

Epidemiologic Trends in Drug Abuse

Advance Report, June 1999

Community Epidemiology Work Group

National Institutes of Health
National Institute on Drug Abuse

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Introduction

This Advance Report is a synthesis of findings that were presented at the joint meeting of three drug abuse epidemiology networks: the Community Epidemiology Work Group (CEWG) of the National Institute on Drug Abuse (NIDA); the Canadian Community Epidemiology Network on Drug Use (CCENDU); and the International Epidemiology Work Group (IEWG) on Drug Abuse. The meeting was co-hosted by the City of Seattle and the Washington State Division of Alcohol and Substance Abuse, Department of Social and Health Services. CCENDU assisted in arrangements for the meeting which was held in Vancouver, British Columbia, on June 8-11, 1999.

The CEWG

Sponsored by the National Institutes of Health, National Institute on Drug Abuse (NIDA), the CEWG is a network of epidemiologists and researchers in the United States that meets biannually to review current and emerging substance abuse patterns. The members present drug abuse indicator data, findings from surveys, and other quantitative information compiled from local, area, State, and Federal sources. To assess drug abuse patterns and trends, data from a variety of health and other drug abuse indicator sources are accessed and analyzed. Sources include public health agencies, medical and treatment facilities, medical examiners and coroners' offices, criminal justice and correctional offices, law enforcement agencies, surveys, and sources unique to local areas. Large-scale databases used in the CEWG analyses include the Treatment Episodes Data Set (TEDS) from the Substance Abuse and Mental Health Services Administration (SAMHSA); the Drug Abuse Warning Network (DAWN) data on emergency department (ED) drug-related mentions and coroners' reports (SAMSHA); the Arrestee Drug Abuse Monitoring (ADAM) program funded by the National Institute of Justice (NIJ); information on drug seizures, price, and purity from the Drug Enforcement Administration (DEA); Uniform Crime Reports maintained by the Federal Bureau of Investigation (FBI); and data from Poison Control Centers. These data are enhanced with qualitative information obtained from ethnographic research, focus groups, and other community-based sources.

Information reported at each CEWG meeting is distributed to prevention, treatment, and public health agency officials, researchers, and policymakers. The information is intended to alert authorities at the local, State, regional, and national levels, and the general public, to the current conditions and potential problems so appropriate, timely action can be taken. Researchers also use this information to develop and assess hypotheses explaining changes in drug use patterns and the characteristics of drug users.

As Dr. Donald Vereen, Jr., Deputy Director, Office of National Drug Control Policy (ONDCP), noted in the opening session, "...the CEWG has been an important source of multi-disciplinary epidemiologic data on drug abuse and has

served as a model for States, countries, and regions. Triangulation and rapid information retrieval and dissemination have been hallmarks of the CEWG. The challenge facing the CEWG is to make its findings more relevant to policymakers and the national debate." ONDCP is charged by Congress to develop and meet national goals and objectives. The CEWG is charged with monitoring drug abuse patterns and trends in local areas. ONDCP can benefit from CEWG input on how its data can be used nationally, particularly in relation to ONDCP's 10 year plan. The CEWG members were invited to generate an avenue for directly affecting national policy and to continue a dialogue with ONDCP.

The CCENDU

The Canadian Community Epidemiology Network on Drug Use (CCENDU) was created in 1996 to provide comparative data on many facets of substance abuse such as drug use, health and legal consequences of use, treatment, and law enforcement. CCENDU comprises three levels of networking: a national steering committee; a cross Canada group of site representatives in coordination with a national coordinating body; and local working groups of specialists who provide data and prepare city reports. Eight sentinel cities provided data for the second national report; 14 cities are currently involved in varying degrees.

The IEWG

The International Epidemiology Work Group (IEWG) on Drug Abuse was developed in recognition of the need for a global drug abuse surveillance network. Countries around the world recognize the need for collecting, analyzing, and reporting drug abuse indicator data systematically. With the support of international agencies and organizations and participation of drug abuse epidemiologists and other experts from various regions of the world, the IEWG has evolved into a network that actively monitors drug abuse patterns and trends worldwide.

This report provides an overview of key findings presented at the CEWG, CCENDU, and IEWG meetings. Reports from these meetings will be published in separate proceedings.

Drug Abuse Highlights for the United States

Data presented at the 46th meeting of the CEWG meeting show the diversity of drug abuse patterns within and across the 21 CEWG areas, as well as the changes in trends across time.

Findings from this CEWG meeting are based on 1998 data and are compared with 1997 data. Major findings include:

- Cocaine/crack abuse indicators increased in 11 of the CEWG areas. Populations with notable increases included youth, Hispanics, and women. Some data suggest crack use accounts for much of the cocaine abuse among women.
- DAWN heroin indicators increased in 11 of the CEWG areas, treatment indicators increased in nearly half of the areas, and ADAM indicators remained relatively stable in most areas. Data reveal increases in heroin abuse among women and youth in some areas.
- Marijuana indicators continued to trend upward in most CEWG areas. Abuse indicators tended to increase for youth, women, and Hispanics.
- Indicators of methamphetamine abuse decreased in CEWG West Coast areas but, nevertheless, remained high. Indicators were also relatively high in the Southwest CEWG areas and began to emerge in eight CEWG areas where they suggested low prevalence but, often, the concurrence of high-risk behaviors such as needle sharing and unprotected sex. Abuse indicators increased substantially for Hispanics and, to a lesser extent, for women and youth. In some areas, injection of methamphetamine is high, increasing users' risk of contracting the human immunodeficiency virus (HIV).
- In all 21 CEWG areas, most individuals identified in the various data sets used more than one illicit drug. For example, excluding San Diego in 1998, the percentages of adult arrestees that tested opiate-positive and also tested cocaine-positive ranged from 50 to 100 percent. In San Diego, many of the opiate-positive arrestees also tested positive for methamphetamine. In eight CEWG areas, between 39 and 53 percent of the adult arrestees that tested marijuana-positive also tested cocaine-positive.

- DAWN ED mentions of narcotic drugs other than heroin have been increasing in most CEWG areas. There was a 173 percent increase in the total U.S. hydrocodone mentions from 1990 to 1997. Oxycodone mentions increased 43 percent (total U.S.) from the first half of 1997 to the first half of 1998.
- Benzodiazepine ED mentions also have been increasing in many CEWG areas. Clonazepam ED mentions (total U.S.) increased by 277 percent from 1990 to 1997. Rates of clonazepam mentions in CEWG areas were highest in Boston (28.8), Phoenix (10.0), San Francisco (9.3), and Dallas (8.9).

Cocaine/Crack

Cocaine/crack indicators from the 21 CEWG cities are mixed, with increases in more than half the CEWG areas and either little change or slight decreases in the other areas. However, more discreet analyses show the indicators increasing for three populations - women, Hispanics, and adolescents.

