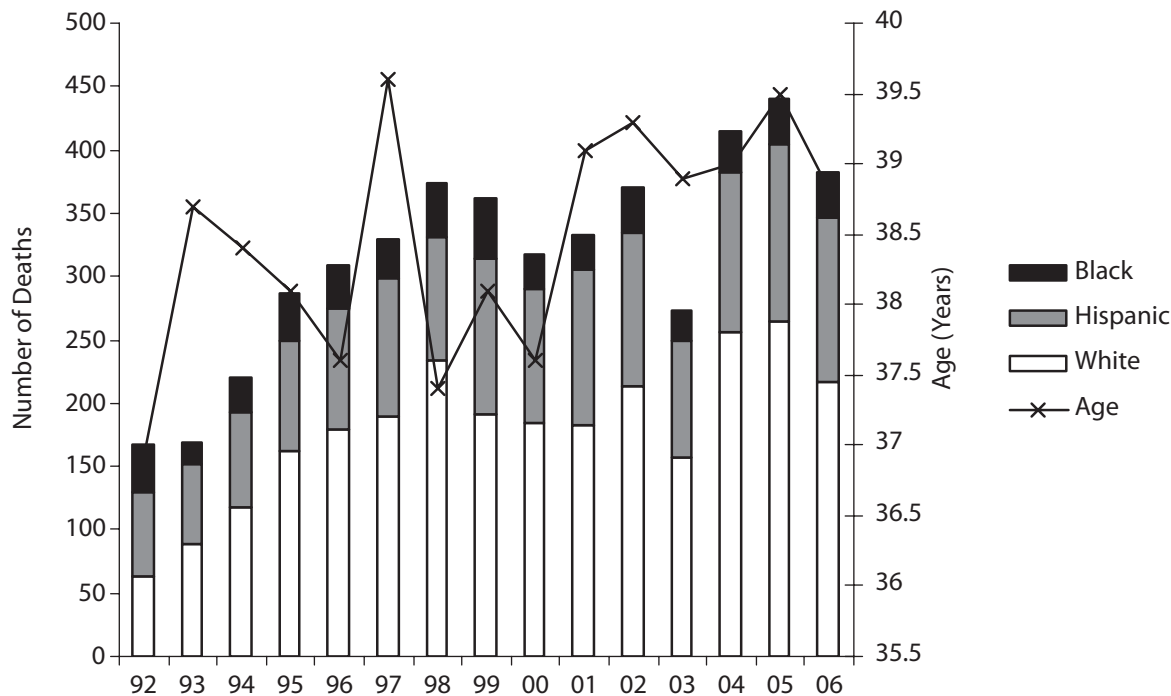
¹Total includes clients with other routes of administration.
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 12. Percentage Heroin Admissions to DSHS-Funded Treatment by Race/Ethnicity: 1996–2007



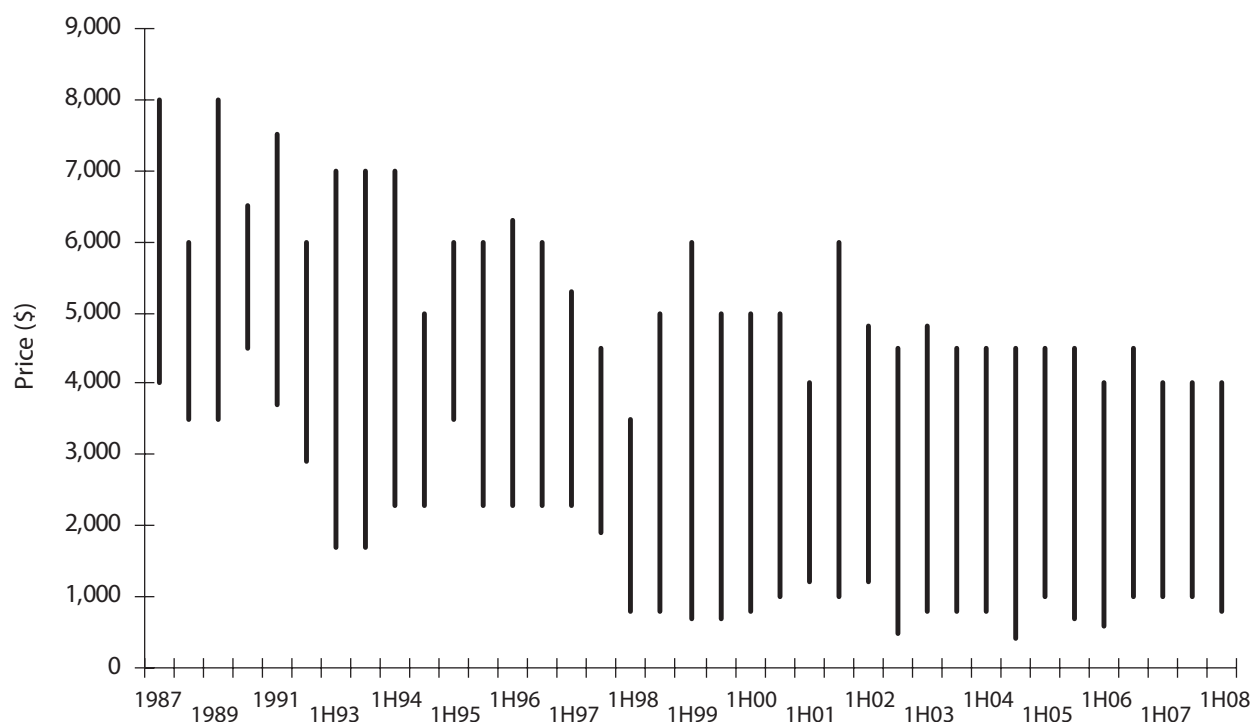
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 13. Age and Race/Ethnicity of Person Dying with a Mention of Heroin in Texas: 1992–2006



SOURCE: Texas Department of State Health Services (TDSHS)

**Exhibit 14. Price of an Ounce of Mexican Black Tar Heroin in Texas as Reported by the DEA: 1987–2008
(Prices reported by half year since 1993)**



SOURCE: DEA

Exhibit 15. Price and Purity of Heroin Purchased in Dallas, El Paso, Houston, and San Antonio by the DEA: 1995–2006

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Dallas Purity (%) | 6.8 | 3.5 | 7.0 | 11.8 | 14.0 | 16.0 | 13.4 | 17.2 | 13.3 | 16.3 | 11.6 | 17.7 |
| Price/Milligram Pure | \$2.34 | \$6.66 | \$4.16 | \$1.06 | \$1.01 | \$0.69 | \$1.36 | \$0.75 | \$0.98 | \$0.90 | \$1.11 | \$1.10 |
| El Paso Purity (%) | - | - | - | - | 56.7 | 50.8 | 41.8 | 40.3 | 44.7 | 50.5 | 44.7 | 44.8 |
| Price/Milligram Pure | - | - | - | - | \$0.49 | \$0.34 | \$0.44 | \$0.27 | \$0.40 | \$0.27 | \$0.40 | \$0.33 |
| Houston Purity (%) | 16.0 | 26.1 | 16.3 | 34.8 | 17.4 | 18.2 | 11.3 | 28.2 | 27.4 | 24.8 | 24.4 | 18.1 |
| Price/Milligram Pure | \$1.36 | \$2.15 | \$2.20 | \$2.43 | \$1.24 | \$1.14 | \$1.51 | \$0.64 | \$0.45 | \$0.44 | \$1.11 | \$1.90 |
| San Antonio Purity (%) | - | - | - | - | - | - | - | - | 8.2 | 6.4 | 11.2 | 17.4 |
| Price/Milligram Pure | - | - | - | - | - | - | - | - | \$1.97 | \$2.24 | \$0.56 | \$0.79 |

SOURCE: DEA

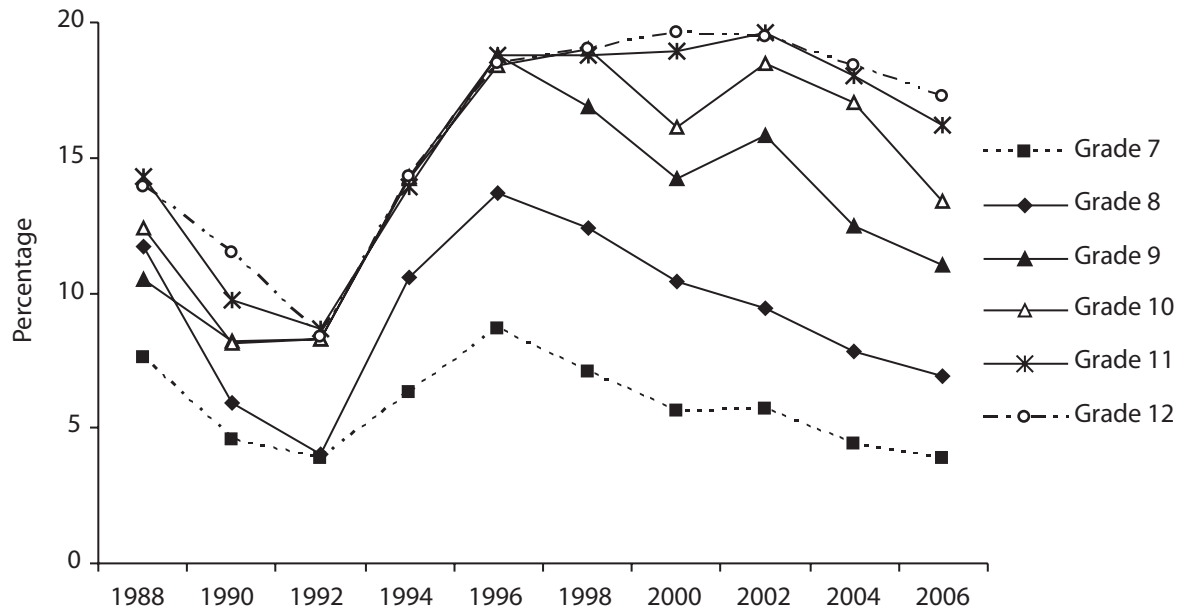
Exhibit 16. Hydrocodone, Oxycodone, Methadone and Fentanyl Indicators in Texas: 1998–2007

