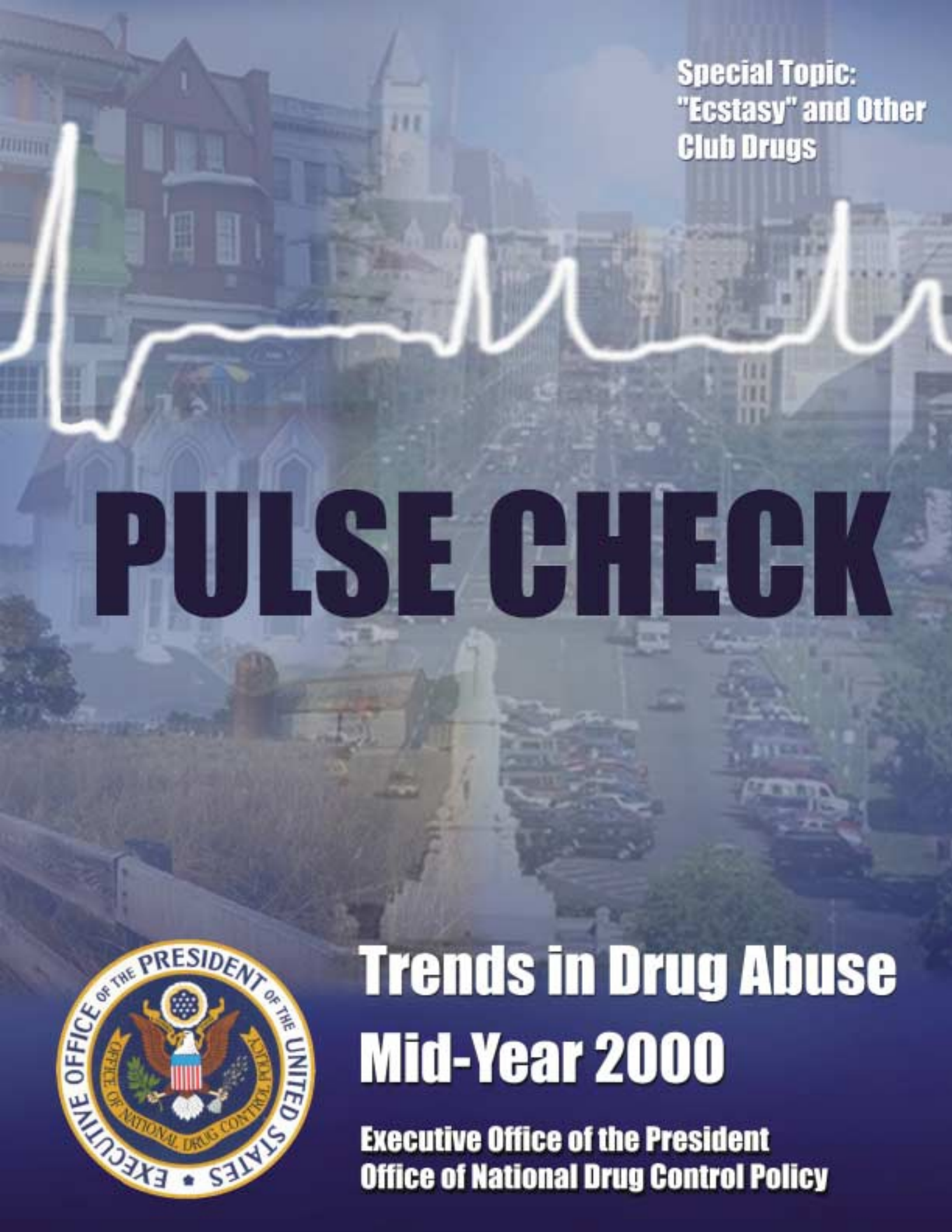

Special Topic:
"Ecstasy" and Other
Club Drugs

PULSE CHECK

Trends in Drug Abuse
Mid-Year 2000

Executive Office of the President
Office of National Drug Control Policy

PULSE CHECK

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Executive Office of the President
Office of National Drug Control Policy
Washington, DC 20503
NCJ 186747
March 2001

ACKNOWLEDGEMENTS

The Office of National Drug Control Policy (ONDCP) acknowledges the contributions made by the 74 *Pulse Check* sources who voluntarily prepared for and participated in the in-depth discussions that are the basis for this report. Their names (unless they requested anonymity) appear in an appendix. Information presented in this publication reflects the views of those sources, and not necessarily those of the Federal Government.

Marcia Meth, Rebecca Chalmers, Gail Bassin, and the staff of Johnson, Bassin & Shaw, Inc., produce the *Pulse Check* for ONDCP, under Contract Number 282-98-0011, Task Order Number 008. Anne McDonald Pritchett, Office of Programs, Budget, Research, and Evaluation, ONDCP, serves as the project director and editor for Pulse Check.

This issue and previous issues of *Pulse Check* are available online at <www.whitehousedrugpolicy.gov>. Click on "Publications."

NCJ 186747

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MID-YEAR 2000 *PULSE CHECK* HIGHLIGHTS

Unlike previous issues of *Pulse Check*, this issue reports on changes between 1999 and 2000. Future *Pulse Checks* will be issued by the Office of National Drug Control Policy (ONDCP) twice annually. The current report is based on discussions with epidemiologists, ethnographers, law enforcement officials, and methadone and non-methadone treatment providers. More specifically, 74 telephone discussions were conducted between September and October 2000. Based on these conversations, two key features characterize an otherwise stable illicit drug problem in comparing 1999 and 2000.

- An emerging club drug scene continues to grow across the Nation.
- In some cities, heroin has increased in supply, in purity levels, and in the number of users.

Following are the highlights of findings on heroin, cocaine, marijuana, methamphetamine, club drugs, and prescription drug abuse.

- Heroin:
  - In several areas, sources note increases in supply, purity, aggressive marketing strategies, and indoor selling.
  - Several increases are noted in the numbers of younger people, often suburbanites, starting to use the drug, usually via snorting.
  - In New York and Portland (Maine), some adolescents are reportedly shifting from snorting to injecting as the primary route of administration.
- Crack and powder cocaine:
  - Availability is stable in the majority of sites.
  - Only a few isolated changes are reported in user groups. Some young people are increasingly abusing powder cocaine, sometimes as a club drug, as noted by sources in Boston, Columbia (South Carolina), Denver, Los Angeles, Memphis, Miami, and New Orleans.
  - While epidemiologic and ethnographic sources report few signs of crack initiation, treatment sources in 10 cities, spanning all regions of the country, report increases in novice use of crack.
  - Street-level crack and powder cocaine sellers usually use their own drug and are often involved in violence, according to law enforcement sources in nearly every site.
- Marijuana:
  - According to law enforcement, epidemiologic, and ethnographic sources, availability is stable in the majority of sites; however, potency has increased in at least seven cities, mostly due to improved cultivation techniques, such as hydroponic growing of marijuana.
  - Users span a wide range of age, racial/ethnic, gender, socioeconomic, and residence groups, with adolescent users often outnumbering young adult users.
  - Law enforcement sources indicate that sellers span a wide age range but are predominantly adolescents and young adults.
  - Sellers are usually users, as reported by law enforcement sources in nearly every site, but are seldom involved in violence.
- Methamphetamine:
  - Availability has increased in numerous sites, particularly in the West, but findings are mixed elsewhere.
  - Lab seizures have increased, often due to increased targeted law enforcement efforts.
  - While the methamphetamine scene is generally a rural phenomenon, it has started spreading to some suburban and inner-city areas, as in Seattle.
  - Demographic shifts are noted, such as an increase in methamphetamine use among women in Denver and Honolulu, increased adolescent use in Los Angeles, and the initiation of use in New York's gay community.
  - Route of administration varies widely across sites, and some shifts are noted.
- Club drugs:
  - Availability of club drugs has increased dramatically across the Nation, especially for ecstasy, which has increased in nearly every city.
  - Ketamine availability is increasing in most cities, whereas gamma hydroxybutyrate (GHB) and flunitrazepam (Rohypnol) is concentrated in the South and West, where availability trends are mixed.

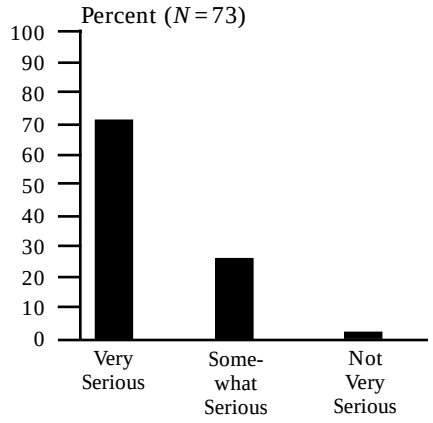
- Club drug users and sellers tend to be young, white, middle-class males and females who use or sell the drugs in combination with other drugs, such as hallucinogens, cocaine, heroin, marijuana, methamphetamine, and prescription drugs.
- Club drug activity generally occurs in suburban areas, although ecstasy activity is moving to urban areas as well.
- Ecstasy user and seller groups are also expanding to include more blacks and Hispanics, and use and sales settings continue to expand from exclusively night-clubs and raves to high schools, streets, and open venues.
- As the ecstasy supply increases, the use of ecstasy adulterants, especially other stimulants, is also increasing.

■ Prescription drugs:

- OxyContin®: This long-acting form of the opiate oxycodone, prescribed for severe pain, is abused in some areas, such as Portland, Maine. Recently, it has been involved in numerous overdoses and prescription altering schemes in Portland, especially in rural areas.
- Viagra® (sildenafil citrate): Use of this drug with methamphetamine has resulted in medical consequences in the Los Angeles gay community. It is also used with club drugs in that city to gain a "better bump."

How serious is the perceived drug problem? *(Exhibit 1)* Among the *Pulse Check* sources, 73 discussed their perception of how serious the illegal drug problem was in their communities during 2000. The majority (71 percent) describe the problem as "very serious," and about one-quarter (27 percent) consider it to be "somewhat serious." Only one source (in El Paso) describes drugs as a "not very serious" problem in the community. No one considers drugs "not a problem."

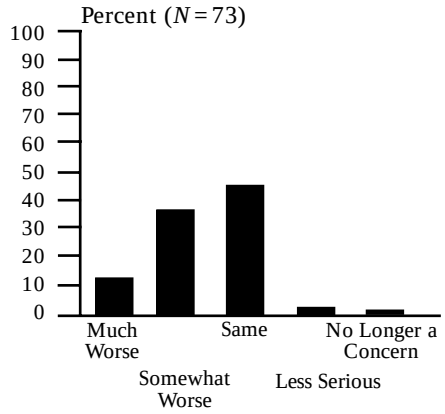
Exhibit 1. How serious is the perceived drug problem?



Sources: Epidemiologic, ethnographic, treatment, and law enforcement respondents

How has the perceived drug problem changed between 1999 and 2000? *(Exhibit 2)* In comparing the two reporting periods, nearly half (45 percent) of the 73 responding sources describe their community's drug problem as "unchanged." About one-third (36 percent) consider the situation to have worsened somewhat, and 16 percent feel the problem has gotten much worse. Only two sources (in Memphis and New York) perceive that their community's drug problem has become less serious.

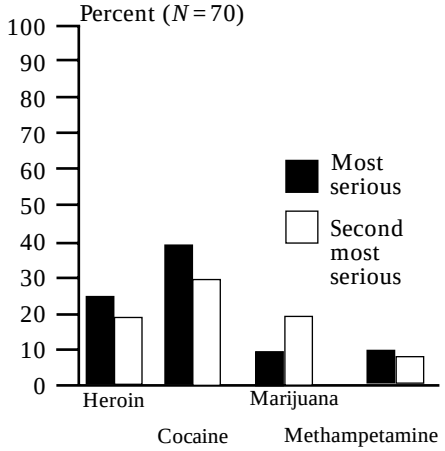
Exhibit 2. How has the perceived drug problem changed between 1999 and 2000?



Sources: Epidemiologic, ethnographic, treatment, and law enforcement respondents

What are the most serious drug problems in the 20 Pulse Check communities? *(Exhibits 3 and 4)* Cocaine is most commonly described as the most serious drug problem, especially in terms of adverse consequences. Sources, however, tend to combine both crack and powder cocaine into one category. If those two cocaine forms could be separated, it is possible that heroin would equal or even surpass crack as the most serious drug problem.

Exhibit 3. What are the most serious drug problems in the 20 Pulse Check communities?



Sources: Epidemiologic, ethnographic, treatment, and law enforcement respondents

Marijuana is perceived as the most serious drug problem by seven sources in six cities (Billings, Boston, Columbia, Denver, Los Angeles, and Sioux Falls), and methamphetamine is considered the most serious drug problem by another seven sources in three cities (Billings, Honolulu, and Sioux Falls).

Exhibit 4. In which sites has the "most serious" drug problem changed?