Treatment data for 1997-98 or 1998-99 were reported for 20 CEWG areas. Primary cocaine/crack treatment admissions increased in six areas and decreased slightly in the other CEWG areas. The following areas had the highest percentages of primary cocaine/crack treatment admissions compared to other drug admissions:

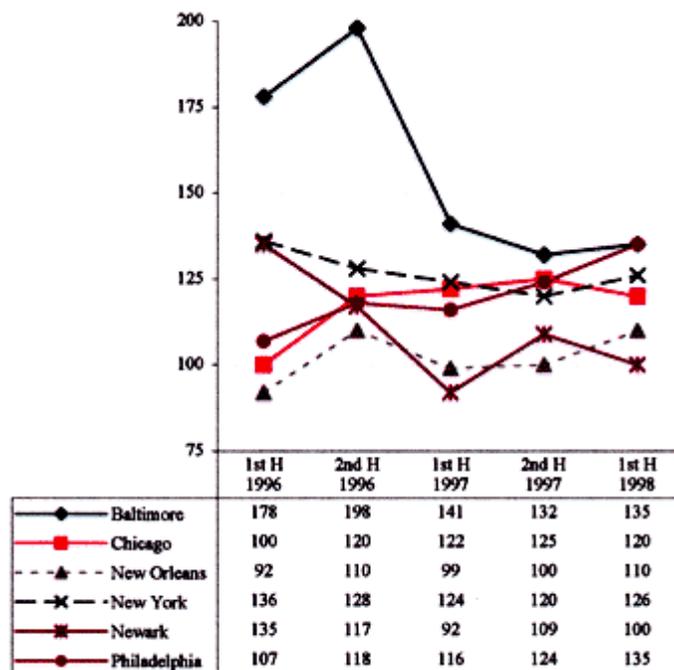
| | |
|----------------------|------------------------------|
| Atlanta | 60 percent of all admissions |
| Philadelphia | 52 percent of all admissions |
| Miami | 47 percent of all admissions |
| New York City | 36 percent of all admissions |

In Atlanta, Baltimore, Detroit, Miami, Minneapolis/St. Paul, and Philadelphia, most cocaine treatment admissions were primary crack users. In Detroit, 41 percent of the crack treatment admissions were women. In Phoenix, cocaine together with methamphetamine accounted for most treatment admissions.

DAWN data from 20 CEWG areas for the first 6 months of 1997 and 1998 show percentage increases in ED cocaine mentions in 11 areas; 5 of the increases were statistically significant. Considering changes in total area mentions, ED cocaine mentions were stable in eight CEWG areas, whereas a decrease was reported in one area (San Francisco).

Among the 6 CEWG areas with the highest ED cocaine rates per 100,000 persons, the sharpest declines from 1996 through the first half of 1998 occurred in Baltimore and Newark, with Philadelphia showing the greatest increase (Figure 1).

Figure 1. Cocaine: DAWN Rates per 100,000 by Metropolitan Area



During this same time period, DAWN-based estimates indicate that total ED cocaine mentions increased around 40 percent for Hispanics and 7 percent for both women and 12-17 year olds. ED cocaine mentions have been trending upwards for these groups during the 1990s. From 1996 to 1997, the increases in ED cocaine mentions for Hispanics were highest in Denver (40 percent) and Dallas (12.7 percent). Increases in cocaine mentions for women were highest in Minneapolis/St. Paul (51.5 percent) and Seattle (39.6 percent), whereas those for youth were highest in Philadelphia (40 percent) and New York City (39.6 percent).

In CEWG areas where ADAM studies were conducted in both 1997 and 1998, the percent - ages of male arrestees that were cocaine-positive increased in four CEWG areas, decreased in two, and remained stable in seven. In the 11 CEWG areas where females were tested in both years, cocaine-positives increased in 4, decreased in 2, and remained stable in 5.

In the 14 sites where both adult males and females were tested in 1998, the percentages of women testing cocaine-positive exceeded those for men in every area except New Orleans. In 3 of the CEWG areas, male and female differences were small, whereas in the other areas women were 1.2-1.6 times more likely than men to test cocaine-positive. The five CEWG areas with the largest percentages of women who tested cocaine-positive are presented in the following chart, together with the data on their male counterparts.

| CEWG Area | Percent of Adults Testing Cocaine-Positive, ADAM 1998 | |
|--------------|---|------|
| | Women | Men |
| New York | 67.0 | 47.1 |
| Philadelphia | 60.9 | 44.5 |
| Seattle | 56.9 | 35.9 |
| Chicago | 55.5 | 44.9 |
| Denver | 49.9 | 39.6 |

While ADAM self report data probably under represent illicit drug use (compared with urinalysis results), the interview data reported by NIJ for five CEWG areas suggest the gender difference may be related to the greater use of crack cocaine among women arrestees. The data show that women were 1.4-2.4 times more likely than men in the 5 sites

to report use of crack. The difference was greatest in Philadelphia (40 vs. 25.1 percent of females vs. males, respectively).

In six CEWG areas where sizeable numbers of adult Hispanic arrestees were tested in both 1997 and 1998, the percentages of males testing cocaine-positive increased in three whereas the percentages for women increased in five of the six areas. The increases among Hispanic women were especially high in New York City (from 55.1 to 67.8 percent), Denver (from 35 to 49.6 percent), and Phoenix (from 35 to 42.6 percent). These data by gender for 1998 are depicted below.

| CEWG Area | Percent of Hispanic Adults Testing Cocaine-Positive, ADAM 1998 | |
|-----------|--|------|
| | Women | Men |
| New York | 67.8 | 55.1 |
| Denver | 49.6 | 35.0 |
| Phoenix | 42.6 | 35.0 |
| Dallas | 27.8 | 20.0 |
| San Diego | 10.9 | 10.0 |

In the six CEWG areas where male juveniles (age 9-19) were included in ADAM, the percentages testing cocaine-positive from 1997 to 1998 remained stable in two areas, decreased in one, and increased in three. The increases occurred in Denver (from 9.7 to 12.6 percent), Los Angeles (12.2 to 14.6 percent), and Phoenix (13.8 to 14.1 percent). In Denver, the percentage of juvenile male Hispanics testing cocaine-positive nearly doubled (from 8.8 to 16.5 percent). Increases in Hispanic juveniles who tested cocaine-positive were reported also in Los Angeles (19.3 to 20.7 percent) and Phoenix (19.3 to 23.7 percent).

Heroin

Like cocaine/crack, heroin indicators across the CEWG sites are mixed, with increases in some CEWG areas and little change or slight decreases in the others. Indicators also show increases for women and youth.

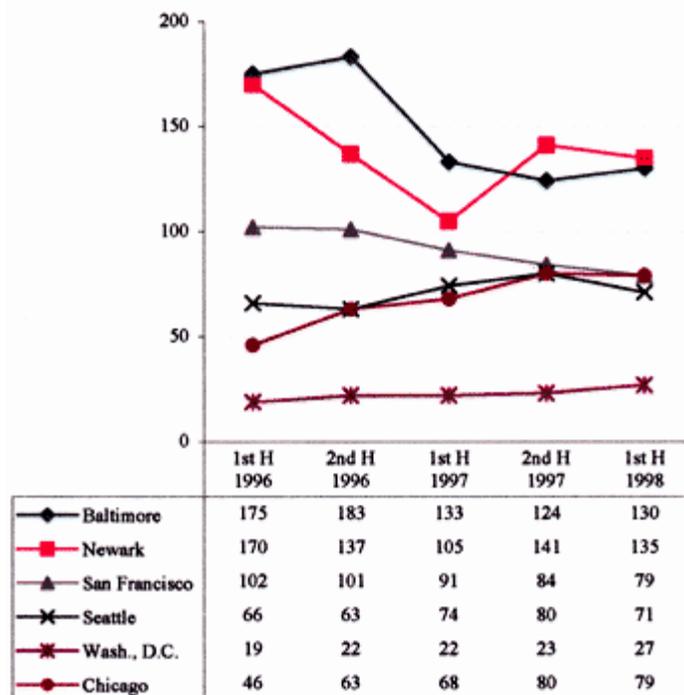
Treatment data from 20 CEWG areas show that admissions for primary abuse of heroin increased in nearly half of the areas and remained relatively stable in the other areas. Primary heroin admissions doubled in Miami and New Orleans from 1997 to 1998 where they accounted for 8.3 and 21 percent of the 1998 admissions, respectively. In 1998, the proportions of primary heroin abusers were highest in the following areas:

| | |
|----------------------|------------------------------|
| Newark | 78 percent of all admissions |
| San Francisco | 52 percent of all admissions |
| Los Angeles | 48 percent of all admissions |
| Baltimore | 46 percent of all admissions |
| New York City | 43 percent of all admissions |
| Boston | 34 percent of all admissions |

DAWN data for the first 6 months of 1997 and 1998 show increases in ED heroin mentions in 11 of the 20 CEWG areas; the ED increases were significant in 6 of the areas. Considering changes in total mentions (all drugs), ED heroin mentions were relatively stable in seven CEWG areas and decreased in two (Dallas, Philadelphia).