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Poison Control Center Cases of Abuse and Misuse | | | | | | | | | | |
| Fentanyl | – | – | 9 | 2 | 3 | 11 | 17 | 10 | 36 | 28 |
| Hydrocodone | 192 | 264 | 286 | 339 | 429 | 414 | 516 | 505 | 657 | 703 |
| Methadone | 17 | 15 | 30 | 27 | 50 | 41 | 69 | 69 | 73 | 91 |
| Oxycodone | 12 | 26 | 22 | 34 | 68 | 64 | 77 | 50 | 68 | 67 |
| DSHS Treatment Admissions | | | | | | | | | | |
| Methadone | 55 | 69 | 44 | 52 | 75 | 86 | 63 | 91 | 101 | 113 |
| “Other Opiates” ¹ | 553 | 815 | 890 | 1,386 | 2,084 | 2,794 | 3,433 | 3,482 | 3,903 | 4,529 |
| Deaths with Mention of Substance (DSHS) | | | | | | | | | | |
| Fentanyl | 8 | 5 | 4 | 7 | 22 | 10 | 32 | 30 | 37 | – |
| Hydrocodone | 5 | 25 | 52 | 107 | 168 | 140 | 201 | 269 | 374 | – |
| Methadone | 31 | 32 | 62 | 90 | 131 | 122 | 164 | 201 | 231 | – |
| Oxycodone | 1 | 8 | 20 | 40 | 56 | 60 | 66 | 62 | 78 | – |
| Drug Exhibits Identified by DPS Laboratories | | | | | | | | | | |
| Fentanyl | 0 | 3 | 1 | 7 | 4 | 2 | 14 | 7 | 14 | 10 |
| Hydrocodone | 52 | 479 | 629 | 771 | 747 | 1,212 | 1,598 | 1,789 | 2,324 | 2,812 |
| Methadone | 1 | 19 | 22 | 42 | 58 | 70 | 130 | 133 | 169 | 209 |
| Oxycodone | 10 | 36 | 72 | 115 | 106 | 174 | 270 | 237 | 264 | 244 |

¹ “Other Opiates” refers to those other than heroin.

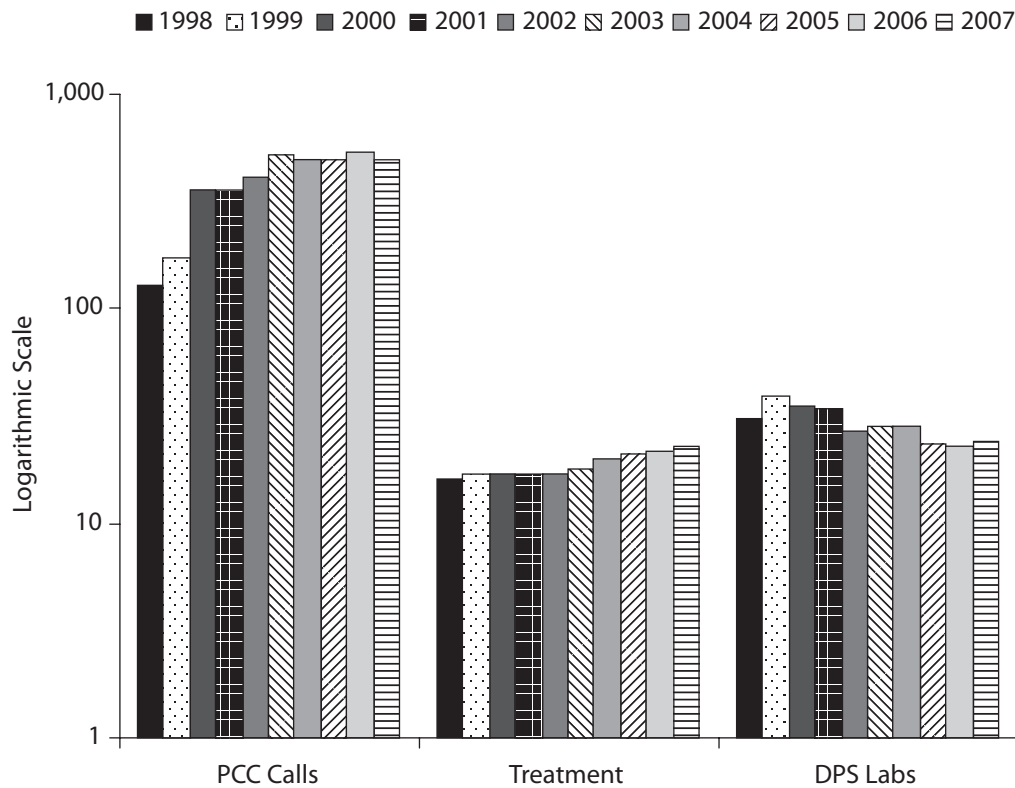
SOURCE: DEA

Exhibit 17. Percentage of Texas Secondary Students Who Had Used Marijuana in the Past Month, by Grade: 1988–2006



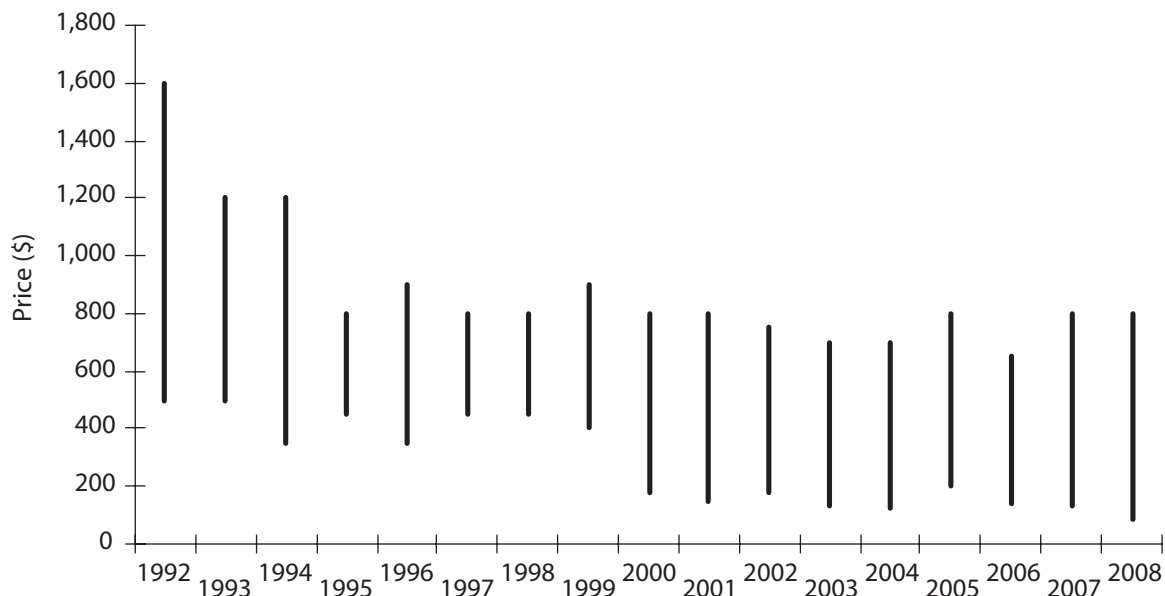
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 18. Texas Poison Control Calls, Treatment Admissions, and DPS Lab Exhibits for Cannabis: 1998–2007



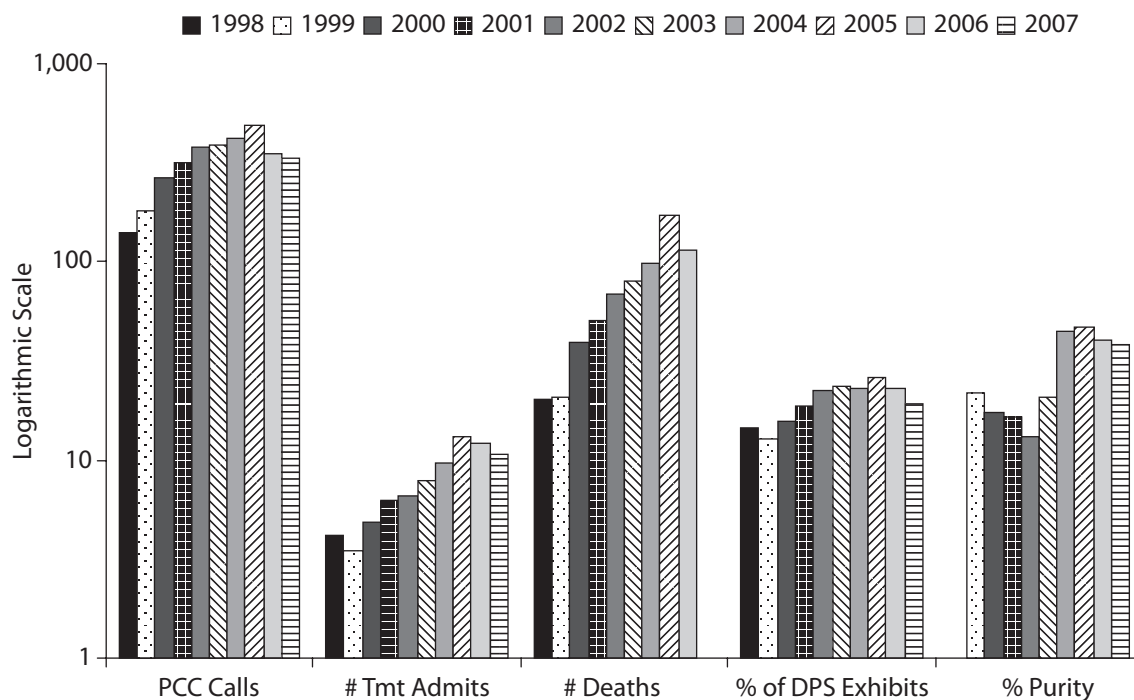
SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 19. Price of a Pound of Commercial Grade Marijuana in Texas as Reported by the DEA: 1992–2008