Site/Source	1999	2000
Detroit, MI[E]	Cocaine	Heroin
New Orleans, LA[L,E]	Cocaine	Heroin
Portland, ME[L]	Cocaine	Heroin
Birmingham, AL[E]	Heroin	Cocaine
El Paso, TX[E]	Heroin	Cocaine

[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*

In only five *Pulse Check* sites do any sources perceive a change between 1999 and 2000 in the drug that presents the most serious problem: heroin replaced cocaine as the most serious drug problem according to sources in three cities (Detroit, New Orleans, and Portland); and, conversely, cocaine replaced heroin as the most serious drug problem according to sources in Birmingham and El Paso.

What new problems have emerged or intensified during 2000? *(Exhibit 5)* Club drugs, particularly "ecstasy" (methylenedioxymethamphetamine, or MDMA), are named as the largest emerging illicit drug problem in all but two sites: Billings and Birmingham.

Methamphetamine is a distant second, with sources in five sites, spanning all census regions, naming it as an emerging problem.

Exhibit 5. What new problems have emerged or intensified during 2000?

Club drugs	Methamphetamine	Prescription Drugs
Boston, MA[E,M]	Birmingham, AL[E]	Billings, MT[E]
Chicago, IL[L,E]	Denver, CO[N]	Boston, MA[N]
Columbia, SC[E,M]	Philadelphia, PA[E]	Portland, ME[L,E]
Denver, CO[L]	Seattle, WA[M]	
Detroit, MI[E]	Sioux Falls, SD[E]	Marijuana
El Paso, TX[E]		Honolulu, HI[E]
Honolulu, HI[N]	Heroin	Washington, DC[E]
Los Angeles, CA[L,E]	Billings, MT[N]	
Memphis, TN[L]	Birmingham, AL[N]	Crack
Miami, FL[E,M]	Columbia, SC[N]	Billings, MT[L]
New Orleans, LA[L,E]	Miami, FL[L]	
New York, NY[L,E]		
Philadelphia, PA[E]		
Portland, ME[N]		
Seattle, WA[L,E]		
Sioux Falls, SD[L,M]		
Washington, DC[L]		

[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*
[N] *Non-methadone treatment respondents*
[M] *Methadone treatment respondents*

Heroin is named as an emerging problem by sources in four sites: Billings, Birmingham, Columbia, and Miami.

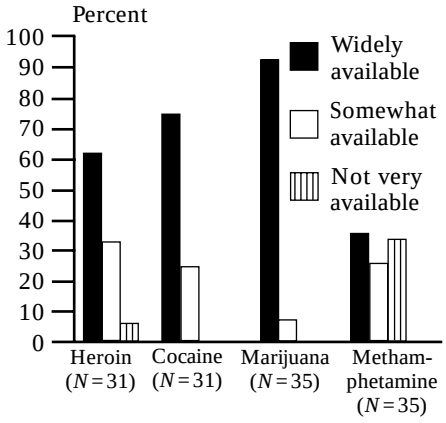
Marijuana is named in two sites (more as an intensifying, rather than an emerging, problem): Honolulu and Washington, DC.

Crack is described as an emerging problem by only one source, in Billings.

Abuse of prescription drugs is named as the most serious emerging problem in three sites: Billings, (particularly sedatives); Birmingham, and Portland, (OxyContin).

How available are the major illegal drug groups in Pulse Check communities? *(Exhibit 6)* Marijuana, by far, is the most widely available illicit drug, according to law enforcement, epidemiologic, and ethnographic sources. It is followed by cocaine, then heroin. As reported in previous *Pulse Check*s, methamphetamine continues to be the least widely available of the four major illegal drug groups, with supply remaining concentrated heavily in the western *Pulse Check* sites (Billings, Denver, Honolulu, Los Angeles, and Seattle).

Exhibit 6. How available are illegal drugs in Pulse Check communities?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

INTRODUCTION

Since 1992, the Office of National Drug Control Policy (ONDCP) has published the *Pulse Check*, a source for timely information on drug abuse and drug markets. The report aims to describe hardcore drug-abusing populations, emerging drugs, new routes of administration, varying use patterns, changing demand for treatment, drug-related criminal activity, and shifts in supply and distribution patterns. *Pulse Check* regularly addresses four drugs of serious concern: cocaine, marijuana, heroin, and methamphetamine. Additionally, the current issue provides information on the emerging problem of "ecstasy" (methylenedioxymethamphetamine, or MDMA) and other club drugs.

The *Pulse Check* is not designed to be used as a law enforcement tool but rather to be a research report presenting findings on drug use patterns and drug markets as reported by ethnographers, epidemiologists, treatment providers, and law enforcement officials. With regards to race and ethnicity, just as the National Household Survey on Drug Abuse and other national data sources report findings by race and ethnicity, sources contributing to the *Pulse Check* are asked to describe the age, ethnicity, and gender of illegal drug users and those who sell drugs and any changes in these characteristics. The information provided to *Pulse Check* reflects the observations of the sources, and their descriptions are purely for determining the size, scope, and diversity of the drug problem. The intent of the *Pulse Check* has been and continues to be merely to describe patterns in illicit drug use and illicit drug markets that are emerging in local communities.

Enhancements to Pulse Check

As in the past, the *Pulse Check* data collection methodology has involved telephone discussions with three types of sources: law enforcement officials; epidemiologists and ethnographers; and treatment providers from selected sites across the country. Additionally, the current *Pulse Check* issue reflects the latest in ONDCP's ongoing effort to enhance the project and keep up with the changing nature of the Nation's drug abuse situation in several ways:

The 20 Pulse Check Sites

- Expansion of study sites—Using a systematic site sampling plan, described in the *Methodology* appendix, 20 study sites were selected, as highlighted on the map above.

  Some of these cities are past *Pulse Check* sites, some are new ones. These sites reflect several enhancements: greater geographic diversity than in the past; distribution across the four census regions; representation of both rural and urban areas; and overlap with other sources such as ONDCP's High Intensity Drug Trafficking Area (HIDTA) sites.

- New sources plus past sources to provide a more comprehensive snapshot of hardcore drug abuse problems—As detailed in the *Methodology* appendix, new sources were recruited based on a range of selection criteria and identification strategies. To preserve continuity—since much of the information is qualitative and relies on the source's observations of patterns and trends—many of the selected individuals are also past *Pulse Check* sources.

- Data collection enhancements— Past *Pulse Check* discussion guides were enhanced with probing questions to elicit more explanations and insights into the data and policy-relevant issues, as further described in the appendix.

- A "new look" for the report—The new report format was designed to visually integrate the qualitative and quantitative information gathered.

Use and Interpretation of Pulse Check Information

By contacting professionals from different disciplines—ethnography/epidemiology, law enforcement, and treatment—a rich picture of the changing drug abuse situation emerges. Though this approach offers

substantial strengths in timeliness and depth, *Pulse Check* is not a measure of the prevalence of drug abuse or its consequences. As an anecdotal source of information, any interpretation or conclusion drawn from *Pulse Check* must be viewed carefully and in conjunction with other more quantifiable direct and indirect measures of the drug abuse problem.

More specifically, several of the limitations of *Pulse Check* are briefly discussed below.

- *Pulse Check* is limited to a report on the drug abuse situation in 20 specific sites throughout the Nation. Though considerable effort was made to select sites across a broad range of geographic areas, including Census regions and divisions, urban and rural States, racial/ethnic coverage, and high intensity drug trafficking areas, *Pulse Check* cannot be viewed as a national study, and information cannot be reasonably aggregated up to a national level.

- Of the 80 sources identified and recruited across the three disciplines, 74 provided information for this *Pulse Check* issue. The information presented in this report is based solely on the observations and perceptions of those 74 individuals. These individuals may not be knowledgeable about every aspect of the drug abuse situation in their sites, and they may have biases based on their experiences and exposures.

- Due to the comprehensive nature of the telephone discussions, sources were asked to discuss only areas in which they were thoroughly knowledgeable. Thus, the total number (*N*) of respondents to any one question might be less than 74.

Any contradictory reports within an individual site are not necessarily a *Pulse Check* limitation. Just as the site sampling methodology was designed to reflect the country's geographic and population diversity, recruiting four sources per site was incorporated into the design to reflect diversity within each of the 20 sites. For example, a law enforcement source in one site might perceive cocaine to be the community's most serious problem, while an ethnographic source at that same site might consider the most serious problem to be heroin. And they would both be right—because each might come in contact with different populations or each might deal with a specific geographic neighborhood.

Information from treatment sources is particularly susceptible to variance because some facilities target specific populations. Furthermore, treatment providers from methadone and non-methadone programs are likely to have very different perspectives on their communities' drug problems because their respective clientele differ in the nature of their drug problems. It is for this reason that two treatment sources were selected from each of the 20 sites—one from a methadone program, and one from a non-methadone program. Taken together, all four sources at each site provide a richer picture of the drug problem's nature.

Current Sources and Reporting Periods

The current report includes information gathered during September and October 2000 from telephone conversations with 74 sources, representing 20 sites across the various regions of the country. These individuals discussed their perceptions of the drug abuse situation as it was during the first 6 months of 2000 and in comparison to the same 6 months in 1999.

The law enforcement sources who provided information include 19 narcotics officers from local police departments, field office agents of the Drug Enforcement Administration (DEA), and representatives of High Intensity Drug Trafficking Areas (HIDTAs). The epidemiologists and ethnographers are 20 researchers associated either with local health departments, university-based research groups, or other community health organizations. Some of those 20 individuals are qualitative researchers who employ ethnographic techniques to obtain observational data directly from the drug user's world; others are epidemiologists who access both qualitative and quantitative data. The treatment sources are 34 providers (from 19 non-methadone programs and 16 methadone programs) randomly selected for each site from the 1998 Uniform Facility Data Set (UFDS).

These sources offer a wealth of information that, when taken together, provides a comprehensive snapshot of drug abuse patterns in communities across the country. Further, these individuals provide expertise that can alert policy makers to any short-term changes or newly emerging problems concerning specific drugs, drug users, and drug sellers.

The appendices at the end of this report provide a list of these sources, describe the methodology used to select them, and discuss the content of the approximately 1-hour conversations held with them.

TRENDS IN DRUG USE: 1999 VS 2000

HEROIN: THE PERCEPTION

How serious a problem is heroin in Pulse Check communities?

During 2000, heroin was perceived as the most serious drug problem by 19 sources in 8 *Pulse Check* cities (26 percent of 70 responding sources): Los Angeles and Seattle in the West; Detroit in the Midwest; Columbia (South Carolina) and New Orleans in the South; and Boston, Philadelphia, and Portland (Maine) in the Northeast. It ranked second only to cocaine (all forms). Furthermore, heroin was considered the second most serious drug problem by 20 percent of *Pulse Check* sources ($N = 66$). Finally, it was seen as an emerging problem drug by 4 sources in 4 cities, 3 of which are in the South (8 percent of 52 reporting sources): Billings, Birmingham, Columbia, and Miami.

Has the perception of the heroin problem changed between 1999 and 2000?

In comparing the two reporting periods, sources citing heroin as the most serious drug problem in their communities increased from 22 to 26 percent. Furthermore, during the current reporting period, four sources reported that heroin replaced cocaine (all forms) as the most serious drug problem in their communities: the epidemiologic source from Detroit, both the epidemiologic and the law enforcement sources from New Orleans, and the law enforcement source from Portland. Conversely, epidemiologic and ethnographic sources in Birmingham and El Paso reported that cocaine (either form) replaced heroin as the most serious drug problem. Heroin was reported as an emerging drug problem during the current reporting period by sources in Billings, Birmingham, Columbia (all non-methadone treatment providers), and Miami (law enforcement source).

Exhibit 1.
How has heroin availability changed (1999 vs 2000)?*

[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*
**Sources in Detroit did not respond.*

HEROIN: THE DRUG

Availability, Purity, and Price

How available is heroin across the country?

Of the 31 law enforcement, epidemiologic, and ethnographic sources discussing this question, 61 percent ($n = 19$) report heroin as widely available in their communities, and 32 percent ($n = 10$) report it as somewhat available. Only in Sioux Falls is heroin reported as not very available (by the epidemiologic source) or not available at all (by the law enforcement source).

