

# EPIDEMIOLOGIC TRENDS IN DRUG ABUSE

**Volume I**

Proceedings of the Community  
Epidemiology Work Group

**Highlights and Executive Summary**

June 2003

**NATIONAL INSTITUTE ON DRUG ABUSE**

**COMMUNITY EPIDEMIOLOGY WORK GROUP**



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**NATIONAL INSTITUTES OF HEALTH**

Division of Epidemiology, Services and Prevention Research  
National Institute on Drug Abuse  
6001 Executive Boulevard  
Bethesda, Maryland 20892

The National Institute on Drug Abuse (NIDA) acknowledges the contributions made by the members of the Community Epidemiology Work Group (CEWG) who have voluntarily invested their time and resources in preparing the reports presented at the meetings. This publication was prepared by MasiMax Resources, Inc., under contract number N01-DA-1-5514 from the National Institute on Drug Abuse.

This publication, Volume I, is based primarily on papers presented and data reported by CEWG representatives from 21 areas at the June 2003 CEWG meeting. The text from those research papers

appears in Volume II. Volume II also contains papers presented by researchers and law enforcement personnel, participants from several Federal agencies, and presenters from Canada and Mexico.

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Both Volumes I and II (available in limited supply) can be obtained by contacting the National Clearinghouse for Alcohol and Drug Information

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## FOREWORD

This Executive Summary is based on findings presented at the 54th semiannual meeting of the Community Epidemiology Work Group (CEWG) held in St. Louis, Missouri, on June 24–27, 2003, under the sponsorship of the National Institutes of Health, National Institute on Drug Abuse (NIDA). The CEWG is composed of researchers from 21 sentinel areas in the United States who have extensive experience in community research and knowledge of their local communities, drugs, and drug-abusing populations, the social and health consequences of drug abuse, drug trafficking and other law enforcement patterns, and emerging drugs within and across communities.

Information reported at each CEWG meeting is disseminated quickly to drug abuse prevention and treatment agencies, public health officials, researchers, and policymakers. The information is intended to alert authorities at the local, State, regional, and national levels, and the general public to the current drug abuse patterns and trends and emerging drug problems so that appropriate and timely action can be taken. Researchers also use this information to develop research hypotheses that might explain social, behavioral, and biological issues related to drug

abuse. As part of the CEWG's monitoring role, members continue work between meetings, using the Internet, conference calls, and mailings to alert one another to new issues and to follow-up on issues and emerging drug patterns identified at meetings. The results of this interim monitoring are often an agenda item at a subsequent meeting.

In this Executive Summary, findings and issues reported from the 21 CEWG areas in the United States are organized by drug to enable quick reference to patterns and trends associated with specific drugs. Two sections of the Executive Summary are devoted to special panel presentations. One panel focuses on mortality associated with methadone. The second panel focuses primarily on methamphetamine production and abuse in the State of Missouri, with time set aside to present research findings on use of club drugs in St. Louis. The concluding section summarizes drug abuse patterns and trends in the bordering countries of Canada and Mexico.

Individual papers presented at the 54th CEWG meeting are published in Volume II of the CEWG June 2003 Proceedings.

*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*



**CONTENTS**

Foreword	iii
Introduction	1
Key Findings	4
<b>Issues and Findings from the CEWG</b>	
Polysubstance Abuse	6
Methamphetamine	10
Marijuana	16
Cocaine/Crack	22
Heroin	30
Other Opiates/Narcotics	38
Phencyclidine (PCP)	48
“Club Drugs”	49
Benzodiazepines	53
Lysergic Acid Diethylamide (LSD)	55
Infectious Diseases Related to Drug Use	56
<b>Special Presentations</b>	
Panel on Methadone-Associated Mortality	58
Drug Abuse in Missouri	63
<b>International Reports</b>	
Canada	65
Mexico	65
<b>Participant List</b>	66
<b>Appendices</b>	
Appendix A. The Drug Abuse Warning Network (DAWN) Emergency Department Data	72
Appendix B. Mortality Data from the Drug Abuse Warning Network	73
Appendix C. Total Admissions by Primary Substance of Abuse and CEWG Area: 2002	74
Appendix D. The Arrestee Drug Abuse Monitoring (ADAM) Program	75
Appendix E. The National Forensic Laboratory Information System (NFLIS)	76
Appendix F. List of Papers in Volume II	77



## INTRODUCTION

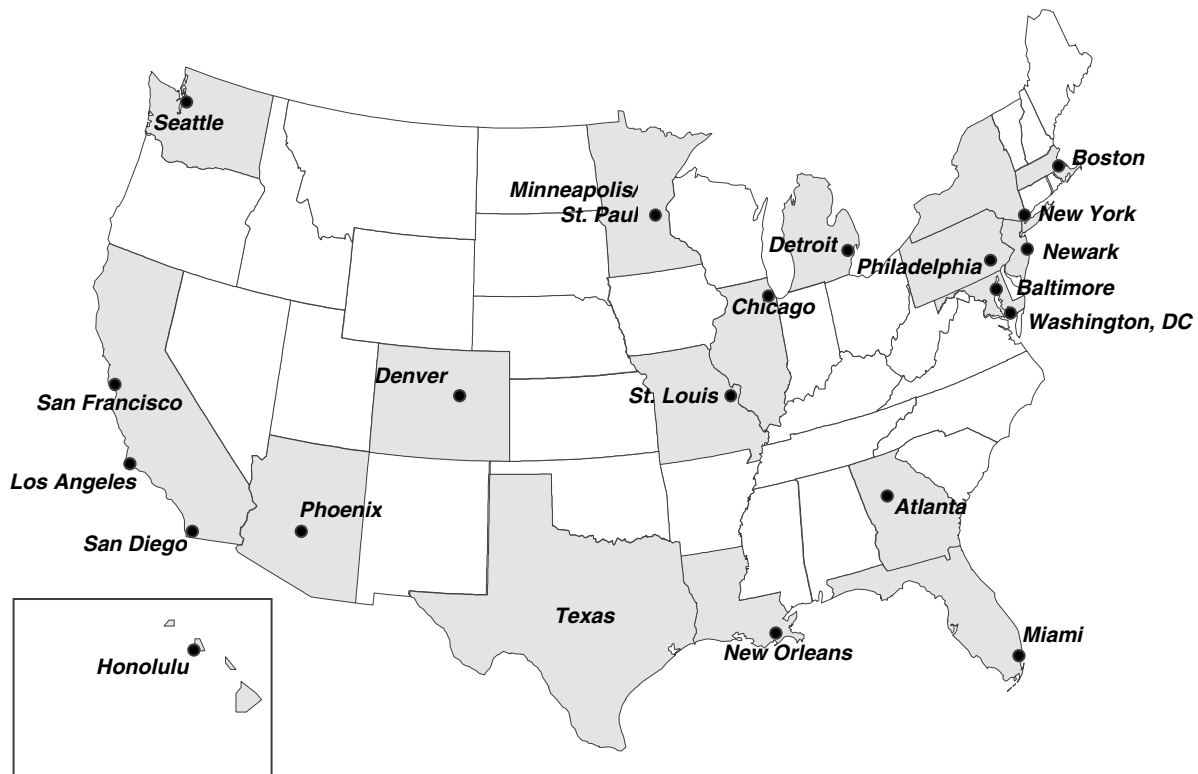
The National Institute on Drug Abuse, National Institutes of Health, is pleased to present an Executive Summary of the 54th semiannual meeting of the Community Epidemiology Work Group (CEWG) convened in St. Louis, Missouri, on June 24–27, 2003.

### Role of the CEWG

At meetings, and through ongoing communication via e-mail, conference calls, and mailings of relevant data, the CEWG serves as a unique epidemiologic surveillance network to inform drug abuse prevention and treatment agencies, public health officials, poli-

cymakers, researchers, and the general public about current and emerging drug abuse patterns. The information is disseminated quickly to alert authorities at the local, State, regional, and national levels to current and emerging drug problems so that appropriate action can be taken. Researchers use the information to develop research hypotheses that might explain social, behavioral, and biological issues related to drug abuse.

The 21 areas represented by the CEWG are depicted in the map below.



### The Functions of the CEWG Meetings

The interactive semiannual meetings are a major and distinguishing feature of the CEWG, providing a foundation for continuity in monitoring and surveillance of current and emerging drug problems and related health consequences. Through the interactive sessions, the CEWG accomplishes the following:

- Dissemination of the most up-to-date information on drug abuse patterns and trends in each CEWG area
- Identification of changing drug abuse patterns and trends within and across CEWG areas

- Planning for followup on identified problems and emerging drug abuse patterns

**Presentations** by each CEWG member include a compilation of quantitative drug abuse indicator data. Members go beyond publicly accessible data and provide a unique local perspective gained from both public records and qualitative research. This information is typically obtained from local substance abuse treatment providers and administrators, personnel of other health-related agencies, law enforcement officials, and drug abusers.



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

- The “drug scene” in the host city and its surrounding environs, as depicted in presentations by local researchers, service providers, law enforcement personnel, and, in some meetings, substance abusers
- Updates by Federal personnel on key data sets used by CEWG members
- Drug abuse patterns and trends in other countries, such as Canada and Mexico

The special presentations at the June 2003 CEWG meeting are summarized in greater detail later in this introductory section. Individual papers by special presenters, as well as those by CEWG members, are published semiannually in Volume II of the CEWG Proceedings.

**Identification of changing drug abuse patterns** is part of the interactive discussions at each CEWG meeting. Through this process, members alert one another to the emergence of a potentially new drug of abuse that may spread from one area to another. In this role, the CEWG has pioneered in identifying the emergence of drug epidemics and patterns of abuse, such as those involving abuse of methaqualone (1979–1982), crack (1983–1986), methamphetamine (1987–1989), and “blunts” (1993–1995). Methylendioxyamphetamine (MDMA or “ecstasy”) abuse indicators were first reported by CEWG members in June 1987.

**Planning for followup** on issues and problems identified at a meeting is initiated during discussion sessions, with post-meeting planning continuing through e-mails and conference calls. Post-meeting communications assist in formulating agenda items for a subsequent meeting, and, also, raise new issues for exploration at the following meeting. For example, in the December 2002 CEWG meeting, members raised two issues of concern—a possible increase in methadone-related deaths and the spread of abuse and manufacture of methamphetamine.

### The June 2003 CEWG Meeting

In an opening presentation, keynote speaker Lee N. Robins, Ph.D., Professor, Washington University School of Medicine, acknowledged the value of the CEWG and its publications.

Andrew L. Homer, Ph.D., Coordinator for Research and Statistics, Missouri Department of Mental Health, Division of Alcohol and Drug Abuse, welcomed the participants.

In addition to presentations by the 21 CEWG members, the meeting included the following:

- A panel on an emerging/current issue identified at the December 2002 CEWG meeting—methadone-associated mortality. Alan Trachtenberg, M.D., M.P.H., Substance Abuse and Mental Health Services Administration (SAMHSA), served as panel moderator.
- An update on the status of the Drug Abuse Warning Network (DAWN) by staff of the Office of Applied Studies (OAS), SAMHSA.
- Presentations on the status of and recent national data produced by the National Institute of Justice (NIJ) Arrestee Drug Abuse Monitoring (ADAM) program and the Drug Enforcement Administration (DEA) National Forensic Laboratory Information System (NFLIS).
- Presentations on the abuse and manufacture of methamphetamine—also an issue identified in the December 2002 CEWG meeting—by representatives from Family Counseling, Inc.; the Regional Crime Laboratory at Southeast Missouri State University; Missouri State Highway Patrol; Division of Corrections at the Department of Public Safety; and the St. Louis Office of the Drug Enforcement Administration. Harvey Siegal, Ph.D., a researcher from the Center for Intervention, Treatment and Addiction Research, Wright State University, served as a panel moderator. In addition, a researcher from Washington University presented findings on club drug abuse from a study in St. Louis and other sites.
- Presentations on the status and most recent drug abuse data produced by the surveillance systems in Canada and Mexico.

A listing of the CEWG reports and other papers published in Volume II of the June 2003 Proceedings appear in Appendix F.

In discussions at the June meeting, CEWG members identified issues for further exploration: rural drug abuse and increases of phencyclidine (PCP) abuse. These issues will be an integral part of the December 2003 CEWG meeting.

## Attributes of the CEWG

CEWG members bring the following attributes to the network:

- Extensive experience in community research, which over many years has fostered information sharing between members and local agencies
- Knowledge about their local communities, drugs, and drug-abusing populations; the social and health consequences of drug abuse; drug trafficking and other law enforcement patterns; and emerging drugs within and across communities
- Ongoing collaborative relationships with one another and other researchers and experts in the field, which allows for both learning about new issues and sharing information
- The capability to access relevant drug-related data from the literature, media, and Federal, State, community, and neighborhood sources
- An understanding of the strengths and limitations of each data source
- The skills required to systematically analyze and synthesize multiple sources of information, and interpret findings within the community context

## CEWG Data Sources

Major indicators and primary quantitative data sources used by CEWG members and cited in this report include those shown below.

### Health/Treatment Data

**Emergency department (ED) drug mentions data** from DAWN were provided by OAS, SAMHSA, primarily for the 2001 and first half of 2002 reporting periods. The data for the first half of 2002 are preliminary. A brief description of the DAWN ED system is provided in Appendix A of this report.

**Drug-related mortality data** from the DAWN mortality system, OAS, SAMHSA, are for the years 1999–2001. The data include “drug-induced” deaths (i.e., those directly caused by a drug or drugs) and “drug-related” deaths (those in which drugs played a contributory role) in 20 CEWG areas. CEWG areas with full participation in the system are identified in

the DAWN mortality exhibits in this report. A brief description of this DAWN system is presented in Appendix B.

Also presented are mortality data on selected drugs in eight CEWG areas, as derived from local medical examiners (MEs) and coroners for 2000–2002.

**Substance abuse treatment admissions data** for 2000–2002 were derived from three sources: State treatment databases (18 CEWG areas); the Treatment Episode Data Set (TEDS) maintained by OAS, SAMHSA; and admissions samples from programs in Miami-Dade and Broward Counties, Florida (Miami/Ft. Lauderdale). Colorado, Hawaii, Illinois, and Texas representatives report statewide treatment admissions data. Data are reported as percentages of admissions for primary drug of abuse; the denominators exclude alcohol admissions. The total number of admissions by CEWG area, including those for alcohol abuse, are shown in Appendix C.

### Law Enforcement/Criminal Justice Data

**Arrestee drug-testing data** for 2000–2002 were derived primarily from the ADAM program, NIJ. The 2002 data on adult arrestees do not represent all 4 quarters of data collection in 6 of the 16 CEWG sites or for adult females in 4 of 9 CEWG sites; these exceptions are noted in the ADAM exhibits. Additional information on ADAM is presented in Appendix D.

**Drug trafficking, seizure, purity, and forensic data** are from various law enforcement agencies, including the DEA and its NFLIS (2002). A brief description of the NFLIS system appears in Appendix E.

Members also use a variety of qualitative research methods to obtain more indepth local information on drug-abusing populations and trends, including ethnographic techniques, focus groups, and key informant interviews.

Issues identified by the CEWG are highlighted in this report for each drug category, followed by data from the major indicator sources. When multiple years appear in an exhibit, the peak year for the time periods presented will appear in **boldface** type. Information derived from CEWG meeting discussions and papers appears in *italic* type.

## KEY FINDINGS

Major findings from the CEWG June 2003 meeting are as follows:

**POLYSUBSTANCE** abuse is proliferating across all CEWG areas. Patterns are changing rapidly. The abuse of an ever-growing array of illicit and licit substances used in a variety of combinations is contributing to a rise in health problems and deaths (see pages 6–9).

**HEROIN** indicators were relatively stable in 2002, but continued at high levels in Boston, Chicago, Detroit, Newark, Philadelphia, and San Francisco (see pages 30–37).

**METHAMPHETAMINE** abuse and production continue at high levels in Hawaii, west coast areas, and some southwestern areas. Abuse and manufacture of methamphetamine continues to move eastward, especially to rural areas (see pages 10–15).

**OTHER OPIATES/NARCOTICS** (other than heroin) appear to be increasing in major drug indicator data, particularly hydrocodone and oxycodone products (see pages 38–47).

**PCP** indicators increased in five CEWG areas—Los Angeles, Philadelphia, Phoenix, Washington, DC, and Texas (see page 48).

**MARIJUANA** is the most prevalent illicit drug of use in almost all CEWG areas. Local and national surveys show high levels of use and abuse among adolescents and young adults. Treatment data from 10 CEWG areas point to increasing numbers of primary marijuana abusers entering treatment. Arrest rates for possession and sale of marijuana are also high, leading to an influx of court-referred marijuana users into the treatment system. There is evidence also of higher potency marijuana in recent years (see pages 16–21).

**CLUB DRUG** use has diffused beyond the club culture to different populations. Methylendioxyamphetamine (MDMA or “ecstasy”) continues to be the dominant club drug. Data suggest that abuse of club drugs is stable or declining and that use of drugs such as gamma hydroxybutyrate (GHB) and ketamine is quite low in most areas (see pages 49–52).

**COCAINE/CRACK** abuse was endemic in almost all CEWG areas in 2002. Rates of ED cocaine mentions in the first half of 2002 were particularly high in Baltimore, Miami, Atlanta, Philadelphia, and Chicago, ranging between 120 and 140 per 100,000 population (see pages 22–29).

**BENZODIAZEPINE** abuse indicators show relatively high rates of ED mentions per 100,000 population in six CEWG areas, ranging from 30 in Detroit to 48 in Boston. Benzodiazepines ranked among the top 10 drugs in DAWN death mentions in 8 CEWG areas (see pages 53–54).

**LYSERGIC ACID DIETHYLAMIDE (LSD)** abuse indicators continued to decline across CEWG areas (see page 55).

**Highlights from special presentations on methadone and methamphetamine are summarized below:**

**METHADONE-ASSOCIATED MORTALITY PANEL** members highlighted the increase in prescribing methadone as pain medication; the 113-percent rise in forensic lab analyses of the types of tablets prescribed for pain; and the rise in distribution of the tablets to pharmacies, hospitals, and drug stores, especially in States with relatively high rural populations and few methadone clinics for treatment of heroin addiction. Prescribed dosage levels can be fatal to patients who are not opioid tolerant, and physician education is needed. DAWN data from eight areas show that most methadone-related deaths involve other drugs (see page 58–62).

**METHAMPHETAMINE** abuse and manufacture in Missouri continues to increase and is more prominent in rural areas. Abusers tend to be White, although treatment data suggest other ethnic groups are using the drug. Many abusers inject methamphetamine. In 2002, there were 2,788 methamphetamine lab incidents in Missouri. Nationwide, in 2002, 1,997 children were endangered by exposure to methamphetamine labs. Costs of seizing and cleaning the labs are draining law enforcement resources (see pages 63–64).

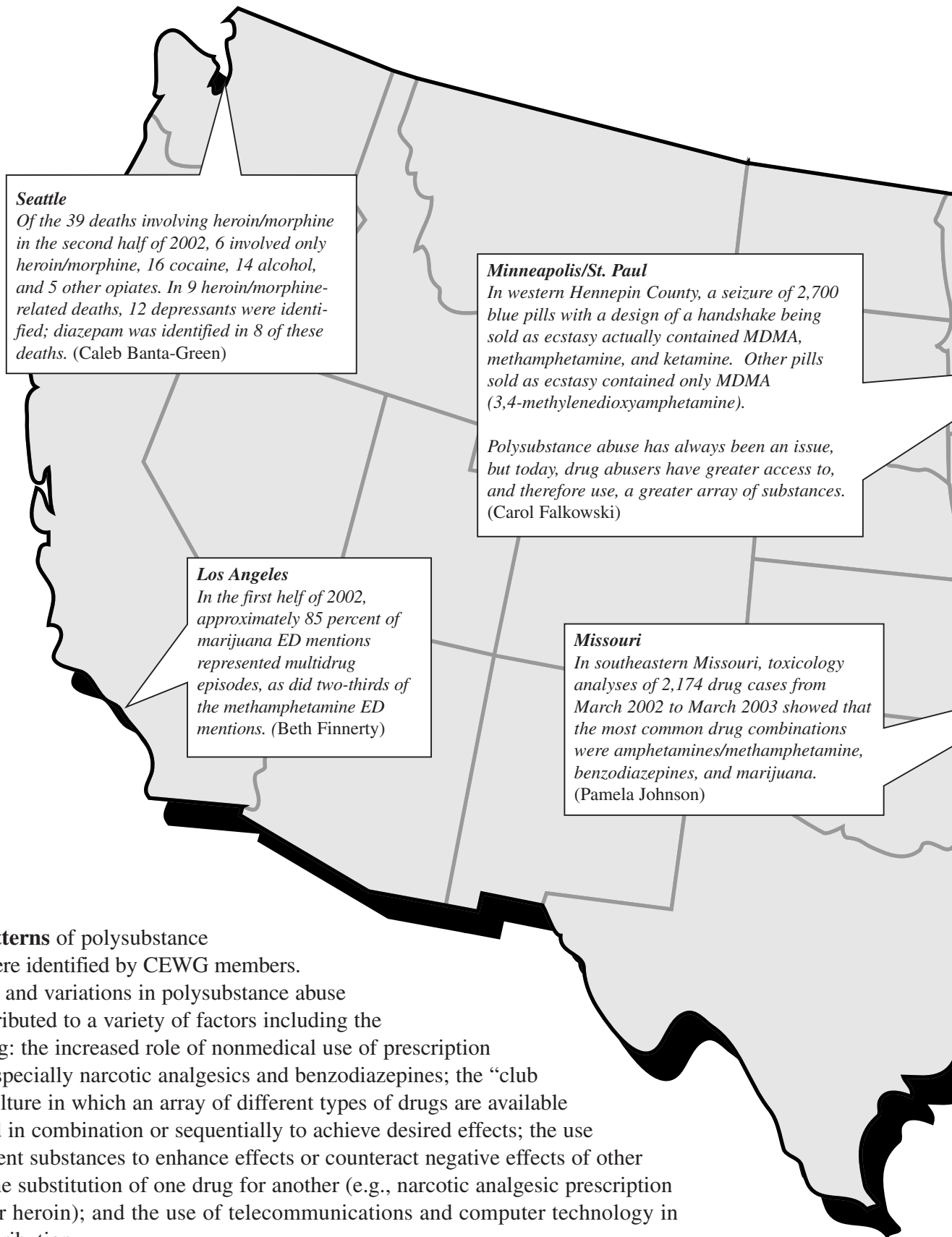
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**ISSUES AND KEY FINDINGS FROM THE CEWG**

Major issues and key findings on specific drugs, as well as infectious diseases related to drug abuse, are

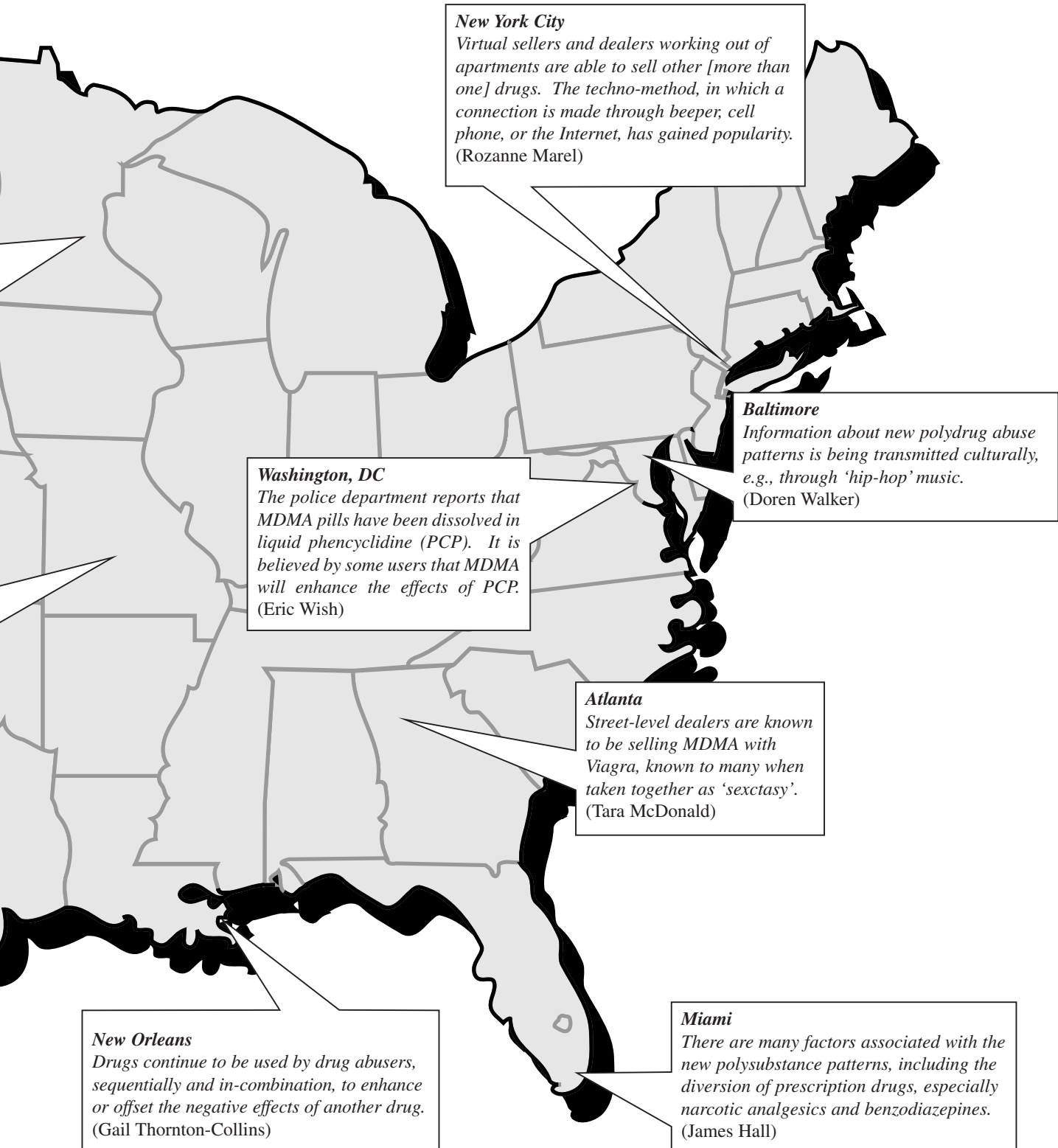
presented in this section. The discussion begins with polysubstance abuse on the following page.



**New patterns** of polysubstance abuse were identified by CEWG members. Changes and variations in polysubstance abuse were attributed to a variety of factors including the following: the increased role of nonmedical use of prescription drugs, especially narcotic analgesics and benzodiazepines; the “club drug” culture in which an array of different types of drugs are available and used in combination or sequentially to achieve desired effects; the use of different substances to enhance effects or counteract negative effects of other drugs; the substitution of one drug for another (e.g., narcotic analgesic prescription drugs for heroin); and the use of telecommunications and computer technology in drug distribution.

## POLYSUBSTANCE ABUSE

Polysubstance abuse is proliferating across all CEWG areas. Patterns are changing rapidly. The abuse of an ever-growing array of illicit and licit substances used in a variety of combinations is contributing to a rise in health problems and deaths.



## POLYDRUG ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

While CEWG members regularly report on the abuse of such drugs as cocaine, heroin, marijuana, and methamphetamine, they emphasize the fact that most abusers use multiple substances. This abuse pattern varies within and across communities, but is exemplified in federally supported data sets (exhibit 1).

### Emergency Department Data on Polydrug Abuse

The preliminary DAWN ED estimates from the first half of 2002 show that more than 71 percent of the cocaine mentions represented multidrug episodes, as did approximately 53 percent of the heroin mentions, 74 percent of the marijuana mentions, and 54 percent of the methamphetamine mentions across the coterminous United States.

### Mortality Data on Polydrug Abuse

Among DAWN drug-involved death mentions across 20 CEWG areas in 2001, the vast majority of deaths involved more than one drug, including cocaine (83 percent), heroin (89 percent), and methamphetamine (92 percent). Even among the smaller number of marijuana mentions ( $n=422$ ), 78 percent involved other drugs.

In CEWG areas, 94 percent of the DAWN narcotic analgesic death mentions involved more than one drug. A recent study of oxycodone deaths in 23 States (based on DAWN classification) showed that nearly 97 percent involved other drugs, such as benzodiazepines, alcohol, cocaine, other narcotics, marijuana, or antidepressants (Cone, E.J. et al. Oxycodone involvement in drug abuse deaths..., *Journal of Analytic Toxicology* 27:57–67, 2003).

### Treatment Data on Polydrug Abuse

Similar figures appear in the TEDS data for 2001: 71 percent of the primary cocaine treatment admissions used more than one drug, as did 59 percent of the primary heroin admissions, 67 percent of primary marijuana admissions, and 71 percent of the primary amphetamine/methamphetamine admissions.

### Polydrug Abuse Among Arrestees

In ADAM data from 16 CEWG areas, nearly one-quarter of male arrestees tested positive for more than one drug. In nine CEWG areas, 26 percent of adult females tested positive for multiple drugs.