SOURCE: DEA

Exhibit 20. Texas Poison Control Calls, Treatment Admissions, Deaths, Lab Exhibits, and Purity of Methamphetamine: 1998–2007



SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 21. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary Problem of Amphetamines or Methamphetamine by Route of Administration: 2007

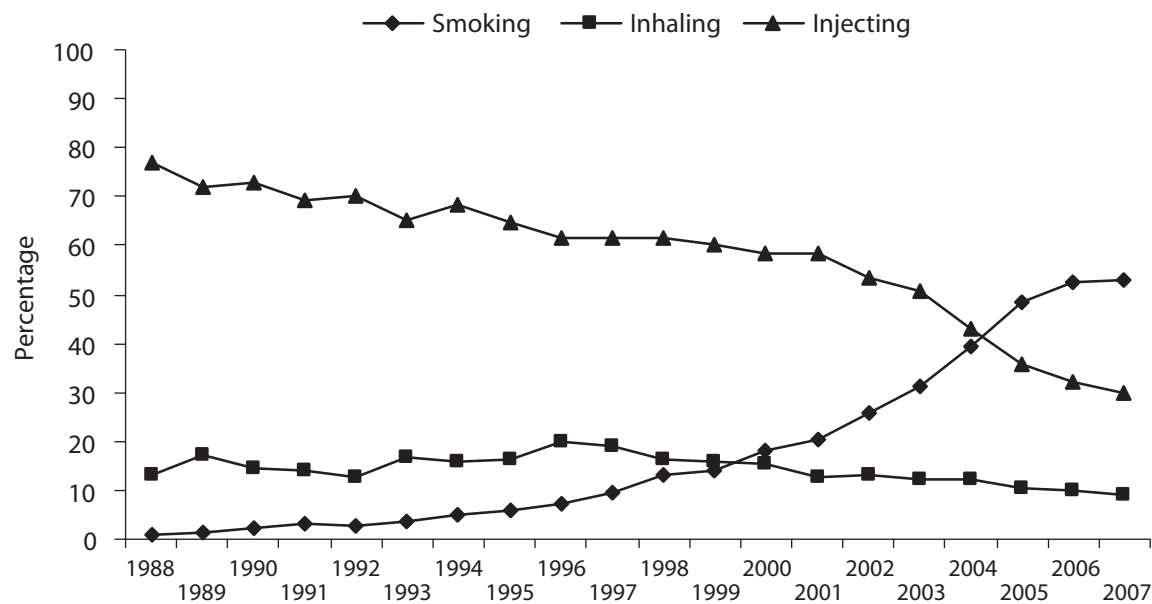
| | Smoke | Inject | Inhale | Oral | All ¹ |
|----------------------------|-------|--------|--------|------|------------------|
| # Admissions | 5,046 | 2,909 | 849 | 430 | 9,560 |
| % of Stimulant Admits | 53 | 30 | 9 | 5 | 100 |
| Lag-1st Use to Tmt-Yrs. | 10 | 14 | 10 | 12 | 11 |
| Average Age-Yrs. | 31 | 33 | 32 | 34 | 32 |
| % Male | 42 | 46 | 47 | 44 | 44 |
| % Black | 2 | 1 | 2 | 7 | 2 |
| % White | 81 | 92 | 81 | 77 | 84 |
| % Hispanic | 16 | 5 | 16 | 14 | 12 |
| % CJ ² Involved | 63 | 65 | 63 | 63 | 65 |
| % Employed | 31 | 22 | 31 | 32 | 29 |
| % Homeless | 8 | 11 | 8 | 5 | 8 |

¹Total includes clients with "other" routes of administration.

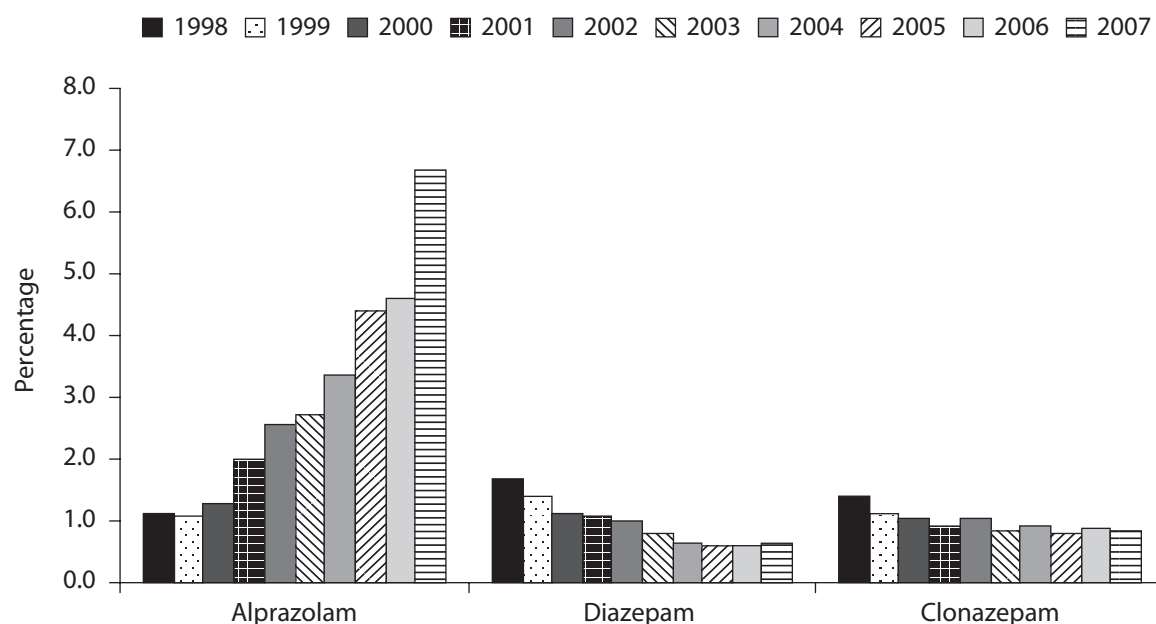
²CJ means criminal justice.

SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 22. Route of Administration of Methamphetamine by Clients Admitted to DSHS-Funded Programs: 1988–2007



SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 23. Percent Benzodiazepines Identified by DPS Labs in Texas: 1998–2007

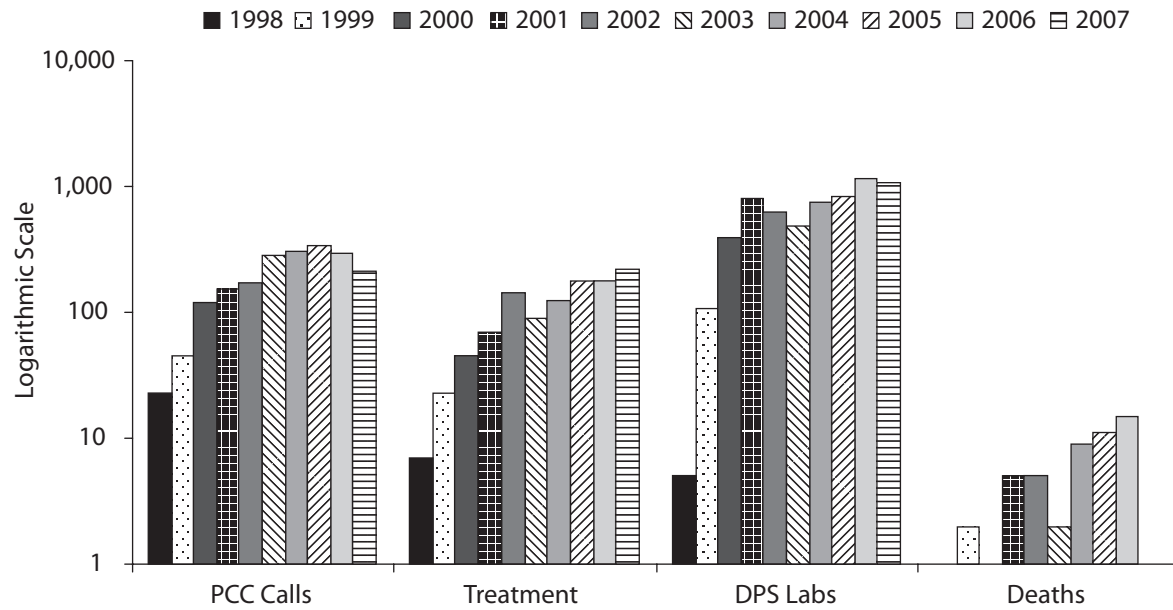
SOURCE: NFLIS

Exhibit 24. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Primary, Secondary, or Tertiary Problem with Club Drugs: 2007

| | Club Drug | | | | | | |
|-----------------------------|-----------|---------------|---------|-----|-----------|----------|----------|
| | GHB | Hallucinogens | Ecstasy | PCP | Rohypnol® | Ketamine | Steroids |
| # Admissions | 103 | 370 | 1,247 | 694 | 272 | 28 | 32 |
| Average Age (Years) | 29 | 26 | 24 | 27 | 19 | 28 | 31 |
| % Male | 44 | 70 | 52 | 51 | 81 | 61 | 72 |
| % Black | 1 | 26 | 34 | 83 | 1 | 4 | 0 |
| % White | 85 | 55 | 43 | 10 | 2 | 64 | 66 |
| % Hispanic | 13 | 15 | 20 | 6 | 96 | 32 | 34 |
| % History Needle Use | 32 | 22 | 12 | 4 | 15 | 43 | 19 |
| % Criminal Justice Involved | 56 | 72 | 74 | 65 | 77 | 61 | 72 |
| % Primary Drug= Club Drug | 20 | 26 | 17 | 54 | 15 | 18 | 63 |
| Other Primary Drug | | | | | | | |
| % Marijuana | 1 | 31 | 37 | 19 | 45 | 0 | 19 |
| % Alcohol | 9 | 13 | 6 | 3 | 3 | 4 | 13 |
| % Methamphet/ Amphetamines | 55 | 9 | 13 | 1 | 0 | 36 | 3 |
| % Powder Cocaine | 5 | 10 | 13 | 10 | 14 | 4 | 3 |
| % Crack/Cocaine | 0 | 5 | 6 | 8 | 6 | 0 | 0 |
| % Heroin | 3 | 1 | 1 | 0 | 18 | 14 | 0 |
| % Other Opiates | 0 | 2 | 1 | 2 | 0 | 7 | 0 |