Among the 6 CEWG areas with the highest ED heroin rates per 100,000 population, the sharpest declines from 1996 through the first half of 1998 occurred in Baltimore and Newark, whereas the largest increase was reported from Chicago (Figure 2).

Figure 2. Heroin: DAWN Rates per 100,000 by Metropolitan Area



The first-half year data for 1997 and 1998 show increases in total ED heroin mentions for women (11.5 percent) and men (8 percent). Although actual numbers of youth 12-17 years of age were small in CEWG areas, ED heroin mentions among youth increased 34.5 percent in Newark and 46.9 percent in New York City in 1997 when compared with 1996. The largest number of ED heroin mentions among youth in 1997 was reported in Philadelphia (n=79).

Among ADAM populations in CEWG areas, the percentages of adult arrestees testing opiate-positive tended to remain stable from 1997 to 1998. Among adult males, the percentages testing opiate-positive decreased in three CEWG areas (Chicago, New York, Phoenix), increased substantially in one (7.5 percentage points, Philadelphia), and changed 2 percent or less in the other ten. The pattern was similar in the 11 areas where adult females were tested in both years; modest decreases were reported in 3 areas (Denver, St. Louis, San Diego), an increase occurred in 1 (Detroit), and the proportions changed less than 2 percent in the 7 other areas. Among the ADAM/CEWG sites where juveniles were tested in 1998, two had no juveniles testing opiate-positive while four reported small percentages, with Washington, D.C. being the highest (1.7 percent).

In 1998, only five CEWG areas reported opiate-positive percentages among the adult arrestees that exceeded 11 percent. In three of these areas, adult females were notably more likely than their male counterparts to test opiate-positive, as shown in the next chart.

| CEWG Area | Percent of Adults Testing Opiate-Positive, ADAM 1998 | |
|-----------|--|------|
| | Women | Men |
| Chicago | 27.0 | 18.3 |

| | | |
|--------------|------|------|
| New York | 21.8 | 16.2 |
| Detroit | 21.5 | 6.8 |
| Seattle | 17.2 | 17.4 |
| Philadelphia | 14.9 | 18.4 |

CEWG representatives reported increases in young heroin abusers, including members from Baltimore, Chicago, Denver, Detroit, Newark, and Seattle. In Chicago, greater numbers of adolescent heroin users are showing up in hospital and drug treatment facilities, and injection drug use is rising. Of the three distinct heroin-using adolescent populations in Chicago, Hispanics comprise the largest number but abuse is rising also among young African Americans and suburban white youth. In Newark, the number of high school students reporting heroin use increased significantly from 1992 to 1995. In Seattle, logitudinal studies of injection drug users show that the proportion of IDUs under age 20 who reported heroin increased from 78 percent in 1994 to 100 percent in 1997. In California cities, teens are less likely to use heroin because it is Mexican black tar, a form that is generally injected. The New York City representative noted that more young people are now dealing heroin and more teenagers are "carrying the drug."

Marijuana

In 1998, marijuana indicators continued to trend upward in most CEWG areas. Treatment data from 20 CEWG areas show that admissions for primary abuse of marijuana increased in 6 areas and remained relatively stable in the other areas. The proportions of 1998 admissions that were primary marijuana users were highest in the following areas:

| | |
|-----------------------|------------------------------|
| Denver | 41 percent of all admissions |
| Miami | 30 percent of all admissions |
| New Orleans | 22 percent of all admissions |
| Minn./St. Paul | 20 percent of all admissions |

In Minneapolis/St. Paul, primary marijuana admissions increased substantially from 1993 to 1998 (12 vs. 20 percent). Half of the 1998 admissions in the Minneapolis/St. Paul area were under age 18.

DAWN data from the first halves of 1997 and 1998 show that ED marijuana mentions increased in 13 CEWG areas, were stable in 4, and decreased in 3. The increases were significant in seven CEWG areas. The largest increases were reported in Dallas (63.9 percent), Boston (44.1 percent), Denver (40 percent), San Diego (35.1 percent), and Atlanta (31.7 percent).

The chart below shows the 8 CEWG areas where the DAWN rates of marijuana use per 100,000 population were highest during the first 6 months of 1998.

| CEWG City | Marijuana Rates per 100,000 Population: DAWN, 1998 |
|--------------|--|
| New Orleans | 60.0 |
| Philadelphia | 58.0 |
| Detroit | 47.0 |
| Chicago | 44.0 |

| | |
|-----------|------|
| Atlanta | 37.0 |
| Boston | 36.0 |
| Seattle | 31.0 |
| Baltimore | 30.0 |

Comparisons of data from the first half of 1997 with the first half of 1998 show significant increases in marijuana ED mentions in several subpopulations, including: whites (11.7 percent), men (13.5 percent), women (18.1 percent), African Americans (18.3 percent), Hispanics (24.4 percent), and 12-17 year olds (25 percent).

In most CEWG areas, ADAM data show increases in the percentages of arrestees testing marijuana-positive from 1990 to the mid-1990s. Comparisons of 1997 with 1998 ADAM urinalysis data on adult arrestees show little change for male arrestees in 12 of 14 CEWG areas, with increases in marijuana-positives in New York City and Philadelphia. In 11 CEWG areas where women were tested, substantial increases were reported for Washington, D.C. (from 19.3 to 28.5 percent) and New Orleans (11.6 to 22.1 percent). Modest increases among women were reported in four other areas and modest decreases in two, with little change in the remaining three. Levels for both males and females remained high.

At the CEWG/ADAM sites, adult males continued to be more likely than adult females to test positive for marijuana, although the difference has been shrinking (e.g., from 2.6:1 in the second half of 1992 to 2.0:1 in the first half of 1998). The predominance of males is exemplified in the following chart for the six CEWG areas with the largest percentages of adult males testing marijuana-positive in 1998.

| CEWG Area | Percent Marijuana-Positive, ADAM 1998 | |
|--------------|---------------------------------------|------|
| | Women | Men |
| St. Louis | 50.2 | 31.9 |
| Detroit | 46.5 | 21.5 |
| Miami | 45.4 | 22.6 |
| Philadelphia | 44.9 | 23.7 |
| Dallas | 43.1 | 24.2 |
| Chicago | 41.5 | 19.7 |

Seattle was the only CEWG area where women were more likely than men (37.9 vs. 35.4 percent) to test marijuana-positive.

Among juvenile arrestees tested in six of the CEWG/ADAM areas in 1998, the percentages testing marijuana-positive ranged from a low of 40.3 percent in St. Louis to a high of 63.7 percent in Phoenix. More than 50 percent of the juveniles in Los Angeles, Washington, D.C., and Denver tested positive for marijuana, as did 48.9 percent of the juvenile arrestees in San Diego. In the four CEWG areas with sizeable numbers of Hispanic juvenile arrestees, the percentages of marijuana-positives for this ethnic group differed only slightly from those for the total samples in San Diego, Los Angeles, Phoenix, and Denver.