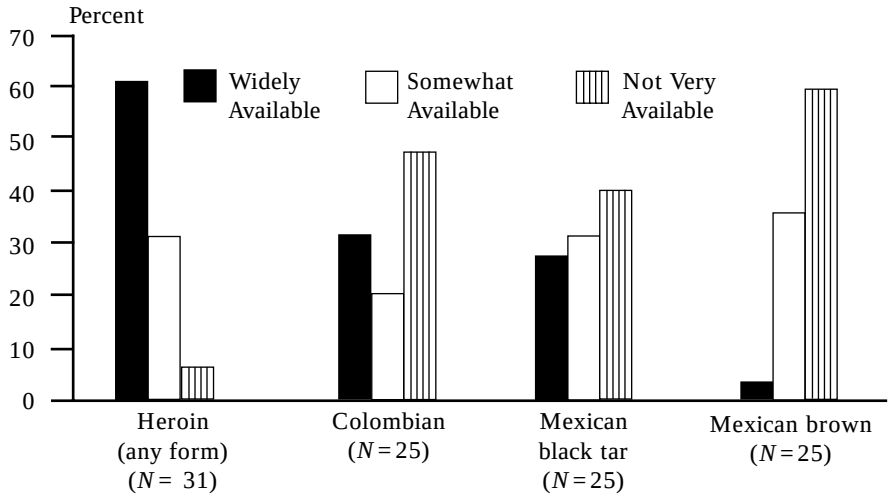
Has heroin availability changed?

(Exhibit 1) Nearly half (45 percent) of the 29 responding epidemiologic, ethnographic, and law enforcement sources perceive that heroin availability increased in their communities from 1999 to 2000, while 55 percent (17 sources) perceive that availability remained stable. No declines are reported. According to epidemiologic and ethnographic sources, heroin availability increased in seven sites, four of which are southern (Billings, Birmingham, El Paso, Miami, New Orleans, Portland, and Seattle); law enforcement sources report increases in six sites (Birmingham, Chicago, Honolulu, New Orleans, Portland, and Washington, DC).

What kind of heroin is available across the country? *(Exhibits 2 and 3)*

South American (Colombian) white and Mexican black tar heroin are the most common types of heroin in *Pulse Check* cities, cited as widely available by eight and seven sources, respectively, and as somewhat available by five and eight sources, respectively.

Exhibit 2.
How available are the different forms of heroin?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

Colombian heroin is a high-purity, snortable heroin most common in the Northeast; Mexican black tar heroin is a lower purity, injectable heroin most common in the West and South. Heroin forms in the Midwest vary widely and may include Colombian, Mexican, Southeast Asian, and Southwest Asian.

How pure is heroin across the country?

(Exhibit 4) Street-level Colombian heroin ranges from 25 to 80 percent pure, and typically is at the higher end of that range. Street-level Mexican black tar heroin ranges from 14 to 60 percent pure, according to *Pulse Check* sources, with the highest purity occurring near the U.S.-Mexican border in El Paso.

Has street-level heroin purity changed?

Heroin purity increased in eight sites and declined in two from 1999 to 2000:

Boston, MA
Chicago, IL
Columbia, SC
Denver, CO
Detroit, MI
Honolulu, HI
Memphis, TN
Miami, FL

El Paso, TX
Seattle, WA

Purity may be increasing in several areas along with increases in supply (availability) and increasingly aggressive marketing, according to law enforcement, epidemiologic, and ethnographic sources.

What are street-level heroin prices across the country?

(Exhibit 4) Street-level heroin prices tend to be similar across the country regardless of heroin type. During 2000, heroin prices ranged from $70 to $300 per gram in reporting areas, with Mexican black tar ranging from $90 to $300, Mexican brown ranging from $75 to $150, and Colombian white ranging from $75 to $300. The most common unit of street sale in reporting cities is a bag (unspecified amount) of heroin, which sells from $5 to $30. Packaging of heroin sold at the street level ranges from $20–$25 per bindle (about 1/34 gram) in Columbia, to $2 per 2-cc needle in Miami, and $20 per "fix" in El Paso.

How is heroin referred to across the country?

(Exhibit 3) Street names throughout the United States often vary by geographic region and by type of heroin. However, some terms, such

Have street-level heroin prices changed?

Only a few changes in heroin prices were reported from 1999 to 2000:

Denver, CO
Honolulu, HI
Memphis, TN
Miami, FL

Chicago, IL
El Paso, TX

Street prices often decline due to increases in supply. According to *Pulse Check* sources, heroin prices declined due to increased supply (availability) in Denver, Honolulu, and Miami. However, in Chicago, heroin prices increased, as did its availability and use.

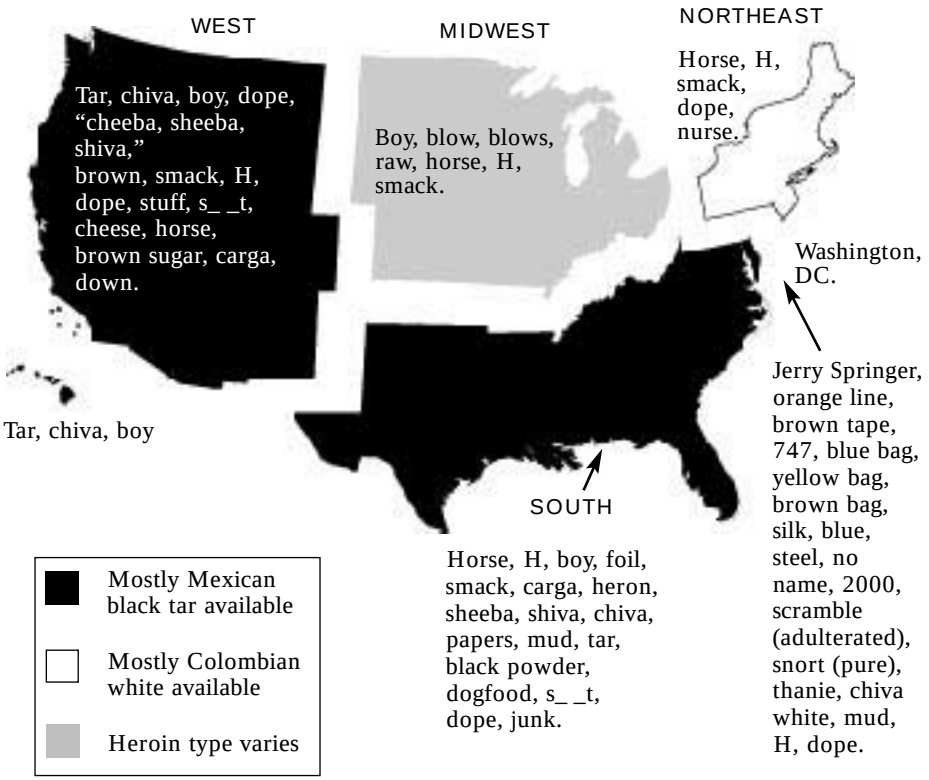
as "horse" and "H," are common across regions. Street names (slang) and brand names (dealer designations) are often interchangeable, as is the case in New York and Washington, DC. (Note: Brand names are further discussed later in this chapter, under *"How is heroin packaged and marketed?"*) New heroin names encountered during 2000 included "cheese" in Denver (referred to by youth) and "thanie" in Washington, DC. A particularly wide range of street names is reported by sources in Washington, DC, which is located on the outer edge of the South Region.

What adulterants are added to heroin? Heroin adulterants cited by law enforcement, epidemiologic, and ethnographic sources include baby powder, scapolamine, lactose, manite, strychnine, baking soda, manitol, isotol, quinine, procaine, powdered rug cleaner, cocaine, lidocaine, and ketamine. In Washington, DC, laxatives are often added to heroin that has been adulterated with manite to assuage its constipating effects, and meat tenderizers used as adulterants may cause skin abscesses. In *Pulse Check* sites with highly pure snortable heroin, adulterants are few or nonexistent.

Heroin adulterants have changed in several cities between 1999 and 2000:

- Columbia, SC: Scapolamine has decreased as a heroin adulterant.
- Miami, FL: Use of adulterants has increased; virtually any white powder is being used as a heroin adulterant.
- Seattle, WA: There has been a perceived increase in adulterants.
- Washington, DC: Purity has increased, and use of adulterants has decreased.

Exhibit 3.
How is heroin referred to, and what types of heroin predominate, in different regions of the country?



Sources: Law enforcement, epidemiologic, ethnographic, and treatment respondents

Exhibit 4.
Heroin gram prices and purity, by heroin type and city*

CITY	GRAM PRICE	PURITY
Mexican black tar		
El Paso, TX	$80–$160	60%
Honolulu, HI	$125–$200	20–30%
Los Angeles, CA	$150–$300	25%
Seattle, WA	$90–$120	14–58%
St. Louis, MO	$100	NR
Mexican brown		
Chicago, IL	$150	NR
New Orleans, LA	$75	7%
South American (Colombian) white		
Miami, FL	$100–$200	70–80%
New York, NY	$70–$95	25–70%
Philadelphia, PA	$75–$300	70–75%

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Respondents in 10 sites did not provide this information.*

HEROIN: THE USERS

Who, Where, How, and With What?

How have heroin users changed across the country between 1999 and 2000? Epidemiologic, ethnographic, and treatment sources in 13 of *Pulse Check's* 20 cities perceive numerous changes in various heroin-using populations and the ways they use the drug. No user changes, however, are reported in Billings, Birmingham, Columbia, Memphis, Philadelphia, Seattle, or Sioux Falls. Several common themes emerge, all involving increases: in younger populations, in recreational heroin use, in snorting, in suburban use, and in overdoses among younger adults (age 18–30).

How old are heroin users? *(Exhibit 5)* According to epidemiologic and ethnographic sources in the majority of *Pulse Check* sites, particularly in the Northeast and Midwest, the people most likely to use heroin are generally older than 30, with younger adults (generally in their twenties) comprising a smaller proportion of users in those sites. However, younger adults (age 18–30) are more likely than older adults to use heroin in Billings, Birmingham, El Paso, Los Angeles, and New Orleans. Teenage use is reported in several cities, including Los Angeles, Miami, New Orleans, Portland (where the numbers are still low), Seattle, Sioux Falls, St. Louis, and Washington, DC; increases in use by teens is reported in Los Angeles, New Orleans, New York, and Portland.

Then and Now:
How have heroin users changed across the country (1999 vs 2000)?*

According to epidemiologic and ethnographic sources...		*According to treatment sources...*
THE NORTHEAST		
A new cohort of suburban snorters, first reported about 3 years ago, continues to grow.	Boston, MA	Younger users are increasingly snorting heroin, using it casually, and experimenting with dangerous drug combinations, including heroin plus PCP.
While the larger established heroin user groups remain relatively stable, some new groups are emerging. For example, young suburban adolescents are increasingly initiating use by snorting, and some are shifting to injection use; and Russian youths in their late teens and early twenties, residing in inner-city neighborhoods, are increasingly "shooting" heroin.	New York, NY	There is an increase in younger adult heroin users due to its easy accessibility. They view heroin as a social drug instead of a back alley drug. Younger adults are also getting more involved in selling heroin.
Some younger teens have been experimenting with heroin for the past few years. This shift has continued to increase during the past year. Also in that city, older males have been introducing heroin to younger females.	Portland, ME	Heroin use has increased noticeably among young adults. Although males are the primary users, female use is increasing.
THE MIDWEST		
Reports suggest more younger users, more suburban users, and more injecting (but snorting still predominates).	Chicago, IL	Heroin use is increasing among younger adults. Snorting has become more common than injecting as availability continues to increase. Drug overdoses have increased.
Heroin deaths increased in suburban Macomb County. New use among young suburbans is a potentially emerging problem.	Detroit, MI	Heroin is more available to younger suburban users. Treatment outreach remains in the urban area, but the need to reach younger adults in suburban communities is being noticed.
A recent increase in heroin use is probably due to new younger users. A recent increase in snorting could be due to fear of AIDS, increased heroin purity, or possibly both factors.	St. Louis, MO	No changes are reported.

**No major changes in heroin-using populations are reported by sources in seven sites: Billings, Birmingham, Columbia, Memphis, Philadelphia, Seattle, and Sioux Falls.*

According to responding treatment providers, age breakdowns follow a somewhat regional pattern in their specific programs. For example, young adults (age 18–30) account for the largest group of heroin clients in most Northeast Region programs (New York, Philadelphia, and Portland). Boston is an exception, however, with adolescents featuring most prominently in the methadone program, and older adults (age 30 and older) most prominent in the non-methadone program. Similarly, in the South Region, young adults outnumber older clients in numerous programs (in Birmingham, Columbia, Memphis, and Washington, DC), and adolescents are the largest heroin group at the New Orleans non-methadone program. In the Midwest and West Regions, however, the younger and older adult age groups are split fairly evenly among the cities and between responding methadone and non-methadone programs.

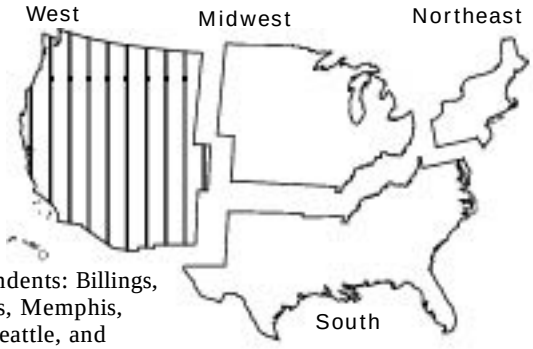
Are there gender differences in who uses heroin? All but 1 of the 20 epidemiologic and ethnographic sources agree that males are more likely than females to use heroin, at least among the largest user groups. The exception is Seattle, where males and females are equally likely to use the drug. The sexes, however, are evenly split in some of the smaller user groups, such as late adolescents in Portland (whose numbers are still low) and a suburban cohort of white middle-class users in Seattle's suburbs.