**Exhibit 1. Polydrug Use—Examples from 4 Federally Supported Data Sets by Selected Drug**

Data Set (Year)/Variable	Cocaine	Heroin <sup>1</sup>	Marijuana	Methamphetamine
DAWN ED (1H 02) <sup>2</sup> <i>Percentage of multidrug episodes</i>	71.5	53.3	73.9	54.0
TEDS (2001) <sup>3</sup> <i>Percentage of primary admissions group using more than one drug</i>	71.0	59.0	67.0	71.0 (includes amphetamines)
DAWN Mortality (2001) <sup>4</sup> <i>Percentage of mentions with more than one drug</i>	83.0	88.9	78.4	91.6
ADAM (2002) <i>Median percentage of adult arrestees using multiple drugs (any of 10)</i> <sup>5</sup>	<i>Males</i> <sup>6</sup>		<i>Females</i> <sup>7</sup>	
	24.6		26.1	

<sup>1</sup>Includes morphine in DAWN mortality data and “opiates” in ADAM.

<sup>2</sup>Represents the coterminous United States; more than 96 percent of the (preliminary) mentions are reported from CEWG areas.

<sup>3</sup>Represents all primary admissions reported to TEDS.

<sup>4</sup>Represents 20 CEWG areas only.

<sup>5</sup>Includes barbiturates, benzodiazepines, cocaine, marijuana, methamphetamine, methaqualone, opiates, phencyclidine, and propoxyphene.

<sup>6</sup>Represents 16 CEWG areas (the median is nearly identical to that for all 36 ADAM sites).

<sup>7</sup>Represents 9 CEWG areas (the median is similar to that for all 23 sites).

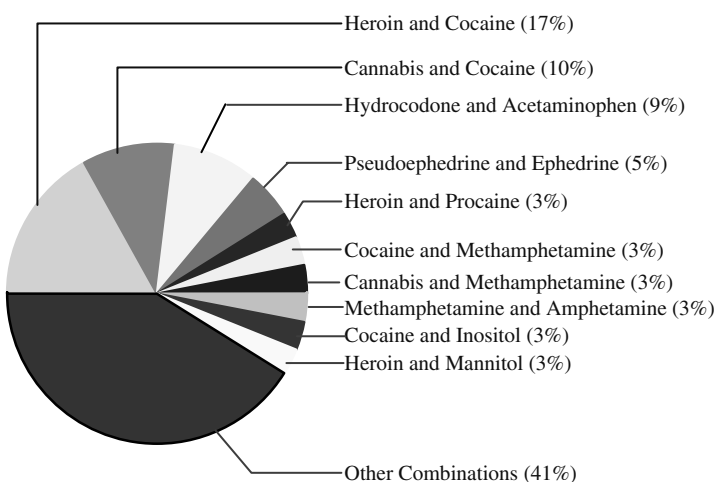
## Forensic Laboratory Analyses of Drug Combinations

Data from participating NFLIS State and local forensic laboratory drug analyses show that cocaine and heroin are the combinations most frequently identified. In 2002, 11,519 of the drug items reported in NFLIS contained two or more substances (exhibit 2). The four most common combinations in NFLIS during 2002—heroin/cocaine (17 percent), cannabis/cocaine (10 percent), hydrocodone/acetaminophen (9 percent), and pseudoephedrine/ephedrine (5 percent)—accounted for about 40 percent of all combinations reported. Hydrocodone/acetaminophen represents a known pharmaceutical product combination.

Heroin was present in 29 percent of the NFLIS drug combinations reported in 2002, a total of 3,361 items. More than one-half of the heroin combinations reported were identified as heroin/cocaine. Of the other substances combined with heroin, many were substances designed to dilute heroin and provide bulk to the material. The most commonly reported excipients were procaine, mannitol, and caffeine.

Methamphetamine was present in about 15 percent of drug combinations reported during 2002, a total of 1,779 items. Cocaine and cannabis were the most common substances reported with methamphetamine. Dimethylsulfone was identified in 148 items. This substance was described by DEA in 2001 as a diluent typically used by Mexican trafficking organizations to cut methamphetamine. Methamphetamine combinations that included pseudoephedrine, phosphorus, or ephedrine may reflect impurities resulting from clandestine manufacturing processes.

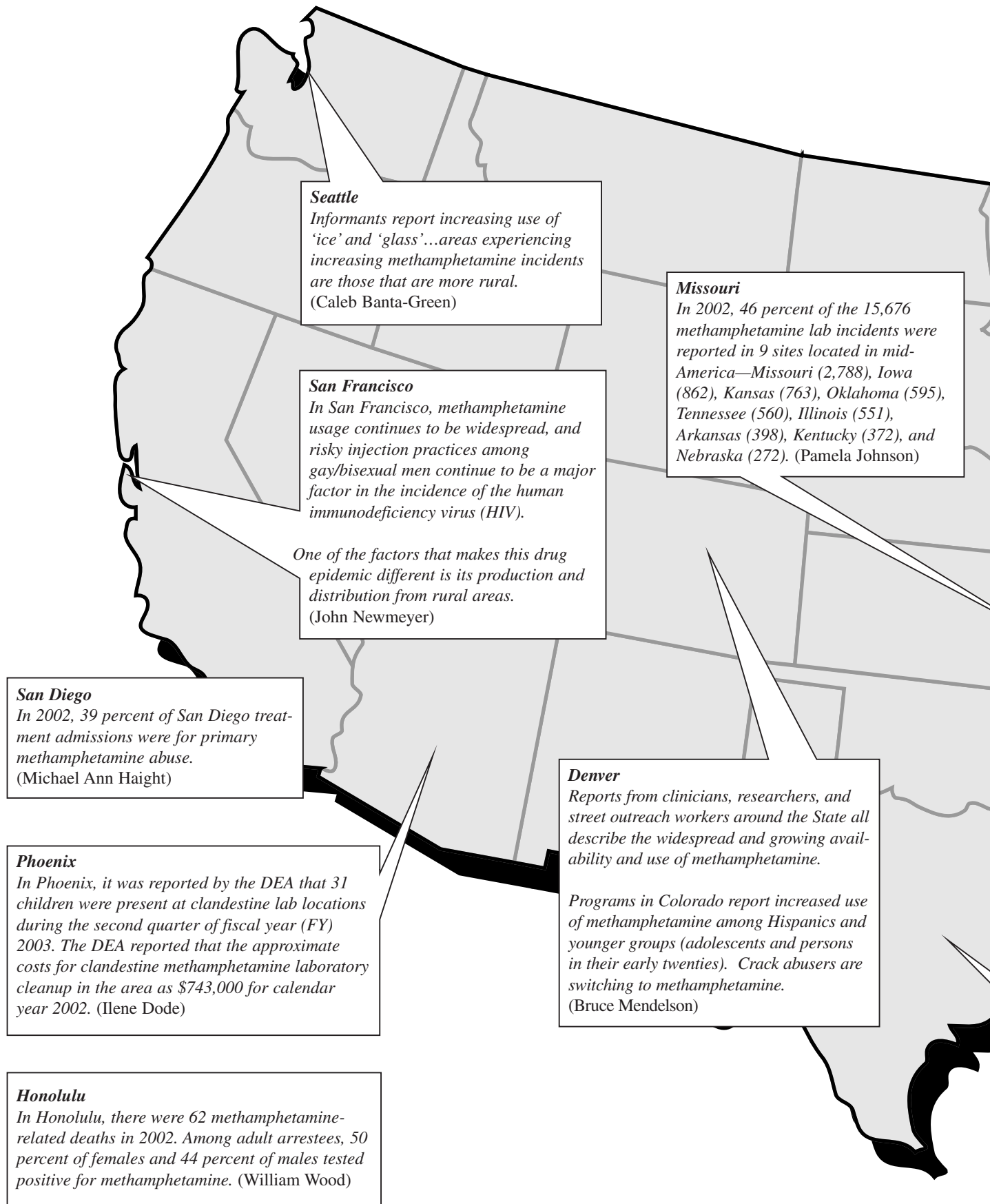
**Exhibit 2. Distribution of Top 10 Drug Combinations: 2002**



SOURCE: NFLIS

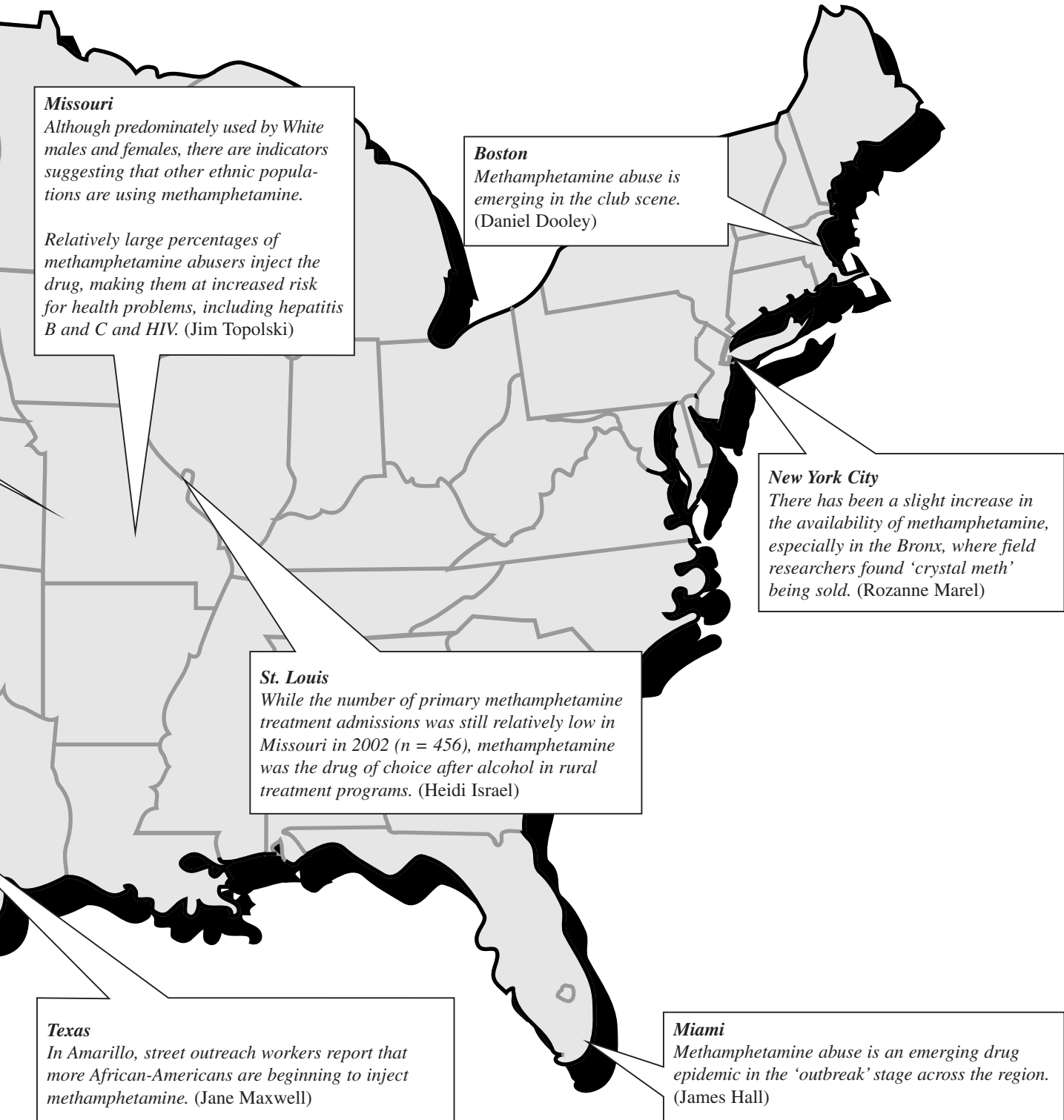
Cocaine, including powder and crack cocaine, was present in 43 percent of drug combinations reported during 2002. A total of 1,905 items contained heroin and cocaine, a combination commonly referred to as a “speedball.” Cocaine/cannabis represented 1,145 items, or 10 percent of all combinations, and cocaine/methamphetamine represented 366 items (e.g., “Zoom”), more than 3 percent of all combinations. All of the remaining top 10 combinations involved substances used to dilute cocaine, including noncontrolled substances such as inositol, caffeine, boric acid, procaine (a local anesthetic), and lactose.





# METHAMPHETAMINE

Methamphetamine production and abuse have become national issues of concern to health providers, social services, law enforcement, and environmental agencies. In addition to the large “super labs” in California, and trafficking from Mexico, there has been a proliferation of small “mom and pop” laboratories throughout the Nation, especially in rural areas. Abuse of the drug continues to spread geographically and to different populations.



## METHAMPHETAMINE ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

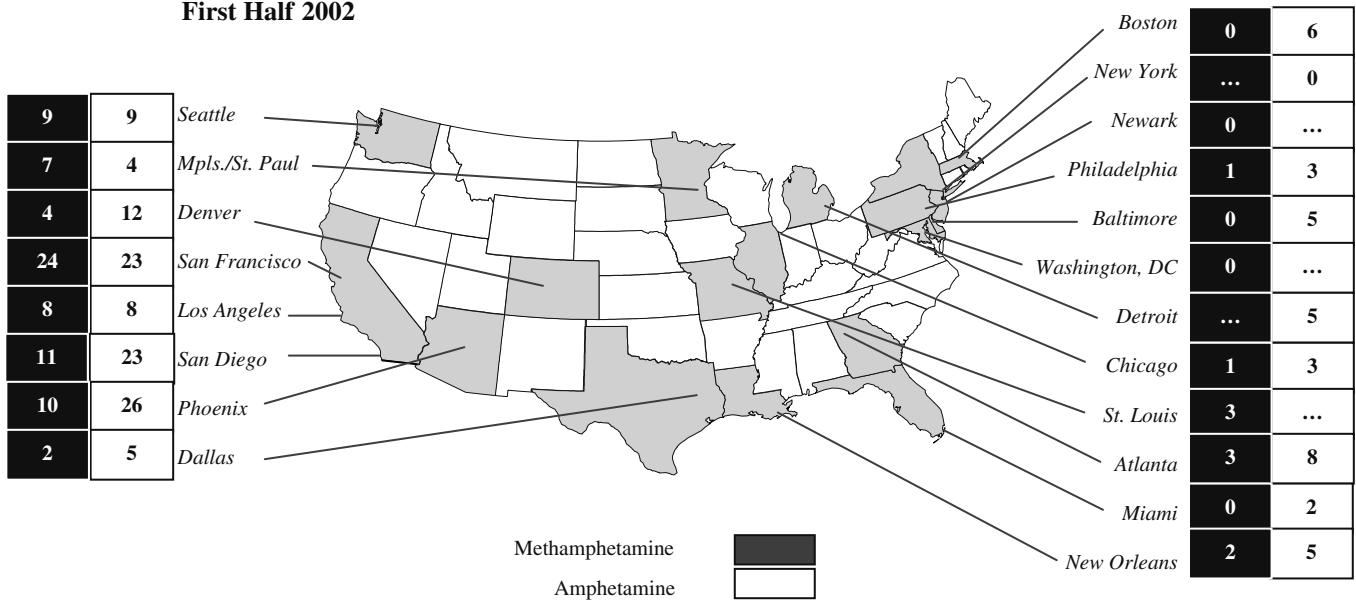
### Emergency Department Data on Methamphetamine

Preliminary DAWN rates of methamphetamine ED mentions in the first half of 2002 continued to be highest in west coast areas and parts of the southwest,

with San Francisco leading at 24 mentions per 100,000 population (exhibit 3).

A similar geographic pattern characterized rates of amphetamine ED mentions, with rates being highest in Phoenix (26) and San Diego and San Francisco (each 23).

**Exhibit 3. Rates of Methamphetamine and Amphetamine ED Mentions Per 100,000 Population: First Half 2002**



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

### DAWN Mortality Data on Methamphetamine

Across 13 CEWG areas that report DAWN ME data, only 3 had mentions of amphetamines that exceeded 8 in 2001; these were San Diego with 84, San Francisco with 31, and San Antonio with 11. Death mentions involving methamphetamine in 2001 were highest in San Diego (94), Dallas (37), San Francisco (32), Denver (19), and San Antonio (18). In the Dallas methamphetamine mentions, 13 involved a single drug, as did 4 in Denver and 3 in San Diego.

### Local Mortality Data on Methamphetamine

Across four CEWG areas reporting local ME data, Phoenix reported the highest number of methamphetamine-related deaths in 2002: 132 involving methamphetamine and 44 involving methamphetamine/combinations. Honolulu reported 62 methamphetamine-related deaths in 2002. Minneapolis/St. Paul and Seattle each reported 14 deaths involving methamphetamine or amphetamines in 2002. Three of the Minneapolis deaths also involved MDMA.

## Treatment Data on Methamphetamine

Primary admissions for amphetamines/methamphetamine (excluding alcohol) represented a sizable minority of treatment admissions in eight CEWG areas in 2002, with most being for primary methamphetamine abuse. The proportions of methamphetamine admissions (excluding alcohol) were highest in Honolulu (52.1 percent, including a few amphetamine admissions), and San Diego (49.7 percent), followed by Los Angeles (18.5 percent), Colorado (16.8 percent), and Seattle (14.7 percent). During the first half of 2002, 11.2 percent of illicit drug admissions in Minneapolis/St. Paul were for primary methamphetamine abuse, as were 9.5 percent in Atlanta and 5.3 percent in St. Louis.

## Methamphetamine Use Among Arrestees

ADAM percentages of adult male arrestees testing methamphetamine-positive in CEWG areas in 2002 were highest in Honolulu (44.8 percent), San Diego (31.7 percent), Phoenix (31.2 percent), Los Angeles (14.8 percent), and Seattle (10.9 percent). The percentages ranged between 2 and 4 percent in Atlanta, San Antonio, Denver, Minneapolis, and Dallas. As shown in exhibit 4, the percentages testing methamphetamine-positive continued to trend upward in nine CEWG areas since 2000.

**Exhibit 4. Percentages of Adult Male Arrestees Testing Methamphetamine-Positive in 10<sup>1</sup> CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Atlanta <sup>2</sup>	0.5	NS <sup>3</sup>	<b>2.1<sup>3</sup></b>
Dallas <sup>2</sup>	2.1	1.7	<b>4.0<sup>3</sup></b>
Denver	2.6	3.4	<b>3.8</b>
Honolulu <sup>2</sup>	35.9	37.4	<b>44.8</b>
Los Angeles	NS	NS	14.8 <sup>3</sup>
Minneapolis	1.6	2.4	<b>3.9</b>
Phoenix <sup>2</sup>	19.1	25.3	<b>31.2</b>
San Antonio	0.2	<b>2.6</b>	2.3
San Diego	26.3	27.9	<b>31.7</b>
Seattle	9.2	<b>11.1</b>	10.9

<sup>1</sup>In six other sites, the 2002 percentages ranged between zero and 1.3 percent.

<sup>2</sup>In 2002, fourth quarter data in four sites were not weighted because of absence of census data.

<sup>3</sup>NS = Not sampled or represents partial data.

SOURCE: ADAM, NIJ

One-half of adult female arrestees in Honolulu tested methamphetamine-positive in 2002, as did nearly 42 percent of those in Phoenix and 37 percent in San Diego. As shown in exhibit 5, the percentages of women testing methamphetamine-positive tended to trend upward from 2000 in four CEWG areas.

**Exhibit 5. Percentages<sup>1</sup> of Adult Female Arrestees Testing Methamphetamine-Positive in 5<sup>2</sup> CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Denver	5.3	4.3	<b>6.8</b>
Honolulu	47.2	36.1	<b>50.0</b>
Los Angeles <sup>3</sup>	NS	NS	14.3
Phoenix	24.1	32.3	<b>41.7</b>
San Diego	28.7	32.0	<b>36.8</b>

<sup>1</sup>Female data are unweighted.

<sup>2</sup>The percentages in four other CEWG areas ranged from zero to 0.6.

<sup>3</sup>Represents only the last two quarters of 2002; females were not sampled in 2000 and 2001.

SOURCE: ADAM, NIJ

Among juvenile arrestees tested in Phoenix and San Diego in 2002, 13.8 percent of the males and 26.3 percent of the females in Phoenix tested methamphetamine-positive, as did 9.2 percent of the males and 10.3 percent of the females in San Diego.

## Forensic Laboratory Analyses of Methamphetamine

Methamphetamine was the third most frequently identified drug in NFLIS in 2002, representing an estimated 11.8 percent of all drugs analyzed. During 2002, a total of 133,795 stimulants were identified in NFLIS, accounting for about 14 percent of all items reported. More than 9 in 10 stimulants, or 128,183 items, were identified as methamphetamine. An additional 1,119 items were ephedrine, a precursor chemical used to manufacture methamphetamine. Among other stimulants, 2,140 items were identified as amphetamine and 1,063 items as methylphenidate (e.g., Ritalin). Methamphetamine accounted for the vast majority of stimulants reported in every region except the Northeast. Methamphetamine represented 97 percent of the stimulants reported in the West, 87 percent in the South, and 84 percent in the Midwest. In the Northeast, 33 percent of stimulants were reported as methamphetamine, 23 percent as amphetamine, and 19 percent as methylphenidate.

## **Methamphetamine Seizures**

The DEA reported seizures totaling 118,049,279 dosage units of methamphetamine in 2002, less than the 139,540,464 dosage units seized in 1995.

## **Methamphetamine Availability and Prices**

Methamphetamine availability continues to be primarily reported west of the Mississippi River, but indicators show its presence in other areas as well. In New York City, for example, there has been a slight increase in availability. Methamphetamine is still described as difficult to obtain in Chicago, but some dealers are attempting to introduce methamphetamine to users by offering free samples.

Similar to other illicit drugs, the quality and price of methamphetamine varies by source, levels of distribution, and geographic location. Grams of methamphetamine sell for as little as \$20 (in Seattle), while the high end of gram prices is around \$300 (in

Hawaii, for “wash”) (exhibit 6). Pound prices for “ice” generally range between \$7,000 and \$13,000.

According to seizure and other law enforcement data, the number of locally based methamphetamine labs appears to be growing in Phoenix, Colorado, Georgia, Minnesota, and Texas. The “super labs” in Mexico and California, however, continue to supply most of the methamphetamine available in CEWG areas, including Atlanta, Chicago, Denver, Honolulu, Phoenix, and St. Louis. As indicated by the growing number of clandestine methamphetamine labs, the drug is relatively easy to produce locally. Recipes on the Internet allow untrained individuals to convert ephedrine or pseudoephedrine into high-quality methamphetamine. This in part led the Georgia State Legislature to pass a law in May 2003 to strengthen penalties associated with methamphetamine. Parts of the law created felonies related to possession of ephedrine, pseudoephedrine, or phenylpropanolamine in excess of 300 pills or 9 grams.

**Exhibit 6. Methamphetamine Prices in 14 CEWG Areas: January–June 2003**

<b>CEWG Area</b>	<b>Pound</b>	<b>Ounce</b>	<b>Gram</b>	<b>Other</b>
Atlanta	\$8,250	\$1,300	\$110	\$20–\$25 per hit \$45–\$50 per hit (“ice”)
Chicago	NR <sup>1</sup>	NR	NR	\$20 per bag
Denver	\$4,500–\$7,500	\$700–\$1,000	\$80–\$120	NR
Hawaii (Oahu) Brown (“wash”) White (“clear”)	NR NR	\$2,200–\$3,000 NR	\$200–\$300 \$600–\$900	\$50 per 0.1 gram \$75 per 0.1 gram
Los Angeles	\$3,700–\$5,000 \$7,000–\$11,000 (“ice”)	\$450–\$550 \$600–\$800 (“ice”)	NR	\$100–\$120 per 1/8 ounce \$60 per 1/16 ounce
Minneapolis	Up to \$10,000	\$600–\$800	\$90–\$100	\$200 per “teener” (1/16 ounce) \$240–\$280 per “eightball” (1/8 ounce)
New Orleans	\$12,000–\$16,000	\$900–\$1,500	\$100–\$150	NR
New York	NR	NR	NR	\$20 per thumbnail-sized bag of “crystal meth”
Phoenix Phoenix meth. Phoenix “ice” Tucson meth. Tucson “ice”	\$3,500 \$7,000–\$9,000 NR \$13,000	\$300–500 \$700–800 \$650–1,000 NR	NR NR NR NR	NR \$250 per 1/4 ounce \$120–\$300 per 1/4 ounce NR
St. Louis	NR	\$700–\$1,300	\$50–\$100	NR
San Diego	\$6,000–\$10,000 (regular) \$9,000–\$11,000 (“ice”)	\$500–\$1,100	\$50–\$75	NR
San Francisco	\$3,600–\$21,000	\$1,000–\$1,200 (“crystal”)	NR	NR
Seattle	\$5,000–\$15,000	\$350–\$1,200	\$20–\$100	NR
Texas Dallas El Paso Houston Laredo	\$4,500–\$10,000 \$10,600 \$6,000–\$11,000 \$4,500–\$5,500	\$700–\$1,100 NR NR NR	\$70–\$100 NR NR NR	NR NR NR NR

<sup>1</sup> NR = Not reported.

SOURCE: CEWG June 2003 reports

\* The high level of marijuana use and increased use among the young is documented by school surveys in Chicago, Minnesota, and Boston.

\*\* High rates of marijuana arrests, as well as marijuana-positive tests among arrestees are cited in Los Angeles, New York, Texas, Boston, and Washington, DC.

\*\*\* The impact of marijuana abuse on the treatment system is documented in most CEWG areas.

\*\*\*\* Marijuana is often used in combination with other substances.

**Minneapolis/St. Paul**

\* According to the most recent Minnesota Student Survey (2001), 30.3 percent of high school seniors had used marijuana in the past year.

\*\* In Minneapolis, 54 percent of adult male arrestees tested marijuana-positive, compared with 45 percent in 1998. (Carol Falkowski)

**Los Angeles**

\*\* In 2002, a total of 4,818 marijuana arrests were made in the City of Los Angeles, accounting for 20 percent of all narcotic arrests made that year. (Beth Finnerty)

**Chicago**

\* The proportion of 9th–12th graders who reported current marijuana use increased from 1993 and reached 29 percent in 2001.

\*\*\* In Illinois, marijuana admissions increased from 20,773 in FY 2000 to 26,372 in FY 2002. (Dita Davis)

**Phoenix**

\*\*\* Approximately 75 percent (n=13,559) of admissions to the Treatment Alternatives to Street Crime (TASC) Juvenile Probation Program in Maricopa County from 1989 to March 2003 were for marijuana treatment. (Ilene Dode)

**Honolulu**

\*\*\* In Hawaii in 2002, there were 1,514 admissions for marijuana treatment, triple the number in 1992. (William Wood)

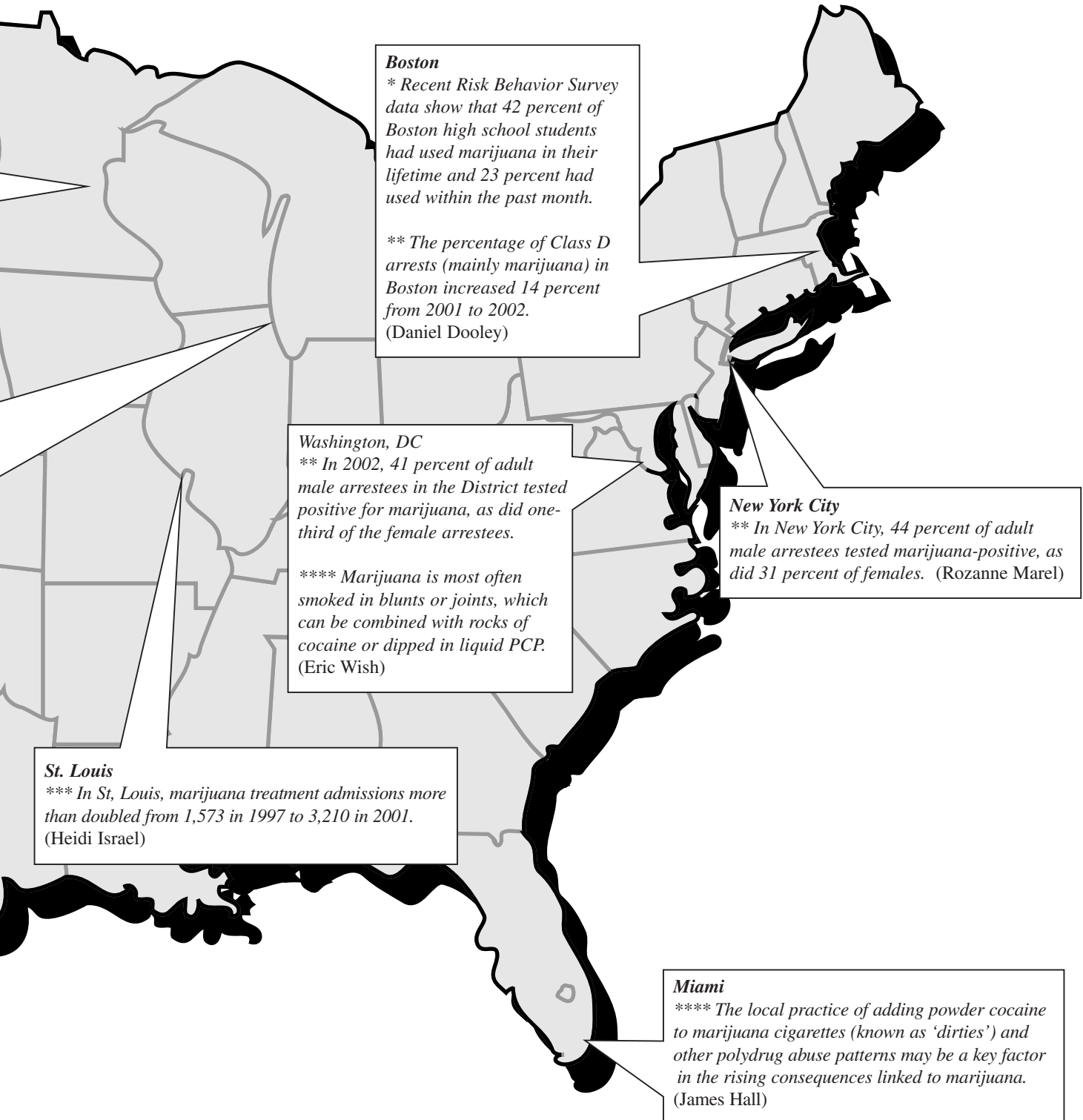
**Texas**

\*\* In Texas, arrests for marijuana use or possession have risen dramatically since 1991.