CEWG members report that marijuana is packaged in quantities ranging from a single joint to \$5 and \$10 bags of loose plant material for retail sale. These same retail sellers also sell crack, powder cocaine, heroin, methamphetamine, and phencyclidine (PCP) in single dosage units.

In discussing the upward trend of marijuana abuse, several CEWG members agreed that marijuana users, over time, become more susceptible to the use of other drugs. The potency of marijuana is a contributing factor.

Methamphetamine

In 1998, indicators of methamphetamine abuse decreased in CEWG areas on the West Coast where they tended to peak in the mid-1990s. However, the abuse levels remain high in these areas and there is strong evidence to suggest this drug will continue to be a problem in West Coast areas and to spread to other areas of the United States.

Methamphetamine abuse is likely to remain a problem for many reasons:

- Methamphetamine can be produced easily in small clandestine laboratories.
- The chemicals used to make methamphetamine are readily available.
- The drug can be administered in many ways that affect brain chemistry differently, depending on the effects desired by the user (e.g., smoking and injecting methamphetamine generally results in a quick, intense rush whereas snorting and oral ingestion produce a less extreme rush but longer lasting effects).
- Methamphetamine is metabolized in the user's body differently than other drugs: 50 percent remains in the body 12 hours after consumption, and 2 days must pass before a single dose is eliminated from the body.

In the San Francisco area, where the methamphetamine (meth) treatment admissions have doubled since 1992, primary meth admissions increased 19 percent from fiscal year 1996 to 1997; 45 percent of these admissions injected the drug. Primary meth admissions increased slightly in Los Angeles, decreased slightly in Denver, and remained predominant in Phoenix. In Denver, the percentage of meth admissions who were Hispanic nearly doubled from 1997 to 1998. In Honolulu, primary admissions for crystal methamphetamine (ice) in the second half of 1998 decreased slightly but remained high (n=722) and far outstripped the treatment system's capacity. Evidence that abuse of methamphetamine is spreading is supported by admissions data from other areas that have usually not reported primary meth admissions. For example, small numbers of meth treatment admissions were reported in Atlanta, Minneapolis/St. Paul, Newark, Philadelphia, St. Louis, Seattle, and parishes in Louisiana. Meth admissions doubled in Minneapolis/St. Paul and accounted for 2.9 percent of the 1998 admissions. The St. Louis representative noted that there were 2,600 primary methamphetamine admissions in Missouri in 1998.

DAWN data for the first halves of 1997 and 1998 show significant decreases in ED meth mentions in six CEWG areas and a 50.6 percent increase in one area (Dallas). In San Diego, where total mentions (all drugs) increased almost 16 percent during the first 6 months of 1998, ED methamphetamine mentions stabilized somewhat, increasing only 1.9 percent. No mentions were reported in six CEWG areas. In the other six CEWG areas, the numbers of ED meth mentions were small; however, increases were reported in four of these areas.

The ED methamphetamine rates per 100,000 population in the first half of 1998 were highest in San Francisco (22.7), followed by San Diego (17.9), Phoenix (14.5), and Seattle (8.8). Rates were surprisingly similar in Los Angeles (4.9) and Dallas (4.8), with the next highest rate being in Atlanta (3.5).

DAWN data point to substantial increases in ED methamphetamine mentions among Hispanics, women, and youth. While the numbers of ED mentions fluctuated over the years, the data for 1990 compared with 1997 show increases of more than 550 percent for Hispanics, 220 percent for women, and 150 percent for 12-17 year olds.

The most recent DAWN data on route of administration, while incomplete, reflect the different ways methamphetamine is used. For example, in San Francisco, over 63 percent of the male and female mentions injected the drug. In San Diego, 34 percent of the women injected compared with only about 26 percent of the men; a third of the women sniffed or snorted the drug as did 42.5 percent of the males. Among ED meth mentions in Phoenix, over one-half of the males and nearly 38 percent of the females smoked methamphetamine, and more than 45 percent of the women and 29 percent of the men reported injecting the drug. In Los Angeles, both sexes were most likely to sniff/snort methamphetamine (41 percent males, 49 percent females) or to smoke it (nearly one-quarter of both groups).

ADAM data from five CEWG areas for 1997 and 1998 show increases among both the male and female adult arrestees in methamphetamine-positive tests in Dallas and Los Angeles, decreases in San Diego, and little change in Denver. In Phoenix, the percentage of women testing methamphetamine-positive decreased whereas that for males remained stable. In four of these areas, the percentages of women who tested methamphetamine-positive in 1998 exceeded or equaled those for men, as shown in the chart below.

| CEWG Area | Percent Testing Methamphetamine-Positive, ADAM 1998 | |
|-----------|---|-----|
| | Women | Men |
| | | |

| | | |
|-------------|------|------|
| San Diego | 33.3 | 33.2 |
| Phoenix | 22.4 | 16.4 |
| Los Angeles | 11.8 | 8.0 |
| Denver | 4.6 | 5.2 |
| Dallas | 4.0 | 3.3 |

While the percentages of Hispanics who test methamphetamine-positive are typically lower than those for whites, the numbers indicate an increasing use of this drug among Hispanics.

In recent years, the proportion of Hispanics testing methamphetamine-positive has risen 25 percent. In 1990, only 18.2 percent of adult Hispanic males and 16.4 percent of Hispanic females tested positive for methamphetamine; by 1998 the figures were 35.9 and 27.2 for males and females, respectively. Of the 270 juvenile arrestees in 5 West Coast areas in 1998 (including 3 CEWG areas), Hispanics comprised the largest proportion (47 percent) in the ethnic category.

The route of administration of methamphetamine among adult arrestees varied by CEWG area, reflecting the trends shown in DAWN. In San Francisco, injecting predominated among adult arrestees. In San Diego, both injecting and snorting were the most prevalent methods. In Los Angeles, Phoenix, and Minneapolis/St. Paul, snorting was the most frequently reported route of administration, whereas in Honolulu smoking was predominant. ADAM data for all areas show that juvenile arrestees are most likely to smoke (50 percent) or snort/inhale (47 percent) methamphetamine, with only 2 percent being injectors.

California and Mexico-based criminal organizations have been supplying methamphetamine to other areas of the country through trafficking networks used for other drugs. Once established in an area, methamphetamine labs tend to proliferate. Most of the 32 chemicals that are used to produce the drug in various ways can be easily obtained through commercial sources or by clandestine production. The drug is produced primarily in residences or such settings as motels, trailers, and vans. In 1997, 64 percent of the juvenile arrestees that tested methamphetamine-positive in ADAM got the drug from residences.

Producers move locations periodically to avoid detection. Nevertheless, seizures of labs are relatively common. In 1997, the California State and local police reported seizing 1,072 meth labs, while DEA Field Divisions reported the following numbers of meth labs seized in or near CEWG areas:

| | |
|----------------------|-----|
| New Orleans | 174 |
| Denver | 161 |
| Phoenix | 139 |
| Dallas | 124 |
| San Francisco | 109 |
| St. Louis | 79 |
| Los Angeles | 53 |
| San Diego | 49 |

In Minneapolis/St. Paul, it was reported that there were increasing numbers of portable labs locally but that methamphetamine was primarily coming from Mexico. The local labs produce only small quantities of methamphetamine, ranging from one ounce to one pound.

In 1997, methamphetamine prices varied nationally from \$37 to \$200 per gram. In San Diego and San Francisco, prices per gram varied from \$50 to \$75, whereas in Phoenix prices ranged from \$40 to \$100 per gram.