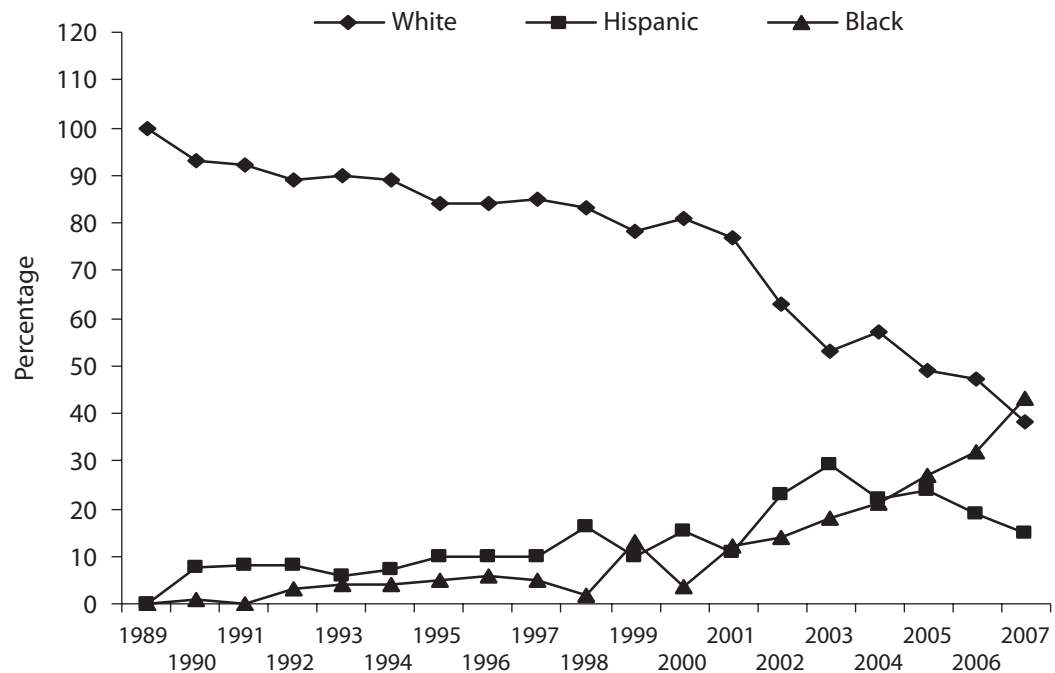
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 25. Texas Poison Control Calls, Treatment Admissions, Lab Exhibits, and Deaths for Ecstasy: 1998–2007



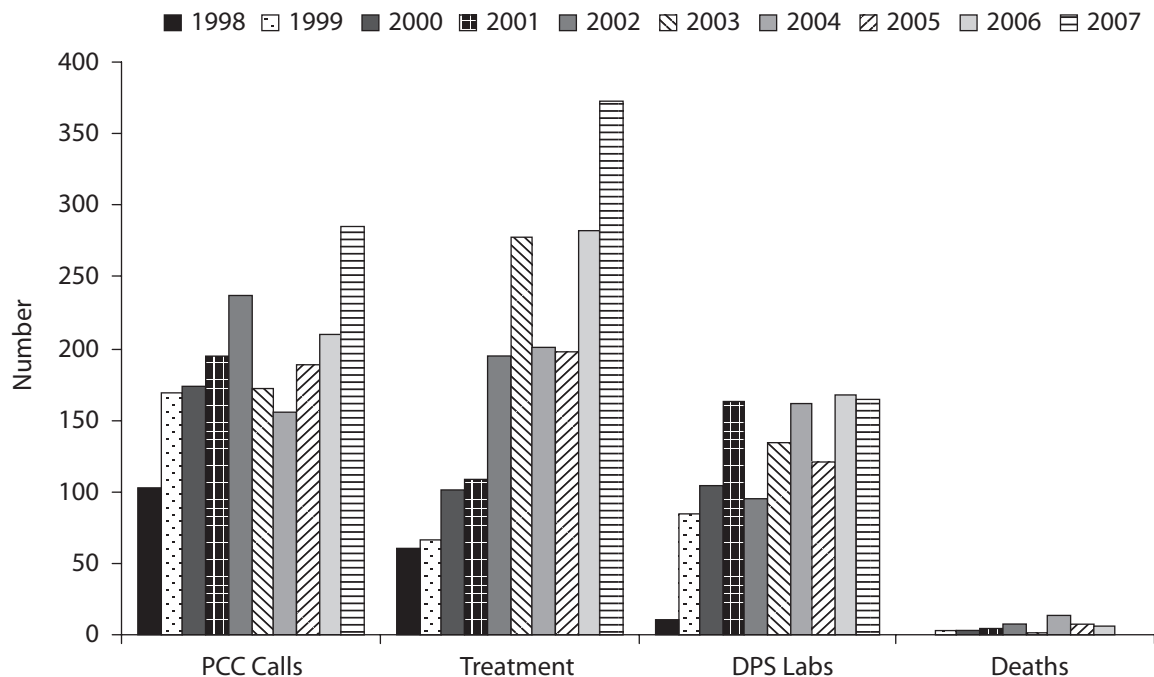
SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 26. Characteristics of Clients Admitted to DSHS-Funded Treatment with a Problem with Ecstasy: 1989–2007



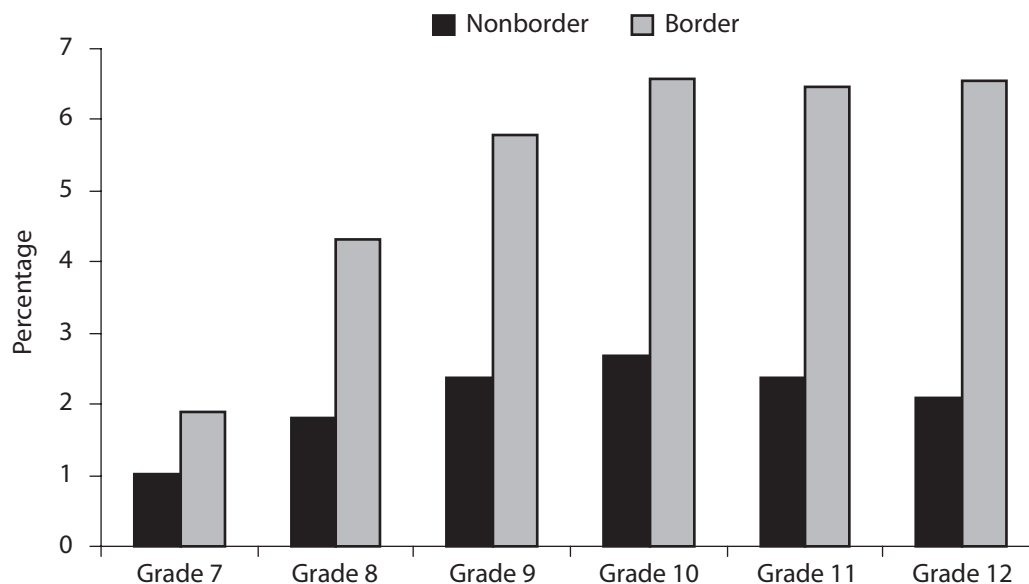
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 27. Texas Poison Control Calls, Treatment Admissions, Lab Exhibits, and Deaths for PCP: 1998–2007



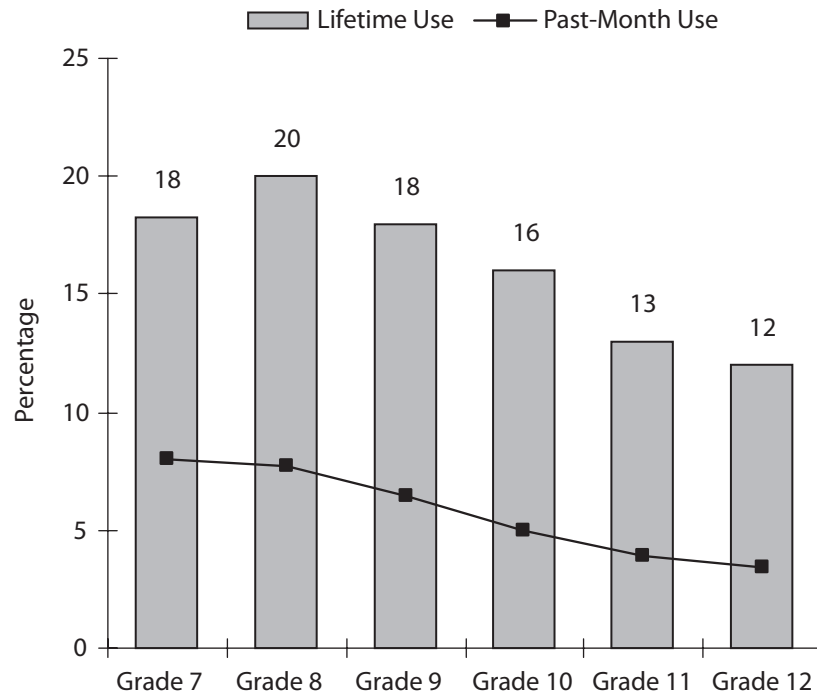
SOURCE: Texas Poison Center Network, Texas Department of State Health Services (TDSHS), Bureau of Vital Statistics, DSHS, Houston Field Divisions of the DEA and DMP