Then and Now:
How have heroin users changed across the country (1999 vs 2000)?*

According to epidemiologic and ethnographic sources...		*According to treatment sources...*
THE WEST		
Slightly increasing numbers are reported for younger heroin users (age 18–25), new users, and white users; slightly declining numbers are reported for users age 26–34 and for black and Hispanic users. While the vast majority of heroin users still inject, a slight increase in smoking and inhaling suggests a change in route of administration.	Denver, CO	Heroin is less expensive and easy to find on the street. Younger, white adults are using the drug at work and combining use with cocaine and alcohol. Snorting and smoking are increasing, and users believe that they will not be at risk for overdosing.
No changes are reported.	Honolulu, HI	Females use heroin more often than males. Novice users are experimenting with smoking heroin, but the majority still inject.
Teens are perceived to be increasingly abusing heroin, increasingly smoking it, and using with peers rather than alone.	Los Angeles, CA	Heroin users are able to maintain some type of employment. Gang members and female users are showing up more frequently in treatment.
THE SOUTH		
The number of black heroin users appears to be increasing.	El Paso, TX	White suburban users (young adults) are increasing, but Mexican-Hispanics remain the primary user group.
The second largest group of heroin users is reportedly becoming younger.	Miami, FL	Recreational heroin use, emerging among young adults, is considered "South Beach chic." More females are using the drug, and its use crosses over all ethnic groups. It is being used orally and in group settings, especially on weekends in clubs.
More younger people are starting to snort heroin.	New Orleans, LA	As availability is increasing, adolescents are snorting the drug, often due to the misconception that this practice is safe. As a result, drug overdoses by snorting are increasing.
The younger group of heroin users are a small but growing problem. The number of snorters, a relatively new group, is increasing.	Washington, DC	Older adults are more likely to use heroin, but younger users are increasing. More users are snorting heroin, as more pure heroin becomes available on the street.

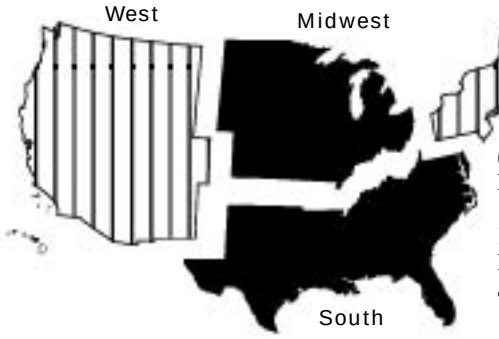
Exhibit 5.
What age group is most likely to use heroin?

According to non-methadone treatment sources...



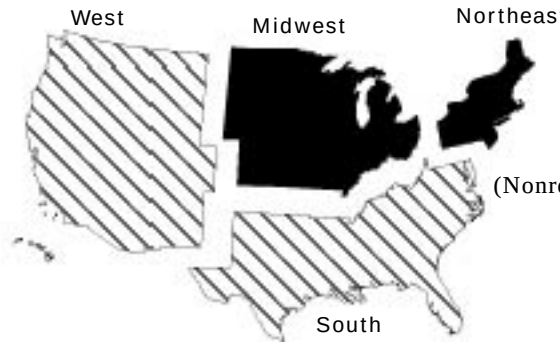
(Nonrespondents: Billings, Los Angeles, Memphis, St. Louis, Seattle, and Washington, D.C.)

According to methadone treatment sources...



(Nonrespondents: Billings, Denver, Honolulu, Miami, New York, Philadelphia and St. Louis)

According to epidemiologists and ethnographers...



(Nonrespondent: Seattle)

Different Sources, Different Populations

Epidemiologic and ethnographic sources tend to report somewhat older user groups than do treatment sources —highlighting the need for multiple sources in order to capture all populations and get a more comprehensive picture.

- ■ > 50 percent of sources report 30 + years.
- □ > 50 percent of sources report 18–30 years.
- ▨ About 50 percent of sources report 30 +, and 50 percent of sources report 18–30.
- ▥ Insufficient respondents to draw a conclusion.

Four *Pulse Check* treatment sources report females to be the largest heroin-using group: Columbia, Honolulu, Memphis, and New York. (Note: The New York source is from a treatment program targeted at women.) In Miami, males and females are equally likely to use. According to treatment sources in El Paso and New York, an increase in female heroin use has led to an increase in prostitution.

Is any racial/ethnic or socioeconomic group more likely to use heroin? Heroin appears to present an equal opportunity problem to all racial/ethnic groups. The *Pulse Check* cities are representative of the Nation's diversity, and the heroin problem appears to mirror that diversity. For example, according to epidemiologic and ethnographic sources, whites are the primary users in Billings, Boston, Denver (where they are in majority, but underrepresented relative to the city's population), Miami, Philadelphia, Portland, Seattle (where they are slightly underrepresented), and Sioux Falls; blacks are more likely than other groups to use heroin in Chicago, Detroit (where they are overrepresented relative to the city's population), New Orleans, St. Louis, and Washington, DC; and Hispanics are the primary user group El Paso, Los Angeles, and New York.

Pulse Check treatment sources similarly report diverse racial/ethnic

An Unusual Population of Youthful Heroin Users

New York, NY: Russian youths in their late teens and early twenties are increasingly shooting heroin, according to the ethnographic source. This population is particularly difficult to reach because of cultural bias in views on treatment, approaches to treatment, and access to treatment.

Where do young new users live?

New York, NY: According to the ethnographic source, "a growing population of young affluent white adolescents in Long Island have been initiating heroin use: they start off snorting, then many move to injecting. Many come into needle exchange programs in Brooklyn, pick up free needles, buy heroin, return to Long Island, and sell enough to support their habit. Many are being thrown out of their homes." Similarly, a treatment source in New York indicates that both male and female use is growing in the suburbs among white college-educated groups.

Denver, CO: Anecdotal reports suggest a big change in new users: they are younger, more affluent, suburban, white users who subscribe to "heroin chic." Anecdotal reports also suggest more rural and suburban adolescents are using "chiva."

Portland, ME: "Many street-involved kids 'hang' on the street and use heroin," reports the epidemiologic source in that small urban community. "Also, some students who consider themselves 'artistic' subscribe to heroin 'chic.'"

distributions at their programs: whites are the primary users in Billings, Los Angeles, Memphis, New York, Sioux Falls, and Portland; blacks are most likely to use in Chicago and Detroit; and Hispanics are more likely than other groups to use heroin in El Paso.

Unlike race/ethnicity, socioeconomic status (SES) seems to play a major role in the groups of people most likely to use heroin: in every *Pulse Check* city, the largest group of users reported by epidemiologic, ethnographic, and treatment sources is in the lower SES category. However, the second-most-likely user groups show more diverse SES: for example, the middle class is cited by epidemiologic and ethnographic sources in Boston, Chicago, Los Angeles, Miami, Seattle, and St. Louis; and the upper class is cited in Miami.

Some treatment sources note that heroin use by middle-class whites is growing as the glamorization of heroin becomes more accepted. In Miami, for example, heroin is emerging as a popular drug among the "beach chic"—white, middle-to-upper-class, urban young adults. In Seattle and Los Angeles, the glamorization and use of heroin is crossing all classes and ethnic groups.

Are high school dropouts more likely to use heroin? According to responding treatment sources, among clients at the different programs for whom heroin is the primary drug of use, about one-half completed and one-half did not complete high school. For example, heroin clients at reporting programs are more likely to be high school graduates in Birmingham, Denver, Detroit, El Paso (non-methadone), Honolulu, Miami, Portland, and Sioux Falls. Conversely, they are more likely to have only "some high school" education at the programs in Boston, Chicago, Columbia, El Paso (methadone), Los Angeles, New York, New Orleans, Philadelphia, and Seattle.

Where do heroin users tend to reside? Inner-city areas are generally cited by epidemiologists and ethnographers as the most likely place of residence for heroin users. El Paso's largest heroin-using group is the homeless. The suburbs, however, are reported as a place of residence for some users in many sites, including Boston, Chicago, Denver, Detroit, Los Angeles, Miami, New York, Seattle, and St. Louis. Moreover, epidemiologists and ethnographers report that use in the suburbs has increased recently in at least four sites: Boston and New York in the Northeast, and Chicago and Detroit in the Midwest.

Treatment sources similarly indicate that most heroin users reside in urban areas. However, they too note heroin users in many suburban areas, including Billings, Boston, Denver, Honolulu, and New York, with an increase in suburban users in El Paso. As a matter of fact, most of the clients in one of the Detroit programs live in the suburbs and come into the city for treatment.

How do heroin users administer heroin? *(Exhibit 6)* Injecting is the most common route of heroin administration, according to epidemiologic and ethnographic sources in the majority of cities. Snorting, however, features more prominently than injecting in Chicago, Detroit, New

Exhibit 6.
How do users administer heroin?

Injecting *is most common in...*

West	Denver[E]	South	Birmingham[E,N]
	Honolulu[E,M]		Columbia[E,N,M]
	Los Angeles[E,N,M]		El Paso[E,N,M]
	Seattle[E,M]		Memphis[E,N,M]
Midwest	Chicago[E,M]		Miami[E]
	Detroit[M]		New Orleans[M]
	Sioux Falls[E,M]		Washington, DC[E,N,M]
	St. Louis[E]	Northeast	Boston[E,N,M]
			Philadelphia[E,N]
			Portland[E,N,M]

Snorting *is most common in...*

Midwest	Chicago[E]	South	Memphis[M]
	Detroit[E,N]		Miami[N]
	Sioux Falls[M]		New Orleans[E,N]
		Northeast	New York[E]

[E] *According to epidemiologists/ethnographers*
[N] *According to non-methadone treatment providers*
[M] *According to methadone treatment providers*

Orleans, and New York; and the number of snorters is also fairly high in several cities, including Boston, Miami, St. Louis, and Washington, DC. An unusual form of snorting is reported among St. Louis' younger user group (late teens and early twenties): they often mix the heroin with water in an eyedrop squeeze bottle and snort it from the bottle. In Sioux Falls, smoking is reported as the most common route of administration among the younger (age 17–25) using population. "Chasing the dragon"—placing heroin on aluminum foil, lighting a fire underneath it, and sniffing the resulting smoke through a straw or other means—is reported by epidemiologists in New York and Honolulu.

Treatment sources report a similar pattern for route of administration across the country, with injection predominating in Boston, Chicago, Detroit, El Paso, and New York. Snorting is more common in Columbia, Miami, Memphis, and New Orleans. In Sioux Falls, young adults are the most likely to use heroin via snorting. In Billings, Denver, and Seattle, smoking is the route of initiation to heroin for younger adults. Adolescent snorters are reported in New Orleans and Miami. In a Washington, DC, treatment program, snorting among all clients is increasing. Columbia treatment sources report that snorters prefer this practice to injection because they mistakenly view it as nonaddictive.

Are youth forgetting the fear of needles?

Portland, ME: Needle exchange workers are being approached by youth younger than 18 who view injecting as a "badge of courage."

Treatment sources in Boston, Chicago, and New York attribute increases in heroin overdoses to the myth among users that snorting prevents overdoses. Even more disturbing than these misconceptions about snorting, however, is the possible shift in young people's perceptions about injecting. The New York ethnographer reports an increase in suburban adolescents shifting from snorting to injecting, with a growing number traveling to inner-city needle exchange programs. A similar phenomenon is noted in Portland, Maine, a much smaller, more sparsely populated, more rural site: the epidemiologist there, too, reports adolescents in needle exchange programs.

What other drugs do heroin users take? Cocaine is the drug most often taken along with heroin, either in combination ("speedballing") or sequentially, according to epidemiologists and ethnographers in the majority of *Pulse Check* cities (Boston, Chicago, Detroit, El Paso, Los Angeles, Miami, New Orleans, New York, Philadelphia, Seattle, and Washington, DC). Speedballs can involve either powder cocaine (often cooked) or crack (sometimes dissolved, as in Boston); they are generally injected, but they can also be smoked. In New York, for example, speedballs are both injected and smoked.

Heroin users also sometimes consume benzodiazepines, according to epidemiologists and ethnographers in six *Pulse Check* cities: Boston, Miami, New York, Philadelphia, Portland, and Seattle. In Boston, they are taken sequentially, substitutionally, or sometimes simultaneously with heroin. Concurrent benzodiazepine usage is also reported in Portland, but most heroin in that city is consumed without other drugs. Specifically, alprazolam (Xanax®) is mentioned in New York and Philadelphia and clonazepam is mentioned in Seattle. Additionally, the New York ethnographer reports that heroin users also consume other prescription drugs such as amitriptyline (Elavil®) and clonodine (Catapres®), often purchased around methadone clinics, to enhance their heroin high or to calm them down.