The purity of methamphetamine varied from 20-70 percent across West Coast areas although, in its large crystal

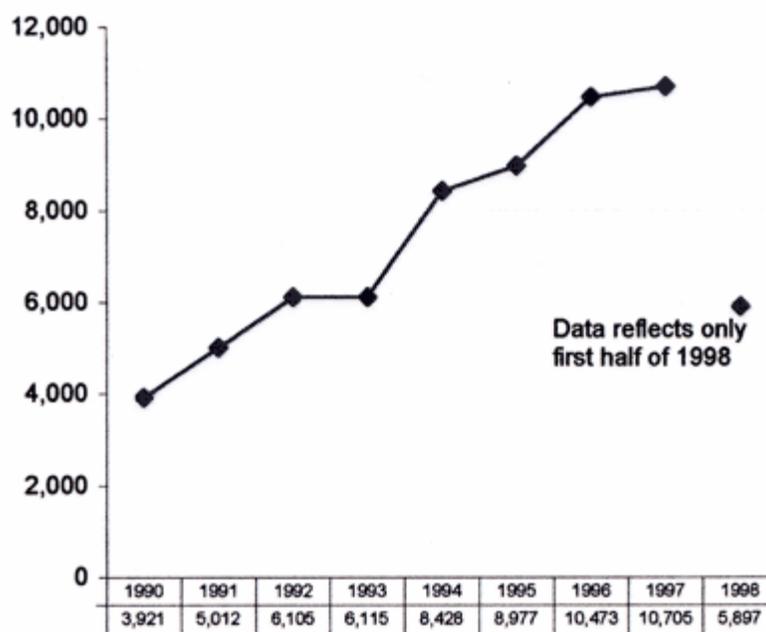
form (ice), purity levels tend to be 90-100 percent.

Some new patterns of methamphetamine abuse were reported. In New York City, Washington, D.C., and West Coast cities, use of methamphetamine is appearing as part of the "club scene." The most frequently observed abusers in the club scene are men who have sex with men (MSM). The representatives from Washington, D.C. and Philadelphia reported that, while there is no street market for the drug, users tend to obtain it through their "networks." Ethnographic research in Atlanta reveals very high levels of HIV risk behaviors among meth abusers who tend to share needles and engage in unprotected sex. Seattle reported that HIV seroprevalence appears to be highest among MSM injectors of methamphetamine (47 percent). In the St. Louis area, an increasing number of younger people are using meth and an increasing percentage are injecting. Injection use of meth is higher in the rural areas in Missouri than in the urban areas. In Los Angeles, meth abuse is increasing among Hispanics, as is injection of the drug.

Narcotic Drugs Other than Heroin

In recent years, DAWN ED mentions of narcotic drugs other than heroin have been increasing in many CEWG areas. As shown in Figure 3, total U.S. DAWN hydrocodone mentions increased 173 percent from 1990 to 1997. Hydrocodone, a semi-synthetic orally active analgesic, is reportedly used as a substitute for heroin.

Figure 3. Total DAWN: Estimated Hydrocodone ED Mentions, 1990-1st H 1998



In 1997, rates per 100,000 population of hydrocodone DAWN mentions were highest in Dallas (12.7), San Diego (7.4), Seattle (6.0), and Atlanta (5.0).

ED mentions of oxycodone (trade name Percodan), another narcotic analgesic, increased 43 percent from the first half of 1997 to the first half of 1998. In 1997, rates of oxycodone mentions per 100,000 were highest in Philadelphia (7.0), Boston (6.2), and Washington, D.C. (3.4). In some areas, addicts reportedly dissolve oxycodone tablets in water, filter out the insoluble material, and mainline the active drug.

ED mentions of propoxyphene (trade name Darvon), a synthetic narcotic analgesic prescribed for the relief of mild to moderate pain, also have been increasing in some CEWG areas. Rates of propoxyphene DAWN mentions per 100,000 population (1997) were highest in St. Louis (6.7), Dallas (4.4), and Detroit (3.6).

In Detroit, codeine is the "other opiate" most frequently reported by the Poison Control Center. In Texas, codeine cough syrup is the preferred drug among some populations.

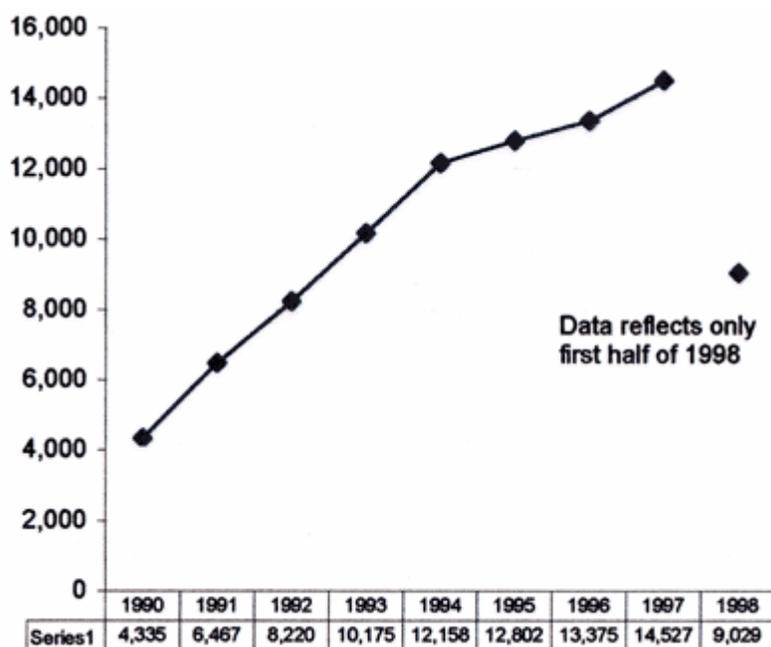
In Seattle, deaths from other opiates in the county increased from a rate of 1.5 to 2.6 per 100,000 from 1997 to 1998; 47 percent were women. Methadone was the most frequently reported "other opiate." Five of the deaths

involved fentanyl, a synthetic (non-morphine base) opioid that mimics the effects of heroin but is 100 times more potent.

Benzodiazepines

Benzodiazepine ED mentions have continued to increase in many CEWG areas. The total (U.S.) number of clonazepam ED mentions has been increasing, rising 277 percent since 1990 (see Figure 4).

Figure 4. Total DAWN: Clonazepam ED Mentions, 1990-1st H 1998



Rates of clonazepam mentions per 100,000 in CEWG areas were highest in Boston (28.8), Phoenix (10.0), San Francisco (9.3), and Dallas (8.9). Clonazepam (brand names Klonopin and Rivotril), an anticonvulsant drug, is used primarily to treat panic disorders.

Alprazolam (brand name Xanax), a mild tranquilizer used primarily to treat nervous tension and mild to moderate anxiety, had more ED mentions (17,468) in 1997 than any other benzodiazepine. The highest rates of ED alprazolam mentions per 100,000 population in 1997 were reported in Philadelphia (24.1), St. Louis (12.8), Miami (10.2), and Atlanta (9.7).

Related reports from CEWG members indicate:

Atlanta Valium and Xanax are the most frequently encountered diverted prescription drugs. They sell for \$3 to \$5 per pill.

Detroit The Poison Control Center reports many calls related to benzodiazepines.

Newark Benzodiazepines are the fourth most frequently abused drug in New Jersey.

New York City Several areas in the city are known for illegal diversion of prescription drugs, most of which sell for \$1-2 per pill. Xanax is the most sought after and has almost replaced Valium in street sales. Valium, Xanax and, more recently, clonazepam, are the leading psychoactive prescription drugs involved in DAWN mentions. Benzodiazepines, according to the DEA, are the major pharmaceuticals on the streets of New York.

Phoenix The DEA Diversion Section reports that benzodiazepines - especially diazepam, alprazolam, clonazepam, and lorazepam - are widespread. Benzodiazepine use increases with excessive abuse of stimulants such as cocaine; they are used to reduce "the edge" from cocaine or methamphetamine.