\*\*\* Sixty-eight percent of all adolescent treatment admissions in Texas in 2002 had a primary problem with marijuana, compared with only 35 percent in 1987. (Jane Maxwell)

## MARIJUANA ABUSE

Marijuana is the most prevalent illicit drug of use in almost all CEWG areas. Local and national surveys show high levels of use and abuse among adolescents and young adults. Treatment data point to increasing numbers of primary marijuana abusers entering treatment. Arrest rates for possession and sale of marijuana are also high, leading to an influx of court-referred marijuana users into the treatment system. There is evidence also of higher potency marijuana in recent years.





## MARIJUANA ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

### Emergency Department Data on Marijuana

halves of 2001 and 2002 in Miami, Newark, Phoenix, and San Diego, but they decreased in Chicago, San Francisco, and Seattle (exhibit 7).

DAWN rates of marijuana ED mentions per 100,000 population increased significantly between the first

**Exhibit 7. Rates of Marijuana ED Mentions Per 100,000 Population and Percent Change: 2001–June 2002**

CEWG Area	Rate			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	86	96	<b>96</b>		
Baltimore	68	78	<b>88</b>	29.1	13.2
Boston	78	<b>96</b>	119		
Chicago	889	89	78		-12.2
Dallas	49	34	27	-45.5	-21.0
Denver	51	50	<b>38</b>		
Detroit	99	121	146	47.6	
Los Angeles	67	<b>67</b>	64		
Miami	91	94	<b>111</b>	22.6	18.7
Minneapolis/St. Paul	33	46	<b>47</b>		
New Orleans	87	<b>71</b>	72		
New York	41	42	47		
Newark	29	37	<b>54</b>	85.5	44.4
Philadelphia	101	122	<b>150</b>	47.9	
Phoenix	51	<b>45</b>	46		
St. Louis	72	<b>101</b>	124	72.1	
San Diego	39	44	46	17.4	
San Francisco	38	<b>45</b>	39		-13.5
Seattle	72	<b>75</b>	65		-13.2
Washington, DC	64	51	55		

<sup>1</sup> These columns denote statistically significant ( $p < 0.05$ ) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

As shown in exhibit 8, rates in the first half of 2002 were highest in Philadelphia (74), Detroit (66), St. Louis (62), Miami (58), and Atlanta (57).

**Exhibit 8. Rates of Marijuana ED Mentions Per 100,000 Population: First Half 2002**



SOURCE: DAWN, OAS, SAMHSA

### Mortality Data on Marijuana

Marijuana-related death mentions in DAWN totaled 422 across 20 CEWG areas in 2001; it was the only drug detected in 20 cases. Mentions were highest in Detroit ( $n=74$ ) and Dallas (65), and ranged between 1 and 39 in 16 other areas where a number was recorded.

### Treatment Data on Marijuana

Primary marijuana admissions (excluding alcohol) accounted for approximately one-quarter to one-half of admissions for illicit drug use in 12 of the 20 CEWG areas reporting 2002 treatment data (exhibit 9). The proportions were highest in Minneapolis/St. Paul (47.7 percent), the Miami sample (45.6 percent), Colorado (39.4 percent), New Orleans (37.0 percent), and Seattle (34.0 percent).

**Exhibit 9. Primary Marijuana Treatment Admissions by CEWG Area and Percent (Excluding Alcohol): 2000–2002<sup>1</sup>**

CEWG Area/State	Year		
	2000	2001	2002
Atlanta <sup>2</sup>	19.4	20.9	<b>26.1</b>
Baltimore <sup>2</sup>	19.0	<b>19.1</b>	17.4
Boston	<b>8.2</b>	7.7	6.6
Detroit	9.2	10.4	<b>13.4</b>
Los Angeles	8.6	11.3	<b>14.2</b>
Miami (sample)	37.0	NR <sup>3</sup>	<b>45.6</b>
Mpls./St. Paul	<b>49.4</b>	49.2	47.7
New Orleans	36.9	<b>37.5</b>	37.0
New York	24.1	25.2	<b>26.1</b>
Newark <sup>2</sup>	6.0	<b>6.1</b>	5.7
Philadelphia	21.7	19.7	<b>22.4</b>
St. Louis	32.3	35.5	<b>36.3</b>
San Diego	20.5	<b>25.9</b>	25.3
San Fran.	5.9	6.5	<b>9.7</b>
Seattle <sup>2</sup>	31.0	<b>34.4</b>	34.0
Wash., DC	<b>10.2</b>	7.9	5.8
Colorado	40.5	<b>40.6</b>	39.4
Hawaii	27.8	<b>28.6</b>	28.5
Illinois	25.8	25.9	<b>28.1</b>
Texas	25.5	<b>26.1</b>	25.8

<sup>1</sup>Represents either fiscal or calendar year.

<sup>2</sup>Represents only half-year data for 2002.

<sup>3</sup>NR = Not reported.

SOURCES: CEWG June 2003 reports on State and local data; for Washington, DC, TEDS

Trend data show little change in the proportions of primary marijuana admissions from 2000 to 2002. An increase of approximately 4 to 7 percentage points did occur in seven areas, the highest being in Atlanta, followed by Los Angeles.

## Marijuana Use Among Arrestees

ADAM percentages of adult male arrestees testing marijuana-positive in 2002 exceeded those for other drugs in 12 of the 16 CEWG areas; this was true for adult female arrestees in only 3 of 9 CEWG sites (Phoenix, Los Angeles, and San Diego).

The percentages of adult males testing marijuana-positive in 16 CEWG areas in 2002 were highest in Minneapolis (54.2 percent), Chicago (49.4 percent), Philadelphia (47.7 percent), New Orleans (46.9 percent), and New York (44.3 percent) (exhibit 10). The largest percentage-point increase from 2000 to 2002 was in Phoenix (7.8).

**Exhibit 10. Percentages of Adult Male Arrestees Testing Marijuana-Positive in 16 CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Atlanta <sup>1</sup>	38.2	NS <sup>2</sup>	35.2 <sup>3</sup>
Chicago	45.0 <sup>3</sup>	50.2 <sup>3</sup>	49.4
Dallas <sup>1</sup>	35.8	32.9	35.3 <sup>3</sup>
Denver	40.9	40.0	40.3
Honolulu <sup>1</sup>	30.4	30.2	32.2
Laredo	28.6	26.4	26.1 <sup>3</sup>
Los Angeles	NS	NS	36.4 <sup>3</sup>
Minneapolis	54.2	53.6	54.2
New Orleans	46.6	44.9	46.9
New York	40.6	40.5	44.3
Philadelphia	49.4	42.7	47.7 <sup>3</sup>
Phoenix <sup>1</sup>	33.7	39.7	41.5
San Antonio	40.7	40.7	42.0
San Diego	38.7	36.4	37.8
Seattle	37.7	35.1	38.5
Wash., DC	NS	NS	40.7 <sup>3</sup>

<sup>1</sup>In 2002, fourth-quarter data in four sites were not weighted because of absence of census data.

<sup>2</sup>NS = Not sampled or reported.

<sup>3</sup>Represents only partial-year data.

SOURCE: ADAM, NIJ

Among adult female arrestees, the proportions testing marijuana-positive were highest in Los Angeles (35.7 percent), and Denver, San Diego, and Washington, DC (all 33.3 percent) (exhibit 11).

In three CEWG areas where juveniles were tested in 2002, the proportions of males testing marijuana-positive were high in Phoenix (67.9 percent), San

Diego (50.0 percent), and San Antonio (48.4 percent). The proportions of female youths testing positive were much lower: San Antonio (23.5 percent), San Diego (30.8 percent), and Phoenix (34.2 percent).

**Exhibit 11. Percentages of Adult Female Arrestees Testing Marijuana-Positive in 9 CEWG Areas<sup>1</sup>: 2000–2002**

CEWG Area	2000	2001	2002
Denver	33.8	33.0	33.3
Honolulu	19.4	13.9	20.6
Laredo	17.2	14.3	7.4 <sup>3</sup>
Los Angeles	NS <sup>2</sup>	NS	35.7 <sup>3</sup>
New Orleans	28.0	25.1	26.0
New York	28.2	32.1	30.6 <sup>3</sup>
Phoenix	23.3	26.5	29.4
San Diego	27.2	27.2	33.3
Wash., DC	NS	NS	33.3 <sup>3</sup>

<sup>1</sup>Female data are unweighted.

<sup>2</sup>NS = Not sampled or not reported.

<sup>3</sup>Partial-year data.

SOURCE: ADAM, NIJ

## Forensic Laboratory Analyses of Marijuana

Cannabis ranked first as the most frequently identified drug in the NFLIS in 2002, accounting for an estimated 35.2 percent of all drugs analyzed.

## Marijuana Seizures

The DEA reported seizures of 195,644 kilograms of marijuana in 2002, the lowest amount since 1996.

## Marijuana Availability and Prices

Marijuana remains widely available in all CEWG areas. “Commercial grade,” “BC Bud,” sinsemilla, and hydroponic marijuana are the most commonly mentioned types in the CEWG reports

Joints remain widely available at prices ranging from \$2 to \$5 (exhibit 12), but blunts were increasingly mentioned as the most common method of using marijuana. Both joints and blunts continue to be laced with other substances, including embalming fluid, PCP, and crack cocaine. Other additives include

powder cocaine in Miami and brandy in Austin, Texas.

As in the past, domestic outdoor and indoor growers continue to have their share of local markets, and marijuana continues to be smuggled into the United

States from British Columbia and countries including Colombia, Jamaica, and Mexico. The origin of the marijuana helps determine its price, with BC Bud, a seedless, hybrid form of marijuana from British Columbia, being among the most costly.

**Exhibit 12. Marijuana Prices by Type and Amount in 14 CEWG Areas: January–June 2003**

<b>CEWG Area/Type</b>	<b>Pound</b>	<b>Ounce</b>	<b>Other</b>
Boston	\$900–\$1,400	NR <sup>1</sup>	NR
Chicago	\$650–\$4,000	\$80–\$200	\$5–\$20 per bag
Denver			
Mexican	\$500–\$800	NR	NR
BC Bud	\$3,200–\$4,500	\$600	NR
Domestic	\$1,500–\$4,000	\$200–\$500	NR
Los Angeles			
Wholesale (low-grade)	\$300–\$400	NR	NR
Retail	NR	\$60–\$80	\$10 per gram
Sinsemilla	\$2,500–\$6,000	\$400–\$600	\$60–\$80 per one-eighth ounce
BC Bud	\$6,000	NR	NR
Hashish	\$8,000	NR	NR
Miami/Ft. Lauderdale	\$5,000	NR	\$100–\$120 per one-quarter ounce sinsemilla
Minneapolis			\$3–\$5 per joint
Standard	\$1,000	\$250	NR
BC Bud	\$5,000	\$800	NR
Newark	NR	NR	\$2–\$5 per joint \$5–\$10 per bag
New Orleans	\$750–\$1,000	\$125–\$160	\$2 per joint \$100 per gram \$2,000 per kilogram
New York	\$200–\$2,000 \$1,000–\$5,000 (hydroponic)	\$50–\$60	\$20 per bag ("treated"/flavored) \$10 per bag (regular)
Phoenix	\$500–\$750	\$75–\$150	NR
San Diego	\$300–\$500 (Mexican) \$3,000–\$5,000 (sinsemilla "Buds")	\$60–\$100 (Mexican)	\$5 baggies (0.5–1 gram) \$10 per 1–3 grams
San Francisco			
California sinsemilla	\$5,000–\$6,000	NR	NR
Mexican	\$380–\$1,400	NR	NR
Seattle	\$2,300–\$4,000	\$250–\$300	\$10 per gram
Texas			
Dallas (sinsemilla)	\$750–\$1,200	NR	NR
Dallas (commercial)	\$400–\$600	NR	NR
El Paso (commercial)	\$500	NR	NR
Houston (commercial)	\$300–\$500	NR	NR
San Antonio (commercial)	\$400–\$700	NR	NR

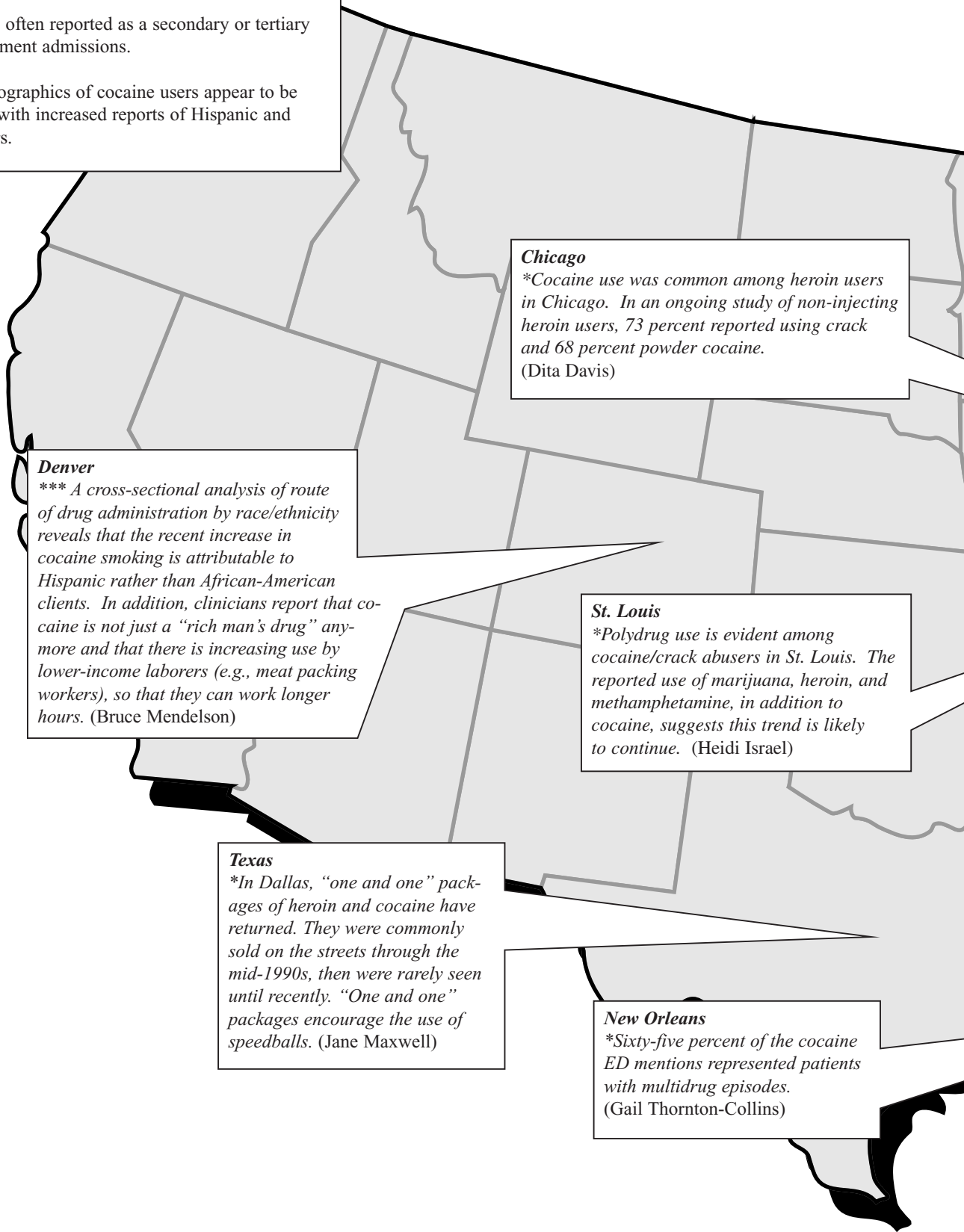
<sup>1</sup> NR = Not reported.

SOURCE: CEWG June 2003 reports

\*Polydrug use among cocaine users was mentioned in many CEWG areas, as evidenced in ED mentions and drug-related death data.

\*\*Cocaine is often reported as a secondary or tertiary drug by treatment admissions.

\*\*\*The demographics of cocaine users appear to be broadening, with increased reports of Hispanic and younger users.



**Chicago**  
*\*Cocaine use was common among heroin users in Chicago. In an ongoing study of non-injecting heroin users, 73 percent reported using crack and 68 percent powder cocaine. (Dita Davis)*

**Denver**  
*\*\*\* A cross-sectional analysis of route of drug administration by race/ethnicity reveals that the recent increase in cocaine smoking is attributable to Hispanic rather than African-American clients. In addition, clinicians report that cocaine is not just a “rich man’s drug” anymore and that there is increasing use by lower-income laborers (e.g., meat packing workers), so that they can work longer hours. (Bruce Mendelson)*

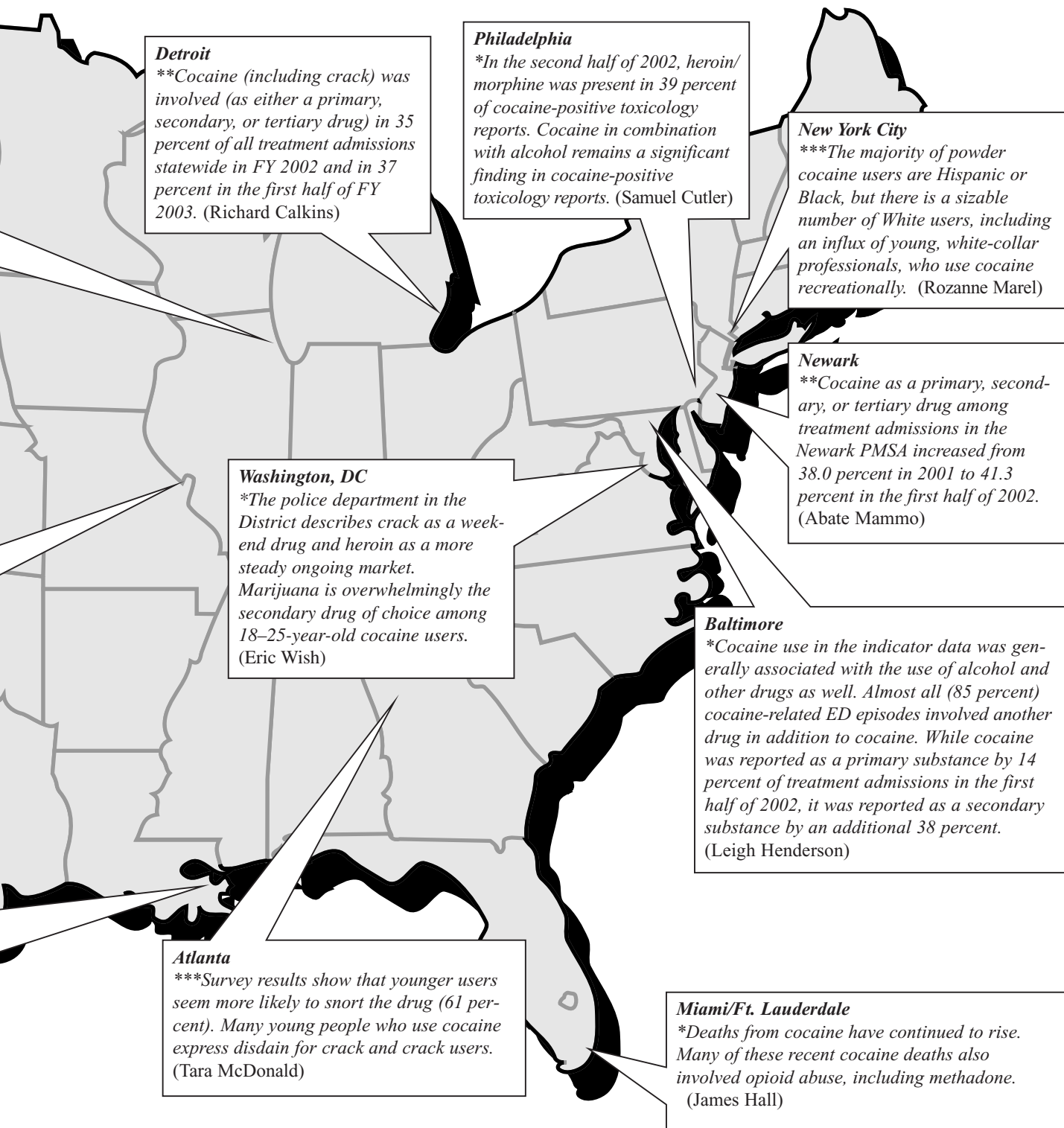
**St. Louis**  
*\*Polydrug use is evident among cocaine/crack abusers in St. Louis. The reported use of marijuana, heroin, and methamphetamine, in addition to cocaine, suggests this trend is likely to continue. (Heidi Israel)*

**Texas**  
*\*In Dallas, “one and one” packages of heroin and cocaine have returned. They were commonly sold on the streets through the mid-1990s, then were rarely seen until recently. “One and one” packages encourage the use of speedballs. (Jane Maxwell)*

**New Orleans**  
*\*Sixty-five percent of the cocaine ED mentions represented patients with multidrug episodes. (Gail Thornton-Collins)*

## COCAINE/CRACK

Cocaine/crack abuse was endemic in almost all CEWG areas in 2002. Rates of ED cocaine mentions in the first half of 2002 were particularly high in Baltimore, Miami, Atlanta, Philadelphia, and Chicago, ranging between 120 and 140 per 100,000 population. Primary cocaine treatment admissions constituted more than 40 percent of illicit drug admissions (excluding alcohol) in seven areas, with the majority being for crack. Between 27 and 29 percent of male arrestees tested cocaine-positive in 14 CEWG areas.



## COCAINE/CRACK ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

### Emergency Department Data on Cocaine/Crack

DAWN rates of ED mentions per 100,000 population were higher for cocaine than for any other drug in 17 CEWG areas. Rates increased significantly between the

second half of 2001 and the first half of 2002 in Baltimore, Denver, Newark, and San Diego, while they decreased in San Francisco and Seattle (exhibit 13).

**Exhibit 13. Rates of Cocaine ED Mentions Per 100,000 Population and Percent Change: 2001–June 2002**

CEWG Area	Rate			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	...	117	<b>127</b>		
Baltimore	112	102	<b>120</b>	17.6	7.6
Boston	64	<b>74</b>	67		
Chicago	<b>142</b>	134	140		
Dallas	<b>31</b>	26	23		
Denver	33	36	<b>47</b>	29.4	43.5
Detroit	<b>101</b>	85	80		
Los Angeles	54	<b>62</b>	48		
Miami	107	118	<b>120</b>		12.5
Minneapolis/St. Paul	18	25	<b>27</b>		51.3
New Orleans	60	<b>63</b>	57		
New York	<b>90</b>	76	80		
Newark	77	75	<b>91</b>	21.9	
Philadelphia	127	125	<b>132</b>		
Phoenix	30	<b>31</b>	31		
St. Louis	63	<b>71</b>	70		
San Diego	<b>18</b>	15	15	3.5	-13.5
San Francisco	78	<b>80</b>	71	-11.1	-9.7
Seattle	78	<b>81</b>	58	-28.2	-25.6
Washington, DC	<b>35</b>	35	29		

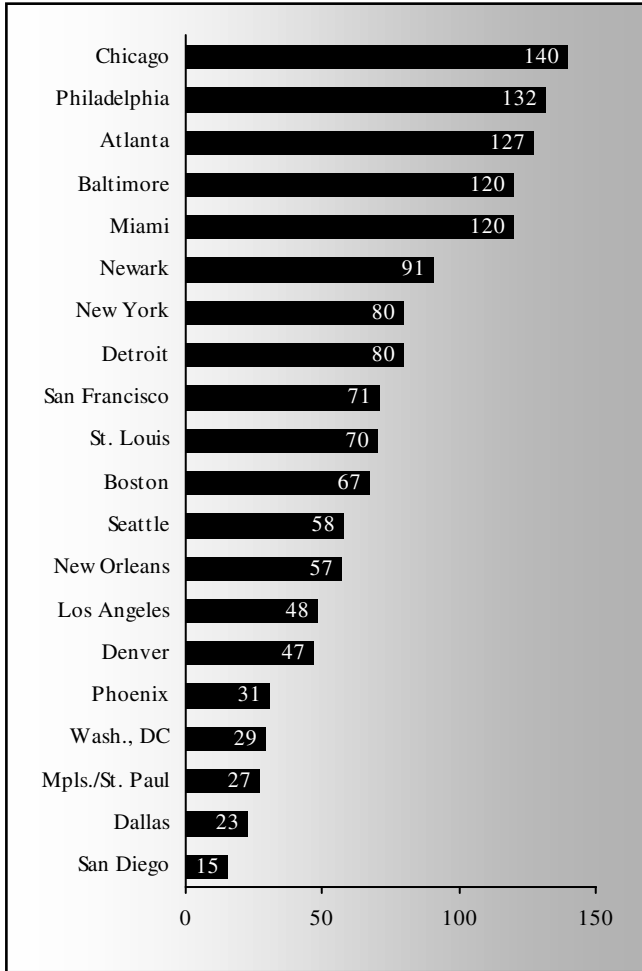
<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

As shown in exhibit 14, rates were highest in Chicago (140), Philadelphia (132), Atlanta (127), Baltimore and Miami (each 120), Newark (91), and Detroit and New York (each 80) in the first half of 2002.

**Exhibit 14. Rates of Cocaine ED Mentions Per 100,000 Population: First Half 2002**



SOURCE: DAWN, OAS, SAMHSA

Rates for cocaine were much higher than those for methamphetamine in west coast areas, including San Francisco (71 vs. 24), Los Angeles (48 vs. 8), Seattle (58 vs. 9), and San Diego (15 vs. 11).

### DAWN Mortality Data on Cocaine

In the DAWN data, cocaine-related death mentions exceeded those for other drugs in 8 of 13 CEWG areas in 2001. Cocaine-involved death mentions peaked in 2001 (from 1999 and 2000) in seven CEWG areas.

In DAWN, cocaine-related death mentions in 2001 were particularly high in Chicago ( $n=514$ ), Baltimore (248), Dallas (185), Newark (148), San Antonio (130), Atlanta (137), Boston (132), Denver (126), San Francisco (106), and New York (101) (exhibit 15).

In Atlanta in 2001, cocaine was the only drug detected in 54 percent of the mentions, as was the case for approximately one-third of the mentions in Chicago, Denver, and Washington, DC. In the other CEWG areas, single-drug deaths involving cocaine ranged from a low of 5 percent in New York (Long Island) to a high of 22 percent in Dallas.

**Exhibit 15. Numbers of Cocaine-Involved Death Mentions in 13 CEWG Areas: 1999–2001**

CEWG Area	1999	2000	2001
Atlanta	172	151	137
Baltimore <sup>1</sup>	303	243	248
Boston	117	118	132
Chicago	511	464	514
Dallas	153	157	185
Denver <sup>1</sup>	82	80	126
New Orleans	82	111	90
New York <sup>1</sup>	94	69	101
Newark	130	137	148
San Antonio	110	126	130
San Diego <sup>1</sup>	74	84	40
San Francisco	158	146	106
Wash., DC	106	107	90

<sup>1</sup>In these sites, 100 percent of the population is covered.  
SOURCE: DAWN, OAS, SAMHSA



## Local Mortality Data on Cocaine

As shown in exhibit 16, cocaine-related deaths reported by local MEs in 2002 were highest in Detroit ( $n=417$ ), Philadelphia (270), Miami (215), and Phoenix (116). Deaths involving cocaine increased from 2000 to 2002 only in Detroit and South Florida areas.

**Exhibit 16. Numbers of Cocaine-Related Deaths Reported by Local MEs in 8 CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Detroit	396	406	<b>417</b>
Honolulu	22	<b>24</b>	23
Miami <sup>1</sup>	184	201	<b>215</b>
Mpls./St. Paul	<b>60</b>	48	45
Philadelphia	<b>321</b>	300	270
Phoenix	<b>167</b>	136	116
St. Louis	<b>66</b>	NR <sup>2</sup>	58
Seattle	<b>89</b>	49	79

<sup>1</sup>Represents Miami-Dade and Broward Counties.