Exhibit 28. Percentage of Border and Nonborder Texas Secondary Students Who Had Ever Used Rohypnol®, by Grade: 2006



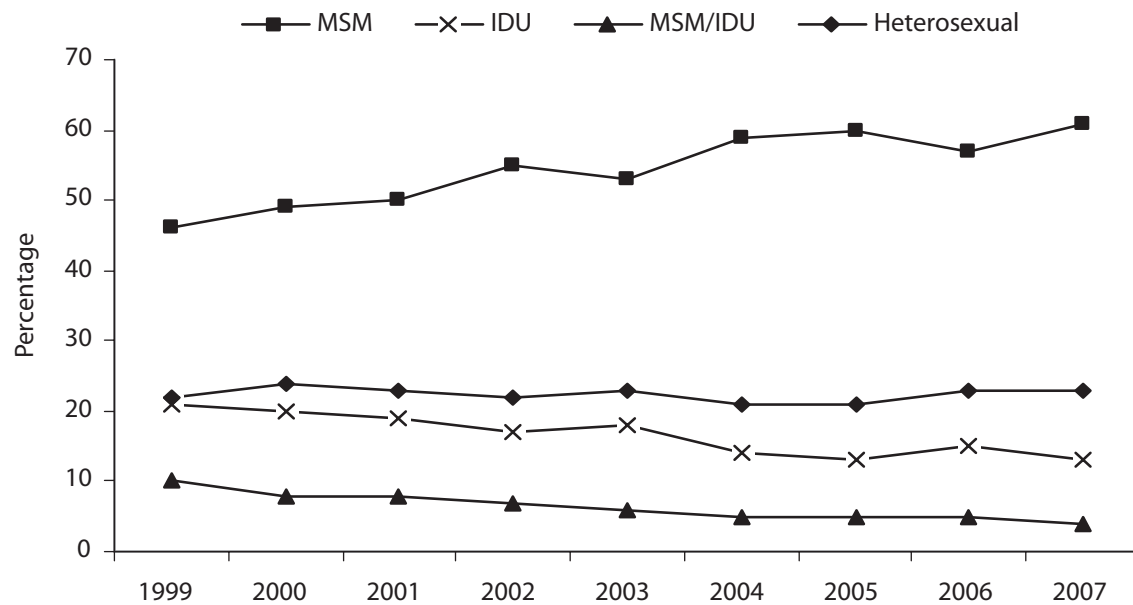
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 29. Percentage of Texas Secondary Students Who Had Used Inhalants Ever or in the Past Month, by Grade: 2006



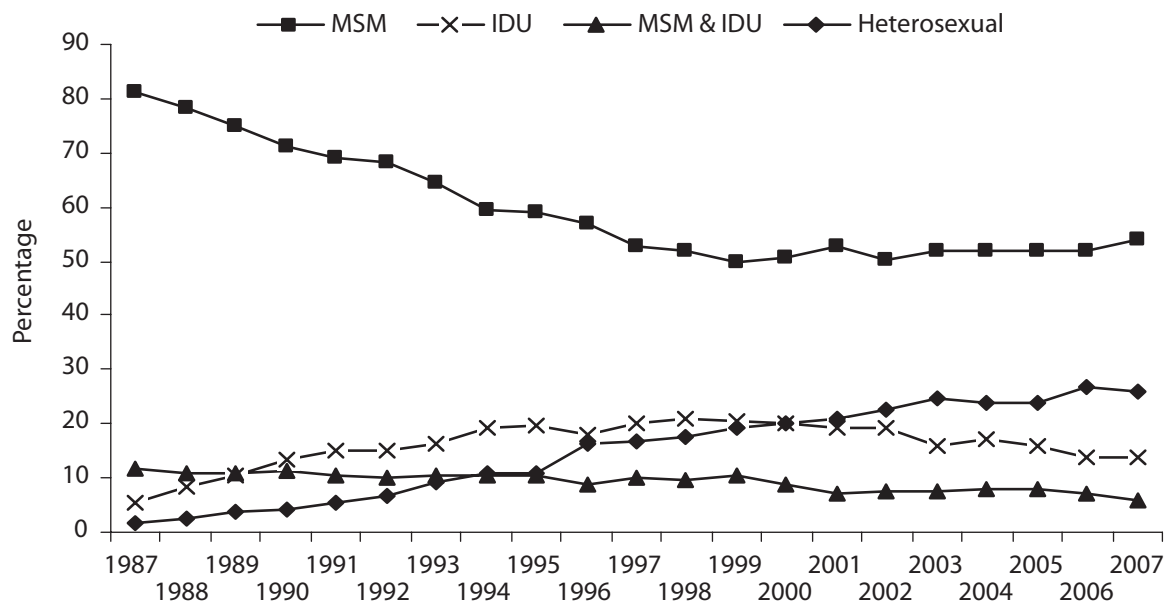
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 30. Percent HIV Cases by Selected Modes of Exposure: 1999–2007 (Cases with Risk Not Classified Excluded)



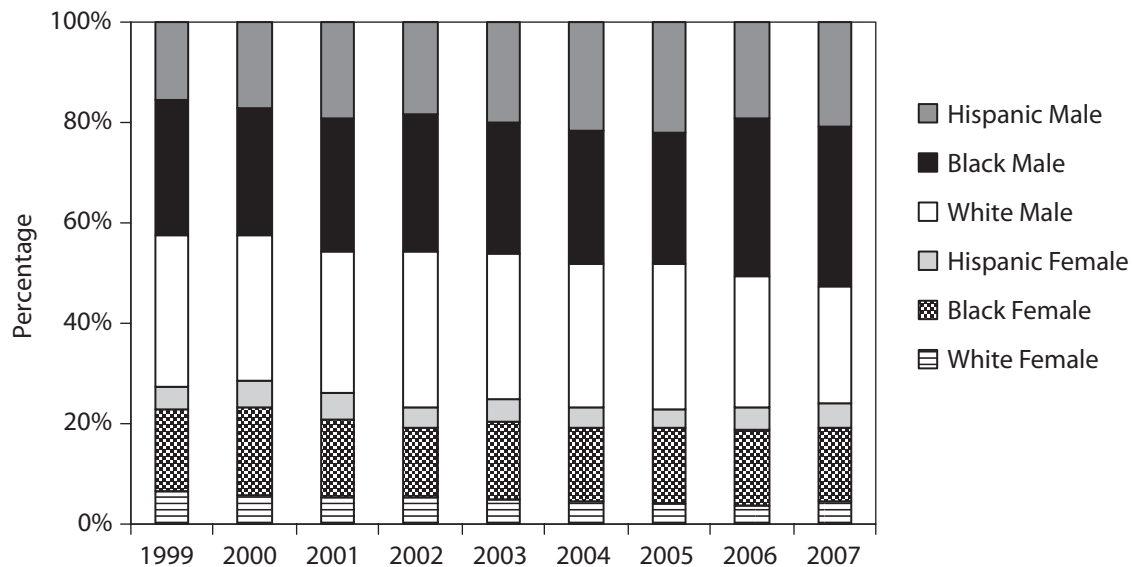
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 31. AIDS Cases in Texas by Mode of Exposure: 1987–2007 (Cases with Risk Not Classified Excluded)



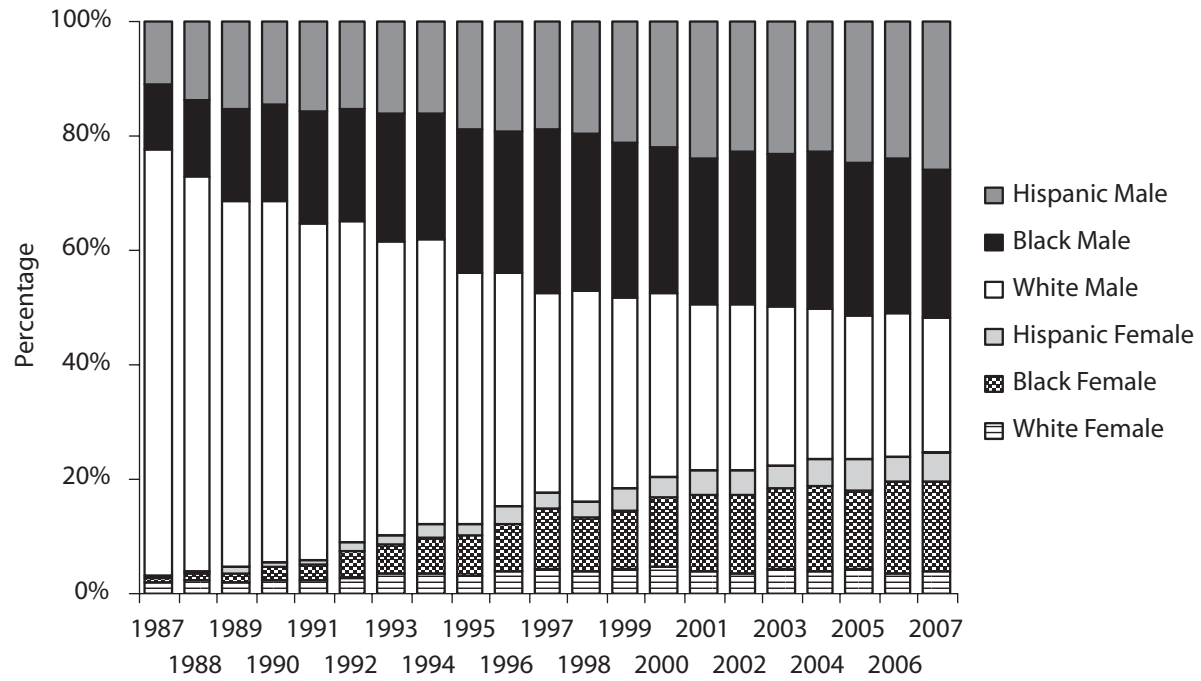
SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 32. Texas Male and Female HIV Cases by Race/Ethnicity: 1999–2007



SOURCE: Texas Department of State Health Services (TDSHS)

Exhibit 33. Texas Male and Female AIDS Cases by Race/Ethnicity: 1987–2007



SOURCE: Texas Department of State Health Services (TDSHS)

INTERNATIONAL
PAPERS

Trends in Drug Seizures: Health Canada's Drug Seizure Information

Krista Richard, M.A.