Texas *Rivotril can be legally imported from Mexico and it is replacing Rohypnol as a drug of abuse.*

Club Drugs

Abuse of club drugs such as ecstasy (MDMA), gamma-hydroxybutyrate (GHB), and ketamine is increasingly reported in CEWG areas. A recently completed survey of young MSM in Kings County, Washington, showed that ecstasy was among the most frequently used drugs (20 percent of the sample). In a 1997 Massachusetts survey, 14 percent of male and 7 percent of female 12th graders reported ever using ecstasy.

Increased use of ecstasy among youth was reported in Boston and Seattle. Information about ecstasy from other CEWG areas include the following:

Atlanta *MDMA is reported as a popular Atlanta stimulant.*

Chicago *Ecstasy use is common in the rave and club scenes, especially in the North Side of Chicago where it is sold for \$25 to \$35 a capsule.*

Detroit *The Detroit Poison Control Center reported up to 15 ecstasy contacts since 1998.*

Miami *Large-scale sales of drugs such as ecstasy are occurring at raves.*

Newark *MDMA is available across the State, particularly in college towns. In one college, it is distributed by students for about \$30 a capsule.*

GHB is also popular at bars and raves and can be purchased in some CEWG areas for as little as \$5 to \$10 a capful.

Now banned from the market and declared a controlled substance in several States (e.g., Florida, Michigan, Minnesota), GHB is easily made by kitchen chemists. The ingredients can be found and purchased over the Internet. One of its precursors, gamma-butyrolactone (GBL), rapidly converts to GHB when ingested and can be purchased in health food stores.

Indicators of GHB abuse reported by CEWG members included:

Atlanta *According to the DEA, GHB is one of the most popular manufactured drugs in Atlanta. It is available in some gyms and reputed to be widely accessible at some gay male party venues.*

Denver *In 1998, the Poison Control Center reported 33 calls involving GHB; 44.2 percent were considered life threatening. The average age of callers was 23.5 years. Through March 1999, the Center had 17 GHB-related calls; 41 percent were life threatening.*

Detroit *In 1998-1999, the Poison Control Center had at least 50 calls involving GHB and another 20 probably related to GHB.*

Los Angeles *GHB accounts for an increasing number of sexual assault cases and overdose deaths involving drug combinations.*

Miami *Broward County accounted for 15 percent of the GHB-related deaths in the United States in 1996-97.*

Minn./St Paul *In late 1998, the county hospital reported eight GHB accidental overdoses. In April-May 1999, five of nine cases involved loss of consciousness and one death was attributed to GHB.*

New Orleans *GHB was involved in several overdose deaths last year. It is the drug of choice among white gay males in the French Quarter and is popular among secondary school and college students.*

San Diego *For the first time [1998], GHB was reported in accidental overdose deaths, and the drug appeared with regularity in the media in the latter part of 1998.*

Seattle *There are continuing anecdotal reports of GHB use and overdose. The local emergency rooms continue to report GHB-related cases of rape and other criminal behavior. The ER is now testing for GHB use and education on the drug is being provided by several organizations.*

Texas *Problems with GHB and its precursors are rising; one death was reported in May 1999.*

Ketamine abuse was reported in many CEWG areas. A veterinary anesthetic, ketamine was reportedly stolen from veterinary supply sources in Minnesota/St. Paul, New Orleans, and Wayne County, Michigan. In Miami, ketamine has been diverted from shipments intended for other countries.

Ketamine is widely available in New York City where it sells for \$20 a dosage unit. It is, reportedly, used as an alternative to cocaine and generally snorted. A small but stable market for ketamine has been established in suburban areas outside Baltimore.

Three ketamine deaths were reported in New Orleans in 1998. The Detroit Poison Control Center reported six ketamine contacts in early 1999.

Abuse of Multiple Drugs

In all 21 CEWG areas, most drug abusers identified in the various data sets used more than one illicit drug. The 1998 ADAM urinalysis data provide the best evidence of multiple drug abuse. This is illustrated in the chart below for adult male and female arrestees in 10 CEWG areas who tested opiate-positive and also positive for cocaine. Except for San Diego, the percentages of opiate-positive arrestees that tested cocaine-positive ranged from 50 to 100 percent. Since the detection period for cocaine in urine testing is 2-3 days, it is confirmed that these arrestees were using more than one illicit drug shortly before arrest.

| CEWG Area | Percent of Opiate-Positive Adult Arrestees That Tested Positive for Cocaine, ADAM 1998 | |
|--------------|--|------|
| | Women | Men |
| Chicago | 74.4 | 78.4 |
| Dallas | 100.0 | 54.5 |
| Detroit | 55.6 | 90.0 |
| New Orleans | 69.0 | 69.2 |
| New York | 67.7 | 84.5 |
| Phoenix | 58.3 | 61.1 |
| Philadelphia | 62.9 | 67.3 |
| St. Louis | 52.2 | 50.0 |
| San Diego | 42.6 | 17.6 |
| Wash., D.C. | 78.0 | 68.4 |

In addition to testing cocaine-positive, many adult arrestees who were opiate-positive also tested positive for other drugs. Multiple drug use patterns varied by CEWG area. For example, in San Diego 31.1 percent of opiate-positive adult male arrestees and 29.4 percent of opiate-positive adult female arrestees tested methamphetamine-positive. In Philadelphia, over a third (35.1 percent) of opiate-positive male arrestees tested positive for benzodiazepines, as did 30.8 percent of opiate-positive females. This pattern appeared for opiate-positive female arrestees in several other areas: New Orleans (30.8 percent), San Diego (29.4 percent), St. Louis (25 percent), Chicago (18.9 percent), and Dallas (18.2 percent). Benzodiazepines can be detected in the urine for up to 2 weeks.

Among adult arrestees who tested positive for marijuana (which can be detected by urinalysis up to 10 days after use), substantial percentages in 8 CEWG areas also tested cocaine-positive:

Miami

53.3 percent

| | |
|---------------------|--------------|
| Honolulu | 50.9 percent |
| Atlanta | 48.8 percent |
| Los Angeles | 42.6 percent |
| New York | 40.7 percent |
| Chicago | 39.3 percent |
| Philadelphia | 39.2 percent |
| Seattle | 38.8 percent |

In Philadelphia, 16.6 percent of the adult marijuana-positive arrestees in ADAM also tested positive for PCP.

There were many reports of polydrug use by CEWG representatives:

Baltimore *75 percent of the treatment admissions are polydrug users.*

Boston *Heroin users also use Xanax, cocaine, and alcohol. Methadone clients use benzodiazepines and other opiates to 'boost' the effects of methadone.*

Miami *The term 'rolling' is applied to persons who mix stimulants with depressants.*

New York City *Heroin users use drugs such as Percodan/codeine, Vicodin, and Xanax to self-medicate and/or to 'hold them over' if they can't 'score.'*

Philadelphia *Crack users report frequent use of alcohol, marijuana, alprazolam (Xanax), or diazepam (Valium).*

Phoenix *Multiple drug use is increasing and it is becoming more and more difficult to determine what the primary drugs are.*

Seattle *More than 91 percent of the drug-related deaths in Kings County involved more than one substance. Heroin (morphine) was detected in 73.9 percent of the deaths that involved cocaine.*

International Reports

Asia

The Asian Multicity Epidemiology Work Group (AMCEWG) on Drug Abuse has been monitoring drug abuse patterns and trends in East and South Asian cities since 1993. A standardized instrument is used to collect drug abuse treatment data. In addition, law enforcement data are collected periodically. The most recent data, collected in 1998, show that heroin (primary drug of abuse) treatment admissions were predominant in many Asian cities. Four East and four South Asian cities are included in this report. The percentage of patients reporting heroin as their primary drug of abuse has been increasing in some cities. The proportions were highest in the South Asian cities of Islamabad, Pakistan (93.4 percent); Colombo, Sri Lanka (90.4 percent); and Dhaka, Bangladesh (70 percent). In the East Asian cities, percentages of primary heroin admissions were highest in: Bangkok, Thailand (83.2); Kuala Lumpur, Malaysia (70.7); and Hanoi, Vietnam (56.7). A relatively high proportion of admissions in Hanoi (37.9 percent) reported opium as their primary drug of abuse.