<sup>2</sup>NR = Not reported.

SOURCE: MEs/coroners as cited in CEWG June 2003 reports

## Treatment Data on Cocaine/Crack

Primary cocaine treatment admissions—excluding alcohol admissions—were high in 9 of the 20 CEWG areas reporting treatment data in 2002: Atlanta (58.4 percent), a Miami sample (45.3 percent), New Orleans (42.7 percent), St. Louis and Washington, DC (41.9 percent each), Philadelphia (40.3 percent), Texas (38.7 percent), Detroit (38.6 percent), and Illinois (30.3 percent) (exhibit 17).

The majority of primary cocaine admissions in 2002 were for smoked cocaine (crack) in the 16 sites reporting the route of administration. The highest proportions were in Detroit (94.0 percent), St. Louis (90.8 percent), Los Angeles (86.4 percent), Atlanta (82.9 percent), Minneapolis/St. Paul (82.7 percent), Philadelphia (82.6 percent), San Diego (82.3 percent), Illinois (81.6 percent), Baltimore (77.3 percent), Newark (73.9 percent), Texas (71.6 percent), Washington, DC (61.8 percent), and New York (61.7 percent).

**Exhibit 17. Percentages of Primary Cocaine Treatment Admissions by CEWG Area (Excluding Alcohol): 2000–2002<sup>1</sup>**

CEWG Area/State	Year			% Crack 2002 <sup>2</sup>
	2000	2001	2002	
Atlanta <sup>3</sup>	<b>70.3</b>	68.1	58.4	82.9
Baltimore <sup>3</sup>	15.5	15.1	<b>15.8</b>	77.3
Boston	<b>18.4</b>	16.0	15.0	58.6
Detroit	<b>40.8</b>	38.7	38.6	94.0
Los Angeles	21.6	22.9	<b>23.3</b>	86.4
Miami (sample)	27.0	NR <sup>4</sup>	<b>45.3</b>	NR
Mpls./St. Paul	<b>29.8</b>	26.6	27.2	82.7
New Orleans	33.3	40.0	<b>42.7</b>	NR
New York	28.5	<b>29.3</b>	28.5	61.7
Newark <sup>3</sup>	<b>9.0</b>	7.0	6.8	73.9
Philadelphia	<b>48.1</b>	39.6	40.3	82.6
St. Louis	44.1	<b>44.3</b>	41.9	90.8
San Diego	<b>13.1</b>	12.1	10.2	82.3
San Francisco	<b>24.2</b>	21.4	23.9	NR
Seattle <sup>3</sup>	21.1	<b>21.9</b>	19.9	NR
Wash., DC	<b>43.7</b>	41.4	41.9	61.8
Colorado	<b>20.7</b>	20.7	20.7	59.9
Hawaii	<b>10.6</b>	8.0	8.5	51.3
Illinois	<b>39.0</b>	31.6	30.0	81.6
Texas	<b>42.5</b>	38.9	38.7	71.6

<sup>1</sup>Represents either fiscal or calendar year.

<sup>2</sup>Represents the percentage of primary cocaine admissions who reported smoking the drug.

<sup>3</sup>Represents only half-year data for 2002.

<sup>4</sup>NR = Not reported.

SOURCES: CEWG June 2003 reports on State and local data; for Washington, DC, TEDS

Trends in admissions from 2000 to 2002 show little change in most CEWG areas since 2000, with increases or declines of less than 4 percentage points. The exceptions were New Orleans, with an increase of approximately 9 percentage points, and Atlanta, Illinois, and Philadelphia, with declines of 12, 9, and 8 percentage points, respectively. (The data reported from Miami and San Francisco are not comparable from 2000 to 2002.)

## Cocaine Use Among Arrestees

In ADAM, nearly one-half of the adult male arrestees in Atlanta (49.4 percent), New York (49.0 percent), and Chicago (47.9 percent) tested positive for cocaine in 2002. The proportions of males test-

ing cocaine-positive were also high in New Orleans (42.4 percent), Philadelphia (38.7 percent), Seattle (38.1 percent), Laredo (36.2 percent), Denver (32.7 percent), San Antonio (32.5 percent), Los Angeles (32.1 percent), Minneapolis (30.8 percent), and Dallas (30.7 percent) (exhibit 18).

**Exhibit 18. Percentages of Adult Male Arrestees Testing Cocaine-Positive in 16 CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Atlanta <sup>1</sup>	48.5	NS <sup>2</sup>	<b>49.4</b> <sup>3</sup>
Chicago	37.0 <sup>3</sup>	40.6 <sup>3</sup>	<b>47.9</b>
Dallas <sup>1</sup>	27.7	30.4	<b>30.7</b> <sup>3</sup>
Denver	<b>35.4</b>	33.8	32.7
Honolulu <sup>1</sup>	<b>15.8</b>	10.8	9.1
Laredo	<b>45.1</b>	35.0	36.2 <sup>3</sup>
Los Angeles	NS	NS	32.1 <sup>3</sup>
Minneapolis	25.7	28.0	<b>30.8</b>
New Orleans	34.8	37.3	<b>42.4</b>
New York	48.8	44.6	<b>49.0</b>
Philadelphia	30.9	36.7	<b>38.7</b> <sup>3</sup>
Phoenix <sup>1</sup>	<b>31.9</b>	27.2	27.1
San Antonio	20.4	29.6	<b>32.5</b>
San Diego	<b>14.8</b>	14.1	12.7
Seattle	31.3	32.0	<b>38.1</b>
Wash., DC	NS	NS	27.5 <sup>3</sup>

<sup>1</sup>In 2002, fourth-quarter data in four sites were not weighted because of absence of census data.

<sup>2</sup>NS = Not sampled or reported.

<sup>3</sup>Represents only partial-year data.

SOURCE: ADAM, NIJ

The percentages of male arrestees testing cocaine-positive increased several percentage points from 2000 to 2002 in San Antonio (12.1 percentage points), Chicago (10.9), Philadelphia (7.8), New Orleans (7.6), Seattle (6.8), Minneapolis (5.1), and Dallas (3.0). Decreases of 5 to 9 percentage points occurred in three sites (Honolulu, Laredo, and Phoenix).

The proportions of adult female arrestees testing cocaine-positive were particularly high in Denver (44.6 percent), New Orleans (42.2 percent), New York (38.9 percent), Washington, DC (38.5 percent), and Phoenix (26.2 percent) (exhibit 19).

**Exhibit 19. Percentages of Adult Female Arrestees Testing Cocaine-Positive in 9 CEWG Areas<sup>1</sup>: 2000–2002**

CEWG Area	2000	2001	2002
Denver	<b>46.9</b>	45.0	44.6
Honolulu	<b>19.4</b>	9.7	9.4
Laredo	22.4	<b>26.5</b>	11.4 <sup>2</sup>
Los Angeles	NS <sup>2</sup>	NS	21.4 <sup>2</sup>
New Orleans	41.1	38.1	<b>42.2</b>
New York	53.0	<b>56.9</b>	38.9 <sup>2</sup>
Phoenix	<b>35.2</b>	31.6	26.2
San Diego	<b>26.1</b>	16.5	21.2
Wash., DC	NS	NS	38.5 <sup>2</sup>

<sup>1</sup>Female data are unweighted.

<sup>2</sup>NS = Not sampled or reported, or represents partial-year data.

SOURCE: ADAM, NIJ

## Forensic Laboratory Analyses of Cocaine

Cocaine was the second most frequently identified drug in the NFLIS system in 2002, accounting for an estimated 31.4 percent of all drugs analyzed.

## Cocaine Seizures

Nationwide in 2002, 61,594 kilograms of cocaine were seized by the DEA, 3.6 percent more than in 2001 and 35.9 percent more than in 1995.

## Cocaine/Crack Availability, Prices, and Purity

Commonly referred to as powder cocaine, cocaine hydrochloride (HCl) was widely available in almost all CEWG areas. Prices remained generally stable in about one-half of the CEWG areas, but they varied within and across the different sites. Gram-quantity cocaine prices in CEWG areas ranged from \$30 (lowest price) in Washington, DC, to \$150 in Chicago (exhibit 20). Kilogram prices ranged from \$14,000 to \$35,000. The purity of the drug, which varied within and across CEWG areas, helps determine the price. Prices for other quantities of powder cocaine also varied by area. “Eightballs” (one-eighth ounce) could be obtained in Phoenix for \$80–\$100, while “bags” cost \$5–\$30 in Newark.

**Exhibit 20. Powder Cocaine Prices and Purity in 19 CEWG Areas: January–June 2003**

CEWG Area	Purity (%)	Gram (Other Quantities)	Ounce	Kilogram
Atlanta	NR <sup>1</sup>	\$100	\$1,100	NR
Boston	NR	\$50–\$100	NR	NR
Chicago	NR	\$50–\$150	\$400–\$800	\$18,500–\$28,000
Denver				
Metro	50–90	NR	\$700–\$1,000	\$18,000–\$20,000
CO Springs	50	\$100–\$125	\$500–\$1,100	\$15,000–\$25,000
Grand Junction	65–85	NR	\$800–\$1,000	\$21,000
Detroit	NR	NR	\$750–\$1,300	NR
Los Angeles	78	\$80 (retail)	\$500–\$600 (retail)	\$14,000–\$17,000 (wholesale)
Miami/Ft. Lauderdale	80	\$40–\$60	NR	\$18,000–\$22,000
Minneapolis	NR	\$100	\$700–\$800	\$22,000
Newark	NR	(\$5–\$30/bag)	NR	NR
New Orleans	NR	\$80–\$150	\$800–\$1,200	\$20,000
New York	NR	(\$20/quarter-ounce)	\$900–\$950	\$22,000–\$30,000
Philadelphia	NR	(\$10–\$20/bag)	NR	NR
Phoenix	NR	(\$80–	\$600–\$800	\$14,000–\$17,000
Tucson	NR	\$100/eightball)	\$500–\$600	\$15,000–\$17,000
		(\$80–		
		\$120/eightball)		
St. Louis	77	\$100–\$125	NR	NR
San Diego	54–90	\$40–\$80	NR	NR
San Francisco	NR	\$60	\$450–\$800	\$16,000–\$21,000
Seattle	NR	\$45–\$100	\$450–\$800	\$14,000–\$28,000
Texas (average)		NR	\$400–\$1,200	\$11,000–\$23,000
Dallas	NR	\$50–\$80	\$650–\$1,000	NR
El Paso	NR	\$50–\$60	NR	NR
Houston	NR	\$60–\$100	\$450–\$800	NR
Laredo	NR	NR	\$400–\$500	NR
San Antonio	NR	NR	\$400–\$600	NR
Washington, DC	NR	\$30–\$80	NR	\$17,500–\$35,000

<sup>1</sup>NR = Not reported.

SOURCE: CEWG June 2003 reports

Just as powder cocaine prices varied across CEWG areas, so too did the prices of crack cocaine in the first half of 2003. Available crack rocks also varied by purity and size. While rocks are generally sold by weight, with the one-tenth gram quantity being common, in Philadelphia they are sold by size, ranging from 3 to 7 millimeters (exhibit 21). In most

CEWG areas, a rock of crack can be purchased for \$10, but in five CEWG areas (Chicago, Miami, Minneapolis, New Orleans, and Philadelphia), rocks sold for as low as \$5. Clear plastic bags or aluminum foil wrappings continued to be the most common methods for packaging crack.

**Exhibit 21. Crack Cocaine Prices in 17 CEWG Areas: January–June 2003**

<b>CEWG Area</b>	<b>Price/Unit</b>
Atlanta	\$900 per ounce
Boston	\$10–\$20 per rock
Chicago	\$5–\$20 per rock/bag \$50–\$150 per gram \$900–\$1,600 per ounce \$18,500–\$28,000 per kilogram
Denver	\$10–\$20 per rock \$900–\$1,000 per ounce
Detroit	\$10–\$50 per rock \$750–\$1,300 per ounce
Los Angeles	\$10 per rock (0.1 gram) \$500–\$1,200 per ounce
Miami/Ft. Lauderdale	\$5–\$20 per 0.1 gram (80 percent pure)
Minneapolis	\$5–\$20 per rock
New Orleans	\$5 per rock \$8,000 per pound \$20,000–\$28,000 per kilogram
New York	\$10 per 0.1 gram \$27–\$45 per gram \$1,000–\$1,500 per ounce
Philadelphia	\$3 per “trey” (3–4 millimeters) \$5 per “ready rock” (4–7 millimeters)
Phoenix	\$20 per rock (1/3 gram) \$400–\$450 per ounce
St. Louis	\$20 per rock \$100–\$250 per gram
San Diego	\$10 per 0.1 gram
San Francisco	\$20–\$50 per rock \$500 per ounce
Texas (average)	\$10–\$100 per rock
Dallas	\$750–\$1,100 per ounce
El Paso	\$830 per ounce
Houston	\$325–\$600 per ounce
San Antonio	\$830 per ounce
Washington, DC	\$80–\$100 per gram

SOURCE: CEWG June 2003 reports

\*In many CEWG areas, heroin injection was reportedly on the rise, while heroin inhalation declined.

\*\*Ethnographic observers and clinicians in several CEWG areas noted new types of heroin users.

\*\*\*Law enforcement data point to the continuing presence of heroin in many CEWG areas.

**San Francisco**

\*\*\*Arrests for heroin-related offenses totaled 6,136 in 2002, 16 percent higher than in 2001. However, the rate of arrests during the first 3 months of 2003 was one-quarter lower than during a similar period of 2002. (John Newmeyer)

**Denver**

\*\*In the Denver metropolitan area, programs are also reporting more White users from suburban areas who are smoking or inhaling heroin because they don't think they can get addicted, and because they are afraid of infectious diseases. However, they also report some conversion to injecting because of the faster and more intense high. (Bruce Mendelson)

# HEROIN

Heroin indicators were relatively stable in 2002, but continued at high levels in Boston, Chicago, Detroit, Newark, Philadelphia, and San Francisco. Primary heroin treatment admissions ranged from 62 to 82 percent of all illicit drug admissions (excluding alcohol) in Baltimore, Boston, and Newark; rates of heroin ED mentions exceeded 100 per 100,000 population in Chicago and Newark; and heroin/opiate-related deaths ranged between 275 and 496 in Philadelphia, Baltimore,

Chicago, and Detroit. DEA data show heroin purity in 2001 was highest in Philadelphia (73 percent pure), and ranged between 56 and 68 percent in New York, Boston, and Newark—all areas where South American and Southwest Asian heroin were widely available.

**Detroit**

*\*\*Among new heroin users are a number of young, affluent, employed females in suburban areas outstate. (Richard Calkins)*

**Boston**

*Heroin deaths and emergency department mentions were stable at high levels, but heroin treatment admissions continued to rise. (Daniel Dooley)*

**New York City**

*\* Since 1998, the proportion of treatment admissions reporting intranasal use declined slightly. Meanwhile, heroin injection increased among heroin admissions, from 32 percent in the second half of 1998 to 37 percent in 2002.*

*\*\* While the majority of heroin users are Black and Hispanic males between 35 and 50 years old, there continue to be young new buyers observed. The SSU reports that young Russian youth in their early teens to twenties are injecting heroin. This has been seen both in the Bronx and Brooklyn. (Rozanne Marell)*

**Newark**

*\*In Newark and the State, the rise in heroin injection among treatment admissions was most pronounced among 18–25-year-olds, but injection among those age 26–34 also increased moderately. This practice has serious implications, potentially increasing HIV and hepatitis C infection rates. (Abate Mammo)*

**Atlanta**

*\*The popularity of injection as the preferred route of administration among Atlanta heroin treatment admissions continues to grow, from 57 percent in the first half of 2001, to 61 percent in the second half, and up to 68 percent in the first half of 2002.*

*\*\*In recent reporting periods, the biggest change has been the growth in the proportion of Hispanic heroin treatment admissions, which reached 4 percent in the first half of 2002. This is the largest proportion of Hispanic admissions for any drug. (Tara McDonald)*

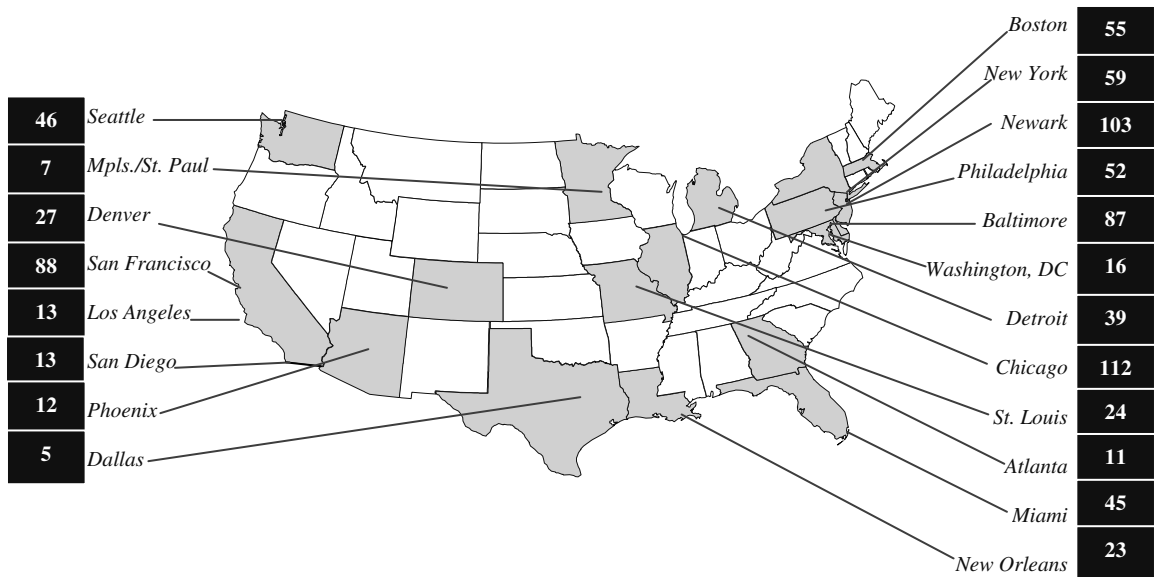
## HEROIN ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

### Emergency Department Data on Heroin

half of 2002 were in Chicago (112), Newark (103), San Francisco (88), and Baltimore (87) (exhibit 22).

The highest rates of heroin ED mentions per 100,000 population reported by DAWN in the first

**Exhibit 22. Rates of Heroin ED Mentions Per 100,000 Population: First Half 2002**



SOURCE: DAWN, OAS, SAMHSA

Significant decreases in heroin ED rates occurred between the first halves of 2001 and 2002 in six CEWG areas: Baltimore, Dallas, Detroit, Phoenix, San Diego, and Washington, DC (exhibit 23). The only significant increase occurred in Denver. The

most recent (preliminary) decrease in Baltimore continued the downward trend reported from 1999 to 2000. The decrease in Detroit reversed the significant increase reported from 1999 to 2000.

**Exhibit 23. Rates of Heroin ED Mentions Per 100,000 Population and Percent Change: 2001–June 2002**

CEWG Area	Rate			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	<b>12</b>	11		
Baltimore	<b>114</b>	81	87	7.0	-23.4
Boston	57	<b>65</b>	55		
Chicago	106	97	<b>112</b>		
Dallas	<b>8</b>	6	5		-36.1
Denver	20	20	<b>27</b>	35.0	35.9
Detroit	<b>51</b>	42	39		-22.5
Los Angeles	<b>17</b>	17	13		
Miami	41	40	<b>45</b>		
Minneapolis/St. Paul	6	<b>7</b>	7		
New Orleans	<b>23</b>	23	23		
New York	<b>65</b>	62	59		
Newark	<b>108</b>	107	103		
Philadelphia	56	<b>63</b>	52		
Phoenix	13	<b>14</b>	12	-16.0	-10.1
St. Louis	<b>25</b>	...	24		
San Diego	<b>16</b>	13	13		-20.5
San Francisco	87	<b>90</b>	88		
Seattle	43	<b>47</b>	46		
Washington, DC	<b>25</b>	21	16	-22.1	-35.4

<sup>1</sup>These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

Rates of heroin ED mentions were relatively low in the first half of 2002 in six CEWG areas: Dallas (5), Minneapolis/St. Paul (7), Atlanta (11), Phoenix (12), San Diego (13), and Washington, DC (16).

### **DAWN Mortality Data on Heroin/Morphine**

The numbers of DAWN heroin/morphine death mentions in 2001 were highest in Chicago (352),

Baltimore (349), Boston (195), and Newark (177), peaking in Boston over a 3-year period (exhibit 24). In Chicago and Denver, between 22 and 23 percent of the deaths involved only heroin. In the other CEWG areas shown in exhibit 24, there were no single-drug deaths in Atlanta, and between 6 and 16 percent in the other 10.



**Exhibit 24. Numbers of Heroin/Morphine-Involved Death Mentions in 13 CEWG Areas: 1999–2001**

CEWG Area	1999	2000	2001
Atlanta	39	30	17
Baltimore <sup>1</sup>	451	397	349
Boston	168	183	195
Chicago	456	499	352
Dallas	77	94	76
Denver <sup>1</sup>	79	66	77
New Orleans	38	48	37
New York <sup>1</sup>	105	96	96
Newark	128	179	177
San Antonio	77	90	88
San Diego <sup>1</sup>	142	145	111
San Francisco <sup>1</sup>	77	90	88
Wash., DC	95	84	64

<sup>1</sup>In these sites, 100 percent of the population is covered.  
SOURCE: DAWN, OAS, SAMHSA

### Local Mortality Data on Heroin/Morphine

In eight CEWG areas reporting on heroin/morphine-related drug mortality in 2002, the numbers were particularly high in Detroit (496), Philadelphia (275), Southern Florida counties (137), and Phoenix (103) (exhibit 25).

**Exhibit 25. Numbers of Heroin/Morphine-Related Deaths Reported by Local MEs in 8 CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Detroit	473	465	496
Honolulu	22	24	14
Miami <sup>1</sup>	174	194	137
Mpls./St. Paul	58	77	77
Philadelphia	332	316	275
Phoenix	137	103	103
St. Louis	47	36	35
Seattle	89	49	87

<sup>1</sup>Represents Miami-Dade, Broward, and Palm Beach Counties.  
SOURCE: MEs/coroners as cited in CEWG June 2003 reports

### Treatment Data on Heroin

Primary heroin treatment admissions continued to account for large proportions of all admissions (excluding alcohol admissions) in eight areas in 2002: Newark (86.1 percent), Boston (72.6 percent), Baltimore (61.8 percent), Washington, DC (46.9 percent), Detroit (42.7 percent), New York (41.1 percent), San Francisco (40.4 percent), and Los Angeles (38.4 percent) (exhibit 26).

**Exhibit 26. Percentages of Primary Heroin Treatment Admissions by CEWG Area (Excluding Alcohol): 2000–2002<sup>1</sup>**

CEWG Area/State	Year		
	2000	2001	2002
Atlanta <sup>2</sup>	6.6	8.6	10.3
Baltimore <sup>2</sup>	64.3	60.4	61.8
Boston	69.1	74.1	72.6
Detroit	43.4	46.9	42.7
Los Angeles	55.5	46.3	38.4
Miami (sample)	2.0	NR <sup>3</sup>	9.0
Mpls./St. Paul	6.9	6.4	7.1
New Orleans	15.3	18.3	14.6
New York	42.9	43.2	41.1
Newark <sup>2</sup>	83.8	85.9	86.1
Philadelphia	24.1	33.9	29.6
St. Louis	16.4	15.0	13.7
San Diego	14.6	12.3	11.7
San Francisco	54.8	63.0	40.4
Seattle <sup>2</sup>	29.0	23.7	26.6
Wash., DC	44.7	47.0	46.9
Colorado	14.7	13.9	13.5
Hawaii	8.5	5.1	4.7
Illinois	22.8	24.7	23.4
Texas	17.5	16.4	15.9

<sup>1</sup>Represents either fiscal or calendar year.

<sup>2</sup>Represents only half-year data for 2002.

<sup>3</sup>NR = Not reported.

SOURCES: CEWG June 2003 reports on State and local data; for Washington, DC, TEDS

Primary heroin admissions (excluding alcohol admissions) in 2002 were lowest in Hawaii (4.7 percent), Minneapolis/St. Paul (7.1 percent), Miami (9.0 percent), Atlanta (10.3 percent), San Diego (11.7 percent), Colorado (13.5 percent), St. Louis (13.7 percent), New Orleans (14.6 percent), Texas (15.9 percent), and Seattle (26.6 percent).

Comparable data from 18 CEWG areas for 2000 versus 2002 show only one major change—a decrease of 17.1 percentage points in Los Angeles.

### Opiate Use Among Arrestees

The CEWG/ADAM sites reporting the highest percentages of adult male arrestees testing opiate-positive were Chicago (26.0 percent), New Orleans (17.4 percent), Philadelphia (15.9 percent), and New York (15.0 percent) (exhibit 27).

**Exhibit 27. Percentages of Adult Male Arrestees Testing Opiate-Positive in 16 CEWG Areas: 2000–2002**

CEWG Area	2000	2001	2002
Atlanta <sup>1</sup>	2.8	NS <sup>2</sup>	<b>3.4</b> <sup>3</sup>
Chicago	<b>27.0</b> <sup>3</sup>	21.8 <sup>3</sup>	26.0
Dallas <sup>1</sup>	3.0	4.8	<b>6.1</b> <sup>3</sup>
Denver	3.4	<b>5.2</b>	4.0
Honolulu <sup>1</sup>	<b>6.8</b>	3.4	3.5
Laredo	9.9	<b>10.7</b>	6.5 <sup>3</sup>
Los Angeles	NS	NS	5.8 <sup>3</sup>
Minneapolis	3.0	<b>5.4</b>	5.1
New Orleans	15.5	15.6	<b>17.4</b>
New York	<b>20.5</b>	18.7	15.0
Philadelphia	11.8	13.2	<b>15.9</b> <sup>3</sup>
Phoenix <sup>1</sup>	<b>6.6</b>	6.0	5.0
San Antonio	10.2	9.1	<b>11.0</b>
San Diego	6.0	<b>7.6</b>	5.6
Seattle	9.9	<b>10.3</b>	10.0
Wash., DC	NS	NS	9.5 <sup>3</sup>

<sup>1</sup>In 2002, fourth-quarter data in four sites were not weighted because of absence of census data.

<sup>2</sup>NS = Not sampled or reported.

<sup>3</sup>Represents only partial-year data.

SOURCE: ADAM, NIJ

The percentages of male arrestees testing positive for opiates were low in Atlanta, Honolulu, and Denver, ranging from 3.4 to 4.0 percent. The proportions ranged between 5.0 and 5.8 percent in Phoenix, Minneapolis, San Diego, and Los Angeles, with somewhat higher proportions in Dallas (6.1 percent), Laredo (6.5 percent), and Washington, DC (9.5 percent).

There was little change in the percentages of male arrestees testing opiate-positive from 2000 to 2002. The percentage, while low, doubled in Dallas, and increased 4 percentage-points in Philadelphia.

Percentage-point decreases were highest in New York (5.5), Laredo (3.4), and Honolulu (3.3).

Of the nine CEWG sites where adult female arrestees were tested in 2002, 17.9 percent of the women in Washington, DC, tested opiate-positive, as did 14.3 percent of those in Los Angeles, 13.9 percent of those in New York, and 9.2 percent of the women in New Orleans (exhibit 28). Percentage-point decreases from 2000 to 2002 were highest in New York (5.2) and Honolulu (2.4).

**Exhibit 28. Percentages of Adult Female Arrestees Testing Opiate-Positive in 9 CEWG Areas<sup>1</sup>: 2000–2002**

CEWG Area	2000	2001	2002
Denver	<b>5.8</b>	5.2	5.4
Honolulu	<b>8.3</b>	4.2	5.9
Laredo	6.9	<b>10.2</b>	7.4 <sup>2</sup>
Los Angeles	NS	NS	14.3 <sup>2</sup>
New Orleans	8.5	7.6	<b>9.2</b>
New York	<b>19.1</b>	13.9	13.9 <sup>2</sup>
Phoenix	<b>6.5</b>	6.3	5.2
San Diego	7.5	<b>8.6</b>	5.8
Wash., DC	NS	NS	17.9 <sup>2</sup>

<sup>1</sup>Female data are unweighted.

<sup>2</sup>NS = Not sampled or reported, or represents partial-year data.

SOURCE: ADAM, NIJ

### Forensic Laboratory Analyses of Heroin

Heroin was the fourth most frequently identified drug in the NFLIS in 2002, accounting for an estimated 6.3 percent of all drugs analyzed.

### Heroin Seizures

In 2002, the DEA seized 705 kilograms of heroin, considerably less than the 876 kilograms seized in 1995.