SOURCES OF INFORMATION

In Canada, the Drug Analysis Service (DAS) of Health Canada is responsible for analyzing suspected controlled substances that are seized by Canadian police officers and custom agents for prosecutorial purposes. The tests confirm the identity, and in some cases, the purity, of the substances seized, and result in certificates of analysis that are used as evidence in Canadian courts. The results of these analyses are retained in a computerized national database, known as the Laboratory Information Management System (LIMS). The database holds results for over 1,793,790 analyses conducted from January 1988 to the present. In 2007 alone, over 125,900 samples were submitted to and analyzed by the DAS.

Whenever a drug is seized in Canada, police and custom officials are required to disclose the information to Health Canada on the seizure and disposition of the case. It is the responsibility of Health Canada to authorize the destruction of the controlled drug or substance upon completion of the case. This information has strategic value for intelligence purposes and it provides context to which drugs are seized in Canada and the outcomes of those seizures. This source of information, the Controlled Drugs and Substances Database (CDSDB), provides complementarity to the LIMS data.

DRUG SEIZURE PATTERNS

Marijuana continues to dominate the number of exhibits seized by police and border services

and submitted to Health Canada for testing and destruction. However, the number of seizures overall in Canada has declined in the past 5 years. Powder cocaine is seized less often than marijuana but represents approximately 22 percent of all exhibits received since 2003. All provinces are showing a slight increase in the number of cocaine seizures since 2002, with most seizures originating in Ontario. The provinces of Quebec and Ontario have the highest growth in the number of methamphetamine seizures in the past 4 years, while a decline has been noted in the number of methamphetamine seizures coming from the western provinces. This may be an indication of the West-East trend in movement of this substance. All provinces are showing an increase in MDMA seizures since 2000, with the largest increase found in Ontario and Quebec. Most heroin submitted for testing has been seized in British Columbia (approximately 80 percent), while other provinces are showing a decline in heroin seizures (Ontario and Quebec) or relatively few seizures (Prairie Provinces and Atlantic Canada). There has been a steady increase in prescription opioid seizures (hydromorphone, morphine, codeine, oxycodone, methadone, and fentanyl) since 1988. This is most prominent in Ontario and Quebec. There has been a dramatic increase in the number of samples found to contain other agents or adulterants when the primary substance is methamphetamine or MDMA, and the number of multiple agents or adulterants in a particular sample is also increasing. Heroin and cocaine seizures have remained stable in terms of the number of other substances found in combination.

For inquiries concerning this report, please contact Krista Richard, M.A., Health Canada 9th Floor, AL 3509C, 123 Slater Street, Ottawa, Ontario Canada K1A 1B9, Phone: 613-948-8952, E-mail: krista_richard@hc-sc.gc.ca

Update on the Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: 2007

Pablo Kuri, M.D., Hugo López-Gatell, Ietza Bojórquez, M.D., M.Sc., Ph.D., and Mario Cortés, M.Sc.

INTRODUCTION

The Epidemiological Surveillance System of Addictions (SISVEA) was created in Mexico in 1990 by the General Directorate of Epidemiology. The system is defined as a permanent monitoring system of the use and abuse of tobacco, alcohol, and medical or illegal drugs, as well as their effects on morbidity and mortality and their association with juvenile infraction. In the beginning, SISVEA was operating in eight cities located on Mexico's northern border. Currently, the system registers drug consumption throughout the country and provides information of all 32 States of Mexico. This report discusses the updated activities of the SISVEA during 2007.

DATA SOURCES

Data used in this report came from the following sources:

- **Nongovernmental treatment centers** that participated in the SISVEA in 2007 provided information covering the characteristics and consumption patterns related to the first drug of use and primary drug of use.
- **Juvenile detention centers** provided information obtained at the time of internment of minors.
- **Forensic medical examiners** provided information on drug-related deaths in 2007, including accidental or violent deaths (suicides or

homicides) in cases where drug abuse may have been the direct cause of death or a contributing factor.

- **Emergency department data** provided information from surveys conducted every 6 months at participating hospitals, registering cause of admit and if the patient was under the influence of substances at the time of admission.

DRUG ABUSE PATTERNS AND TRENDS

Marijuana

According to data gathered from nongovernmental treatment centers in 2007, marijuana users were mostly male (95.6 percent); 27.4 percent were age 35 and older; 36.1 percent had a middle school education; and 66.8 percent were single (exhibit 1). The age of onset for marijuana use for most of these clients was between 10 and 14 (49.7 percent), and 78.6 percent reported daily use.

Marijuana ranked second as the first drug of use for 20.1 percent of treatment admissions in 2007; and ranked fifth (7.9 percent) as the primary drug of current use.

The natural history of marijuana consumption reported by nongovernmental treatment centers during 2007 showed that 8.1 percent of the clients who were beginning treatment used only one drug. The remaining 91.9 percent had progressed to a second drug, which in order of importance were cocaine (27.9 percent) and alcohol (18.9 percent) (exhibit 2). Of the latter group, 74.9 percent were already using a third drug, mainly cocaine (21.7 percent), methamphetamine (15.7 percent), or heroin (13.8 percent).

Information from juvenile detention centers reported that 16.4 percent of the 7,230 juveniles arrested during 2007 used marijuana (exhibit 3). Nearly all were male (96.5 percent); while 49.5 percent had an elementary school education; 35.4 percent were subemployed; 34.5 percent had a tattoo; and 27.4 percent were gang members. More than one-quarter (28.4 percent) of the offenses were committed while intoxicated, and 67 percent

of the offences were robberies. ME data indicated that 4.5 percent of deaths reported were associated with marijuana. Most of them were male (92.6 percent), and 20.2 percent were age 20–24 or were age 40 and above (exhibit 4). The main causes of death in these cases were asphyxia (23.7 percent), firearms (16.1 percent), or traffic accidents (15.1 percent).

Inhalants

Nongovernmental treatment centers reported that of the 3,763 clients who used inhalants, most were male (91.5 percent); 27.1 percent were age 15–19; 36.0 percent had a middle school education; and 41.3 percent were single (exhibit 1). More than one-half of these clients were using inhalants at age 10–14 (60.3 percent), and 73.3 percent reported daily use. Inhalants ranked third (5.8 percent) as the first drug used and sixth (4.7 percent) as a primary drug of current use among clients in nongovernmental treatment centers. Data on the natural history of inhalants indicate that 80.9 percent of the clients had progressed to a second drug, which in order of importance was: marijuana (47.4 percent), alcohol (17.3 percent), other inhalants (9.1 percent), and cocaine (6.9 percent). Of this group reporting use of a second drug, 81.2 percent also reported using a third drug, usually cocaine (21.9 percent), marijuana (20.1 percent), alcohol (15.9 percent), crack (9.2 percent), or heroin (6.5 percent) (exhibit 2a). According to juvenile detention centers, 10.5 percent of the juvenile offenders used inhalants (exhibit 3). Most of them were male (96.1 percent); had an elementary school education (54.9 percent); were subemployed (44.7 percent); had tattoos (30.5 percent); or belonged to a gang (27.6 percent). Thirty-four percent committed their offense while intoxicated, and robbery was the most common offense (74.5 percent).

Alcohol

Nongovernmental treatment centers reported that most of the 27,010 clients who abused

alcohol during the period analyzed were male (90.6 percent) (exhibit 1); 48.2 percent were age 35 or older; 37.0 percent had a middle school education; 50.7 percent were single; 45.7 percent started using alcohol between age 15 and 19; 45.4 percent reported daily alcohol use; and 12.3 percent drank alcohol 1–3 times per month. Alcohol ranked first as the first drug of choice (41.6 percent) and fifth as a current drug (31.5 percent) at nongovernmental treatment centers.

The natural history of alcohol abuse provided by nongovernmental treatment centers during 2007 showed that 32.2 percent were single drug (monodrug) users, while the remaining 67.8 percent progressed to a second drug, typically marijuana (28.2 percent), cocaine (20.6 percent), or tobacco (18.4 percent). Of the latter group, 61.9 percent progressed to a third drug, usually cocaine (28.3 percent), marijuana (18.6 percent), or methamphetamine (9.5 percent) (exhibit 2b).

Among juvenile infractors, 15.9 percent of them reported alcohol abuse (exhibit 3). Most were male (95.7 percent); had a middle school education (46 percent); were subemployed (42.7 percent); had tattoos (25.5 percent); or were gang members (13 percent). A third of the juveniles (29.7 percent) committed their offense while intoxicated, and robbery was the most common offense (62.2 percent).

According to ME data for 2007, the abuse of alcohol was associated with 81.6 percent of the reported deaths while the decedent was intoxicated. Most decedents were male (92.1 percent), and 37 percent were age 40 or older (exhibit 4). The main causes of death were traffic accidents (22.3 percent) and asphyxia (17.5 percent). The most common places where deaths occurred were at home (34.9 percent) or on the street (31.1 percent).

Cocaine

Of the cocaine users who attended nongovernmental treatment centers, 91.1 percent were male; 26.7 percent were age 20–24; 36.4 percent had a middle school education; 34.5 percent had an elementary

school education; and 54.5 percent were single (exhibit 1). Cocaine use started between age 15 and 19 for 43.9 percent of users, 58.7 percent reported daily use, and 8.7 percent reported using 1–3 times per month. Cocaine ranked fourth as the first drug used in 4.7 percent of the cases and third as the current drug used (11.4 percent).