Heroin Use in the Music Industry

Los Angeles, CA: The epidemiologic source reports the perception that a disproportionate number of people in the music industry use heroin and are becoming increasingly impaired because of their addiction. Unlike the "grunge rockers" of the early 1990s, this group is not part of the "heroin chic" scene; rather, they behave more like "a cohort that will be around for a while."

Miami's younger heroin-using cohort consumes a variety of substances, including methylenedioxymethamphetamine ("ecstasy" or MDMA) and ketamine ("special K") as well as powder cocaine and benzodiazepines. The younger cohort in Washington, DC, consumes marijuana and malt liquor. Alcohol is also mentioned by epidemiologic and ethnographic sources in Denver (a distant second in use among the younger cohort), Detroit, Philadelphia, and St. Louis.

The majority of *Pulse Check* treatment sources across the country report that primary heroin clients also use alcohol. In Los Angeles, they also use cocaine. In El Paso, "speedballing" is defined as methamphetamine plus heroin, and in Honolulu heroin is used in combination with "ice." In a Birmingham program, the concurrent

use of opiates and benzodiazepines surpasses the use of heroin as the primary drug problem. Methadone clinics in Memphis, Portland, and St. Louis identify an increase in the past year of opiate and related pharmaceuticals use. Younger users in Boston are combining heroin with PCP. In most sites where heroin use among young adults is reported, these younger users reportedly experiment with dangerous drug combinations that frequently produce psychotic states.

Exhibit 7.
Where and with whom is heroin used?*

	Site	Setting or context
West	Denver, CO	In homes, small group settings (not in shooting galleries)
	Honolulu, HI	In small groups, quiet back alleys (don't cause trouble)
	Los Angeles, CA	At home (alone or with other groups of users)
	Seattle, WA	At home, in bathrooms of coffee shops, in bars
Midwest	Chicago, IL	In apartments; some in automobiles
	Detroit, MI	In homes, cars, private settings on street (no shooting galleries or group use)
	Sioux Falls, SD	In housing units
	St. Louis, MO	In very private, small groups or alone; some anecdotal data about social use at parties, in small groups
South	Birmingham, AL	In fellow user's house
	El Paso, TX	In bars, on streets; sometimes in parks, in homeless shelters; more rarely, in friends' homes
	Memphis, TN	Not applicable ("a cocaine and alcohol town")
	Miami, FL	In "get-off" houses (shooting galleries); some in clubs
	New Orleans, LA	In abandoned houses, indoor settings; some in social settings indoors
	Washington, DC	In abandoned buildings, alleys, apartments; some on streets
Northeast	Boston, MA	On street, in shooting galleries; some indoors
	New York, NY	Indoors (shooting galleries, private hallways, abandoned apartments), but also on streets, in parks
	Philadelphia, PA	In "hit" houses, shooting galleries (hitter does injecting for you)
	Portland, ME	Underground, in room or apartment; no street scene; difficult to be anonymous in rural environment, so law enforcement can move in easily, tends to push activity indoors

Sources: Epidemiologic and ethnographic respondents
**Sources in two sites did not respond: Billings and Columbia.*

Where and with whom is heroin used? *(Exhibit 7)* Heroin use tends to be an indoor activity. Some street use, however is noted by epidemiologic and ethnographic sources in Boston, Detroit, El Paso, Honolulu, and New York. Even the street settings, however, tend to be in private areas, such as quiet back alleys.

The indoor settings are more varied, ranging from apartments, cars, and abandoned houses to the bars of El Paso, the clubs of Miami, the coffee shop bathrooms of Seattle, and the "shooting galleries" of Boston, Miami (where they are known as "get-off houses"), New York, and Philadelphia. According to the Philadelphia epidemiologic source, a shooting gallery in that city, as opposed to a "hit house," is a place where "the hitter does the injecting for you."

Use tends to be alone, but small group settings (particularly among younger users) are reported by epidemiologists and ethnographers in Birmingham, Denver, Honolulu, Los Angeles, and St. Louis.

Treatment providers report that heroin use is becoming more recreational and social. The increase in heroin availability in most of the *Pulse Check* sites, and the misconceptions among users that snorting is less dangerous and does not cause overdose, are the bases of the emerging social dynamic. Treatment providers in Columbia, Boston, Honolulu, Sioux Falls, and Seattle report the casual use of heroin among young adults. In most sites, the use of heroin occurs at home and is seen as an indoor activity.

Exhibit 8.
How has heroin use impacted the health of users?

Health Consequences	*Pulse Check* Site	Adverse Impact	Comments
HIV/AIDS	El Paso, TX	↑	The practice of unprotected sex has not declined.
	Miami, FL	↑	HIV/AIDS is increasing due to exchanging sex for drugs.
	New Orleans,	↑	The number of cases has increased statewide.
	New York, NY	↑	Clients elect not to get tested for HIV/AIDS.
	Portland, ME	↑	The popularity of heroin is seen as the cause of increased cases of HIV/AIDS.
	Seattle, WA	↑	The number of local area HIV/AIDS cases has increased dramatically.
	Los Angeles, CA	↔	HIV cases have remained stable in the program over the past year but have increased in the local area due to unprotected sex.
	Billings, MT	↓	HIV/AIDS has decreased over the last year; the change is credited to effective education.
	Columbia, SC	↓	
Hepatitis C	Billings, MT	↑	Health professionals view the increase in hepatis C as a serious problem.
	Columbia, SC	↑	Hepatitis C cases have increased in the program and in the local area.
	Los Angeles, CA	↑	Clients seeking admission frequently test positive for hepatitis C. Cases have increased in the community due to use of unclean needles.
	Portland, ME	↑	Treatment providers attribute a dramatic increase in hepatitis C to more rigorous testing.
	Washington, DC	↔	Cases have remained stable.
Comorbidity issues	Honolulu, HI	↑	The mixing of dangerous drugs has caused an increase in psychiatric and societal problems and crime.
	Los Angeles, CA	↑	Cases of conduct disorders have increased.
	New York, NY	↑	Many clients are presenting with psychiatric disorders.
	Portland, ME	↑	Dually diagnosed clients have increased.

Sources: Methadone and non-methadone treatment providers

Although heroin use is occurring in isolated areas in Chicago, it is seen in clubs in Miami and at work in Denver.

How is heroin impacting the health of users? *(Exhibit 8)* In general, responding treatment providers indicate that heroin use is having an increased medical impact on the health of their clients, particularly with respect to acquired immunodeficiency syndrome (AIDS), human immunodeficiency virus (HIV), hepatitis C, and comorbidity (dual diagnosis of substance abuse and mental health disorders). Stable or declining trends are reported by treatment sources in only four *Pulse Check* cities: Billings, Columbia, and Los Angeles (for HIV/AIDS); and Washington, DC (for hepatitis C).

What are the barriers to treatment? Several treatment sources indicate that heroin users face a variety of barriers—ranging from staff issues to limited slot capacity to transportation problems—in obtaining effective treatment:

- Billings, MT: Trained and certified staff are in short supply.
- Birmingham, AL: The number of available treatment beds is insufficient to meet the need.
- Columbia, SC: The local area lacks a good mass transit system, thus impacting client access to treatment.
- Chicago, IL: Programs lack the monetary support to hire and retain quality staff, especially trained psychiatric staff.
- Los Angeles, CA: Funding for treatment slots has been reduced. Transportation issues present challenges for providers who are trying to keep clients in treatment.
- New Orleans, LA: The program lacks funding to provide transportation for clients. In addition, a medical detoxification facility would assist in improving services for clients.
- Sioux Falls, SD: The area is economically depressed, and few funding options are available. Clients have a difficult time locating treatment and finding the transportation to get them to treatment.
- Washington, DC: Clients cannot afford medications, and some cannot afford the sliding scale.

HEROIN: THE SELLERS

Who, How, Where, and with What?

How are street-level heroin sellers organized? According to law enforcement sources, heroin distributors are affiliated with trafficking organizations in only 4 of 17 reporting *Pulse Check* cities: Dominican nationals work for Colombian trafficking organizations in Boston, street sellers are affiliated with Mexican and South American cartels in Denver, and sellers are affiliated with Mexican trafficking organizations in El Paso and Honolulu. Other organized distributors in U.S. cities include street gangs in Chicago, El Paso, Memphis, and Seattle; loose-knit gangs in Columbia; Dominican national organizations in Portland; and Hispanic organizations in Washington, DC. Also in Washington, DC, street-level heroin is distributed by fairly independent individuals with three to four people working for them. In Los Angeles, heroin is distributed primarily among family and friends; in Portland, heroin addicts sell some of the street-level heroin.

Information from epidemiologic and ethnographic sources in *Pulse Check* cities corroborates the affiliation of street-level heroin distributors with traffickers in Boston, Denver, and Honolulu. Additionally, epidemiologic and ethnographic sources report that street gangs distribute heroin in Miami, New York (where gangs are known as "crews"), and St. Louis. In St. Louis and Philadelphia, organized crime groups unconnected with street gangs reportedly sell heroin; in Washington, DC, young crews, which are smaller and more loosely organized than typical street gangs, plus their "runners" are involved in heroin sales. Many street-level heroin sellers are independent in Detroit and New York.

Drug Use and Violence Among Heroin Sellers

Independent and trafficking-affiliated heroin sellers are cited as using heroin more frequently than gang-affiliated sellers. Often, they sell the drug to use it. Violence—namely turf wars and gunfire among organized distributors—is associated with heroin sales in most (13) cities. In most *Pulse Check* cities, violence is less associated with heroin sales than with powder and crack cocaine sales.

How old are street-level heroin sellers? The ages of heroin sellers vary by type of distribution, according to law enforcement sources. For example, young adults (18–30) tend to be involved in street gangs, whereas both young adults and older adults (<30) are involved with trafficking-affiliated organizations. Only in Miami are adolescents, as well as young adults, cited by law enforcement officials as heroin distributors, although the El Paso ethnographer states that many heroin sellers are as young as 14. Although the law enforcement source in Honolulu states that older adults typically sell heroin, the epidemiologic source there adds that many youth, who are "picked up" in bars in Mexico and offered free trips to Hawaii, sell heroin in Honolulu.

Where is street-level heroin sold? *(Exhibit 9)* Law enforcement sources agree that most heroin sales take place in inner-city areas. However, in Portland, it is also sold in rural and suburban areas; in Philadelphia, it is sold throughout the city; and in Miami, it is sold in nightclubs throughout the city.

Additionally, epidemiologic and ethnographic sources in Denver and St. Louis note that although heroin is mostly sold in inner-city areas, it is also beginning to be sold in more suburban areas of the cities. *Pulse Check* sources report that heroin is sold on street corners, indoors in private residences, in crack houses, in cars, in shooting galleries, and in indoor, commercial settings. Additional settings for heroin sales, according to epidemiologic and ethnographic sources, include shopping centers in Boston, bars in El Paso, and hotels in Portland.

How is street-level heroin sold?

Hand-to-hand sales in cities such as Los Angeles, Memphis, and Washington, DC, are the most common way to sell user-level heroin; however, many law enforcement sources cite prearranged, delivery-service sales as common. For example, a Boston law enforcement source compares the heroin delivery system—a new and more discreet way of selling—to a pizza delivery service: buyers contact sellers, and sellers deliver heroin to buyers' residences. In Chicago, buyers contact sellers, and sellers drive up to buyer's residences and honk. Beeper and cell phone use continues in several other cities, including Chicago, Memphis, and Portland, where buyers contact sellers, and both meet on the street or in an apartment for the exchange.

Corroborating law enforcement information, epidemiologic and ethnographic sources report the use of cell phones and beepers in buyer-level heroin sales. They are used for home deliveries in Boston, Chicago, Denver, Honolulu, and Seattle and are also used in Detroit, Philadelphia, and St. Louis. In New York, where

Then and Now:
How have street-level heroin sales changed (1999 vs 2000)?