In Manila, amphetamines remained the predominant drug of abuse (92.4 percent of 1998 treatment admissions) and polydrug abuse was common. Use of cough syrups was reported by 15.8 percent of the admissions in Manila. Alcohol was reported as the primary substance of abuse by 74.2 percent of the treatment admissions in Madras, India. Other substances reported by treatment admissions in Madras included heroin (13.8 percent), cannabis (6.5 percent), and buprenorphine (5.3 percent).

Modes of drug administration varied by city. A high proportion of treatment admissions in Bangkok (69.2 percent) reported injection as the primary route of admission. Smoking or "chasing the dragon" was the dominant route of drug administration in Kuala Lumpur (91.8 percent), Islamabad (74.1 percent), and Dhaka (71.7 percent). Inhalation was the primary route of administration used by over two-thirds of the treatment admissions (67.2 percent) in Hanoi.

The rate of drug-related arrests, per 100,000, was highest for:

| | |
|---------------------|-------|
| Hanoi | 215.7 |
| Colombo | 214.8 |
| Bangkok | 175.0 |
| Kuala Lumpur | 126.1 |
| Manila | 103.3 |
| Islamabad | 94.8 |
| Dhaka | 28.4 |

Australia

Cannabis remains the most popular and frequently used illicit drug in Australia. There continues to be a rapidly increasing number of people seeking treatment for cannabis-related problems across the country. A large number have psychological problems that are associated with their cannabis use. Significant withdrawal symptoms have been observed among heavy cannabis users in Brisbane and the Gold Coast.

Amphetamines are the second most widely used illicit drug in Australia. High and increasing patterns of amphetamine use have been reported in rural areas. Almost all agencies report that amphetamines are, increasingly, being used with other substances. Marijuana and benzodiazepines are often used to medicate or soften the comedowns from speed.

Heroin continues to be readily available in Australia. Over the past few years, street prices have fallen and purity has increased. Opioid-related deaths have risen and now account for almost 10 percent of the deaths among young Australians 24-25 years of age. Heroin overdose deaths are expected to reach 1,000 in 1999. Heroin is consistently the third or fourth most frequently used drug among young people, after alcohol, cannabis, and amphetamines.

There has been an increase in heroin use by existing users, particularly in Sydney and Melbourne.

Cocaine use remains very low in Melbourne, Adelaide, and Brisbane but has increased in Sydney during the past 12 months. The proportion of IDUs who had used cocaine rose from 35 to 59 percent, with the median frequency of use rising from 4 days per 6-month period to 25 days per period. Basing of cocaine (crack) has been reported in Brisbane and the Gold Coast but only in very isolated cases.

Lysergic acid diethylamide (LSD), which has been popular in the dance party scene, is now being marketed more broadly. The most noticeable increase has occurred in younger age groups.

Tricyclic antidepressants, often used to treat drug dependency, have been implicated in heroin overdoses. An increase in the injection of benzodiazepines also has been reported.

Canada

Alcohol is the major substance abuse problem in Canada. Cannabis is the most widely abused illicit drug. A national survey shows that 7.4 percent of Canadians age 15 and older used cannabis at least once in the 12 months prior to the survey. Use among 15-19 year olds is twice that in the general population, and is more common among males than females (10 vs. 4.9 percent). Use varies markedly across Canada and is highest in British Columbia (11.6 percent) and lowest in Ontario (4.7 percent).

Cocaine/crack use is low in the general population but high among street youth. In Vancouver, 85 percent of street youth reported ever having used cocaine and more than half reported frequent use, with 48 percent of males and 32 percent of females reporting injection use. In Toronto, 31 percent of street youth used powder cocaine in the past year and 31 percent used crack.

Heroin use is relatively low also. However, it is of concern in the Vancouver area. Using a capture/recapture method, it is estimated that there were 11,600 injection drug users (heroin and/or cocaine) in the Greater Vancouver area in 1998. Charges for possession and, particularly, trafficking of heroin in Vancouver were 50.6 per 100,000 in 1997. The

sudden availability of pure heroin in Vancouver led to 12 deaths during one week in early 1997. Among treatment clients, the proportions whose primary drug of abuse is heroin range from less than 2 percent in most CCENDU sites to approximately 10 percent in Vancouver, Toronto, and Montreal.

LSD is the second most frequently used illicit drug in Canada, with use being primarily among youth. Prevalence varies across CCENDU sites. Past year LSD use is reported by approximately one in six students in British Columbia (17 percent), New Brunswick, and Halifax (15 percent in each). In Toronto, only 3 percent of students reported past-year LSD use. LSD use was much higher among street youth, ranging, for example, from 48 percent in Montreal to 63 percent in Halifax. The purity of LSD varies greatly across sites (from 1-65 percent in 1996). Hallucinogen abuse accounts for only small percentages of treatment clients.

Europe

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) has established a surveillance system that provides information on drug abuse patterns and trends and the consequences of drug abuse across 15 member countries. It has been working with participating nations to improve the quality, reliability, comparability, and accuracy of drug abuse data/information.

Prevalence levels for different drugs vary across and within European Union (EU) countries. Polydrug abuse is increasingly reported among problematic drug abusers and in recreational drug scenes.

The total number of problematic opiate users in the EU is estimated to be 1.5 million people. There continue to be reports from several countries of increased heroin use, especially by smoking. A majority of the illicit drug abusing clients in EU treatment programs are treated for opiate abuse.

Recent surveys suggest that over 40 million people (about 16 percent of the population age 15-64) in the EU used cannabis during their lifetime and 12 million (5 percent) used it in the past year. At least one in four young adults (15-34) report using cannabis.

There has been a continuing rise in the availability and use of amphetamines in EU countries. In the youth culture, amphetamines are mostly sniffed (powder) or taken orally (pills or added to drinks). In northern countries, amphetamines continue to be used (often injected) by socially marginalized chronic drug abusers.

Ecstasy continues to be used not only within dance and party settings but also in private situations. Analyses of ecstasy pills show wide variations and, periodically, high levels of amphetamine content. Drugs with sedative effects, such as heroin and benzodiazepines, are used by heavy consumers of ecstasy and/or amphetamines.

Indicators of cocaine use (mostly injected, some smoked) show levels that are much lower than for heroin. There may be some increase in crack use beyond the limited number of localities where it had been seen previously.

France

In 1993-94, crack became a serious problem in Paris. By 1998, for the first time, there were more police arrests involving crack and powder cocaine than there were for heroin. Cocaine seizures have also increased. Recently, 803 kilograms of cocaine were seized in the suburbs of Paris. The prices for cocaine are low, averaging approximately \$80 per gram. The price of crack decreased by 50 percent in the period from 1993 to 1999.

In France, cannabis use is widespread among all ages and social milieu. Many smokers grow their own plants at home. Heroin abuse has remained stable in France, although prices have decreased in the last 5 years.

An ethnographic study indicated that ecstasy users tend to be multiple drug abusers who use the drug on weekends and at musical events.