The natural history of cocaine abuse reported by nongovernmental treatment centers during 2007 showed that 30.1 percent were mono-drug users, and 69.9 percent had progressed to a second drug, usually marijuana (23.6 percent), alcohol (21.0 percent), methamphetamine (20.7 percent), or crack (13.0 percent). Of the users of multiple drugs, 47.6 percent started using a third drug: alcohol (19.9 percent), methamphetamine (18.0 percent), or marijuana (17.6 percent) (exhibit 2c).

Juvenile detention centers reported cocaine use among 11.3 percent of their juveniles (exhibit 3). They were mostly male (94.5 percent); had an elementary school education (49.8 percent); were subemployed (39.6 percent); had tattoos (34.1 percent); or were gang members (31.9 percent). More than one-third of the juvenile offenders (33.3 percent) committed their offense while intoxicated, robbery being the most common offense (73.2 percent).

Heroin

According to data gathered from nongovernmental treatment centers, clients using heroin were mostly male (93.2 percent); 49.7 percent were age 35 and older; 36.6 percent had a middle school education; and 52.5 percent were single (exhibit 1). The age of first use of heroin among these clients was between 15 and 19 (40.0 percent), and 93.5 percent reported daily use.

Since 2000, heroin as the first drug used has been declining (1.2 percent), and as a primary drug heroin clients were fourth in terms of current use at 10.5 percent.

Information from juvenile detention centers reported that less than half of one percent (0.4

percent) of the juveniles arrested during 2007 used heroin (exhibit 3). This population was entirely male (100 percent). Fifty percent had an elementary school education; 50.0 percent were employed; 64.3 percent had tattoos; and 39.3 percent were gang members. Twenty-six percent of their offenses were committed while intoxicated, and robbery was the most common offense (82.1 percent).

Regional Comparisons

The utilization of or demand for overall addiction treatment services was greatest in Mexico's northern border region. Methamphetamine treatment was most frequent in Mexico's western areas. Heroin treatment demand was highest in the country's central areas; cocaine treatment utilization or demand was highest in Mexico's eastern areas.

CONCLUSIONS

Data reported in 2007 by the SISVEA nongovernmental treatment centers indicated that alcohol was the most frequent drug of first use or onset drug in Mexico, and it was the most common primary drug currently used. Methamphetamine and cocaine were the second most frequent primary drugs of abuse in nongovernmental treatment centers. Marijuana continued to prevail in juvenile detention centers as one of the most frequently consumed drug.

Although SISVEA is a rich and comprehensive source of drug abuse data for Mexico, it needs to be strengthened with new software.

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Exhibit 1. Demographic Characteristics of Nongovernmental Treatment Center Clients, by First Drug of Use by Percentage During 2007

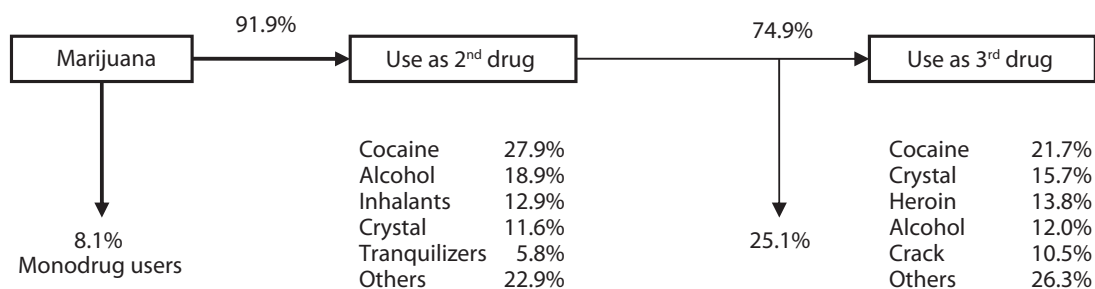
| | Global N= 64,917 | Marijuana n= 13,063 | Inhalants n= 3,763 | Alcohol n= 27,010 | Cocaine¹ n= 3,960 | Heroin n= 775 | Tobacco n= 13,487 |
|-----------------------|-----------------------------|--------------------------------|-------------------------------|------------------------------|---|--------------------------|------------------------------|
| Gender | | | | | | | |
| Male | 91.5 | 95.6 | 91.5 | 90.6 | 91.1 | 93.2 | 89.3 |
| Female | 8.5 | 4.4 | 8.5 | 9.4 | 8.9 | 6.8 | 10.7 |
| Age | | | | | | | |
| 5 – 14 Years | 1.7 | 1.4 | 6.9 | 1.1 | 1.2 | 0.1 | 1.9 |
| 15 – 19 | 13.7 | 16.9 | 27.1 | 9.6 | 14.4 | 2.7 | 15.3 |
| 20 – 24 | 17.0 | 20.9 | 19.4 | 12.9 | 26.7 | 11.2 | 18.4 |
| 25 – 29 | 16.4 | 18.8 | 16.6 | 14.0 | 21.6 | 17.9 | 17.4 |
| 30 – 34 | 14.5 | 14.7 | 12.1 | 14.2 | 16.3 | 18.3 | 14.8 |
| 35 > | 36.7 | 27.4 | 17.9 | 48.2 | 19.7 | 49.7 | 32.1 |
| Schooling | | | | | | | |
| No Formal Education | 5.0 | 2.9 | 5.9 | 6.9 | 2.6 | 4.8 | 3.9 |
| Elementary School | 34.7 | 34.8 | 35.0 | 34.8 | 34.5 | 35.5 | 34.5 |
| Middle School | 36.6 | 36.1 | 36.0 | 37.0 | 36.4 | 36.6 | 36.6 |
| High School | 17.6 | 18.0 | 7.7 | 18.0 | 23.7 | 17.9 | 17.3 |
| College Studies | 5.6 | 2.7 | 0.7 | 8.4 | 4.3 | 2.5 | 4.7 |
| Other | 0.4 | 0.2 | 0.0 | 0.7 | 0.3 | 0.1 | 0.3 |
| Marital Status | | | | | | | |
| Single | 59.2 | 66.8 | 41.3 | 50.7 | 54.5 | 52.5 | 49.8 |
| Married | 17.4 | 11.7 | 33.1 | 25.3 | 20.9 | 23.6 | 25.8 |
| Divorced | 3.7 | 2.1 | 4.6 | 3.9 | 5.5 | 3.8 | 4.1 |
| Widowed | 0.7 | 0.5 | 1.8 | 0.7 | 1.5 | 1.2 | 1.3 |
| Living Together | 13.2 | 12.5 | 11.0 | 13.3 | 11.5 | 12.6 | 12.0 |
| Others | 5.9 | 6.3 | 8.2 | 6.1 | 6.1 | 6.4 | 7.0 |
| Age of Onset | | | | | | | |
| < 9 Years | 5.1 | 4.5 | 11.0 | 4.2 | 1.1 | 0.8 | 7.4 |
| 10 – 14 | 41.3 | 49.7 | 60.3 | 33.4 | 22.6 | 16.3 | 50.9 |
| 15 – 19 | 40.9 | 39.6 | 25.6 | 45.7 | 43.9 | 40.0 | 35.9 |
| 20 – 24 | 7.9 | 4.4 | 2.5 | 10.4 | 16.7 | 21.5 | 4.4 |
| 25 – 29 | 2.6 | 1.2 | 0.3 | 3.4 | 8.5 | 10.2 | 0.9 |
| 30 – 34 | 1.0 | 0.4 | 0.1 | 1.3 | 3.7 | 6.6 | 0.3 |
| 35 > | 1.1 | 0.2 | 0.1 | 1.6 | 3.5 | 4.6 | 0.3 |
| Frequency | | | | | | | |
| Daily | 64.8 | 78.6 | 73.3 | 45.4 | 58.7 | 93.5 | 88.0 |
| Once a Week | 5.9 | 6.3 | 8.2 | 6.1 | 6.1 | 6.4 | 7.0 |
| 1 – 3 Times per Month | 7.9 | 4.8 | 5.1 | 12.3 | 8.7 | 3.1 | 3.0 |
| 1 – 11 Times per Year | 2.5 | 2.1 | 2.3 | 3.5 | 2.5 | 0.4 | 0.9 |

¹Cocaine, Basuco, Crack.