### Heroin Availability, Prices, and Purity

Heroin continued to be readily available in almost all CEWG areas in the first half of 2003. Black tar heroin, and to a lesser extent brown powdered heroin, continued to predominate in areas west of the Mississippi River, although Colombian traffickers reportedly are trying to expand into the Dallas and

Los Angeles markets. While Middle Eastern and Southeast Asian heroin were detected in Detroit, white powdered heroin, most often from Colombia, remained the distinct type available in areas east of the Mississippi River.

Prices for heroin were generally stable, but increases were noted in Chicago and San Francisco. Small price declines occurred in Dallas, Minneapolis, and San Diego. Heroin prices in the first half of 2003 depended on the type, availability, packaging, and geographic location (exhibit 29). In most areas, common street units were bags priced at around \$10. Gram prices ranged from \$25 (Seattle) to \$600 (New Orleans, St. Louis).

While bags continued to be the most common form of packaging, other types of packages were also reported, including aluminum foil, paper called “bindles,” and caps or capsules (in Texas).

Heroin dealers in Baltimore market their product under brand names, and dealers and users agree that a heroin overdose is the best advertisement for selling the drug. Once heroin addicts learn of an overdose, they make a concerted effort to obtain the same “brand” of heroin that caused the overdose, believing that it must be “some great dope.” Many of the brand names have an association with death or killing, usually something that is commonly known to the community, such as “death row” or “Tupac.”

DEA laboratory analyses confirmed that recent heroin exhibits in Chicago came predominantly from South America and Southwest Asia, but Southeast Asian and Mexican varieties were also available. Southwest Asian heroin, which became more available in recent years, tends to have the highest purity levels on average.

Mexican heroin continues as the heroin of choice among users in Los Angeles County. The lack of China white on the streets is related, in part, to local users’ preference for black tar. Los Angeles is, however, a major transshipment center for the distribution of Southeast Asian heroin to east coast cities. According to the Los Angeles High Intensity Drug Threat Assessment report, the Los Angeles metropolitan area has one of the largest Middle Eastern populations in the United States and Southwest Asian opium trafficking activities have increased in the area. Southwest Asian opium has a wholesale cost of \$25,000 for a kilogram and \$650–\$800 for an 18-gram stick.

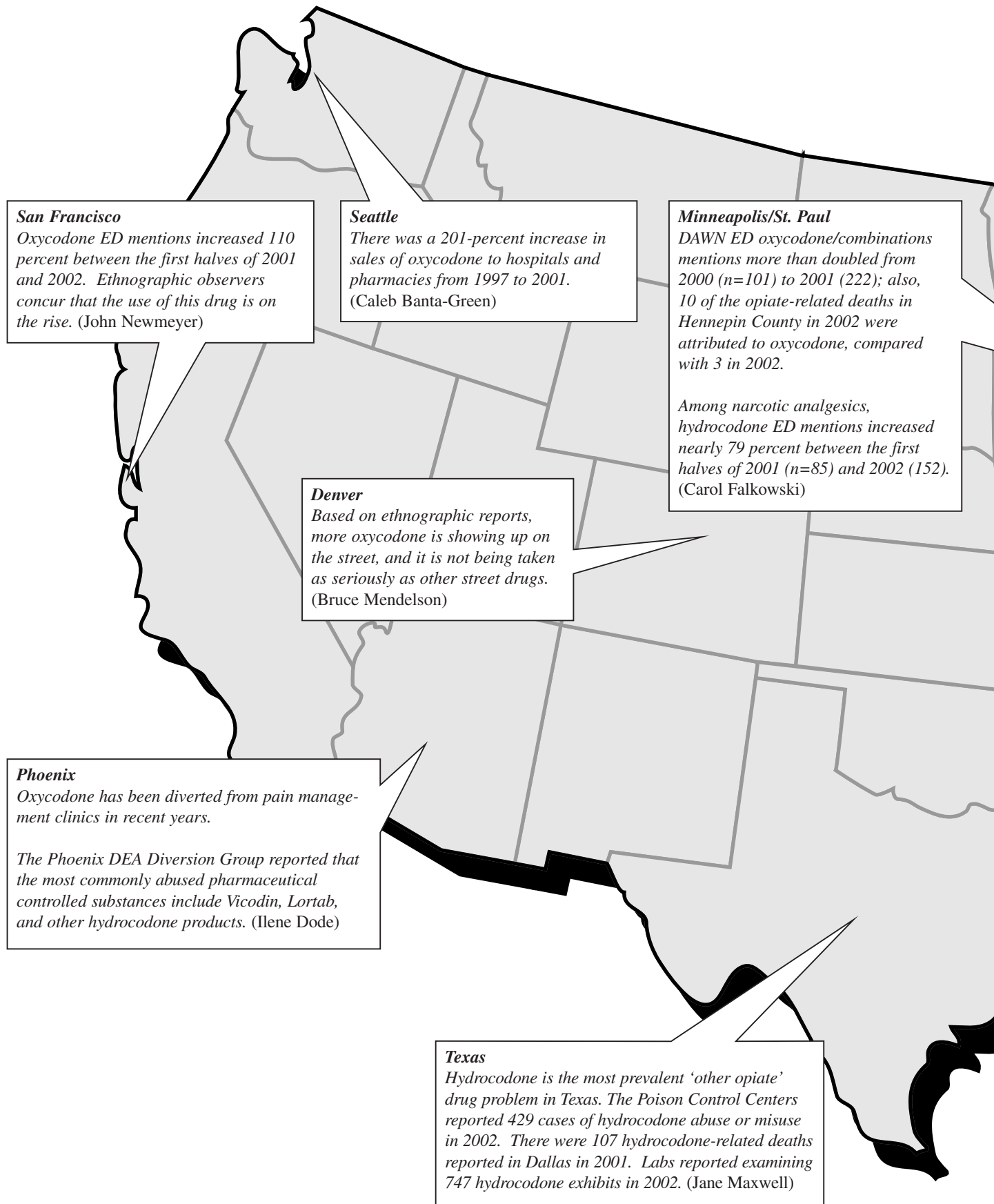
In Phoenix, it was reported that one purchase of brown heroin had the appearance of dirt or cocoa powder and was wrapped in plastic. The plastic had been dipped in mechanic’s grease or petroleum grease and then wrapped with duct tape. It was also reported that black tar was smuggled into the United States from Burma.

**Exhibit 29. Heroin Prices and Purity in 19 CEWG Areas: January–June 2003**

CEWG Area	Purity (%)	Price/Common Street-Level Unit	Milligram/Gram	Ounce	Kilogram
Atlanta	NR <sup>1</sup>	\$10, \$20 bags	\$462/gram	\$6,160	\$112,000
Baltimore	24	NR	\$0.33 per milligram pure	NR	NR
Chicago	19	\$5, \$10, \$20/bag \$100 per 12 “dime” bags	\$125–\$200/gram (white) \$60–\$150 (brown, black tar)	\$1,500–\$3,000 (white) \$900–\$2,000 (brown, black tar)	\$65,000 (white) \$15,000 (brown)
Denver Metro	20, avg. Mexican heroin	NR	\$100–\$150/gram	\$1,500–\$3,000	NR
CO Springs		NR	\$75–\$300/gram	\$1,800–\$3,500	NR
Detroit	23–57 South American, 60 avg. Middle Eastern	\$10 packets (“hits”); \$75–\$100 bundles of 10 hits	NR	NR	NR
Honolulu	NR	\$50 per 0.25 gram	\$200/gram	\$5,000	NR
Los Angeles	3–48, avg. is 16	NR	\$90–\$100/gram (black tar)	NR	\$19,200–\$23,200 (wholesale black tar); \$24,000–\$34,000 (wholesale brown); \$86,000–\$100,000 (wholesale Colombian, 94 percent pure)
Miami/Ft. Lauderdale	17–23 street level	\$10 per 0.1 gram (20% pure)	NR	NR	\$75,000 (70–95% pure)
Minneapolis	60+ in some samples	\$10–\$50 per dosage unit (“paper”)	\$300–\$400/gram	\$900–\$2,000	NR
New Orleans	36	NR	\$3.74 per milligram pure \$300–\$600/gram	\$4,000–\$9,000	\$80,000–\$100,000
New York	56	\$10 per packet (0.1 gram)	\$0.94 per milligram pure	NR	\$40,000–\$80,000 (Southeast Asian); \$65,000–\$80,000 (South American); \$65,000–\$140,000 (Southwest Asian)
Newark	68	NR	\$0.33 per milligram pure	NR	NR
Philadelphia	63.5	\$10 bag (1 “hit”) \$5–\$20 bags available	\$0.40 per milligram pure	NR	NR
Phoenix	45	\$20 per “20”/“BB” (80–100 milligrams) \$20 per “paper” (0.25 gram)	\$80/gram (Phoenix) \$60–\$110/gram (Tucson)	\$950–\$1,000 (Phoenix) \$1,075–\$1,300 (Tucson)	\$42,000–\$50,000 (Phoenix) \$43,000 (Tucson)
St. Louis	15, average	\$40 per “bindle”	\$3.98 per milligram pure \$250–\$600/gram	NR	NR
San Diego	14–70	\$5–\$15 (0.2–0.5 grams)	\$60/gram	\$600–\$1,200 (black tar)	NR
San Francisco	10	\$60 per gram	\$0.43 per milligram pure	\$850 (Mexican black tar)	\$16,000–\$30,000 (Mexican black tar)
Seattle	NR	NR	\$25–\$100/gram (black tar)	\$450–\$900	\$11,500–\$20,000
Texas (black tar)	NR	NR	\$100–\$250 per gram	\$800–\$4,800	\$35,000–\$50,000
Dallas	NR	NR	NR	\$800–\$2,000	\$35,000–\$50,000
El Paso	NR	\$10–\$20 per capsule	\$100 per gram	\$1,000–\$1,500	NR
Houston	NR	\$10–\$20 per capsule	NR	\$1,000–\$2,500	NR
Laredo	NR	NR	NR	\$1,200–\$1,400	NR
San Antonio	NR	NR	NR	\$1,800–\$3,100	NR

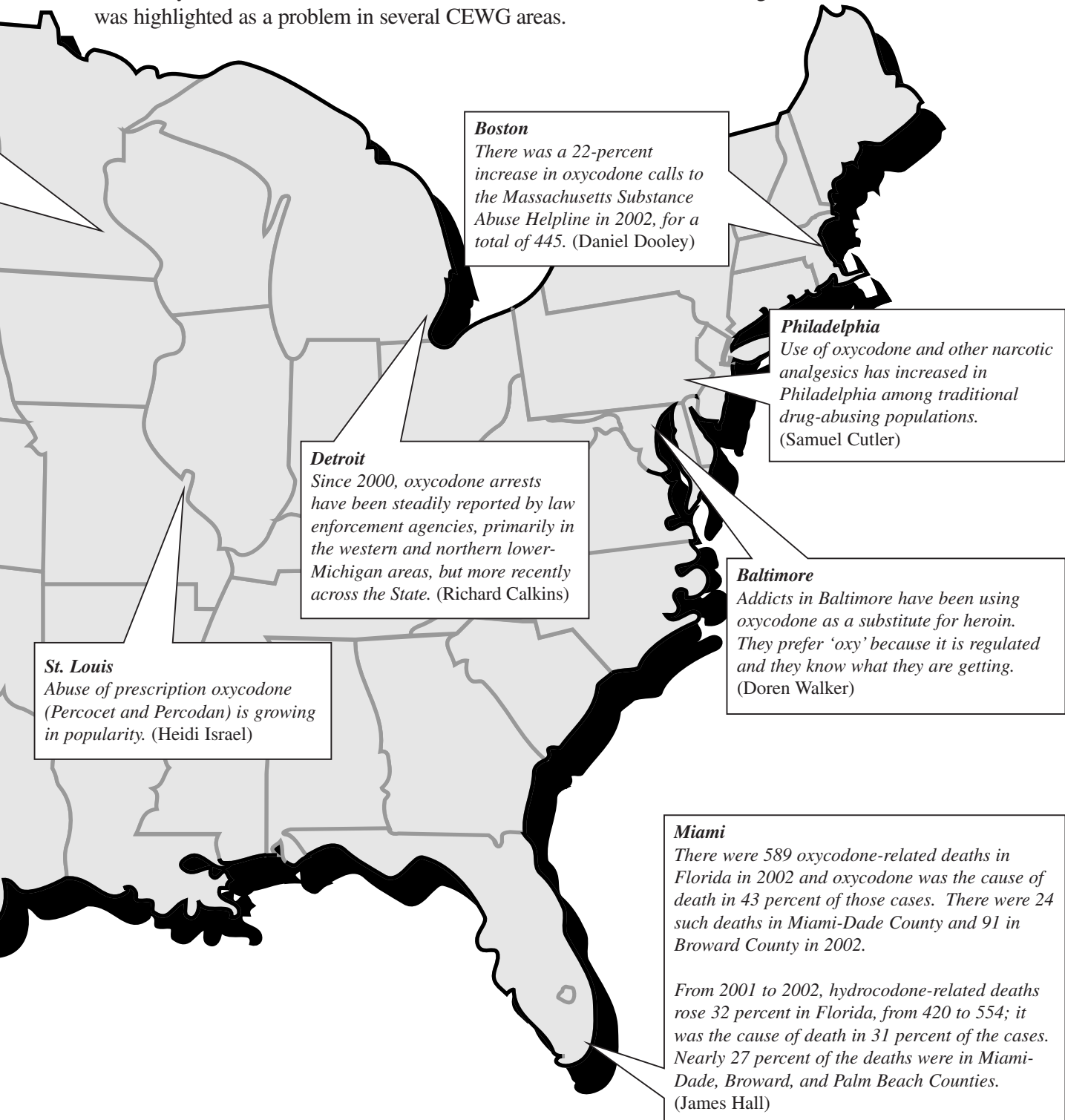
<sup>1</sup> NR = Not reported.

SOURCE: CEWG June 2003 reports



## OTHER OPIATES/NARCOTICS

Opiates/narcotics (excluding heroin) appear increasingly in major drug indicator data, particularly hydrocodone and oxycodone products. Increases in oxycodone indicators were reported in 12 CEWG areas. Several CEWG members reported on the increasing popularity of oxycodone products. Increases in DAWN ED mentions occurred in 12 CEWG areas from the first half of 2001 to the first half of 2002, with 7 being statistically significant; deaths specifically related to oxycodone were reported in two areas; and there were increased calls to a poison control center in another. Hydrocodone, often used in combination with alcohol and other drugs, was highlighted as a problem in several CEWG areas.



## OTHER OPIATES/NARCOTICS ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

Opiates/narcotics (excluding heroin) appear increasingly in major drug indicator data, particularly hydrocodone and oxycodone products. Methadone, associated with an increase in deaths, was a concern addressed by a special panel at the June 2003 CEWG meeting (see pages 58–62).

### Emergency Department Data on Other Opiates/Narcotics

Preliminary DAWN ED data for the first half of 2002 show that the rate of narcotic analgesics/combinations

mentions per 100,000 population was 2–7 times higher in Baltimore than in other CEWG areas (exhibit 30). Also, the rate (83) in Baltimore increased significantly from the rate (50) in the first half of 2001. The first-half 2002 rates ranged between 41 and 43 in Boston and Detroit, and between 32 and 39 in Chicago, Newark, Phoenix, Philadelphia, New Orleans, and Seattle. Newark experienced a significant increase and Seattle a significant decrease between the first halves of 2001 and 2002. The first-half 2002 rates are depicted graphically in exhibit 31.

**Exhibit 30. Rates of Narcotic Analgesics/Combinations ED Mentions Per 100,000 Population and Percent Change: 2001–June 2002**

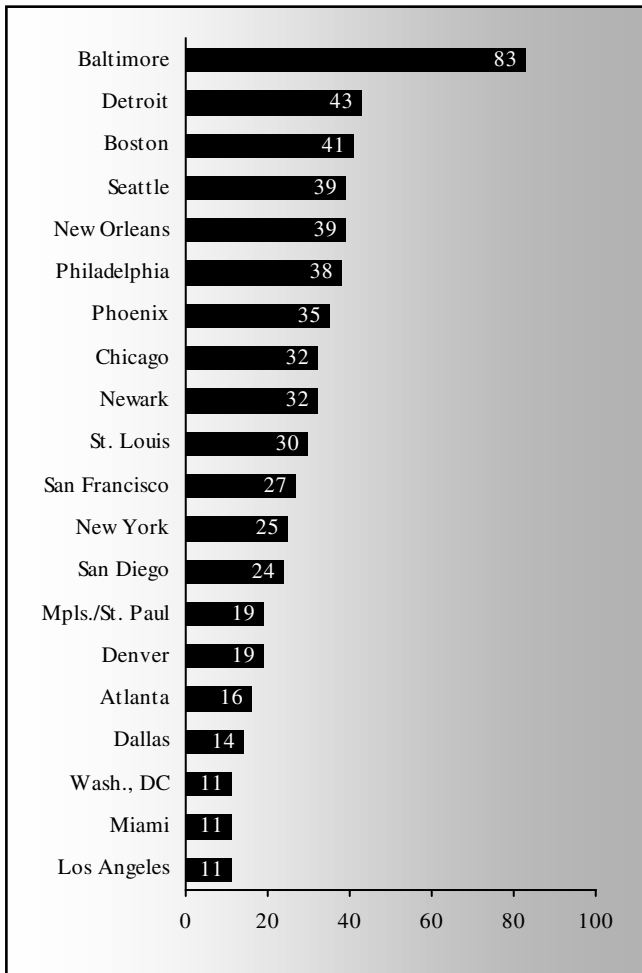
CEWG Area	Rate			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	12	16		...
Baltimore	50	64	83	30.4	66.9
Boston	36	45	41		
Chicago	27	37	32		
Dallas	14	15	14		
Denver	21	20	19		
Detroit	31	38	43		
Los Angeles	12	13	11		
Miami	9	12	11		
Minneapolis/St. Paul	18	19	19		
New Orleans	38	36	39		
New York	20	21	25		
Newark	22	21	32	51.5	43.8
Philadelphia	35	32	38		
Phoenix	30	33	35		
St. Louis	22	27	30		
San Diego	26	26	24	-5.5	
San Francisco	26	27	27		
Seattle	56	64	39	-39.8	-30.7
Washington, DC	13	14	11		

<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

**Exhibit 31. Rates of Narcotic Analgesics/Combinations ED Mentions Per 100,000 Population: First Half 2002**



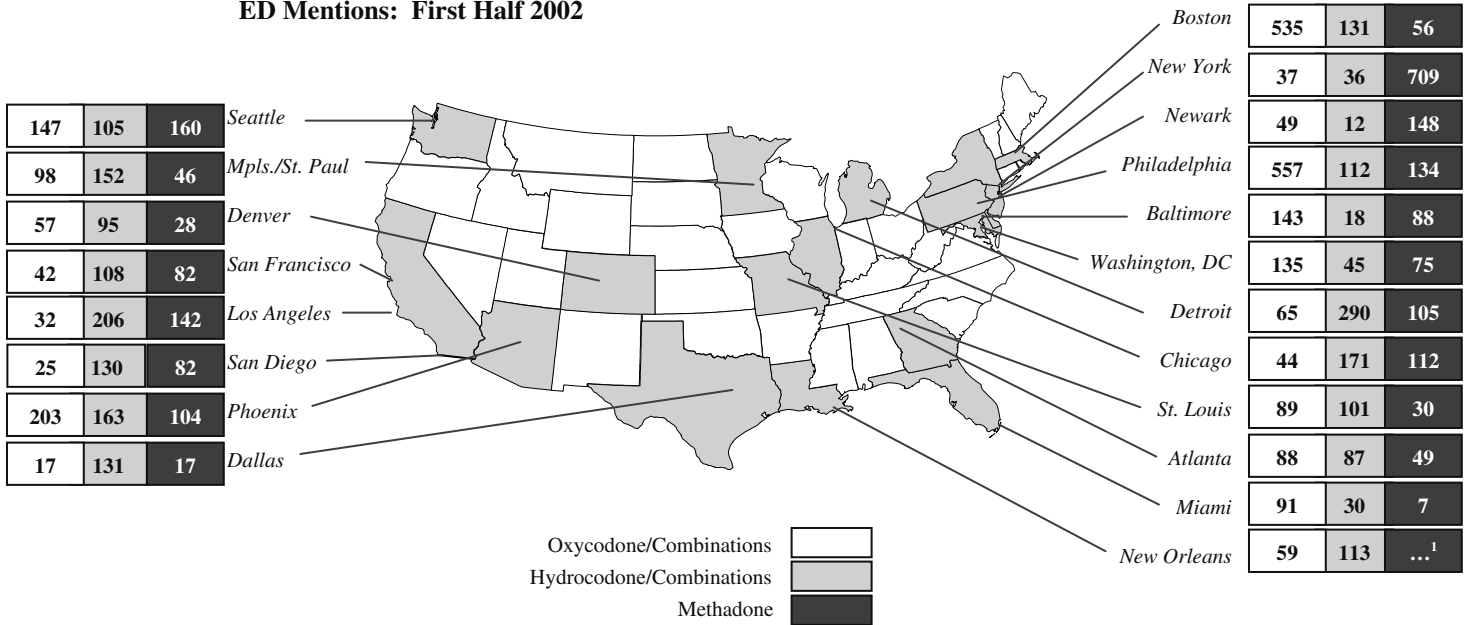
SOURCE: DAWN, OAS, SAMHSA

The ED rate for narcotic analgesics/combinations in Phoenix exceeded the rate for all other drugs. In seven other CEWG areas—Atlanta, Dallas, Detroit, Minneapolis/St. Paul, New Orleans, St. Louis, and San Diego—rates of narcotic analgesics/combinations exceeded rates for heroin ED mentions.

The numbers of ED mentions for oxycodone, hydrocodone, and methadone in the first half of 2002 are depicted in the map in exhibit 32. As shown, oxycodone/combinations ED mentions were highest in Philadelphia ( $n=557$ ) and Boston (535). Significant increases in the numbers of oxycodone/combinations ED mentions from the first half of 2001 were reported in Baltimore, Chicago, Detroit, Miami, Phoenix, San Francisco, and Seattle (exhibit 33). A significant decrease was reported only for San Diego.



**Exhibit 32. Numbers of Oxycodone/Combinations, Hydrocodone/Combinations, and Methadone ED Mentions: First Half 2002**



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

**Exhibit 33. Oxycodone/Combinations ED Mentions and Percent Change: 2001–June 2002**

CEWG Area	Number			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	85	88		
Baltimore	103	100	143	43.0	38.8
Boston	424	524	535		
Chicago	19	31	44		131.6
Dallas	8	34	17		
Denver	52	66	57		
Detroit	14	31	65	109.7	364.3
Los Angeles	...	21	32		
Miami	69	103	91		31.9
Minneapolis/St. Paul	102	120	98		
New Orleans	65	59	59		
New York	42	46	37		
Newark	49	45	49		
Philadelphia	537	525	557		
Phoenix	135	188	203		50.4
St. Louis	68	85	89		
San Diego	29	27	25		- 13.8
San Francisco	20	35	42	20.0	110.0
Seattle	109	145	147		34.9
Washington, DC	177	173	135		

<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

In the first half of 2002, hydrocodone/combinations ED mentions were highest in Detroit (290) and Los Angeles (206), although neither changed significantly from the 2001 testing periods (exhibit 34). In 11 CEWG areas, hydrocodone/combinations ED mentions

ranged between 101 and 171; there were significant increases in Denver, Minneapolis/St. Paul, San Francisco, and Seattle, and significant decreases in San Diego and Washington, DC, between the first halves of 2001 and 2002.

**Exhibit 34. Hydrocodone/Combinations ED Mentions and Percent Change: 2001–June 2002**

CEWG Area	Number			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	...	87	87		
Baltimore	20	26	18	-30.8	
Boston	93	115	131		
Chicago	150	190	171		
Dallas	186	189	151	-20.1	
Denver	67	70	95	35.7	41.8
Detroit	219	264	290		
Los Angeles	251	185	206		
Miami	21	23	30	30.4	
Minneapolis/St. Paul	85	103	152	47.6	78.8
New Orleans	134	76	113		
New York	47	50	36		
Newark	12	9	12		
Philadelphia	109	99	112		
Phoenix	184	183	163		
St. Louis	96	108	101		
San Diego	165	129	130		-21.2
San Francisco	81	107	108		33.3
Seattle	92	99	105		14.1
Washington, DC	63	...	45		-28.6

<sup>1</sup> These columns denote statistically significant ( $p < 0.05$ ) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

In the first half of 2002, methadone ED mentions were much higher in New York than any other CEWG site, at 709 (exhibit 35). Seven other areas had between 104 and 160 methadone ED mentions—Phoenix, Detroit, Chicago, Philadelphia, Los Angeles,

Newark, and Seattle. Note in exhibit 35 that the numbers of methadone ED mentions decreased significantly in eight CEWG areas in one or both of the time periods tested. ED mentions increased in three areas and remained stable in nine.

**Exhibit 35. Methadone ED Mentions and Percent Change: 2001–June 2002**

CEWG Area	Number			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	<b>75</b>	49	-34.7	...
Baltimore	72	78	<b>88</b>	12.8	22.2
Boston	51	<b>70</b>	56		
Chicago	<b>179</b>	177	112	-36.7	-37.4
Dallas	30	<b>37</b>	17		
Denver	<b>112</b>	65	28	-56.9	-75.0
Detroit	68	101	<b>105</b>		
Los Angeles	143	<b>225</b>	142	-36.9	
Miami	<b>12</b>	8	7		-41.7
Minneapolis/St. Paul	<b>70</b>	52	46		-34.3
New Orleans	...	<b>33</b>	...		
New York	616	622	<b>709</b>		
Newark	79	78	<b>148</b>	89.7	87.3
Philadelphia	55	62	<b>134</b>	116.1	143.6
Phoenix	128	<b>164</b>	104		
St. Louis	41	<b>57</b>	30		
San Diego	71	<b>95</b>	38	-60.0	-46.5
San Francisco	80	<b>85</b>	82		
Seattle	303	<b>305</b>	160	-47.5	-47.2
Washington, DC	44	<b>75</b>	75		

<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

One factor likely to be associated with the high numbers of methadone mentions in New York and Newark is the relatively high numbers of clients treated with methadone in these metropolitan areas.

The rate for Newark increased more than 84 percent between the first halves of 2001 and 2002, while the rate in New York remained unchanged (exhibit 35). The next highest rates were in Seattle (7) and San Francisco (5), with Seattle showing a significant decrease.

### DAWN Mortality Data on Narcotic Analgesics

In the 20 CEWG areas included in the DAWN mortality system in 2001, the number of narcotic analgesic-related death mentions exceeded those for cocaine, heroin/morphine, marijuana, and methamphetamine in 11: Boston, Detroit, Minneapolis/St. Paul, New Orleans, Newark, Philadelphia, Phoenix, St. Louis, San Diego, San Francisco, and Seattle.

In the 20 CEWG areas included in the DAWN ME data, narcotic analgesics-related deaths peaked in 2001 in 11 (exhibit 36). The highest numbers were reported for Philadelphia (466), Detroit (354), Phoenix (261), Boston (206), New Orleans (200), Newark (190), and Baltimore and San Diego (each 164).

**Exhibit 36. Numbers of Narcotic Analgesics-Involved Death Mentions in 20 CEWG Areas: 1999–2001**

CEWG Area	1999	2000	2001
Atlanta	52	<b>89</b>	85
Baltimore <sup>1</sup>	122	147	<b>164</b>
Boston	74	118	<b>206</b>
Chicago	<b>175</b>	171	142
Dallas	61	101	<b>115</b>
Detroit	284	298	<b>354</b>
Denver <sup>1</sup>	71	64	<b>106</b>
Miami <sup>1</sup>	54	<b>126</b>	110
Mpls./St. Paul	37	47	<b>77</b>
New Orleans	124	118	<b>200</b>
New York <sup>1</sup>	69	73	<b>98</b>
Newark	44	75	<b>190</b>
Philadelphia	376	<b>503</b>	466
Phoenix	291	<b>318</b>	261
St. Louis	65	77	<b>78</b>
San Antonio	90	<b>95</b>	90
San Diego <sup>1</sup>	137	<b>179</b>	164
San Francisco <sup>1</sup>	<b>198</b>	164	124
Seattle	43	75	<b>85</b>
Wash., DC	55	<b>72</b>	70

<sup>1</sup> In these sites, 100 percent of the population is covered.  
SOURCE: DAWN, OAS, SAMHSA

In the 2001 DAWN mortality data, several narcotic analgesics ranked in the top 10 most frequently reported drugs in CEWG areas. Codeine was in the top 10 drugs in 18 areas, methadone in 16, hydrocodone in 10, and oxycodone in 11 (exhibit 37). In 2 CEWG areas, propoxyphene ranked among the top 10 drugs: Philadelphia (*n*=72 mentions) and New Orleans (24).