Mexico

The Mexican Epidemiologic Surveillance System of Addictions (SISVEA) operates in 20 geographically dispersed Mexican cities and involves a broad network of addiction research institutions.

In 1998, cocaine was reported as the primary drug of abuse by 41 percent of patients in government treatment centers (GTCs) and 18 percent of patients in nongovernment treatment centers (NGCs). Many of the primary cocaine

abusers treated in GTCs (57 percent) and NGCs (50 percent) were using at least one other substance upon entry into treatment.

NGCs were much more likely to treat patients who reported using heroin as the primary drug of abuse (43.8 percent) than were GTCs (2.8 percent). As a primary drug, marijuana ranked second among GTC patients (14.3 percent) and fourth among NGC patients (8.8 percent). Inhalants were the third most frequently reported primary drug among NGC patients (13.2 percent). Drugs reported by youngsters in the juvenile detention centers included marijuana (35.1 percent), inhalants (22.9 percent), cocaine (16.9 percent), and heroin (0.8 percent).

South Africa

The South African Community Epidemiology Network on Drug Use (SACENDU) has been functioning as a sentinel substance abuse surveillance system since 1996. Multi-source data are collected in Cape Town, Durban, Port Elizabeth (PE), and Gauteng Province (Johannesburg and Pretoria).

Based on 1998 data collected from multiple sources, cannabis and methaqualone (Mandrax), alone or in combination, continue to be the most common illicit substances of abuse reported in Cape Town, PE, and Durban. Excluding alcohol, these two substances accounted for between 50 percent (in Gauteng) and 84 percent (in Durban) of the primary substances reported by treatment facilities. In the second half of 1998, these drugs accounted for 57 percent of arrests in Cape Town and 78 percent in PE. The proportion of arrests for dealing in Mandrax relative to other drugs increased across most sites while prices were stable. A study of trauma patients in a Cape Town hospital in early 1999 found that 30 percent of patients had cannabis in their urine. The price of Mandrax ranges from \$4.90-\$7.35 per tablet (U.S. dollars).

In the second half of 1998, relatively high proportions of patients in the treatment facilities in Gauteng (27 percent) reported cocaine/crack as their primary drug of abuse. During that same time period, the proportion of arrests for dealing in cocaine ranged from 14 percent of all arrests in Guateng to 81 percent of arrests in Durban. Extensive use and marketing of crack by sex workers was reported in Durban. Five percent of the patients at a Cape Town hospital tested positive for cocaine compared with only 2 percent in 1997.

The abuse of over-the-counter and prescription medications continues to be reported as a problem in PE (the primary substance of abuse of one-fifth of the patients in PE in the second half of 1998) and Gauteng (12 percent of patients). Ecstasy (MDMA) continues to be used by young persons in the club scene.

Alcohol was the substance most likely to be abused in all sites. The demand for treating alcohol problems relative to other substances appears to have stabilized or declined.

Thailand

In 1997, 38,895 clients were enrolled in drug abuse treatment programs in Thailand. Heroin was reported as the most commonly used drug in the 30 days prior to admission by 63.7 percent of the treatment clients, followed by methamphetamine (25.3 percent), and opium (6.1 percent). During the past 5 years, however, there has been a sharp increase in methamphetamine abusers entering treatment and a dramatic decrease in heroin admissions. Methamphetamine abusers tended to smoke the drug (54.6 percent) while most heroin abusers injected (97.7 percent).

The number of methamphetamine offenders increased from 12,864 in 1994 to 114,307 in 1997. During the same period, the number of heroin offenders decreased from 34,065 to 12,403 and marijuana offenders decreased from 49,932 to 23,602.

A survey (which included urine screening) of the student population in Thailand showed that 2.4 percent of vocational school students tested positive for methamphetamine.

Until recently, methamphetamine trafficking was controlled by large syndicates. In 1997-98, the pattern of meth trafficking changed, and there was an increase in new and small-scale dealers. In 1998, methamphetamine production was found in 18 provinces.

United States

Prevalence data on the U.S. population, age 12 and older, are collected from a national representative sample

through a Federally funded survey of households. Estimates based on the most recent annual data (1997) indicate that 76.9 million persons - 35.6 percent of the population - used an illicit drug at least once during their lifetime. Of these, 30 percent used an illicit drug at least once during the year prior to the 1997 survey and 17 percent did so during the month prior to the survey. Marijuana is the most prevalent illicit drug of use, followed by are powder cocaine, non-prescribed analgesics, hallucinogens, inhalants, and stimulants. Data on past month drug use show 60 percent of persons age 12 and older used only marijuana, 20 percent used marijuana and some other illicit drug, and 20 percent used a drug other than marijuana.

While the overall prevalence figures for 1997 did not differ from those for 1996, there was a substantial increase in the use of illicit drugs among 12-17 year olds. Past month use of marijuana was reported by 9.4 percent of the 12-17 year old respondents, doubling since 1992. Prevalence of past month marijuana use also increased substantially among Black non-Hispanics age 12-17 (from 3.4 percent in 1990 to 9.1 percent in 1997). Increases in past month use of powder cocaine were found for 12-17 year olds (from 0.6 percent in 1990 to 1 percent in 1997), and persons age 35 and older (from 0.2 percent in 1990 to 0.5 percent in 1997). Persons age 18-25 continued to have the highest overall prevalence of illicit drug use. By drug, the 18-25 year olds in 1997 reported the highest past month use of marijuana (12.8 percent), powder cocaine (1.2 percent), and inhalants (10.1 percent).

Data from a 1998 national representative sample of students in grades 8, 10, and 12 provide further evidence of increases in illicit drug use among young people in the United States. This 1998 Monitoring the Future Study, supported by NIDA, shows that 22 percent of 8th graders, 39.6 percent of 10th graders, and 49 percent of 12th graders have used marijuana. Further, despite decreases in use of drugs such as heroin, stimulants, and powder cocaine, there is an increasing problem related to the use of crack cocaine and tranquilizers.

The national household survey shows that the mean age of initiation into first drug use has decreased over time and age-specific rates (per 1,000 person - years of exposure) are the highest since this survey was initiated in 1975 for marijuana, cocaine, inhalants, heroin, alcohol, and cigarettes. The U.S. Department of Education has taken steps to ameliorate the problem by tying funding to the implementation of research-based interventions through its Safe and Drug-Free Schools program.

Worldwide Trends

One of the objectives of the United Nations International Drug Control Programme is to improve the quality and comparability of country - specific drug abuse data by developing an information infrastructure in some 100 countries. The Annual Reports Questionnaire (ARQ) is used to gather information from various international and regional organizations, research institutes, and epidemiology networks. Based on the most recent data collected, it is estimated that:

- Around 8 million people abuse opiates/ heroin, mostly in South East and South West Asia. Heroin abuse is far more wide-spread than it was a decade ago. Sharp increases have been reported in former Soviet Union countries. Increases also have been reported in Iran, Turkey, and Pakistan. Heroin has remained readily available in major metropolitan areas in the United States.
- Some 13 million people abuse cocaine worldwide, with the highest prevalence reported in the United States. Many Latin American countries also have high levels of cocaine and bazuco (coca paste) abuse. In the 1995 to 1997 period, cocaine abuse spread in Europe and was stabilized in the main markets of North America. Increases have been reported in the Andean and neighboring countries and along trafficking routes to America and Europe.
- 141 million people consume cannabis annually. It is the most widely abused drug in all parts of the world. Cannabis abuse is particularly high in western Africa, Oceania, Central America, North America, and a number of European countries. The upward worldwide trend accelerated in the 1990s.
- 30 million people abuse amphetamine-type stimulants (ATS). High prevalence rates are found in western Europe, Australia, and some Latin American countries.

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