Heroin sales are becoming more discreet in some *Pulse Check* cities:	➤ Boston law enforcement and epidemiologist/ethnographer: Heroin is not being sold as often on the street or openly as it was 1 year ago. Law enforcement: *"Heroin distribution has become more of a pizza delivery service operation in which a dealer has a list of names or contacts and s/he drives to customers' houses to deliver the product."* ➤ Boston law enforcement: Fewer brand-named bags and more plain, glassine bags of heroin were encountered during 2000. ➤ Chicago law enforcement: During this reporting period, fewer sellers are driving up to customers' residences and honking; sellers are becoming more cautious and won't sell heroin unless they know a customer. ➤ New York epidemiologist/ethnographer: Due to street policing, some heroin sales activity has moved indoors. ➤ Washington, DC, epidemiologist/ethnographer: In some areas, heroin sales are moving inside due to street policing, gentrification, and neighborhood development.
There are indications of an increase in heroin sales in some cities:	➤ Miami epidemiologist/ethnographer: Former cocaine-only sellers are now selling heroin and cocaine. ➤ Seattle law enforcement: Dealers who sell cocaine and heroin have increased, and speedball use is common. ➤ Washington, DC, law enforcement: *"Heroin is on a comeback: former crack dealers are selling heroin, and shooting galleries are supplanting crack houses."*
Other features of the sales scene have changed in some cities:	➤ Denver and St. Louis epidemiologist/ethnographer: The use of pagers and cell phones for heroin sales has increased. ➤ New Orleans law enforcement: Heroin dealers (and users) are younger than they were 1 year ago. ➤ New York treatment provider: Drug selling has increased, and younger adults are increasingly involved in the trade. ➤ Seattle law enforcement: Heroin-sales-related violence is down.

Exhibit 9. Where is street-level heroin sold?*

	Site	Street	Private Residences	Crack Houses	Shooting Galleries	Commercial Settings	Cars
West	Denver, CO	✓					
	Honolulu, HI	✓					
	Los Angeles, CA	✓	✓				
	Seattle, WA	✓	✓		✓		
Midwest	Chicago , IL	✓					
South	Birmingham, AL	✓		✓			
	Columbia, SC	✓	✓				
	El Paso, TX	✓					
	Memphis, TN	✓		✓			
	Miami, FL	✓				✓	
	New Orleans, LA	✓	✓				
	Washington, DC	✓	✓		✓	✓	
Northeast	Boston, MA	✓	✓				
	New York, NY	✓					
	Philadelphia, PA	✓	✓				✓
	Portland, ME	✓	✓				

Source: Law enforcement respondents
**Sources in four sites did not respond: Billings, Detroit, St. Louis, and Sioux Falls.*

street sales are prevalent, sellers use signals, such as a safety pin pinned to a seller's clothing, to show buyers that they are selling heroin. In Philadelphia, street sales involve the use of lookouts, beepers for setting up meetings, and hiding places for camouflaging heroin "stashes."

Exhibit 10. What other drugs do heroin dealers sell?*

	Site	Crack Cocaine	Powder Cocaine	Mari-juana	Metham-phetamine	Diverted Pharma-ceuticals	Ecstasy	No Other Drugs Sold
West	Honolulu, HI				✓			
	Los Angeles, CA	✓						
	Seattle, WA		✓			✓		
	Denver, CO	✓	✓	✓	✓			
Midwest	St. Louis, MO	✓		✓				
	Chicago, IL	✓						
	Detroit, MI	✓						
South	Columbia, SC							✓
	El Paso, TX		✓					
	New Orleans, LA	✓	✓					
	Memphis, TN	✓						
	Miami, FL	✓	✓				✓	
	Washington, DC	✓	✓			✓		
Northeast	Philadelphia, PA	✓	✓					
	Boston, MA							✓
	Portland, ME	✓	✓					

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in four sites did not respond: Billings, Birmingham, New York, and Sioux Falls.*

What other drugs do heroin dealers sell? *(Exhibit 10)* Drugs commonly sold by heroin dealers include crack and powder cocaine, especially powder cocaine for use in combination with heroin ("speedball"). In Denver, methamphetamine and marijuana are also sold by heroin dealers; in Miami, heroin is sold by MDMA dealers in the nightclub scene, and marijuana is often sold by heroin dealers; in Honolulu, methamphetamine ("ice") is often sold with heroin; and in Seattle and Washington, DC, diverted pharmaceuticals, such as methadone and clonazepam (Klonopin), are sold by heroin dealers. Only in Boston and Columbia are other drugs reportedly not sold by heroin dealers.

How is heroin packaged and marketed? *(Exhibit 11)* In *Pulse Check* cities, heroin is sold mostly in small, plastic zipper bags; wrapped in tin foil; in corners of plastic bags that are cut off and knotted around the heroin; and in glassine bags. In El Paso and Los Angeles, it is sold in balloons, and in Detroit, it may be sold in lottery tickets or paper gum wrappers.

In many cities, plastic bags containing heroin or other heroin packaging may sport colored stamps, designs, logos, or brand names. For example in Chicago, faces are stamped on some bags; in Boston, aliens, stars, and devils appear on some bags; in Philadelphia, new logos of orange basketballs and bees appeared in 2000; and in Washington, DC, the plastic bags containing heroin often are colored (and are referred to as "black bag," "blue bag," and "yellow bag").

Heroin logos and brand names vary by locality, with Philadelphia's and some of Columbia's current brands

connoting death and some of New York's and Columbia's brands alluding to movie titles, high-class product names, and other pop culture products. New York dealers alter brand names and markings frequently —sometimes weekly or even daily—in the belief that they are staying one step ahead of the law.

In many cities, including Chicago, Denver, Los Angeles, Honolulu, Memphis, Miami, and Seattle, heroin bags are not labeled, perhaps so that sellers can avoid connection to a product and possible conviction.

Exhibit 11.
Heroin brand names in selected Pulse Check sites.

Columbia, SC	Playboy, skull-to-skull, Mercedes, crossbones
New York, NY	Aries, HBO, payday, iceburg, blackout, Desert Storm, double jeopardy, red bag, that s_ _t, face off, high energy, attraction, slamming, gladiator, the power, side affects, millenium 2000, white angel, limit, hot shot, Pokemon, king of New York, Viagra, cobra, final notice, psycho, Tommy Hilfiger, cocheese, mankind, the heap, embryo, beyond 2000, DVD, straight to the head, smack down, Power Ranger, Goya, top choice, west side, hit me off, Genesis, heat, warning, one way, passion, rough rider, top of the ninth, K9, excellent, spider, eternity, Gatorade, flying high, tyson, sniper, f_ _k you, iceberg, Lexus, drama, 24 hours
Philadelphia, PA	Poison, pure hell, suicide, dead calm, murder, homicide, x-hell, diabolic, VZ, spice girl, turbo, one+done, black demon, hate monger, ex-con, death row, demolition, murder one, hard to kill, died in peace, lethal injection, Old Navy
Portland, ME	Red eagle, dolphin, black eagle, batman
Washington, DC	Jerry Springer, orange line, brown tape, 747, blue bag, yellow bag, 2000

HEROIN: THE COMMUNITY

What is the impact of and community reaction to the heroin problem? The growing heroin problem in some *Pulse Check* communities has triggered events which, in turn, have kicked off a wide range of community responses, such as task forces, law enforcement initiatives, legislation, and media attention. These responses, in turn, have affected heroin users, heroin dealers, and the ways in which heroin data can be interpreted. During the current reporting period, this cyclical relationship is evident in the following examples:

- Boston, MA: According to the *Pulse Check* epidemiologic source, the increase in heroin overdoses and deaths over the last 3 years has recently translated into more awareness and concern, including interagency coordination, a data gathering initiative, and a law enforcement initiative targeted at heroin.

- New York, NY: The ethnographic source states that police initiatives have affected the heroin situation in two ways: heroin dealers are increasingly transacting sales indoors; and the dealers are constantly changing brand names, which they perceive can be traced back to them.

- Philadelphia, PA: The methadone treatment source reports that drug courts, and law enforcement efforts in general, are responsible for an increase in the number of clients in treatment for heroin problems.

- Portland, ME: According to treatment sources, law enforcement accounts for the decrease in heroin-related crime.

- Portland, ME: Several recent overdoses involving OxyContin®, a long-acting form of the opiate oxycodone, prescribed for severe pain, has ignited much attention from the local media and district attorney's office. This drug has been problematic among heroin injectors, especially in the rural areas, for some time; however, it is only recently that a new phenomenon has arisen—prescription altering. Several meetings have been held with physician groups about prescription protection.

- Seattle, WA: The *Pulse Check* epidemiologic source reports on several recent developments:

  - The county posted on their website a Seattle drug trends report, developed for the National Institute on Drug Abuse (NIDA) Community Epidemiology Work Group (CEWG); the posting subsequently sparked several community responses, such as an international heroin conference and a lot of media attention.

- An FBI allegation connecting heroin addicts to a recent increase in bank robberies led to a meeting with the local drug court and Division of Substance Abuse to look at exercising mandatory sentences.
- A mayoral and county executive heroin task force is examining issues such as prevention, treatment, media, harm reduction messages, and emergency medical response.
- The local health department has established a task force on how to interact with emergency medical personnel to prevent heroin overdoses.
- The increased focus of policymakers and legislators on the heroin problem during the last year and a half has led to increased treatment capacity and to discussion on innovative ways to expand treatment access, such as a physician-based methadone program in a hospital.
- A recent article in a local newspaper sparked interest in the record number of drug arrests and heroin deaths.

Several methadone treatment sources report an increase in media attention on heroin addiction:

- Columbia, SC: Articles have portrayed methadone treatment in a positive light.
- Memphis, TN: The media have helped clients become aware of links between heroin use and HIV.
- Seattle, WA: The media is responsible for "fast-tracking" clients in jail to treatment.
- Portland, ME: The media has placed attention on non-heroin opiates.
- Sioux Falls, SD: The public and community seem better informed due to media attention on heroin.

CRACK AND POWDER COCAINE: THE PERCEPTION

How serious a problem is cocaine in Pulse Check communities?

Sources in more than half of the *Pulse Check* sites (12 of 20) consider cocaine, in crack and powder forms combined, to be the most serious drug problem in their communities (41 percent of 70 responding sources). Half of those sites are in the South (Birmingham, Columbia [South Carolina], El Paso, Memphis, Miami, and Washington, DC), and the other half span the country's three other regions: Chicago, Detroit, and St. Louis in the Midwest; Denver and Los Angeles in the West; and only New York in the Northeast. (Note: In discussing their perception of how serious their communities' drug problem is, most *Pulse Check* sources do not distinguish between the two forms of cocaine.) Cocaine is also considered the second most serious drug problem by 29 percent of *Pulse Check* sources ($N = 66$). Although it is the most mentioned drug problem, it is considered an emerging problem in only one site: Billings, Montana (according to a law enforcement source).

Has the perception of the seriousness of the cocaine problem changed between 1999 and 2000?

Cocaine continues to be considered the most serious drug problem across sites, with more than 7 of 10 sources ranking it as either the most serious or second most serious drug problem. In some communities, sources note that heroin replaced cocaine (either form) as the most serious drug problem over the past year; in Detroit, New Orleans, and Portland (Maine), some (but not all) sources indicate that heroin is overtaking cocaine. Conversely, in Birmingham and El Paso, sources indicate that cocaine is replacing heroin.

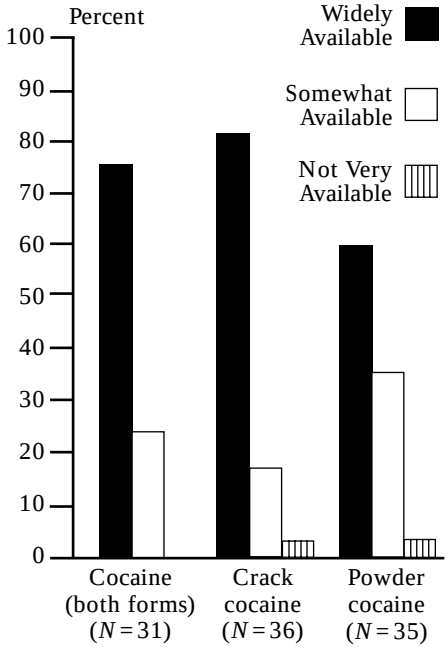
CRACK COCAINE: THE DRUG

Availability, Purity, and Price

How available is crack cocaine across the country? *(Exhibit 1)*

Of the law enforcement, epidemiologic, and ethnographic sources discussing this question, 81 percent ($N = 31$) report crack as widely available in their communities, and 17 percent report it as somewhat available. Only in Sioux Falls is it considered not very available (as reported by the epidemiologic source).

Exhibit 1.
How available is cocaine?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

Has the availability of crack cocaine changed between 1999 and 2000? *(Exhibit 2)*

The majority (53 percent) of responding sources report crack availability as stable. Only one-fourth ($N = 32$) report an increase in crack availability, and only 19 percent report decreased availability. According to law enforcement sources, crack availability increased in three sites (Billings, Denver, and Portland) and decreased in four sites (Chicago, Honolulu, Sioux Falls, and Washington, DC). Ethnographic and epidemiologic sources report increases in five southern and northeastern sites (Birmingham, El Paso, Miami, New York, and Portland) and declines in two western sites (Denver and Honolulu).

How pure is crack cocaine across the country? *(Exhibit 3)*

Crack purity varies widely, ranging from 20 percent (in Denver) to 90 percent (in Honolulu and Washington, DC) in the 11 *Pulse Check* sites where purity was reported.

Has crack purity changed?