**Exhibit 37. Narcotic-Type Drugs Ranking in the DAWN ME Top 10 Most Frequently Mentioned Drugs: 2001**

CEWG Area	Codeine	Methadone	Hydrocodone	Oxycodone
Atlanta	— <sup>1</sup>	12	11	16
Baltimore <sup>2</sup>	50	<b>52</b>	—	34
Boston	<b>59</b>	12	—	34
Chicago	<b>43</b>	41	16	—
Dallas	28	—	<b>36</b>	—
Denver <sup>2</sup>	13	16	—	<b>23</b>
Detroit	<b>118</b>	47	63	—
Miami <sup>2</sup>	<b>51</b>	—	—	28
Mpls./St. Paul	<b>10</b>	<b>10</b>	8	—
New Orleans	19	<b>37</b>	33	—
New York <sup>2</sup>	—	<b>30</b>	21	—
Newark	<b>77</b>	44	—	18
Philadelphia	<b>113</b>	—	—	88
Phoenix	<b>91</b>	40	—	34
St. Louis	<b>21</b>	18	—	—
San Antonio	20	<b>35</b>	21	—
San Diego <sup>2</sup>	<b>68</b>	—	29	25
San Francisco <sup>2</sup>	<b>47</b>	32	20	—
Seattle	<b>37</b>	<b>37</b>	—	22
Wash., DC	<b>20</b>	15	—	12

<sup>1</sup> A blank indicates that a drug was not in the 10 most frequently mentioned; it does not signify zero mentions.

<sup>2</sup> In these sites, 100 percent of the population is covered.  
SOURCE: DAWN, OAS, SAMHSA

Codeine-related death mentions were highest in Detroit (118), Philadelphia (113), Phoenix (91), Newark (77), and San Diego (68). Codeine mentions ranged between 10 and 59 in 13 CEWG areas. Atlanta and New York were the only CEWG sites where codeine did not rank among the top 10 drugs.

Methadone-related death mentions were highest in Baltimore (52), Detroit (47), Newark (44), Chicago (41), Phoenix (40), New Orleans and Seattle (each 37), San Antonio (35), San Francisco (32), and New York (30). Methadone mentions ranged between 10 and 18 in 6 CEWG areas. Methadone was not in the top 10 ranked drugs in Dallas, Miami, Philadelphia, and San Diego.

Hydrocodone-related death mentions were highest in Detroit (63), Dallas (36), and New Orleans (33). The number of mentions ranged between 20 and 29 in 4 areas and between 8 and 16 in 3. The 10 CEWG areas where hydrocodone did not rank in the top 10 drugs are depicted in exhibit 37.

Oxycodone-related death mentions in Philadelphia DAWN were more than double those in 9 other CEWG areas, at 88 in 2001. Next highest were Baltimore, Boston, and Phoenix, at 34 mentions. Mentions ranged between 12 and 28 in 7 CEWG areas. Oxycodone was not among the top 10 drugs in Chicago, Dallas, Detroit, Minneapolis/St. Paul, New Orleans, New York, St. Louis, San Antonio, and San Francisco.

### Local Mortality Data on Narcotics/Opiates

Local ME data from five CEWG areas are not totally comparable but, within sites, show increased deaths related to various narcotics or opiates other than heroin.

**Detroit**—Deaths involving hydrocodone and hydrocodone combinations doubled from 2000 to 2002, from 60 to 120. Decedents with codeine positivity in Wayne County totaled 241 in 2002, while those with oxycodone positivity totaled 12 in 2002, compared with 10 in 2000.

**Philadelphia**—There were 180 deaths with the presence of methadone, codeine, or oxycodone in 2002, compared with 104 in 2000.

**Phoenix**—Deaths involving methadone/combined and propoxyphene/other narcotics increased slightly, from 107 in 2000 to 110 in 2002.

**Seattle**—Deaths that involved “other opiates” rose from 49 in 2000 to 78 in 2002.

**South Florida**—In a 3-county area, there were 173 oxycodone-related deaths in 2002, 143 methadone-related deaths, and 112 hydrocodone-related deaths.

### Treatment Data on Other Opiates

“Other opiates” accounted for only small proportions of treatment admissions in CEWG areas reporting these data in 2002. Excluding primary alcohol admissions, the proportions of primary “other opiate” admissions were highest in Texas (5.4 percent), Boston (4.2 percent), Colorado (3.7 percent), New Orleans and Baltimore (each 3.6 percent), Detroit (3.4 percent), Los Angeles (2.2 percent), and Philadelphia (2.1 percent). Such admissions in other CEWG sites accounted for less than 2 percent of total admissions (excluding alcohol) in 2002.

### Forensic Laboratory Analyses of Narcotic Analgesics

NFLIS laboratories identified 16 different narcotic analgesics representing 27,783 items during 2002 (exhibit 38), nearly 3 percent of all items analyzed. Collectively, hydrocodone (34 percent) and oxycodone (31 percent) accounted for a majority of all narcotic analgesics reported; about one-quarter were identified as methadone (8 percent), codeine (7 percent), propoxyphene (5 percent), or morphine (5 percent).

**Exhibit 38. Numbers and Percentages of Total Identified Narcotic Analgesics: 2002**

Narcotic Analgesics	Number	Percent
Hydrocodone	9,563	34.4
Oxycodone	8,660	31.2
Methadone	2,327	8.4
Codeine	1,911	6.9
Propoxyphene	1,526	5.5
Morphine	1,499	5.4
Dihydrocodeine	721	2.6
Hydromorphone	622	2.2
Meperidine	281	1.0
Nalbuphine <sup>1</sup>	261	0.9
Tramadol <sup>1</sup>	238	0.9
Fentanyl	86	0.3
Pentazocine	68	0.2
Buprenorphine	11	<0.1
Butorphanol	8	<0.1
Oxymorphone	1	<0.1
<b>Total</b>	<b>27,783</b>	

<sup>1</sup> Non-controlled narcotic analgesics.  
SOURCE: NFLIS

Across census regions, the highest proportions of hydrocodone were reported in the West (43 percent) and South (40 percent) (exhibit 39). The Northeast reported the highest relative percentages of oxycodone (44 percent) and methadone (21 percent). In the Midwest, 28 percent of narcotic analgesics were reported as oxycodone, 24 percent as hydrocodone, 11 percent as dihydrocodeine (not shown in exhibit), and 10 percent as codeine.

**Exhibit 39. Distribution of Narcotic Analgesics by Region: 2002**

	West	Midwest	Northeast	South
Other	356	1662	359	2945
Codeine	242	506	202	961
Methadone	152	374	727	1074
Oxycodone	30	1489	1054	5237
Hydrocodone	876	1282	630	6775

SOURCE: NFLIS

## PHENCYCLIDINE (PCP) ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

PCP indicators increased in five CEWG areas—Los Angeles, Philadelphia, Phoenix, Washington, D.C., and Texas. Chicago members reported that PCP abuse was largely “steady” in most communities.

### Emergency Department Data on PCP

In the first half of 2001, 6 CEWG areas had more than 73 PCP ED mentions in DAWN, ranging from 74 in Dallas to 542 in Philadelphia.

Rates of PCP ED mentions per 100,000 population increased over time in Philadelphia and Washington, DC, with significant increases between the first halves of 2001 and 2002 (exhibit 40). In the first half of 2002, the rate of PCP ED mentions was highest in Philadelphia (12), followed by Washington, DC (10), Los Angeles (6), Chicago (4), and Dallas and New York (each at 2). The rate in Dallas increased, while the rate in Chicago declined significantly.

**Exhibit 40. Rates of ED PCP Mentions Per 100,000 Population in 6 CEWG Areas<sup>1</sup> and Percent Change: July 1998–June 2002**

CEWG Area	2H98	1H99	2H99	1H00	2H00	1H01	2H01	1H02	Change <sup>2</sup>	
									2H01, 1H02	1H01, 1H02
Philadelphia	6	7	5	5	8	8	9	12		40.9
Los Angeles	4	4	4	5	4	5	6	6		
Wash., DC	2	3	2	4	5	5	7	10		99.8
Chicago	3	5	6	7	9	9	6	4	-29.9	-52.8
New York	1	2	2	2	1	1	1	2		
Dallas	1	2	2	2	3	1	2	2		58.2

<sup>1</sup>Excludes areas with fewer than 74 mentions in the first half of 2002.

<sup>2</sup>These columns denote statistically significant (p<.05) increases and decreases between the time periods noted.

SOURCE: DAWN, OAS, SAMHSA

### Mortality Data on PCP

**Philadelphia**—PCP was the fifth most frequently detected drug in decedents in Philadelphia from 1994 to 2002, totaling 363 cases over that time period.

**Washington, DC**—In 2001, there were 11 PCP-related deaths: 3 in the District and 8 in nearby Prince Georges County, Maryland.

### Treatment Data on PCP

Primary PCP admissions in 2002, like ED mentions, were highest in Washington, DC (4.6 percent, excluding alcohol admissions) and Philadelphia (2.1 percent). In the second half of 2002, PCP in Los Angeles accounted for 1 percent of all treatment ad-

missions, most of whom smoked the drug. Primary PCP admissions in Texas totaled 143 (0.4 percent of illicit drug admissions). Admissions with a primary, secondary, or tertiary problem with PCP in Texas increased from 164 in 1998 to 321 in 2002.

### PCP Use Among Arrestees

Two CEWG members reported on PCP-positive tests among adult male arrestees in ADAM in 2002: Dallas, at 5 percent, and Seattle, at 2 percent.

The DC Pre-Trial Services Agency reported that 14.2 percent of adult arrestees screened in 2002 tested positive for PCP, up dramatically from 2.0 percent in 1998. A similar increase in PCP positives was apparent in juvenile arrestees.

## CLUB DRUG ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

The club drugs covered in this section include MDMA, GHB, gamma butyrolactone (GBL), ketamine, Rohypnol, methylenedioxyethylamphetamine (MDEA), and p-methoxyamphetamine (PMA).

Club drug use has spread beyond the club culture to different populations. MDMA (ecstasy) continues to be the dominant club drug. Data indicators suggest that abuse of club drugs is stable or declining and that use of such drugs as GHB and ketamine is quite low in most CEWG areas.

### Emergency Department Data on MDMA

The number of MDMA ED mentions decreased in 11 CEWG areas from the first and/or second half of 2001 to the first half of 2002, with a significant increase reported only in New Orleans (exhibit 41).

The highest numbers of MDMA ED mentions in the 2002 period were in Philadelphia (84), Miami (79), San Francisco (76), Atlanta (73), Los Angeles (72), and New York (61).

**Exhibit 41. MDMA ED Mentions and Percent Change: 2001–June 2002**

CEWG Area	Number			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	94	73		
Baltimore	46	29	30		-34.8
Boston	63	77	40	-48.1	
Chicago	87	34	39		-55.2
Dallas	37	40	34		
Denver	27	15	20		
Detroit	56	55	...		
Los Angeles	55	87	72		
Miami	102	83	79		-22.5
Minneapolis./St. Paul	37	40	50		
New Orleans	17	17	34	100.0	100.0
New York	95	77	61		
Newark	18	31	21	-32.3	
Philadelphia	85	118	84		
Phoenix	58	38	29		-50.0
St. Louis	13	42	21	-50.0	
San Diego	27	24	15	-37.5	-44.4
San Francisco	86	65	76	16.9	-11.6
Seattle	64	51	38		-40.6
Washington, DC	48	62	43	-30.6	

<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA



There were few GHB ED mentions across CEWG areas in the first half of 2002. The numbers were highest in San Francisco ( $n=82$ ) and Dallas (53). As show in exhibit 42, estimates were suppressed in one

CEWG area in the first half of 2002, and all but one of the significant changes shown in exhibit 42 represent decreases in mentions of GHB.

**Exhibit 42. GHB ED Mentions in CEWG Areas and Percent Change: 2001–June 2002**

CEWG Area	Number			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	... <sup>2</sup>	33	27		...
Baltimore	6	...	6	...	
Boston	20	8	7		-65.0
Chicago	52	53	40		
Dallas	75	53	53		
Denver	10	6	13		
Detroit	22	...	...		
Los Angeles	31	52	...		
Miami	17	16	16		
Minneapolis/St. Paul	26	41	11	-73.2	-57.7
New Orleans	29	43	19	-55.8	
New York	...	...	...	...	
Newark	...	...	...		
Philadelphia	...	56	...	...	
Phoenix	11	8	7		
St. Louis	...	...	3		
San Diego	22	35	28	-20.0	27.3
San Francisco	<b>82</b>	<b>75</b>	<b>82</b>		
Seattle	26	14	7	-50.0	-73.1
Washington, DC	9	7	6		

<sup>1</sup>These columns denote statistically significant ( $p<0.05$ ) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

## DAWN Mortality Data on Club Drugs

The number of DAWN deaths involving club drugs in CEWG areas was small, but peaked in 2001 in 10 CEWG areas over a 3-year period (exhibit 43).

Of the 101 deaths involving club drugs in 2001, only 15 involved a single drug, as reported in 10 of the 20 CEWG areas.

Club drug death mentions in 2001 were highest in Philadelphia (16), Miami (15), and Dallas (11).

**Exhibit 43. Death Mentions Involving Club Drugs<sup>1</sup> in 20 CEWG Areas: 1999–2001**

CEWG Area	1999	2000	2001
Atlanta	6	2	4
Baltimore <sup>2</sup>	3	3	2
Boston	–	1	6
Chicago	3	9	4
Dallas	3	10	11
Denver <sup>2</sup>	–	2	4
Detroit	2	5	5
Miami <sup>2</sup>	5	9	15
Mpls./St. Paul	3	6	–
New Orleans	4	3	7
New York <sup>2</sup>	1	3	4
Newark	1	1	2
Philadelphia	10	7	16
Phoenix	6	6	1
St. Louis	3	2	1
San Antonio	–	–	1
San Diego <sup>2</sup>	5	3	9
San Francisco <sup>2</sup>	6	6	5
Seattle	2	3	3
Wash., DC	–	1	1

<sup>1</sup>Includes MDMA, ketamine, GHB, GBL, and Rohypnol.

<sup>2</sup>In these sites, 100 percent of the population is covered.

SOURCE: DAWN, OAS, SAMHSA

## Local Mortality Data on Club Drugs

**South Florida**—In all of Florida in 2002, there were 126 methylated amphetamine-related deaths; 8 were in Miami-Dade County and 9 in Broward County. State-wide in 2002, there were 19 gamma hydroxybutyrate (GHB)-related deaths; none was in Miami-Dade County, 3 were in Broward County.

**Minneapolis/St. Paul**—MDMA cases totaled six in 2000, eight in 2001, and three in 2002.

**Philadelphia**—MDMA was present in 8 decedents in 2000, 14 in 2001, and 5 in 2002.

**Phoenix**—The Maricopa County ME data included one death in 2002 for each of the following drugs: GHB, MDMA, and ketamine.

**Seattle**—The King County ME reported only one MDMA-related death in 2002—the sixth since 1999. Three GHB-related deaths were reported in 2002—the first reported in the county.

## Treatment Data on Club Drugs

Two CEWG members reported statewide admissions data for 2002:

**Illinois**—“Club drug” admissions totaled 50 in 2002 (the first fiscal year the drugs were tracked); a majority were male (68 percent) and White (74 percent).

**Texas**—Admissions (all ages) with a primary, secondary, or tertiary (PST) problem with MDMA rose from 63 in 1998 to 521 in 2002. In 2002, MDMA was the primary drug for 24 percent of these admissions, with one-third reporting primary marijuana abuse. More than 60 percent of the MDMA (PST) admissions in 2002 were male and White. PST admissions for GHB and related drugs totaled only 2 in 1998, rising to 35 in 2002. In 2002, 34 percent of these PST admissions reported GHB as a primary drug; most other GHB users reported methamphetamine/amphetamine or crack as a primary drug, and 54 percent had a history of injection drug use.

## Forensic Laboratory Analyses of Club Drugs

MDMA was among the top 25 drugs identified in the NFLIS in 2002, but accounted for only an estimated 1 percent of the drugs analyzed.

Of the 12,244 exhibits classified as club drugs in NFLIS during 2002, the vast majority were identified as MDMA (exhibit 44). Overall, more than 3 in 4 club drugs reported (9,421 items) were MDMA. Among the other club drugs reported, 12 percent were identified as ketamine, 6 percent as 3, 4-methylenedioxyamphetamine (MDA), and 4 percent as GHB or gamma butyrolactone (GBL).

**Exhibit 44. Numbers and Percentages of Total Identified Club Drugs: 2002**

Club Drug	Number	Percent
MDMA	9,421	76.9
Ketamine	1,471	12.0
MDA	764	6.2
GHB/GBL	549	4.5
MDEA	35	0.3
PMA	7	0.1
<b>Total</b>	<b>12,247</b>	

SOURCE: NFLIS

High percentages of MDMA were reported in each region, representing 82 percent of club drugs in the South, 74 percent in the West, 72 percent in the Northeast, and 66 percent in the Midwest (exhibit 45). Twenty-five percent of club drugs reported in the Northeast were identified as ketamine, a higher percentage than reported in 2001 (16 percent). The highest relative percentage of MDA continues to be reported in the Midwest (16 percent).

**Exhibit 45. Distribution of Club Drugs by Region: 2002**

	West	Midwest	Northeast	South
GHB/GBL	77	94	15	363
MDA	140	288	50	286
Ketamine	145	244	514	568
MDMA	1036	1210	1467	5708

SOURCE: NFLIS

## BENZODIAZEPINE ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

Benzodiazepine abuse indicators show relatively high rates of ED mentions per 100,000 population in 6 CEWG areas, ranging from 30 in Detroit to 48 in Boston in the first half of 2002. Medical examiner data for 2001 show that benzodiazepines ranked among the top 10 drugs in DAWN death mentions in 8 CEWG areas.

### Emergency Department Data on Benzodiazepines

Rates of benzodiazepine ED mentions in the first half of 2002 were highest in Boston—48 per 100,000

population—followed by Philadelphia (45), St. Louis (37), New Orleans (33), and Baltimore (31) (exhibit 46). The rate increased significantly in Baltimore between the first halves of 2001 and 2002, but decreased in Dallas, San Diego, San Francisco, and Seattle. In Atlanta, Dallas, Phoenix, and San Francisco, rates of benzodiazepine mentions exceeded the rates for marijuana ED mentions, and in Boston and Newark, rates of benzodiazepine ED mentions equaled those for marijuana in the first half of 2002.

**Exhibit 46. Rates of Benzodiazepine ED Mentions Per 100,000 Population and Percent Change: 2001–June 2002**

CEWG Area	Rate			Change <sup>1</sup>	
	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02
Atlanta	...	12	17		
Baltimore	27	32	31		13.6
Boston	46	49	48		
Chicago	22	24	24		
Dallas	22	21	15	-27.3	-30.0
Denver	15	18	13	-27.9	
Detroit	24	33	30		
Los Angeles	11	11	12		
Miami	26	26	26		
Minneapolis/St. Paul	12	15	14		
New Orleans	31	36	33		
New York	12	11	10		
Newark	24	25	25		
Philadelphia	49	46	45		
Phoenix	26	26	29		
St. Louis	27	28	37		
San Diego	28	24	23	-3.4	-15.2
San Francisco	28	24	20	-16.2	-28.6
Seattle	31	33	20	-37.9	-34.0
Washington, DC	10	11	11		

<sup>1</sup> These columns denote statistically significant (p<0.05) increases and decreases between estimates for the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

## Mortality Data on Benzodiazepines

In 8 CEWG areas in 2001, benzodiazepines ranked among the top 10 drugs in DAWN death mentions; these areas appear in boldface type in exhibit 47. Among CEWG areas in DAWN in 2001, Philadelphia reported the highest number of benzodiazepine death mentions, at 235, up from 200 in 1999. Benzodiazepine death mentions exceeded 100 in Detroit ( $n=193$ ), Boston (136), and Miami (112), all at peak levels from 1999, with Boston reporting an increase of more than 800 percent, and Miami an increase of 133 percent. Of the 20 areas shown in exhibit 47, only 10 reported any deaths in which benzodiazepine was the only drug detected; of these 40 “single drug” deaths, 15 occurred in Atlanta, 6 in Boston, and 5 each in Denver and Detroit.

**Exhibit 47. Numbers of DAWN Benzodiazepine Medical Examiner Mentions in CEWG Areas: 1999–2001**

CEWG Area	1999	2000	2001
Atlanta	26	44	<b>45</b>
Baltimore <sup>1</sup>	11	<b>26</b>	26
Boston	15	25	<b>136</b>
Chicago	37	43	<b>47</b>
Dallas	52	<b>73</b>	60
Denver <sup>1</sup>	39	28	<b>55</b>
Detroit	177	189	<b>193</b>
Miami <sup>1</sup>	48	92	<b>112</b>
Mpls./St. Paul	12	<b>24</b>	21
New Orleans	67	<b>78</b>	73
New York <sup>1</sup>	36	31	<b>50</b>
Newark	49	<b>35</b>	33
Philadelphia	200	212	<b>235</b>
Phoenix	95	<b>104</b>	80
St. Louis	<b>65</b>	60	59
San Antonio	48	77	<b>88</b>
San Diego <sup>1</sup>	59	58	<b>81</b>
San Francisco <sup>1</sup>	50	55	<b>56</b>
Seattle	26	<b>33</b>	29
Wash., DC	19	<b>22</b>	19

<sup>1</sup>In these sites, 100 percent of the population is covered.  
SOURCE: DAWN, OAS, SAMHSA

## Forensic Laboratory Analyses of Benzodiazepines

A total of 21,145 items were identified as benzodiazepines during 2002 (exhibit 48). More than one-half of benzodiazepines were identified as alprazolam (e.g., Xanax) and nearly one-quarter as diazepam (e.g., Valium). About 16 percent of benzodiazepines were identified as clonazepam (e.g., Clonopin or Rivotril).

**Exhibit 48. Numbers and Percentages of Total Identified Benzodiazepine Drugs: 2002**

Benzodiazepines	Number	Percent
Alprazolam	11,316	53.5
Diazepam	5,033	23.8
Clonazepam	3,453	16.3
Lorazepam	898	4.25
Temazepam	195	0.9
Chlordiazepoxide	122	0.6
Flunitrazepam	74	0.4
Triazolam	43	0.2
Midazolam	11	0.1
<b>Total</b>	<b>21,145</b>	

SOURCE: NFLIS

The majority of benzodiazepines reported in the Midwest, Northeast, and South were identified as alprazolam (exhibit 49). In the West, 44 percent of benzodiazepines were identified as diazepam, the highest percentage of any region, while nearly one-third in the Northeast were identified as clonazepam.

**Exhibit 49. Distribution of Benzodiazepines by Region: 2002**

	West	Midwest	Northeast	South
Other	36	85	48	276
Lorazepam	84	240	113	461
Clonazepam	225	548	932	1748
Diazepam	452	901	492	3188
Alprazolam	239	1764	1368	7945

SOURCE: NFLIS

## LYSERGIC ACID DIETHYLAMIDE (LSD) ABUSE PATTERNS AND TRENDS ACROSS CEWG AREAS

LSD indicators have been declining sharply in most CEWG areas. This reflects the national trends reported in the National Household Survey on Drug Abuse and Health and the Monitoring the Future study. In recent years, the rate of LSD ED mentions in Atlanta has fallen and the drug is mentioned less and less in ethnographic reports. Chicago also noted decreases in LSD indicators, suggesting a possible downward trend in LSD use in Chicago. The 2001 Miami-Dade School Survey found that only 1.7 percent of students in grades 7–12 reported current use of LSD, down from 3.8 percent in 1995.

The declining trends in LSD abuse are reflected across CEWG areas in the DAWN ED data. As shown in exhibit 50, the estimated numbers of LSD ED mentions decreased significantly between the first halves of 2001 and 2002 in 13 CEWG areas. The pattern over several years has been one of decline in all areas, with the number continuously highest in Los Angeles. However, in Los Angeles, LSD was the only major substance of abuse to show a statistically significant change in ED mentions in the first half of 2002, decreasing 47.5 percent from the first half of 2001.

**Exhibit 50. LSD ED Mentions and Percent Change: July 1998–June 2002**

CEWG Area	Number									Change <sup>1</sup>	
	2H98	1H99	2H99	1H00	2H00	1H01	2H01	1H02	2H01, 1H02	1H01, 1H02	
Atlanta	49	53	32	36	34	...	36	10	-72.2	...	
Baltimore	22	28	25	17	32	22	7	7		-68.2	
Boston	35	25	19	11	31	18	16	...			
Chicago	67	55	83	42	73	58	11	15		-74.1	
Dallas	53	57	48	42	23	38	5	4	-20.0	-89.5	
Denver	35	25	63	27	36	32	11	...		...	
Detroit	22	43	20	18	...	14	...	0		-100.0	
Los Angeles	104	112	117	100	117	118	57	62		-47.5	
Miami	30	24	26	24	31	34	21	22		-35.3	
Mpls./St. Paul	37	42	23	...	31	18	...	10	...		
New Orleans	45	30	47	14	20	12	...	2		-83.3	
New York	42	21	33	51	22	33	30	10	-66.7	-69.7	
Newark	...	14	7	...	5	...	8	...			
Philadelphia	52	56	66	64	40	39	35	7			
Phoenix	59	97	60	58	78	54	8	6		-89.9	
St. Louis	21	36	33	52	21	37	...	18		-51.4	
San Diego	35	25	40	18	29	18	4	3		-83.3	
San Francisco	22	23	32	25	41	34	11	4	-63.6	-88.2	
Seattle	60	58	63	66	41	43	19	5	-73.7	-88.4	
Wash., D.C.	22	41	47	23	22	21	...	4			

<sup>1</sup>These columns represent statistically significant (p<0.05) changes between the time periods noted.

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

SOURCE: DAWN, OAS, SAMHSA

## INFECTIOUS DISEASES RELATED TO DRUG USE

### Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS)

As reported in the December 2002 publication of *Epidemiologic Trends in Drug Abuse Volume I*, the Centers for Disease Control and Prevention (CDC) estimated that 333,881 persons in the United States were living with AIDS and 161,711 were infected with HIV as of December 2001 (CDC HIV Surveillance Report, Volume 13, December 2001). Of the cumulative AIDS cases, 25 percent were attributable to injection drug use, compared with only 17 percent of the cases diagnosed in 2001. The proportion of cumulative cases among men who have sex with men (MSM) and inject drugs was 6 percent, compared with 3 percent of cases diagnosed in 2001.

Of the five CEWG members who reported trend data for AIDS modes of transmission, two noted declines in the proportion of cases related to injection drug use, similar to declines reported by the CDC. In Georgia, for example, injection drug users (IDUs) accounted for 22 percent of cumulative adult cases through 2002 but for only 9.1 percent of cases diagnosed in 2002. In Los Angeles, 16 percent of female AIDS cases diagnosed in 2002 were attributable to injection drug use, a proportion that has been stable since 2000. The proportion in 2002, however, represents a decline from 1996, when 26 percent of female cases diagnosed that year were among IDUs. During that time, the proportion of cases with an “other” or “unknown” mode of transmission increased from 20 to 51 percent.

In contrast to the national CDC data, the proportions of AIDS cases attributable to injection drug use increased in three CEWG areas. Heterosexual IDUs accounted for 15 percent of the people diagnosed with AIDS in San Francisco during the period from 2000 through 2003, up from 10 percent among those diagnosed in 1994–1996. Likewise, in Texas, the proportion of adult and adolescent AIDS cases related to injection drug use increased from 16 percent in 1987 to 27 percent in 2002. Between 1988 and 2001 in Chicago, IDUs as a proportion of AIDS cases increased from 16 to 24 percent, while the proportion of cases among MSM declined from 71 to 42 percent.

Two CEWG members, representing areas on the west coast, reported on non-injection drug use associated with exposure to HIV/AIDS:

#### San Francisco

*Several studies conducted in San Francisco during 2001 confirm a correlation between the use of ‘party’ drugs (speed, Viagra, amyl nitrites) and increased risky sexual activity. (John Newmeyer)*

#### Seattle

*Recent studies conducted by Public Health – Seattle & King County’s STD Clinic indicate that non-injection use of methamphetamine, as well as inhalation of poppers (amyl nitrate), may be significant risk factors for HIV acquisition and transmission among MSM. Among 1,547 MSM who were tested from October 2000 through February 2003, those who reported nitrate use were nearly twice as likely to be HIV-infected, while MSM who reported non-injection use of methamphetamine in the last year were 1.5 times more likely to be infected. These findings are reason for concern and action. Previously reported STD Clinic data showed that use of methamphetamine and ecstasy among local MSM was significantly associated with increased number of sex partners and contracting gonorrhea. Together, these data suggest a need for further study of the role drug use is playing in the sexual transmission of HIV among MSM in the Seattle area, and for HIV prevention interventions that specifically target MSM who use drugs by means other than injection. (Caleb Banta-Green)*

Several CEWG members reported on local HIV/AIDS studies. Findings from studies in Chicago suggest that HIV prevalence and the rate of new HIV infections declined among IDUs in Chicago since peaking in the late 1980s. The findings also suggest that young IDUs, especially those in the suburbs, are engaging in high levels of HIV risk behavior and have avoided HIV infection because they have yet to become integrated into social networks of older IDUs where infection is more common. In San Francisco, semiannual surveys by the Urban Health Study point to a decline in the HIV-positive prevalence of heterosexual IDUs not in treatment.