SOURCE: SISVEA, Nongovernmental Treatment Centers; reported by letza Bojorquez at the June 2008 CEWG Meeting

Exhibit 2. Mexico Natural History of Marijuana Use During 2007

Nongovernmental Centers

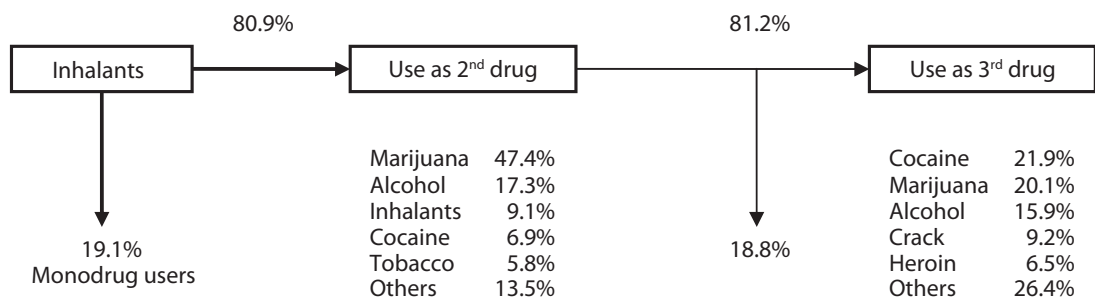


n = 13,063

SOURCE: SISVEA – Nongovernmental treatment centers

Exhibit 2a. Mexico Natural History of Marijuana Use During 2007

Nongovernmental Centers

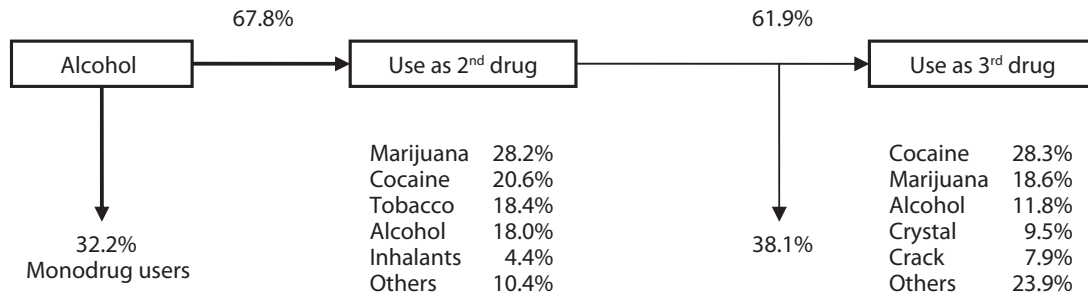


n = 3,763

SOURCE: SISVEA – Nongovernmental treatment centers

Exhibit 2b. Mexico Natural History of Alcohol Use During 2007

Nongovernmental Centers

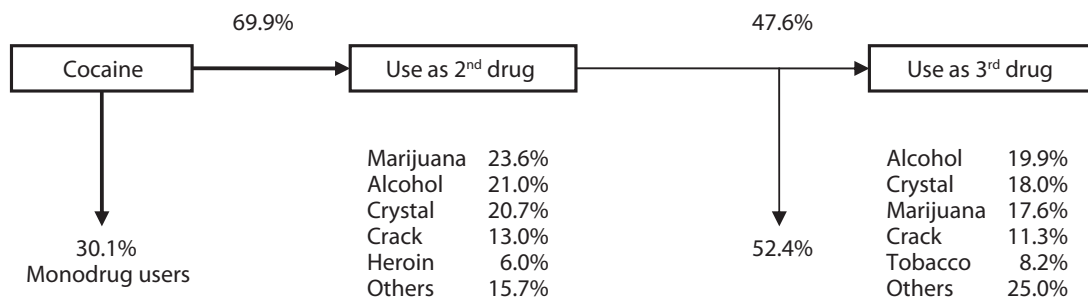


n = 27,010

SOURCE: SISVEA – Nongovernmental treatment centers

Exhibit 2c. Mexico Natural History of Cocaine Use During 2007

Nongovernmental Centers



n = 3,960

SOURCE: SISVEA – Nongovernmental treatment centers

Exhibit 3. Social Characteristics and Type of Offense Committed by Juvenile Drug-Using Arrestees, by Percentage During 2007

| Overall N = 7,230 | Marijuana n = 1,183 | Inhalants n = 761 | Alcohol n = 1,154 | Cocaine n = 816 | Heroin n = 28 |
|--|--|--|--|--|--|
| Male 93.0 | Male 96.5 | Male 96.1 | Male 95.7 | Male 94.5 | Male 100.0 |
| Middle school 45.9 | Elementary school 49.5 | Elementary school 54.9 | Middle school 46.0 | Elementary school 49.8 | Elementary school 50.0 |
| Subemployed 32.4 | Subemployed 35.4 | Subemployed 44.7 | Subemployed 42.7 | Subemployed 39.6 | Employed 50.0 |
| Tattoo 20.4 | Tattoo 34.5 | Tattoo 30.5 | Tattoo 25.5 | Tattoo 34.1 | Tattoo 64.3 |
| Belong to a gang 14.1 | Belong to a gang 27.4 | Belong to a gang 27.6 | Belong to a gang 13.0 | Belong to a gang 31.9 | Belong to a gang 39.3 |
| Offense while intoxicated 16.3 | Offense while intoxicated 28.4 | Offense while intoxicated 34.0 | Offense while intoxicated 29.7 | Offense while intoxicated 33.3 | Offense while intoxicated 29.6 |
| Frequent offenses | | | | | |
| Robbery 65.0 | Robbery 67.0 | Robbery 74.5 | Robbery 62.2 | Robbery 73.2 | Robbery 82.1 |
| Injuries 9.0 | Against health 10.2 | Injuries 4.7 | Injuries 10.4 | Against health 10.2 | Against health 7.1 |
| Against health 5.3 | Drug consumption 4.8 | Drug consumption 3.9 | Damages 6.1 | Weapon possession 6.9 | Damages 3.6 |
| Damages 5.1 | Injuries 4.7 | Against health 3.4 | Against health 5.3 | Injuries 4.5 | Injuries 3.6 |
| Others 15.6 | Others 13.3 | Others 13.5 | Others 16.0 | Others 5.2 | Others 3.6 |

SOURCE: SISVEA-Juvenile Detention Centers; reported by Ietza Bojorquez at the June 2008 CEWG Meeting

Exhibit 4. Type of Death Under Intoxication of Drugs¹ During 2007

| Number | Overall n = 2,112 | Alcohol n = 1,725 | Tranquilizers n = 137 | Cocaine n = 163 | Marijuana n = 94 | Opioids² n = 95 |
|------------------------------|------------------------------|------------------------------|----------------------------------|----------------------------|-----------------------------|---------------------------------------|
| | Percentage (%) | % | % | % | % | % |
| Sex | | | | | | |
| Male | 91.5 | 92.1 | 77.4 | 94.4 | 92.6 | 94.7 |
| Female | 8.5 | 7.9 | 22.6 | 5.6 | 7.4 | 5.3 |
| Age Groups (in Years) | | | | | | |
| 5 – 9 Years | 0.3 | 0.3 | 1.5 | 0.0 | 0.0 | 0.0 |
| 10 – 14 | 0.6 | 0.5 | 2.2 | 0.6 | 2.1 | 0.0 |
| 15 – 19 | 7.6 | 7.0 | 13.1 | 9.2 | 11.7 | 6.3 |
| 20 – 24 | 15.4 | 15.2 | 16.1 | 25.8 | 20.2 | 7.4 |
| 25 – 29 | 14.9 | 15.2 | 10.9 | 14.7 | 14.9 | 14.7 |
| 30 – 34 | 13.6 | 13.1 | 12.4 | 20.9 | 16.0 | 14.7 |
| 35 – 39 | 12.6 | 11.7 | 10.2 | 14.7 | 14.9 | 30.5 |
| > 40 | 34.8 | 37.0 | 33.6 | 14.1 | 20.2 | 26.3 |
| Cause of Death | | | | | | |
| Run Over | 12.3 | 13.3 | 11.7 | 5.6 | 6.5 | 0.0 |
| Traffic Accident | 19.8 | 22.3 | 8.8 | 10.6 | 15.1 | 2.1 |
| Fall | 4.0 | 4.1 | 5.1 | 2.5 | 5.4 | 1.1 |
| Electrocuted | 0.4 | 0.3 | – | 0.6 | 0.0 | 1.1 |
| Burned | 1.3 | 1.0 | 5.1 | 1.2 | 0.0 | 0.0 |
| Beaten | 2.3 | 2.4 | 0.7 | 4.3 | 6.5 | 1.1 |
| Asphyxia | 16.2 | 17.5 | 4.4 | 22.4 | 23.7 | 5.3 |
| Crushed | 0.3 | 0.3 | 0.7 | 0.0 | 0.0 | 0.0 |
| Firearm | 9.5 | 9.6 | 7.3 | 16.1 | 16.1 | 9.6 |
| Steel Knife | 4.7 | 4.7 | 3.6 | 9.3 | 8.6 | 2.1 |
| Rape | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Intoxicated | 8.0 | 4.2 | 9.5 | 8.1 | 2.2 | 69.0 |
| Poisoning | 0.3 | 0.2 | 2.2 | 0.0 | 0.0 | 0.0 |
| Other | 20.8 | 20.0 | 40.9 | 19.3 | 16.1 | 8.5 |
| Place of Death | | | | | | |
| Traffic | 21.8 | 24.8 | 15.4 | 3.1 | 11.8 | 1.1 |
| Home | 35.2 | 34.9 | 28.7 | 44.8 | 47.3 | 38.9 |
| Street | 31.2 | 31.1 | 24.3 | 40.5 | 34.4 | 32.6 |
| Public Baths | 0.2 | 0.3 | 0.0 | 0.0 | 1.1 | 0.0 |
| School Areas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Recreational Areas | 2.6 | 2.9 | 0.0 | 2.5 | 2.2 | 0.0 |
| At Work | 1.4 | 1.2 | 1.5 | 3.1 | 0.0 | 0.0 |
| Service Areas | 6.1 | 3.5 | 27.9 | 6.1 | 2.2 | 27.4 |
| Others | 1.5 | 1.3 | 2.2 | 0.0 | 1.1 | – |

¹Deaths from all causes totaled.²Opium, morphine, and heroin.

SOURCE: SISVEA, 2007; reported by letza Bojorquez at the June 2008 CEWG Meeting

Monitoring and Reporting on Drug Use in Europe: An Overview.

Laurent Laniel, M.A., M.Phil.

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is a decentralised technical agency of the European Union that has been working to develop a drug monitoring system for Europe. The role of the Centre is to provide sound and reliable information on drugs. Reporting of the EMCDDA covers epidemiological situations, responses, and drug strategies and policies. The Centre works closely with national focal points located in all participating countries to develop standard and comparable measures, methods, and reporting tools.

Data availability has increased considerably in Europe since the mid-1990s and now permits a general overview of trends. This provides information useful for evaluating actions at a European level and also facilitates a debate among member states by providing a “common language” for describing their drug situation. The EMCDDA presentation briefly describes the approach taken to collect and report on data-use issues; it also explores the extent to which the European data collection system has developed by presenting an overview of what the data reveal about current trends in cannabis, cocaine, and heroin use in Europe.

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