Only a few changes in crack purity were noted between 1999 and 2000:

Columbia, SC
Memphis, TN
Portland, ME
Sioux Falls, SD

Birmingham, AL
Chicago, IL

A Sioux Falls treatment source suggests that purity has increased because the dealers' crack manufacturing process is improving.

What are crack cocaine prices across the country? *(Exhibit 3)*

The cost of a crack cocaine gram ranges from $20 in Miami to $250 in Honolulu. According to law enforcement, epidemiologic, ethnographic, and treatment provider sources, crack most commonly sells by the rock for $3 to $35 depending on geographic location and rock size. Crack also sells as "kibbles and bits" (small amounts of rock) in Seattle for $2 to users with little money. Similarly, in Washington, DC, "crumbs" (small amounts of rock) sell for $3 and "working bags" (bags containing several small rocks) sell for $20.

Have crack prices changed?

Crack prices remained stable between 1999 and 2000, with the following exceptions:

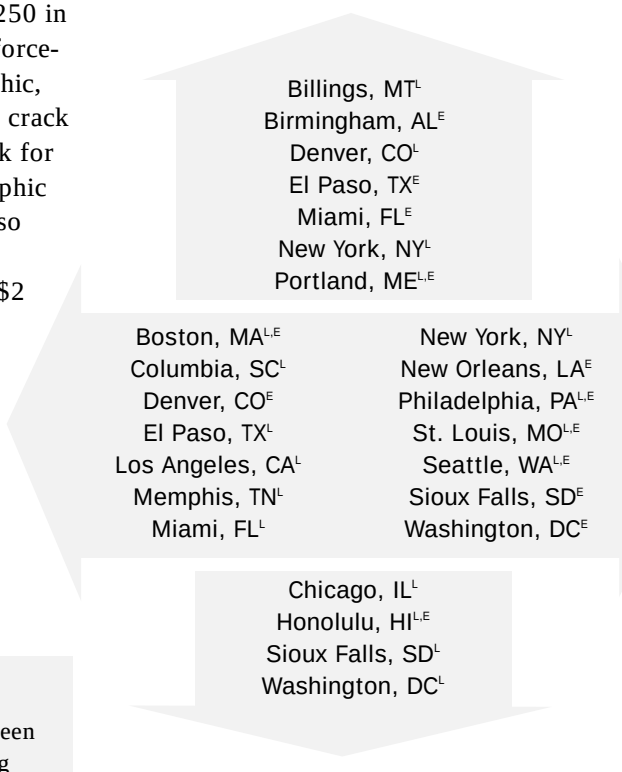
Birmingham, AL
Columbia, SC
Memphis, TN

Chicago, IL
Sioux Falls, SD

According to sources in Birmingham, prices have declined due to the decreased quality and the increased availability of crack on the street. Similarly in Columbia, prices are declining because crack may be more accessible.

The Sioux Falls price increase might be related to increased purity. In Chicago, however, purity has decreased; the price increase, according to the law enforcement source, might reflect an increase in major seizures at the kilogram level.

Exhibit 2.
How has crack cocaine availability changed (1999 vs 2000)?



[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*
**Sources in Detroit did not respond.*

Exhibit 3.
Crack cocaine gram prices and purity by city*

	CITY	GRAM PRICE	PURITY
West	Billings, MT	$100	NR
	Denver, CO	$150	20%
	Honolulu, HI	$100–$250	90%
	Los Angeles, CA	$70–$100	NR
	Seattle, WA	$60	40–85%
South	Birmingham, AL	$80	<70%
	Columbia, SC	$100	NR
	El Paso, TX	$80	80%
	Miami, FL	$20	NR
	Washington, DC	$100	30–90%
Northeast	New York, NY	$28	50–75%

Sources: Law enforcement, epidemiologic and ethnographic respondents
**Sources in nine sites, mostly in the Northeast and Midwest, did not provide this information.*

How is crack cocaine made?

Typically, in *Pulse Check* communities, local crack sellers and, less often, crack users process powder cocaine into crack cocaine. In most cities, baking soda is the standard ingredient added to powder cocaine to make crack, as cited by law enforcement sources. However, sources mention other adulterants, including sugar in Portland, lidocaine in Sioux Falls, brake fluid and rat poison in Memphis, and vitamin B-12 in Birmingham. Epidemiologic and ethnographic sources similarly note crack adulterants, such as diphenhydramine (Benadryl®) in Boston and Detroit, procaine (Novocaine®) and "anything white" in Detroit, and the pain reliever aurosol (Ambesol®) in Portland.

Changes in Crack Rock Size

- Birmingham, AL: The law enforcement source notes that a new crack adulterant, vitamin B-12, is being used to make crack rock appear larger so dealers can sell them for a higher price.
- Philadelphia, PA: Rocks have become smaller since late 1999, but price per rock has not changed, so dealers are now making more money according to the epidemiologic source.

POWDER COCAINE: THE DRUG

Availability, Purity, and Price

How available is powder cocaine across the country? *(Exhibit 1)* Powder cocaine (cocaine hydrochloride [HCl]) is judged as widely available, yet somewhat less available than crack, with 60 percent of law enforcement, epidemiologic, and ethnographic sources ($N = 35$) reporting it as widely available, particularly in the South, and 37 percent reporting it as somewhat available. It is considered widely available in eight cities (Columbia, Denver, Memphis, Miami, New York, New Orleans, Philadelphia, and Seattle) and widely or somewhat available in five cities (Birmingham, Boston, El Paso, Portland, and St. Louis). Honolulu sources differ in their perspective on the powder cocaine supply: the law enforcement source states that it is widely available; the epidemiologic source states it is not very available.

Has powder cocaine availability changed between 1999 and 2000? *(Exhibit 4)* Most (61 percent) of the 31 responding law enforcement, epidemiologic, and ethnographic sources, spanning 15 of the 20 *Pulse Check* cities, perceive powder cocaine availability as stable. About one-quarter (26 percent) of the sources, spanning eight cities, perceive it as increasing; and 13 percent (in three cities) perceive it as declining.

How pure is powder cocaine across the country? *(Exhibit 5)* The purity of powder cocaine varies widely, ranging from 25 percent (in Honolulu) to 90 percent (in Boston and Miami).

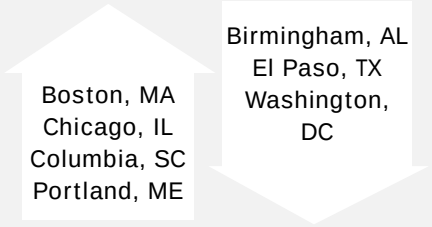
Exhibit 4.
How has powder cocaine availability changed (1999 vs 2000)?*

[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*
**Sources in Detroit did not respond.*

What are powder cocaine prices across the country? *(Exhibit 5)* Powder cocaine gram prices typically mirror or are slightly lower than crack prices, although typically crack cocaine can be purchased in smaller (and less expensive) amounts (rocks) than powder cocaine (grams). Powder cocaine ranges from $20 per gram in Sioux Falls to $200 in Honolulu and Washington, DC. Some of the lowest prices are found in the South.

What adulterants are added to powder cocaine? Powder cocaine adulterants cited by law enforcement sources include lactose, isotol, manitol, inositol, baking soda, and sugar. In 1999 in Miami, law enforcement officials seized powder cocaine colored blue and yellow with food coloring, perhaps used to disguise the cocaine.

Has powder cocaine purity changed? Several changes in powder cocaine purity are reported from 1999 to 2000:



In most cases, these changes are similar to those noted for crack. In Chicago, however, treatment sources note a decline in crack purity but an increase in the purity of powder cocaine.

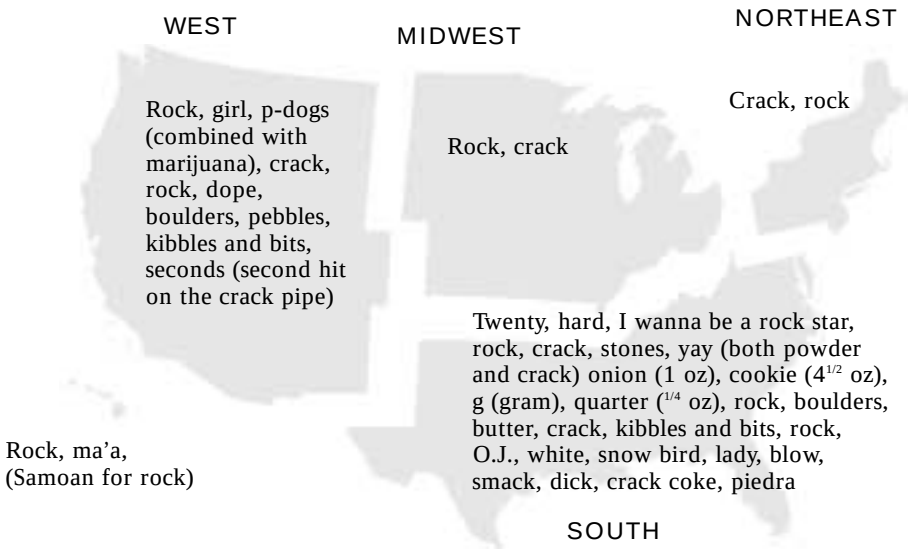
Chicago and Portland treatment sources suggest that powder cocaine purity has increased because the sale and use rates have decreased. In El Paso dealers are adding more adulterants to powder cocaine in an attempt to increase their profits.

Exhibit 5.
Powder cocaine gram prices and purity by city

	CITY	GRAM PRICE	PURITY
West	Billings, MT	$100	NR
	Denver, CO	$100–$125	15–75%
	Honolulu, HI	$100–$200	25%
	Los Angeles, CA	$70–$100	80–85%
	Seattle, WA	$30	57–68%
Midwest	Chicago, IL	$50–$125	NR
	Sioux Falls, SD	$20–$100	NR
	St. Louis, MO	$100	NR
South	Birmingham, AL	NR	<70%
	Columbia, SC	$100	NR
	El Paso, TX	$30–$40	80%
	Miami, FL	$40–$60	40–90%
	New Orleans, LA	$35	35%
	Washington, DC	$100–$200	60%
Northeast	Boston, MA	$90–$100	70–90%
	New York, NY	$50–$120	75%
	Philadelphia, PA	$100–$125	60–80%
	Portland, ME	$90–$100	60–70%

Sources: Law enforcement and epidemiologic/ethnographic respondents
Respondents in Detroit and Memphis did not provide this information.

Exhibit 6.
How is crack cocaine referred to across different regions of the country?



Sources: Law enforcement, treatment, epidemiologic and ethnographic respondents

Street names (slang) throughout the United States vary by geographic region. Crack and powder cocaine names are not interchangeable in most U.S. cities.

Exhibit 7.
How is powder cocaine referred to across different regions of the country?

Sources: Law enforcement, treatment, epidemiologic and ethnographic respondents

CRACK COCAINE: THE USERS

Who, Where, How, and With What?

How have crack cocaine users changed across the country between 1999 and 2000?

According to epidemiologic and ethnographic sources, crack trends appear generally stable across the country, with a few exceptions, as noted below. Several treatment sources, however, note increases in the number of crack clients in their programs, particularly among the younger population.

Are people initiating crack use?

(Exhibit 8) Epidemiologic and ethnographic sources report few signs of crack initiation. For example, the New York ethnographic source reports that new users are not entering the scene, but a high level of chronic use by long-term addicts continues. From the treatment perspective, however, some sources do note novice use among clients. As the arrows show (in Exhibit 8), treatment sources in six *Pulse Check* sites report stable trends in novice crack use at their programs.

However, treatment sources in 10 cities, spanning all regions of the country, report an increase. Further, eight of those sources perceive the increase at their programs to parallel an increase in their local communities. A Boston treatment source, for example, reports that novice users are increasing in number and reportedly prefer "freebasing"; moreover, in the local area, the source comments that "smoking crack is so common that even some public safety professionals use this drug, and they don't feel that it is a problem."

Discussion: Why do epidemiologic, ethnographic, and treatment sources sometimes see different trends in the same city?

U.S. cities abound with people from various neighborhoods, various cultures, and various socioeconomic backgrounds. Each of the four sources in any *Pulse Check* city provides a different perspective on the drug situation because they deal with different populations. For example, young affluent partygoers or clubgoers are not likely to seek treatment, at least in their early stages of drug use; thus, any increased powder cocaine snorting in the club scene is more likely to be detected by an ethnographic source. By contrast, a treatment provider might be in a better position to detect an increased crack-smoking problem in a specific neighborhood.

Then and Now: How have crack cocaine users changed across the country (1999 vs 2000)?*

According to epidemiologic and ethnographic sources...