### Hepatitis B (HBV) and Hepatitis C (HCV)

High levels of HCV were reported among IDUs in five CEWG areas. HCV was present in 86 percent of IDUs in a study conducted in Baltimore City. New initiates to injection drug use were reported to become HCV-positive soon after initiation. HCV infection among IDUs in San Francisco was similarly high; estimates by the health department ranged from

72 to 86 percent. Similar figures were reported in Seattle, where studies show that 85 percent of King County IDUs may be infected with HCV and 70 percent show markers of prior infection with HBV.

An estimated 80–90 percent of all methadone patients in Minneapolis may have HCV. In Phoenix, 65 percent of 150 clients in a local methadone treatment program tested positive for HCV.



## SPECIAL PRESENTATIONS: PANEL ON METHADONE-ASSOCIATED MORTALITY

At the June 2003 meeting, a special panel was convened, based on CEWG members' concern at the December 2002 meeting about reported increases in deaths involving methadone. Highlights from the four panelists' presentations are presented in this section; their complete papers appear in Volume II of the June 2003 Proceedings.

**Alan Trachtenberg, M.D., Center for Substance Abuse Treatment, SAMHSA,** served as panel chair. He noted that there are now more than 200,000 patients being maintained on methadone, primarily a liquid form of the drug. If used appropriately, methadone can also be an excellent drug for treating chronic pain because it has a number of important analgesic properties. Typically, physicians prescribe the drug in 5–10-milligram tablets.

Recently, a number of newspaper stories reported increases in methadone deaths. The Centers for Disease Control and Prevention (CDC) has been tracking these occurrences in some States through its Epidemic Intelligence Service (EIS). Many of these deaths seem to be associated with 5–10-milligram tablets primarily used to treat pain and more are reported from rural areas.

More physicians may be prescribing methadone because it is a long-acting medication with a slow metabolism and kinetics, and it is less costly than other pain medications. However, they may be prescribing it inappropriately, since it differs from other long-acting opioid analgesics. "Equianalgesic" dosages in medical guides/charts can be misleading, because current dose equivalents charts are for acute doses. The dose required to fully relieve pain for 4–6 hours may not be appropriate to initially prescribe for use four times a day. If a patient is not otherwise opioid-tolerant, that dosage can accumulate in the patient's body in the first few days of use and reach a fatal level.

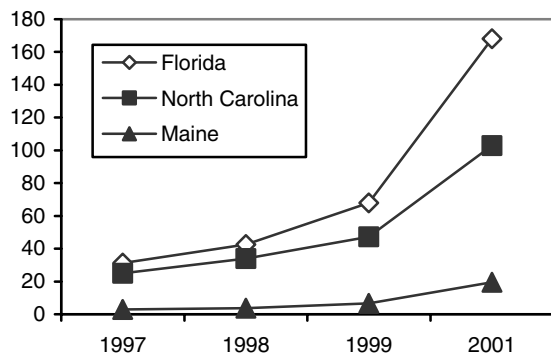
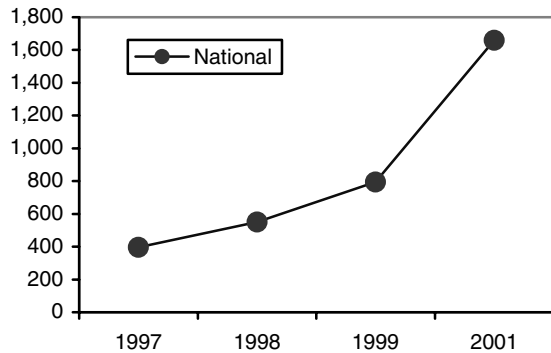
In the past 2–3 years, the "outbreaks" of methadone-associated deaths reported in the popular press are

from rural, or at least non-inner-city areas, such as Florida, Maine, New Mexico, North Carolina, Nevada, and Virginia. There were suggestions that methadone was being used as a substitute for other prescription analgesics. One non-inner-city "outbreak" of drug-associated deaths in North Carolina, analyzed from 1997 to 2001, was reviewed by the CDC's EIS program in coordination with the State's injury epidemiology program. During that period, there were 2,410 drug-poisoning-related deaths; 55 percent were classified as unintentional overdoses. A recent update shows that the number of deaths associated with methadone increased fivefold from 1997 through 2001, with a total of 198 cases. The source of methadone was documented in one-half of the cases, and private-physician-prescribed methadone was implicated in three-quarters of those, with the remainder obtained illicitly (e.g., prescribed to a relative/friend, obtained at a party, or "street purchase"). Only 4 percent of decedents were participants in an opioid treatment program (OTP) at time of death, and those programs were considered an unlikely source of the methadone involved in any fatalities. During the time period examined, there was a fourfold increase in methadone sold through retail outlets (pharmacies or hospitals) in the State, while the amount distributed via OTPs increased only 2.6-fold.

Toxicologists have reported that many decedents found with methadone in their system were apparently first-time users who had not built up a tolerance to the drug. Generally, more than one drug was identified in these cases. Toxicologists and medical examiners also report that overdose deaths are more common among drug-naïve and younger users.

In the Nation, retail (pharmacy) distribution of methadone increased by a factor of 4 from 1997 to 2000, rising from 397 to 1,600 kilograms (exhibit A). From 1997 to 2001, the retail distribution increased from approximately 31 to 168 kilograms in Maine, from 25 to 103 kilograms in North Carolina, and from 3 to nearly 20 kilograms in Maine.

**Exhibit A. Retail (Pharmacy) Distribution of Methadone, by Kilogram: 1997–2001**



SOURCE: DEA Automation of Reports and Consolidated Orders System (ARCOS-2)

In the Food and Drug Administration MedWatch reports from 1970 through 2002, there were many deaths associated with methadone in the mid-1970s (101 in 1974, 197 in 1975, 82 in 1976, and 106 in 1977). After declining to only a few deaths per year, there was another upsurge in methadone-associated deaths in 1982 (73), 1983 (91), and 1984 (89), followed by a steep decline from 1987 to 1999. In 2000, reports of deaths increased to 19; they surged to 61 and 123 in 2001 and 2002, respectively.

There is clearly a need for improved and active surveillance, as well as a need for consensus on case definitions of the different causative or bystander roles that opioids may play in drug-induced and drug-related deaths.

**Elizabeth Crane, Ph.D., M.P.H., DAWN, OAS, SAMHSA,** reported trend data from eight metro-

politan areas that participate in the Drug Abuse Warning Network medical examiner component from 1997 to 2001. These data showed increases of varying magnitude in methadone-related deaths. However, most of the deaths involved other drugs in combination with methadone, and, therefore, could not be attributed solely to methadone use. In some cases, these trends were accompanied by increases in methadone-related ED cases.

The DAWN ME data show small increases in methadone-related deaths occurred in all eight areas when 1997 figures are compared with those for 2001 (or 2000 for Los Angeles) (exhibit A).

**Exhibit A. Trends in Methadone-Related Deaths in 8 Metropolitan Areas: 1997–2001**

Metropolitan Area	1997	1998	1999	2000	2001
Baltimore	29	36	11	33	52
Boston	7	10	-	1	12
Los Angeles	26	51	81	44	NR <sup>1</sup>
Miami	1	2	-	4	5
Phoenix	16	29	44	47	40
San Diego	11	8	15	11	13
San Francisco	21	32	19	38	32
Seattle	16	25	11	33	37

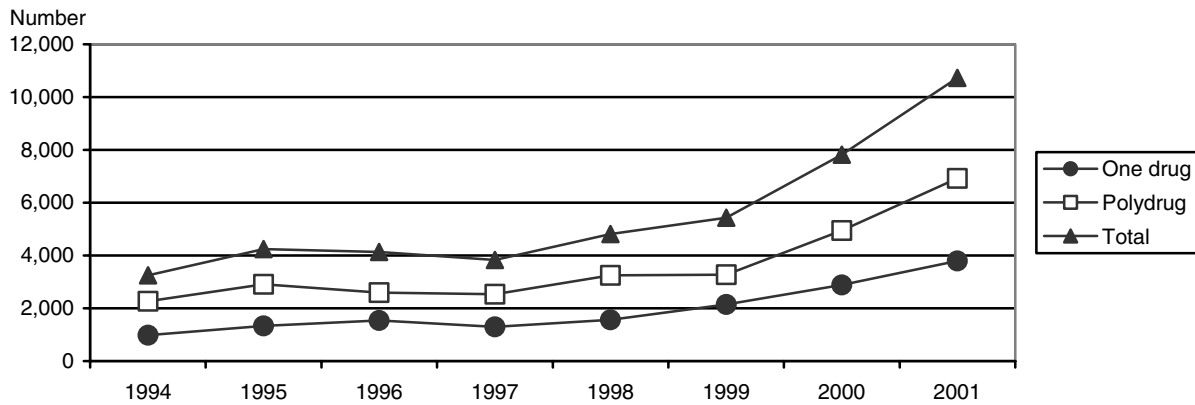
<sup>1</sup>NR= Not reported.

SOURCE: DAWN, OAS, SAMHSA

Most of the methadone-related deaths in each area involved more than one drug. Excluding a small number of deaths attributed to suicide, the most frequently mentioned drugs among decedents were alcohol, illicit drugs (e.g., cocaine, heroin/morphine), narcotic analgesics, antidepressants, benzodiazepines, and other psychotherapeutic drugs.

DAWN ED methadone mentions have also increased. Across all areas in the coterminous United States that report ED data to DAWN, there was a substantial increase in methadone ED mentions from 1994 to 2001 (exhibit B).

**Exhibit B. Methadone-Related ED Visits, Coterminous United States: 1994–2001**



SOURCE: DAWN, OAS, SAMHSA

The upward trend in methadone ED mentions shown in exhibit B was reflected in a number of metropolitan areas, and the increases appeared to be driven primarily by methadone polydrug ED visits. In 2001 in the eight areas covered in the ME data cited above, methadone-only and methadone polydrug visits converged only in San Francisco. Note, however, that increases in ED mentions of methadone were not necessarily associated with an increase in methadone-related deaths in DAWN areas.

**Jane C. Maxwell, Ph.D., University of Texas at Austin**, reported data on methadone-related deaths and misuse of the drug in Texas as well as national-level forensic and distribution data related to methadone.

Texas Department of Health (DOH) data show an increase in deaths among methadone treatment clients from 36 in 1994 to 113 in 2002. However, overdose deaths among methadone clients over this same time period decreased, from 23 percent of the methadone client deaths in 1994 to 7 percent in 2002. Death certificate data from DOH (Bureau of Vital Statistics) show an increase in the numbers of deaths with a mention of methadone, from 12 in 1994 to 96 in 2001.

DOH data from the Texas Poison Control Center Network (1998–2002) show that the penetration rate of abuse or misuse methadone cases peaked in 1999 at approximately 59 per 100,000 population, dropping to around 40 in 2000 and remaining relatively stable through 2002.

Nationally, the number of methadone items reported by the National Forensic Laboratory Information System, nationally, increased 122 percent, from 2001 to 2002. An interesting aspect of this change was in the type of methadone examined. The number of solid-tablet methadone pills increased 133 percent, while the liquid form items (typically dispensed by methadone treatment programs) increased only 11 percent. The 5- and 10-milligram tablets are often prescribed for pain by physicians because they are cheaper than OxyContin and other pain pills. Methadone is the preferred pain medication for Medicaid clients.

The Automation of Reports and Consolidated Orders System (ARCOS-2), a DEA database, shows that the distribution of methadone, oxycodone, and hydrocodone to pharmacies, drug stores, hospitals, and narcotics treatment programs (NTPs) increased nationwide from 1998 to 2002 (in terms of grams per 100,000 population). An analysis ARCOS 2002 data by State shows differences by form of methadone and by inclusion and exclusion of NTPs:

	Including NTPs	Excluding NTPs
• <b>All Forms</b>	District of Columbia (DC), Rhode Island, New York, Maine, Maryland	Arkansas, Nevada, Oregon, Maine, New Hampshire
• <b>Liquid Form</b>	DC, Maryland, Massachusetts, Delaware, Maine	Massachusetts, DC, Washington, Oregon, California
• <b>40-Milligram Diskette</b>	New York, Maine, Louisiana, New Hampshire, Tennessee	New Hampshire, Louisiana, Arkansas, Maine, Connecticut
• <b>5–10-Milligram Tablets</b>	Arkansas, Nevada, Oregon, Maine, Alabama	Arkansas, Nevada, Oregon, Maine, Alabama

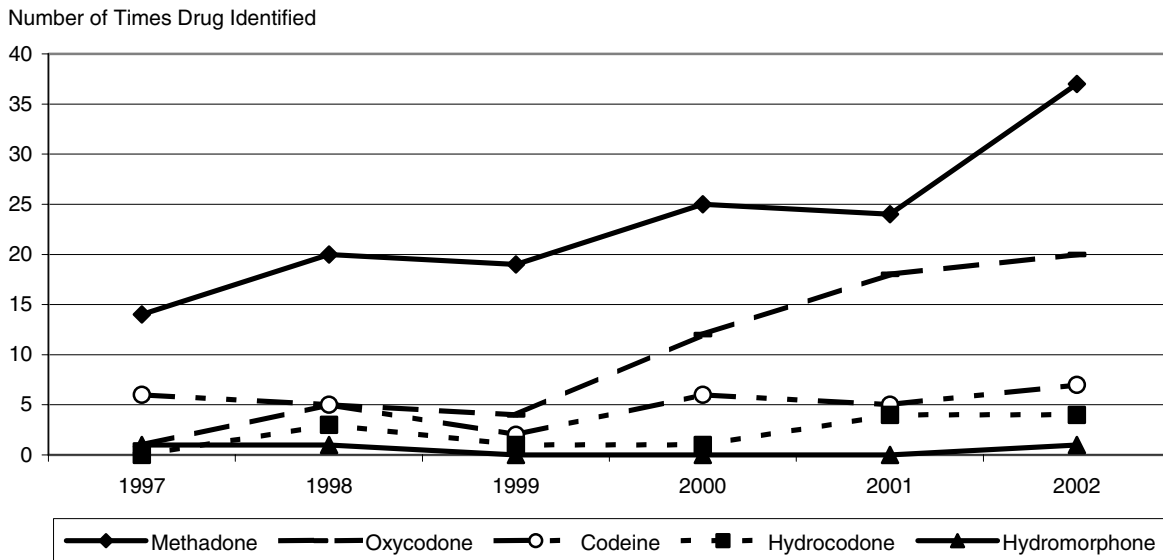
States ranking highest (grams per 100,000) for the liquid form of methadone tend to have more methadone maintenance treatment programs (DC, Maryland, Massachusetts, Delaware, and Maine).

**Caleb Banta-Green, M.P.H., M.S.W., Alcohol and Drug Institute, University of Washington,** reported on data specific primarily to King County, Washington. These data point to increases in the use and sales of prescription opioids, including methadone. The findings presented here focus on methadone.

King County medical examiner (ME) data show a 179 percent increase in deaths involving prescription opioids in King County from 1997 to 2002 (exhibit A). Methadone mentions increased 164 percent—from 14 in 1997 to 37 in 2002. Most (94 percent) of the deaths involving prescription opioids also involved other drugs.

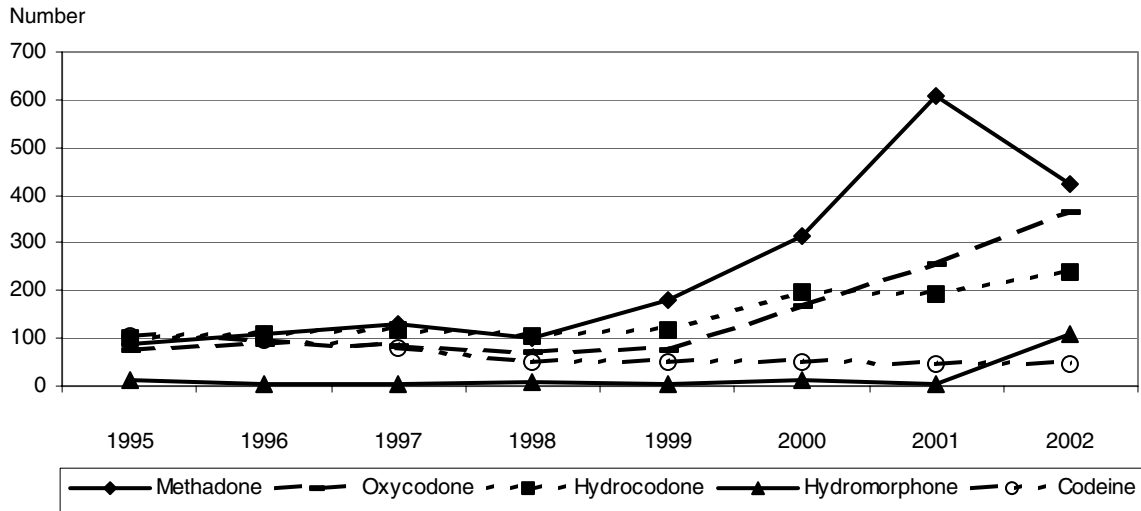
As shown in exhibit B, DAWN emergency department (ED) mentions for prescription opioids also increased, overall—114 percent from 1997 to 2002 (for King and Snohomish Counties combined).

**Exhibit A: Deaths Involving Select Opioids in King County: 1997–2002**



SOURCE: King County Medical Examiner, Public Health—Seattle and King County; data provided May 9, 2003

**Exhibit B. Estimated Number of Emergency Department Mentions for Selected Opioids in King and Snohomish Counties: 1995–2002**



SOURCE: DAWN, OAS, SAMHSA

Methadone and oxycodone represent most of the increase, although methadone ED mentions declined from 2001 to 2002. In 2002, approximately two-thirds of ED patients who mentioned prescription opioids also mentioned use of other drugs or medications.

The rise in ME and ED mentions of prescription opioids is paralleled by the increased volume in the distribution of these drugs to hospitals and pharmacies in the King County area. According to 2002 data from the Drug Enforcement Administration, methadone ranked second in percentage increase (157 percent),

after oxycodone (201 percent). Also, the number of Washington State Medical Assistance Administration clients receiving methadone prescriptions for pain management increased 60 percent from 2000 to 2002.

While there has been a recent increase in methadone use for addiction treatment, this increase is small in comparison to the number of people who received prescribed methadone for the treatment of pain. Thus, it appears that increases in ME and ED mentions are driven primarily by methadone prescribed for pain.

## SPECIAL PRESENTATIONS: DRUG ABUSE IN MISSOURI

Representatives of law enforcement, personnel of treatment agencies, and researchers focused primarily on drug abuse issues in Missouri. Six presenters focused attention on methamphetamine production and abuse in rural areas of the State and a researcher presented findings from research on club drugs.

### Methamphetamine Issues

**Captain Ron Replogle, Missouri State Highway Patrol**, noted that in 2002, more methamphetamine clandestine lab incidents (2,743) were reported in Missouri than in any other State. In fact, Missouri and its eight bordering States accounted for 46 percent of the total methamphetamine lab incidents reported in the United States. The problem has become too big for the available law enforcement manpower. In Missouri, attention has been diverted from other drug problems like heroin, cocaine, and marijuana distribution and abuse.

There are many problems associated with the production of methamphetamine in clandestine labs, including child endangerment. In 2002, 427 child endangerment cases associated with methamphetamine labs were reported in California, 277 in Missouri, 176 in Washington, and 106 in Tennessee.

**Pamela Johnson, Southeast Missouri State University**, noted that one of the reasons the number of Missouri's methamphetamine clandestine laboratory seizures are so high is that most of the labs "taken down" are small operations with users being the producers. Many of the labs are operated by small groups of individuals who pooled their resources to obtain the chemicals to produce the drug. A portion of the product is sold to earn enough money to produce more methamphetamine.

**Jim Topolski, Ph.D., University of Missouri**, reported that the State's Treatment Episode Data Set for calendar year 2002 showed that the rate of primary methamphetamine treatment admissions in rural areas was much higher than the rate in urban areas. The rate for court referrals to treatment was considerably higher for rural admissions (68.0 per 100,000) than for urban admissions (19.3). The rate of rural admissions with no prior treatment was 41.0, compared with only 18.7 for urban admissions. The rate of injection use among rural admissions (48.0) was more than double the rate for urban admissions (20.2).

**Myra Callahan, Executive Director, Family Counseling Incorporated**, noted that of the 1,278 drug

abusers admitted to the center in 2001, 19 percent were primary methamphetamine abusers. Most (90 percent) of the methamphetamine admissions in this primarily rural, 23-county area in southeastern Missouri were White and 55.5 percent were women. Approximately 30 percent of the methamphetamine group injected the drug.

**Michael Gorman, Ph.D., M.P.H., M.S.W., San Jose State University**, noted that methamphetamine abuse has become endemic in the Midwest, as it has spread from west coast areas. In recent years, there has been a penetration of this drug and increases in serious health consequences associated with it in both rural and urban populations. There is evidence of injection as a route of administration for methamphetamine, which has public health implications (e.g., increased risk of HIV and hepatitis C). In California, 19 percent of methamphetamine treatment admissions in 2002 injected the drug, a smaller proportion than the 30 percent reported by Myra Callahan.

**Harvey Siegal, Ph.D., Panel Moderator, Wright State University**, summarized findings and information presented on methamphetamine in Missouri. He pointed to the sharp increase in the methamphetamine production in midwestern rural areas, primarily because of the proliferation of small clandestine laboratories. Many treatment and research issues are being raised as more is learned about this drug. Treatment admissions for methamphetamine abuse have been increasing in many midwestern areas. Since methamphetamine can be a very destructive drug and can be used intravenously, treatment systems are being confronted with new demands at a time when treatment funds have been shrinking.

### Research on Club Drugs

**Linda Cottler, Ph.D., Washington University**, presented information about club drug research previously conducted by Washington University and a current tri-city study that is being conducted in St. Louis, Miami, and Sydney, Australia.

In a multi-year study, Washington University researchers found that most ecstasy users studied ( $N=52$ ) were multiple drug users. Fifty percent had used cocaine and 50 percent had used opioids. Most (98 percent) had used marijuana. Based on DSM-IV (*Diagnostic and Statistical Manual on Mental Disorders, Fourth Revision*) criteria, 59 percent of the ecstasy users reported withdrawal or withdrawal relief; 22 percent increased the amount of ecstasy they used;

and 63 percent continued to use ecstasy, despite knowledge of physical and psychological problems resulting from use of the drug.

The tri-city study of 636 users of ecstasy and other club drugs is designed to accomplish the following:

- Describe the nature and extent of self-reported dependence on ecstasy (XTC), GHB (gamma hydroxybutyrate), Rohypnol, and ketamine
- Expand and determine the reliability and validity of the Substance Abuse Module (SAM) interview schedule
- Develop and test NIDA's Risk Behavior Assessment (RBA) for club drugs
- Assess unique contextual factors through qualitative research methods (e.g., focus groups)

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## INTERNATIONAL REPORTS

Many countries around the world have adapted the CEWG model and developed systems to monitor drug abuse patterns and trends in their own countries. Two—Canada and Mexico—reported findings from their surveillance efforts at the June 2003 meeting.

### Canada

Chaired by the Canadian Centre on Substance Abuse, the Canadian Community Epidemiology Network on Drug Use (CCENDU) is a multilevel collaborative drug surveillance system. Twelve urban centers currently participate in the system, and additional sites are under development. Each site systematically collects, analyzes, interprets, and reports data in six indicator areas: prevalence, law enforcement, treatment, morbidity, mortality, and health diseases and problems associated with drug abuse. The research is focused on eight drug categories. National data, including survey data, are accessed and disaggregated in six indicator areas to the local sites when possible. In 2001, cannabis charges represented the majority of drug offenses for adult males (71 percent) and adult females (62 percent). Approximately 27 percent of female offenders and 21 percent of male offenders had drug-related charges. Indicator data showed that drug abuse patterns differed by area. For example, crack (smoked and injected) was a serious problem in Toronto. In Vancouver, methamphetamine indicators increased in 2001, as they have in areas located in the western part of the United States. In contrast, 80 percent of the clients entering treatment in Halifax reported using cocaine, benzodiazepines, and/or opiate drugs. The 2002 Road Safety Monitor, a survey of Canadian drivers, revealed that over the past 12 months, nearly 18 percent of respondents admitted to driving within 2 hours of taking a drug that was potentially impairing. Over-the-counter drugs were the most likely to be reported (15.9 percent).

### Mexico

The Mexico Epidemiologic Surveillance System of Addictions (SISVEA), established 13 years ago, collects data and information from 53 cities; 38 percent are located along the northern border. The data sources include government treatment centers (GTCs) and nongovernment treatment centers (NGCs), criminal justice agencies (juvenile arrestees), medical examiners (drug-related deaths), and general population surveys. In 2002, nearly one-third (32.2 percent) of clients admitted to GTCs and 19.2 percent admitted to NGCs reported cocaine as their current (primary) drug of abuse. Juvenile Detention Centers reported cocaine abuse by 21.2 percent of young arrestees.

Only 2.9 percent of the patients admitted to GTCs in 2002 reported heroin as their primary drug of abuse. However, 26.3 percent of the patients in NGCs reported heroin as their primary drug, a significant increase over 2001. Relatively few juvenile arrestees (0.9 percent) reportedly had used heroin.

Inhalant abuse was reported as the primary drug problem by 18.2 percent of patients entering GTCs and 7.6 percent entering NGCs.

Marijuana was reported as the primary drug of abuse by 18.2 percent of the patients admitted to GTCs and 10.4 percent of NGC patients.

The Mexican system includes data by geographic area, source, and demographic characteristics. Particular attention is focused on drug and age of onset for each type of drug to guide drug abuse prevention planning and intervention efforts.



## **PARTICIPANT LIST**

### **National Institute on Drug Abuse**

#### **Community Epidemiology Work Group**

**St. Louis, Missouri**

**June 24-27, 2003**

**Rob Aldrich**

Drug Demand Reduction Coordinator  
Missouri National Guard Counterdrug Program  
Department of Mental Health  
1915 # B West Sunshine  
Springfield, MO 65807  
Phone: 417-895-6324  
Fax: 417-895-6329  
E-mail: mzaldr@mail.dmh.state.mo.us

**Judy K. Ball, Ph.D.**

Office of Applied Studies  
Substance Abuse and Mental Health  
Services Administration  
5600 Fishers Lane, Room 16-105  
Rockville, MD 20857  
Phone: 301-443-1437  
Fax: 301-443-9847  
E-mail: jball@samhsa.gov

**Caleb Banta-Green**

Alcohol and Drug Abuse Institute  
University of Washington  
1107 NE 45th Street, Suite 120  
Seattle, WA 98105-4631  
Phone: 206-685-3919  
Fax: 206-543-5473  
E-mail: calebbg@u.washington.edu

**George Beschner**

MasiMax Resources Inc.  
1375 Piccard Drive, Suite 175  
Rockville, MD 20850  
Phone: 301-881-9896  
Fax: 301-881-1286  
E-mail: gbeschner@masimax.com

**Richard F. Calkins**

Research Consultant  
Office of Drug Control Policy  
Michigan Department of Community Health  
Division of Mental Health Quality and Planning  
320 South Walnut  
Lewis Cass Bldg., 5th floor  
Lansing, MI 48913-2014  
Phone: 517-335-5388  
Fax: 517-335-6775  
E-mail: calkinsr@michigan.gov

**Myra Callahan**

Executive Director  
Family Counseling, Inc.  
925 Highway VV, POB 71  
Kennett, MO 63857  
Phone: 573-888-6715  
Fax: 573-888-9365.  
E-mail: myra@familycounselingcenter.org

**Rebecca Chalmers**

Johnson, Bassin & Shaw, Inc.  
211 Montgomery Avenue #1  
Ann Arbor, MI 48103  
Phone: 734-761-9861  
Fax: 734-761-9861  
E-mail: rchalmers@jbs1.com

**Usha Charya**

MasiMax Resources, Inc.  
1375 Piccard Drive, Suite 175  
Rockville, MD 20850  
Phone: 240-683-1746  
Fax: 240-632-0519  
E-mail: ucharya@masimax.com

**Michelle L.H. Chase**

Intelligence Analyst  
National Drug Intelligence Center  
319 Washington Street, 5<sup>th</sup> Floor  
Johnstown, PA 15901-1622  
Phone: 814-532-4858  
Fax: 814-532-4690  
E-mail: michelle.l.chase@usdoj.gov

**William F. Coach**

Office of Diversion Control  
Drug Enforcement Administration  
Washington, DC 20537  
Phone: 202-307-7294  
Fax: 202-307-8570  
E-mail: psucoach@aol.com

**Linda Cottler, Ph.D.**

Professor of Epidemiology  
Department of Psychiatry  
Washington University  
40 N. Kingshighway, Suite 4  
St. Louis, MO 63108  
Phone: 314-286-2252  
Fax: 314-286-2265  
E-mail: cottler@epi.wustl.edu

**Elizabeth H. Crane, Ph.D. M.P.H.**

Drug Abuse Warning Network  
Office of Applied Studies  
Substance Abuse and Mental Health  
Services Administration  
Rockville, MD 20857  
Phone: 301-443-3492  
Fax: 301-443-9847  
E-mail: ecrane@samhsa.gov

**Patricia Cravioto, Ph.D.**

Ministry of Health of Mexico  
Cerro de Macuiltepec #83  
Col. Campestre Churubusco, 04200  
Delegacion Coyoacan, D.F.  
Mexico City, Mexico 04200  
Phone: 525-593-10-11  
Fax: 525-651-83-38  
E-mail: pcravioto@yahoo.com

**Samuel Cutler**

CODAAP  
City of Philadelphia Behavioral Health System  
1101 Market Street, Suite 800  
Philadelphia, PA 19107-2908  
Phone: 215-685-5414  
Fax: 215-685-5427  
E-mail: sam.cutler@phila.gov

**Janie B. Dargan**

Office of National Drug Control Policy (ONDCP)  
Executive Office of the President  
750 17<sup>th</sup> Street, NW, 5<sup>th</sup> Floor  
Washington, DC 20503  
Phone: 202-395-6714  
Fax: 202-395-6729  
E-mail: jdargan@ondcp.eop.gov

**Dita Davis**

University of Illinois at Chicago  
School of Public Health (MC 923)  
Epidemiology & Biostatistics - COIP  
1603 W. Taylor  
Chicago, IL 60612-4394  
Phone: 312-355-4753  
Fax: 312-996-1450  
E-mail: d-davis7@md.northwestern.edu

**Susan L. David**

Consultant, DAWN Project  
WESTAT  
1650 Research Boulevard  
Rockville, MD 20850  
Phone: 240-453-2743  
Fax: 301-610-5140  
E-mail: susandavid@westat.com

**Blanca De La Rosa**

Ministry of Health of Mexico  
Cerro De Macuiltepec No. 83  
Co. Campestre Churubusco  
C.P. 04200 Coyoacan D.F., Mexico  
Phone: 525-5593-1011  
Fax: 525-5651-8338  
E-mail: rblanca@epi.org.mx

**Colleen Anne Dell, Ph.D.**

National Research Advisor  
CCENDU and HEP  
Canadian Centre on Substance Abuse  
75 Albert Street, Suite 300  
Ottawa, Ontario, Canada K1P 5E7  
Phone: 613-235-4048 ext. 235  
Fax: 613-235-8101  
E-mail: cdell@ccsa.ca

**Ilene Dode, Ph.D.**

EMPACT-Suicide Prevention Center, Inc.  
1232 East Broadway, Suite 120  
Tempe, AZ 85282  
Phone: 602-784-1514  
Fax: 602-967-3528  
E-mail: idode@aol.com

**Daniel P. Dooley**

Boston Public Health Commission  
1010 Massachusetts Avenue  
Boston, MA 02118  
Phone: 617-534-2360  
Fax: 617-534-2422  
E-mail: ddooley@bphc.org

**Bill Dotson**

Chief  
Center for Health for Specific Populations  
St. Louis City Health Department  
634 North Grand, P.O. Box 14702  
St. Louis, MO 63178  
Phone: 314-612-5133  
Fax: 314-612-5437  
E-mail: dotsonw@stlouiscity.com

**Dan Duncan**

Director of Community Services  
National Council on Alcoholism and Drug Abuse  
8790 Manchester Road  
St. Louis, MO 63144  
Phone: 314-962-3456  
Fax: 314-968-7394  
E-mail: dduncan@ncada-stl.org

**Susie Edwards**

Missouri Department of Corrections  
1411 Main  
Kansas City, MO 64106  
Phone: 816-889-2271

**Carol Falkowski**

Hazelden Foundation  
Butler Center for Research  
15245 Pleasant Valley Road, Box 11  
Center City, MN 55012-0011  
Phone: 651-213-4566  
Fax: 651-213-4356  
E-mail: cfalkowski@hazelden.org

**Beth A. Finnerty**

UCLA Integrated Substance Abuse Programs  
11050 Santa Monica Boulevard, Suite 100  
Los Angeles, CA 90025  
Phone: 310-312-0500 x 516  
Fax: 310-312-0538  
E-mail: finnerty@ucla.edu

**Jeffrey S. Gardner**

Research Assistant/Data Manager  
HIV Vaccine Trials Unit at Saint Louis University  
New Hope Comprehensive Care Clinic  
1200 South Grand Blvd.  
St. Louis, MO 63104  
Phone: 314-268-5448  
Fax: 314-268-5196  
E-mail: gardnejs@slu.edu

**Kathy Goggin, Ph.D.**

Associate Professor  
Department of Psychology  
University of Missouri - Kansas City  
4825 Troost, Room 111-D  
Kansas City, MO 64110  
Phone: 816-235-1059  
Fax: 816-235-1062  
E-mail: goggink@umkc.edu

**E. Michael Gorman, Ph.D., M.P.H., M.S.W.**

1 Washington Square  
San Jose State University  
San Jose, CA 95192-0124  
Phone: 408-924-5812  
Fax: 408-924-5892  
E-mail: emgorman@email.sju.edu  
emfg@hotmail.com

**Michael Ann Haight**

Silver Gate Group, for the  
County of San Deigo  
Alcohol and Drug Services  
Phone: 619-920-6311  
E-mail: michaelhaight@cox.net

**James N. Hall**

Up Front Drug Information Center  
12360 Southwest 132nd Court, Suite 215  
Miami, FL 33186  
Phone: 786-242-8222  
Fax: 786-242-8759  
E-mail: upfrontin@aol.com

**Chris Heilig**

Strategic Intelligence Analyst  
St. Louis Drug Enforcement Administration  
317 South 16<sup>th</sup> Street  
St. Louis, MO 63103  
Phone: 314-538-4793  
Fax: 314-538-4882  
E-mail: stlstrat@yahoo.com

**Leigh A. Henderson, Ph.D.**

Synectics for Management Decisions, Inc.  
3001 Guilford Avenue  
Baltimore, MD 21218-3926  
Phone: 410-235-3096  
Fax: 703-528-6421  
E-mail: leighh@smdi.com

**Andrew L. Homer, Ph.D.**

Missouri Division of Alcohol and Drug Abuse  
P.O. Box 687  
Jefferson City, MO 65101  
Phone: 573-751-8055  
Fax: 573-751-7814  
E-mail: mzhomea@mail.dmh.state.mo.us

**Matthew Howard, Ph.D.**

Assistant Professor of Social Work  
Washington University  
Campus Box 1196  
One Brookings Drive  
St. Louis, MO 63130-4899  
Phone: 314-935-4957  
Fax: 314-935-8511  
E-mail: howard@gwbmail.wustl.edu

**Pamela Johnson**

Southeast Missouri State University  
Regional Crime Lab  
1 University Plaza, MS 5200  
Cape Girardeau, MO 63701  
Phone: 573-290-5130  
Fax: 573-290-5133  
E-mail: pmjohnson@semo.edu

**Javaid Kaiser, Ph.D.**

Branch Chief  
Data Infrastructure Branch  
Division of State and Community Assistance  
Center for Substance Abuse Treatment  
Substance Abuse and Mental Health Administration  
Department of Health and Human Services  
5515 Security Boulevard  
Suite 840, Rockwall II  
Rockville, MD 20852  
Phone: 301-443-6716  
Fax: 301-594-6762  
E-Mail: jkaiser@samhsa.gov

**Ravdeep Khanuja, M.D.**

Family Counseling Center, Inc.  
925 Highway VV  
P.O. Box 71  
Kennett, MO 63857  
Phone: 573-888-6715  
Fax: 573-888-9365

**Heidi Israel-Adams, Ph.D.**

St. Louis University  
School of Medicine  
Division of Infectious Diseases  
1200 South Grand Avenue  
St. Louis, MO 63104-1017  
Phone: 314-268-5448  
Fax: 314-268-5196  
E-mail: israelha@slu.edu

**Abate Mammo, PhD.**

Office of Research & Development  
Health Care Systems Analysis  
Department of Health & Senior Services  
225 E State Street, 8th Floor East Wing  
Trenton, NJ 08065  
Phone: 609-292-9354  
Fax: 609-292-6354  
E-mail: abate.mammo@doh.state.nj.us

**Rozanne Marel, Ph.D.**

New York State Office of Alcoholism  
and Substance Abuse Services  
501 7th Ave.  
New York, NY 10018  
Phone: 646-728-4605  
Fax: 646-728-4685  
E-mail: marelr@oasas.state.ny.us

**Jane C. Maxwell, Ph.D.**

Gulf Coast Addiction Technology  
Transfer Center  
The University of Texas at Austin  
1717 West 6<sup>th</sup> Street, Suite 335  
Austin, TX 78703  
Phone: 512-232-0610  
Fax: 512-232-0613  
E-mail: jcmaxwell@sbcglobal.net

**Tara McDonald**

Administrative Coordinator  
Department of Sociology  
Georgia State University  
Atlanta, GA 30302  
Phone: 404-651-1855  
Fax: 404-651-1712  
E-mail: taramcdonald@gsu.edu

**Bruce D. Mendelson**

Colorado Department of Human Services  
Alcohol and Drug Abuse Division  
4055 South Lowell Boulevard  
Denver, CO 80236-3120  
Phone: 303-866-7497  
Fax: 303-866-7481  
E-mail: bruce.mendelson@state.co.us

**Josefina Moran**

Project Director  
DAWN Project, WESTAT  
1650 Research Blvd.  
Rockville, MD 20850  
Phone: 301-610-5560  
Fax: 301-610-5140  
E-mail: josefinamoran@westat.com

**Stephanie Murphy**

U.S. Drug Enforcement Administration  
Washington, DC 20537  
Phone: 202-307-8126  
Fax: 202-307-8719

**John A. Newmeyer, Ph.D.**

Haight-Ashbury Free Clinics, Inc.  
612 Clayton Street, 2nd Floor  
San Francisco, CA 94117  
Phone: 415-931-5420  
Fax: 415-864-6162  
E-mail: jnewmeyer@aol.com

**Diana C. Noone**

National Institute of Justice  
810 Seventh Street, NW  
Washington, DC 20531  
Phone: 202-616-4786  
Fax: 202-514-8200  
E-mail: nooned@ojp.usdoj.gov

**Moira O'Brien**

Program Director  
Epidemiology Research Branch  
Division of Epidemiology, Services  
and Prevention Research  
National Institute on Drug Abuse  
6001 Executive Boulevard, Rm 5153  
Rockville, MD 20852  
Phone: 301-403-1881  
Fax: 301-443-2636  
E-mail: mobrien@nida.nih.gov

**Lawrence Ouellet, Ph.D.**

University of Illinois at Chicago  
Community Outreach and Intervention Projects  
1603 Taylor Street  
Chicago, IL 60612-4394  
Phone: 312-996-5523  
Fax: 312-996-1450  
E-mail: ljo@uic.edu

**Valley Rachal**

RTI International  
POB 12194  
3040 Cornwallis Road  
Research Triangle Park, NC 27709  
Phone: 919-485-7712  
Fax: 919-485-7700  
E-mail: jvr@rti.org

**Captain Ron Replogle**

Division Director  
Missouri State Highway Patrol  
Division of Drug and Crime Control  
Phone: 573-526-6157  
Fax: 573-526-5577  
E-Mail: replor@mshp.state.mo.us

**Lee Robins, Ph.D.**

Washington University  
School of Medicine  
Department of Psychiatry  
Renard 2210  
660 South Euclid Avenue  
St. Louis, MO 63110  
Phone: 314-362-2471  
E-mail: robinsl@psychiatry.wustl.edu

**Harvey A. Siegal, Ph.D.**

Professor and Director  
Wright State University  
School of Medicine  
Center for Interventions, Treatment  
and Addictions Research  
P.O. Box 927  
Dayton, OH 45401-0927

**Barbara Sowder, Ph.D.**

The CDM Group, Inc.  
5640 Nicholson Lane, Suite 220  
Rockville, MD 20852  
Phone: 301-460-9329  
E-mail: bges@starpower.net

**David Starbuck**

Field Program Specialist (Missouri, Kansas)  
National Drug Intelligence Center  
10220 N. W. Ambassador Drive  
Suite 620  
Kansas City, MO 64153  
Phone: 816-746-4962, ext 278  
Fax: 816-746-9714  
E-mail: david.starbuck@usdoj.gov

**Catherine Woodstock Striley, M.S.W, Ph.D.**

NIMH Postdoctoral Fellow  
Washington University Medical School  
40 N. Kings Highway, Suite 4  
St Louis, MO 63108  
Phone: 314-286-2268  
Fax: 314-286-2265  
E-mail: strileyc@epi.wustl.edu

**Judge James Sullivan**

Department of Public Safety  
Division of Corrections  
Parole and Probation Office  
1430 Olive, Room 108  
St. Louis, MO 63104  
Phone: 314-622-3261  
Fax: 314-588-7731

**Gail Thornton-Collins**

New Orleans Department of Health  
2025 Canal Street, Suite 200  
New Orleans, LA 70119  
Phone: 504-528-1900  
Fax: 504-528-1904  
E-mail: gaily28@hotmail.com

**James M. Topolski, Ph.D.**

University of Missouri  
5400 Arsenal Street  
St. Louis, MO 63139  
Phone: 314-644-8574  
Fax: 314-644-7934  
E-mail: topolski@mimh.edu

**Alan Trachtenberg, M.D., M.P.H**

Medical Director  
Division of Pharmacologic Therapies  
Center for Substance Abuse Treatment  
Substance Abuse and Mental Health Services  
Administration  
Rockwall II Building, Suite 618  
5515 Security Lane  
Rockville, MD 20857  
Phone: 301-443-1281  
Fax: 301-480-7505  
E-mail: atrachte@samsha.gov

**Doren H. Walker**

Synectics for Management Decisions, Inc.  
1901 N. Moore St., Suite 900  
Arlington VA 22209  
Phone: 703-807-2314  
Fax: 703-528-2857  
E-mail: dorenw@smdi.com

**Liqun Wong**

Drug Enforcement Administration,  
Department of Justice  
600 Army-Navy Drive  
Arlington, VA 22202  
Phone: 202-307-7176  
Fax: 202- 353-1263  
E-mail: lwong@leo.gov

**Kristin J. Wilson**

Department of Sociology  
Georgia State University  
P.O. Box 5020  
Atlanta, GA 30302  
Phone: 404-202-6052  
Fax: 404-651-1712  
E-mail: kristinwilson@yahoo.com

**Eric D. Wish, Ph.D.**

Director  
Center for Substance Abuse Research  
University of Maryland  
4321 Hartwick Road, Suite 501  
College Park, MD 20740  
Phone: 301-403-8329  
Fax: 301-403-8342  
E-mail: ewish@cesar.umd.edu

**Sharon Womack, Ph.D., M.P.E**

Washington University School of Medicine  
40 N. Kingshighway, Suite 4  
St. Louis, MO 63108  
Phone: 314-286-2271  
Fax: 314-286-2265  
E-mail: womacs@epi.wustl.edu

**D. William Wood, Ph.D.**

University of Hawaii at Manoa  
Department of Sociology  
2424 Maile Way, Room 247  
Honolulu, HI 96822  
Phone: 808-956-7117  
Fax: 808-965-3707  
E-mail: dwood@hawaii.rr.com

## APPENDIX A.

### THE DRUG ABUSE WARNING NETWORK (DAWN) EMERGENCY DEPARTMENT DATA

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

The data are gathered from a national probability sample of hospitals in the 21 areas in 48 States and the District of Columbia. Alaska and Hawaii are not included in the sample. With few exceptions, the geographic area boundaries correspond to the 1983 Office of Management and Budget definitions of Metropolitan Statistical Area and Primary Metropolitan Statistical Area. Periodic minor modifications are made to the ED sample to keep it current. Analyses show that such modifications have little impact on trends across time. Various statistical procedures are used to enhance precision in the sampling frame. In the first half of 2002, the DAWN sample consisted of 564 eligible hospitals. Of these, 458 (81 percent) participated in DAWN.

ED data are reported for each “episode” (case or admission) that meets the criteria for “drug abuser age 6–97,” who is taking one or more substances without proper medical supervision or for psychic effect,

dependence, or suicide attempt or gesture. Each drug reported by a patient may be counted as a “mention.” Up to four drugs for each episode may be recorded. Some drugs are classified in a combined category, such as “cocaine/crack,” “marijuana/hashish,” and “PCP/PCP combinations.”

ED mention data are converted to rates per 100,000 population when sample sizes permit. A probability value of less than 0.05 is used to determine statistical significance. Note that the 2000 decennial census was used for the first time in 2001 to calculate rates, resulting in a larger denominator than in the 1994–2000 period when less precise annual population projections developed by the U.S. Bureau of the Census were used as denominators in calculating rates.

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

The 2001 ED data presented in this publication are preliminary. The data were accessed electronically through Internet World Wide connection: <<http://samhsa.gov.oas.dawn.htm>>.

## APPENDIX B.

### MORTALITY DATA FROM THE DRUG ABUSE WARNING NETWORK

The DAWN mortality data collection system, managed by the Office of Applied Studies, SAMHSA, provides information on deaths involving drug abuse that are identified and by death investigations in medical examiner/coroner jurisdictions across the United States. In 2001, 128 jurisdictions in 42 metropolitan areas submitted data to DAWN; 20 of these MSAs are CEWG areas.

Two types of drug abuse deaths are reportable to DAWN: (1) drug-induced deaths (i.e., those directly caused by a drug or drugs); and (2) drug-related deaths (i.e., those in which a drug played a contributory role). Because up to six drugs can be mentioned in a reportable case, drug “mentions” always exceed the total number of deaths. When multiple drugs are involved in a case, the cause of death cannot be attributed to one

particular substance. Some facilities do not test for or report on marijuana.

Participating jurisdictions are not selected through statistical sampling. Counts do not represent the Nation as a whole, nor do they represent any metropolitan area with less than full participation. The findings can be used to monitor changes over time. CEWG areas with full participation in the DAWN mortality system are identified in the DAWN mortality exhibits in this document.

The OAS volume used in this report is entitled *Mortality Data From the Drug Abuse Warning Network, 2001*, DHHS Publication No. (SMA) 03-3781; Rockville, MD; SAMHSA, OAS, January 2003. More complete information can be accessed from the Internet at: <<http://DAWNinfo.net>>.



**APPENDIX C.**

**TOTAL ADMISSIONS BY PRIMARY SUBSTANCE OF ABUSE  
AND CEWG AREA: 2002<sup>2</sup>**

Area	Alcohol Only	Alcohol/Other Drug	Cocaine/Crack	Heroin	Marijuana	Stimulants	Other Drugs	Total <sup>2</sup>
Atlanta <sup>3</sup>	NR	781	1,623	287	726	144	NR	3,561
Baltimore	2,638	2,052	1,888	7,390	2,080	0	594	16,642
Boston	9,299		2,081	10,049	914	22	770	23,135
Detroit	1,900	2,082	3,185	3,524	1,105	13	428	12,237
Los Angeles	3,104	4,849	9,009	14,863	5,502	7,353	1,949	46,629
Mpls./St. Paul	10,577		2,436	635	4,266	1,002	611	19,527
New Orleans	539		963	329	834	7	41	2,713
New York	8,226	14,027	15,608	22,514	14,310	170	2,240	77,095
Newark <sup>3</sup>	99	148	188	2,373	158	4	32	3,002
Philadelphia	2,292	1,133	3,649	2,679	2,025	67	631	12,476
St. Louis	NR	1,879	3,575	1,170	3,102	471	223	10,420
San Diego	1,632	2,334	1,430	1,638	3,553	7,046	351	17,984
San Francisco	10,499		6,703	11,341	NR	5,584	4,411	38,538
Seattle <sup>3</sup>	1,635		495	661	845	394	90	4,120
Wash., DC	637	397	1,877	2,104	262	17	223	5,517
Colorado	45,610	5,068	2,580	1,684	4,915	2,239	1,068	63,164
Hawaii	1,788	545	458	253	1,529	2,798	334	7,705
Illinois	44,825		28,131	21,909	26,371	3,190	14,225	38,651
Texas	15,502		12,677	5,207	8,456	3,306	3,096	48,244

NR = Not reported or represents both alcohol only and alcohol in combination.

<sup>1</sup>Represents either fiscal or calendar year 2002.

<sup>2</sup>Total numbers shown may underrepresent total admissions because “alcohol only” or “other drugs” were not reported.

<sup>3</sup>Represents only half-year data for 2002.

SOURCES: CEWG June 2003 reports, and for Washington, DC, TEDS. In San Francisco, marijuana admissions are reported in the “Other Drugs” category.

## APPENDIX D.

### THE ARRESTEE DRUG ABUSE MONITORING (ADAM) PROGRAM

Managed by the National Institute of Justice (NIJ), the ADAM program is designed to gather drug use data quarterly from male adult arrestees in 36 sites in the United States; 16 of these sites provide data relevant to the CEWG. Data were also collected on adult female arrestees in 23 sites; 9 sites provided data relevant to the CEWG. Data were also collected on male and female juvenile arrestees in five sites in 2002 through local funding; three were CEWG sites. The 2002 data cover less than four quarters in several sites, as indicated in footnotes in the exhibits of this report.

Beginning in 2000, the ADAM instrument for adult arrestees was revised and the adult male sample was based on probability sampling procedures. For these reasons, the 2000 (and beyond) data are not comparable to data collected prior to 2000. Data on adult males are weighted.

Adult female data are based on convenience sampling, smaller sample sizes, and different data collection methods. For these reasons, the (unweighted) adult female data are not comparable to the adult male arrestee data.

Data on juvenile arrestees, collected at selected sites, continue to be based on the Drug Use Forecasting model, the predecessor to ADAM.

Analyses and reporting of ADAM data focus on urinalysis results. Urinalysis provides confirmation of

use of 10 drugs within a 2–3 day period prior to interview using the Enzyme Multiplied Immunoassay Technology. The urinalysis tests for use of cocaine, opiates (e.g., heroin), marijuana, phencyclidine (PCP), methadone, propoxyphene (Darvon), barbiturates (e.g., Seconal, Tuinal), benzodiazepines (e.g., Valium, Ativan), and amphetamines. Testing distinguishes amphetamines from over-the-counter compounds. PCP is not presented separately in the 2002 ADAM data reported by NIJ.

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

Data in this report were collected in 2002, with results for less than four quarters in several sites (as indicated in footnotes in the exhibits in this report).

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

Additional information on the ADAM program can be accessed on the Internet at <<http://www.adam.nij.net>>.

## APPENDIX E.

### THE NATIONAL FORENSIC LABORATORY INFORMATION SYSTEM (NFLIS)

The NFLIS, established by the Drug Enforcement Administration, published its first annual report in 2000, under the auspices of Research Triangle Institute.

The primary objectives of NFLIS are to provide chemically-verified data that support drug policy and scheduling decisions as well as drug enforcement resource allocations; document regional and local patterns of drugs seized by law enforcement; identify emerging drug problems geographically and over time; supplement other data sources (e.g., DAWN, ADAM); and provide labs with the ability to access data and conduct analysis. The program is voluntary and a moderate level of assistance is provided.

NFLIS data represent the results of items seized by law enforcement, submitted to a laboratory for analysis, and subsequently analyzed by State and local forensic laboratories. As of May 2003, 187 of the Nation's approximately 300 State and local labs had joined NFLIS, and 162 were reporting regularly. Plans are underway to enroll all local, State, and Federal labs.

The NFLIS database consists of case and item/exhibit level information. Laboratories report data in a convenient format. An Interactive Data Site (IDS) allows remote data analysis. The data are published in annual, semiannual, and special topic reports.

There are many advantages offered by NFLIS. The data are scientifically verified and allow for special studies. Detailed information is provided on drug characteristics. Facilities information exchange and collaboration is also a benefit.

Limitations of NFLIS are acknowledged and include differing policies and procedures among laboratories and the fact that Federal laboratory data are not currently included in the system. Also, the system is subject to law enforcement priorities.

Additional information on NFLIS can be accessed through the Internet at <http://www.deadiversion.usdoj.gov/nflis>.

## APPENDIX F.

### LIST OF PAPERS IN VOLUME II

#### ***Epidemiology of Drug Abuse: CEWG Area Papers***

**Atlanta: Metropolitan Atlanta Drug Use Trends**

*Tara McDonald, Kristin J. Wilson, and Claire E. Sterk*

**Baltimore: Drug Use in the Baltimore Metropolitan Area: Epidemiology and Trends, 1998 Through the First Half of 2002**

*Leigh A. Henderson, Ph.D., and Doren H. Walker, M.S.*

**Boston: Patterns and Trends in Drug Abuse: Greater Boston**

*Daniel P. Dooley*

**Chicago: Patterns and Trends of Drug Abuse in Chicago**

*Lawrence Ouellet, Ph.D., Dita Davis, Susan Bailey, Ph.D., and Wayne Wiebel, Ph.D.*

**Denver: Patterns and Trends in Drug Abuse: Denver and Colorado**

*Bruce Mendelson, M.P.A.*

**Detroit: Drug Abuse Trends in Detroit/Wayne County and Michigan**

*Richard F. Calkins*

**Honolulu: Illicit Drug Use in Honolulu and the State of Hawaii**

*D. William Wood, M.P.H., Ph.D.*

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

*Beth Finnerty, M.P.H.*

**Miami: Drug Abuse in Miami and South Florida**

*James N. Hall, Joe Spillane, Pharm.D., and Madeline Camejo, Pharm.D.*

**Minneapolis/St. Paul: Drug Abuse Trends in Minneapolis/St. Paul**

*Carol Falkowski*

**Newark: Drug Abuse in the Newark Primary Metropolitan Area**

*Abate Mammo, Ph.D.*

**New Orleans: Overview of Drug Abuse Indicators in New Orleans**

*Gail Thornton-Collins*

**New York City: Drug Use Trends in New York City**

*Rozanne Marel, Ph.D., John Galea, M.A., and Robinson B. Smith, M.A.*

**Philadelphia: Drug Use in Philadelphia, Pennsylvania**

*Samuel J. Cutler and Mark R. Bencivengo, M.A.*

**Phoenix: Drug Abuse Trends in Phoenix and Arizona**

*Ilene L. Dode, Ph.D.*

**St. Louis: Patterns and Trends in Drug Abuse in St. Louis**

*Heidi Israel Adams, Ph.D., R.N., L.C.S.W., and Jim Topolski, Ph.D.*

**San Diego: Indicators of Drug Abuse in San Diego County**

*Michael Ann Haight, M.A.*

**San Francisco: Patterns and Trends of Drug Use in the San Francisco Bay Area**

*John A. Newmeyer, Ph.D.*

**Seattle: Recent Drug Abuse Trends in the Seattle-King County Area**

*Caleb Banta-Green, Susan Kingston, Michael Hanrahan, Geoff Miller, T. Ron Jackson, Ann Forbes, Arnold F. Wrede, Steve Freng, Richard Harruff, Greg Hewett, Kris Nyrop, and Mark McBride*

**Texas: Substance Abuse Trends in Texas**

*Jane Carlisle Maxwell, Ph.D.*

**Washington, D.C.: Patterns and Trends of Drug Abuse in Washington, D.C.**

*Eric Wish, Ph.D., Erin Artigiani, M.A., Thomas Gray, M.A., and Sara Boonstoppel, B.A.*

***Special Presentations: Panel on Methadone-Associated Mortality***

**Methadone-Associated Mortality**

*Alan Trachtenberg, M.D., M.P.H.*

**Methadone-Related Deaths in Eight Metropolitan Areas: 1997–2001**

*Elizabeth H. Crane, Ph.D., M.P.H.*

**Data Sources on Methadone**

*Jane C. Maxwell, Ph.D.*

**Prescription Opioid Use: Pain Management and Drug Abuse in King County and Washington State**

*Caleb Banta-Green, Joseph Merrill, T. Ron Jackson, Michael Hanrahan*

***Special Presentations: Methamphetamine Abuse in Missouri***

**DEA Data: Drug Abuse Patterns and Trends in Missouri**

*Christopher Heilig*

**Missouri Indicator Data: Toxicology Tests for Criminal Cases in Rural Counties**

*Pamela Johnson*

**Methamphetamine Lab Statistics and Trends**

*Captain Ron Repogle*

**Special Drug Courts: Female Drug Abusers and Dually Diagnosed Mental Health Arrestees in St. Louis**

*Judge James Sullivan*

**Rural/Urban Differences in Methamphetamine Treatment in Missouri**

*Jim Topolski, Ph.D.*

**Substance Abusers Treated by the Family Counseling Center in Southeast Missouri**

*Myra Callahan and Ravdeep Kanuja, M.D.*

**The Club Drug Study: St. Louis, Miami, and Sydney, Australia—(CD-SLAM)**

*Linda B. Cottler, Ph.D. and Lee Hoffer, Ph.D.*

**Special Presentations: ADAM and NFLIS**

**Update on the ADAM**

*Diana Noone*

**National Forensic Laboratory Information System (NFLIS)**

*Liqun Wong and Valley Rachal*

**International Reports**

**Canada: The Most Recent Canadian Substance Use and Abuse Data and Update on the Canadian Community Epidemiology Network on Drug Use (CCENDU)**

*Colleen Anne Dell, Ph.D.*

**Mexico: Update Of The Epidemiologic Surveillance System of Addictions (SISVEA) in Mexico: 2002**

*Roberto Tapia-Conyer, M.D., Patricia Cravioto, Ph.D., Pablo Kuri, M.D., Fernando Galvan and Blanca de la Rosa*