Denver, CO	The number of crack users younger than 18 has increased slightly, as has the number who are females. The number of white and Hispanic crack users is also increasing, while the number of black users is declining. A growing number of crack users are reporting no income. Smoking has declined slightly, while snorting has slightly increased.
New York NY	"Speeder" is a new and problematic combination: crack is diluted with lemon juice and vinegar, heroin is added, then the combination is lit up and injected. This combination reportedly can create a fungus throughout body.
Washington, DC	Two relatively recent user groups are reported: a somewhat younger group starting to smoke crack in blunts, and heroin shooters who are starting to smoke crack.

According to treatment sources...

Columbia, SC	Adult crack clients, age 25–44, have been increasing.
Honolulu, HI	A second generation of crack users is appearing.
Memphis, TN	More younger users and female users are emerging.
Seattle, WA	An increase in all age groups may be attributable to low crack prices. The number of female crack clients has increased, with more women reporting initiation to crack from male companions.

**No major changes in crack-using populations are reported by sources in 13 sites.*

Exhibit 8.
How has the number of novice crack users in Pulse Check sources' treatment programs changed (1999 vs 2000)?*

Increased

Northeast
Boston[N]
New York[N]
Portland[N]
South
El Paso[M]
Memphis[M]
New Orleans[N]
Midwest
Chicago[M]
Sioux Falls[N,M]
West
Denver[N]
Los Angeles[M]

Decreased

Northeast
New York[M]
South
Miami[N]
Midwest
Detroit[N]
West
Honolulu[N]
Los Angeles[N]
Seattle[N,M]

Stayed the same

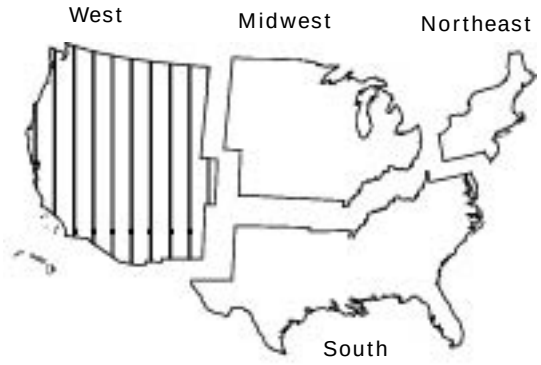
Philadelphia[M]

[N] *Non-methadone providers*
[M] *Methadone providers*
**Sources in five sites did not respond: Billings, Birmingham, Columbia, St. Louis, and Washington, DC.*

How old are crack cocaine users? *(Exhibit 9)* According to *Pulse Check* epidemiologic and ethnographic sources, crack users tend to be older adults (30 years and older). Four exceptions occur in Birmingham, Honolulu, Los Angeles, and Sioux Falls: in those cities, the younger crack-using populations exceed the older user groups. In Sioux Falls, the crack-using population is particularly young: 18–24 years. Young crack users (in their late teens through early twenties) are reported as the population second most likely to use crack in Billings, Honolulu, Seattle, and Washington, DC.

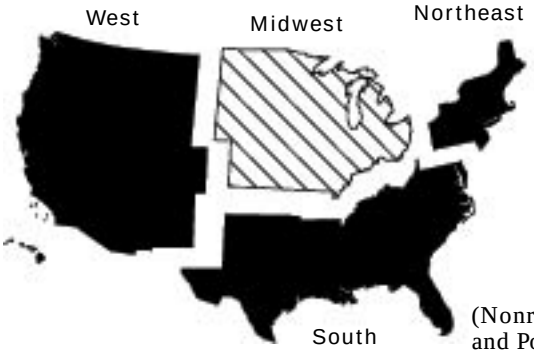
Exhibit 9.
What age group is most likely to use crack?

According to non-methadone treatment sources...



(Nonrespondents: Billings, Philadelphia, St. Louis, Seattle, and Washington, D.C.)

According to epidemiologists and ethnographers...



(Nonrespondents: New Orleans and Portland)

Different Sources, Different Populations

As in the case of heroin, epidemiologic and ethnographic sources tend to report somewhat older user groups than do treatment sources—once again highlighting the need for multiple sources in order to capture all populations and get a more comprehensive picture.

- ■ >50 percent of sources report 30+ years.
- □ >50 percent of sources report 18–30 years.
- ▨ About 50 percent of sources report 30+, and 50 percent of sources report 18–30.
- ▥ Insufficient respondents to draw a conclusion.

Note: Not enough methadone treatment sources responded in order to draw any conclusions.

By contrast, treatment sources in 18 sites identify young adults (18–30 years) as the predominant age group of crack clients, followed by older adults. Moreover, a non-methadone treatment provider in New Orleans identifies adolescents as the predominant group. Only in Billings do older adults in a reporting program outnumber the young adults.

Are there gender differences in who uses crack? The majority of crack users tend to be male, as reported by epidemiologic and ethnographic sources in every *Pulse Check* city except four: the group reported most likely to use crack in Miami is age 35-and-older and female; in Sioux Falls and Washington, DC, users are evenly split between males and females; and in Seattle, male users only slightly outnumber female users among the group most likely to use crack.

Similarly, in most cities, treatment sources report that the majority of crack clients are male, with three exceptions where females are in the majority: Boston, Chicago, and Seattle. Moreover, the number of female crack clients has increased at programs in Memphis and Seattle. In the latter, female clients report initiation to crack use via male companions.

Is any racial/ethnic or socioeconomic group more likely to use crack? Blacks account for the largest proportions of crack users in 13 of the 20 *Pulse Check* cities, according to epidemiologic and ethnographic sources. In Boston, black and Hispanic representation among crack users is approximately equal. Whites are more likely than other racial/ethnic groups to use crack in Billings, Denver, and El Paso; and the Sioux Falls crack-using population crosses all racial/ethnic categories.

Crack-using populations are predominately in lower SES categories in all but 2 of the 20 cities, according to epidemiologists and ethnographers: in El Paso, crack users are predominantly middle class; and in Sioux Falls, users cross all SES categories but are primarily from an upper SES group. Additionally, in the cities where the lower SES groups predominate, some crack users come from other groups. For example, lower/middle SES groups are reported in Honolulu and Los Angeles; Miami's younger (age 20–30) white and Hispanic suburban group is described as "middle and upper" SES; and Detroit has a small, young, black user group that crosses all SES categories.

Treatment programs in the Northeast region vary by city in the racial/ethnic distribution of their crack clients. Among programs responding on race, whites account for the largest proportion of crack clients in Boston and Portland, reflecting those cities' population distributions; blacks are overrepresented in New York and Philadelphia, where they account for the largest crack-using groups at reporting treatment programs. In the South, blacks are generally overrepresented, accounting for the largest proportion of crack clients in five out of seven *Pulse Check* treatment programs reporting on race: the non-methadone programs in Birmingham, Columbia, Memphis, and New Orleans, and the methadone program in Washington, DC. Whites, however, account for the largest proportion of crack clients in the Birmingham and Memphis methadone programs, whereas Hispanics account for the largest proportion in El Paso. In the Midwest, blacks are demographically overrepresented, accounting for the largest crack-using population at three of seven reporting programs: the non-methadone programs in Chicago and Detroit, and the methadone program in Chicago. Whites predominate in Sioux Falls. The West has the most variation across sites in the racial/ethnic groups that account for the largest number of crack clients: whites in Billings; Asian/Pacific Islanders in Honolulu; Hispanics in Los Angeles; and blacks in Denver and Seattle, where they are overrepresented.

Like the epidemiologic and ethnographic sources, treatment sources generally report that crack users are found in the lower SES groups. However, in Billings, Birmingham, Boston, El Paso, and Sioux Falls, crack users are often in the middle SES groups.

Where do crack users tend to reside? Without exception, epidemiologic and ethnographic sources report crack as primarily an inner-city drug, but some suburban use is reported. In Honolulu, for example, some people from rural areas come into the inner city to buy the drug. Detroit's young crack-using population reside both in the inner city and in the suburbs. Similarly, Miami has a young (age 20–30) male cohort of crack users who reside in the suburbs.

Treatment sources generally concur that the majority of crack users reside in inner-city areas. In only 4 of 25 programs where place of residence was discussed, sources cite non-inner-city areas: Boston, Sioux Falls, and New York sources report that users are more likely to live in the suburbs; an El Paso source reports that they are more likely to live in rural areas.

Exhibit 10.
Where and with whom is crack used?*

	City	Setting or context
West	Denver, CO	In crack houses (more for distribution than use)
	Honolulu, HI	In bars, porn parlors, video shops (used as crack houses); not in public; houses, parties
	Los Angeles, CA	At home, on street, in crack houses
	Seattle, WA	On street, in back alleys
Midwest	Chicago, IL	In apartments; some in crack houses
	Detroit, MI	Private settings (same as heroin); some party scene
	Sioux Falls, SD	At parties
	St. Louis, MO	Some in crack houses, often in vacant houses, sometimes on the street, usually used alone or in small groups, use is usually private
South	Birmingham, AL	In crack houses
	El Paso, TX	At friends' homes, parties; some crack houses; sometimes gay bars
	Memphis, TN	Probably crack houses and private residences
	Miami, FL	In crack houses; private parties, houses, cars
	New Orleans, LA	On street, in houses, everywhere
	Washington, DC	In apartment buildings, abandoned buildings, some on street
Northeast	Boston, MA	Mostly on the street, a few crack houses
	New York, NY	On street, in parks, shooting galleries
	Philadelphia, PA	In crack houses; sometimes for barter (sex for crack, goods for crack–not a lot of credit or price negotiation)
	Portland, ME	NA (Not much crack)

Sources: Epidemiologic and ethnographic respondents
**Sources in two sites did not respond: Billings and Columbia.*

Where and with whom is crack used? *(Exhibit 10)* Crack use, as the table indicates, takes place in a wide variety of contexts and settings. Epidemiologic and ethnographic sources mention indoor settings slightly more often than street settings, but the latter still feature prominently in many cities. New York's ethnographic source notes that the drug is sold and used on the street because it is short acting. The indoor settings range from crack houses to private parties, residences, abandoned buildings, bars, porn parlors, and video shops.

In some areas, epidemiologists categorize the various user groups by their use settings and contexts: in Miami, for example, crack houses are the venue for the user group of older, black, inner-city females, while the younger, male users who are white and Hispanic middle- and upper-class suburbanites tend to use crack at private parties, in houses, and in cars.

Treatment sources concur that crack use takes place in a variety of settings, mostly involving group contexts. Solo use is reported in only a few programs—in Denver, Miami, Columbia, El Paso, and Washington, DC—but group use is also reported in some of those programs. Crack houses are reported in Birmingham and Chicago (also known there as "smoke houses"). Other reported venues include parties (in New Orleans), the street (in Honolulu), and the home (in Birmingham, Denver, El Paso, Portland, Sioux Falls, Los Angeles, and Memphis).

Risky Contexts

Philadelphia, PA: Sex for crack is part of the bartering context in crack houses.

How do crack cocaine users wind up in treatment?

According to the responding *Pulse Check* treatment sources, courts and the criminal justice system are the most common referral sources for clients entering treatment for crack addiction. Individual referrals follow closely as the second most common referral source.

How do crack users take their drug? Smoking, by far, is the predominant route of administration among all user groups in nearly all cities. But epidemiologic and ethnographic sources report some unusual practices. In Boston, for example, crack is sometimes dissolved in lemon juice or vinegar and then injected. Crack injection is also reported in Billings, Chicago, New York, and Washington, DC. Crack snorting is reported in Chicago.

Similarly, treatment sources report smoking as the most common method of ingesting crack. They, too, note some unusual exceptions: injection is the most common route of crack administration among clients at the El Paso methadone program, and it is also cited among clients of the New Orleans and Sioux Falls non-methadone programs. At the latter program, novice crack users are among those who inject. Further, novice users at the Boston non-methadone program freebase their crack.

What other drugs do crack users take? Alcohol is the most common substance consumed with crack, according to epidemiologic and ethnographic sources in nearly every city. Marijuana and heroin are also reportedly taken by crack users in many cities (marijuana in Denver, Detroit, El Paso, Honolulu, Miami, New Orleans, New York, Philadelphia, St. Louis, and Washington, DC; heroin in Chicago, New Orleans, New York, and Seattle). In Philadelphia, crack users also take alprazolam (Xanax®) and phencyclidine (PCP).

Treatment sources concur that alcohol is commonly abused by crack users, as reported in Birmingham, Boston, Columbia, Denver, Honolulu, Miami, New Orleans and Portland. Marijuana use among crack users is reported by treatment sources in Birmingham, Boston, El Paso, Miami, and Sioux Falls. And heroin is used by crack users in Boston, Chicago, and New Orleans.

Drug Slang

"Geek joint": The Miami term for crack plus marijuana in a joint

"Diablito": The New York term for crack plus marijuana in a cigarette

"Speeder": The New York term for crack diluted with lemon juice and vinegar, combined with heroin, and lit

"Kibbles and bits": The Seattle term for very small amounts of loose rocks of crack sold to people with little money

POWDER COCAINE: THE USERS

How have powder cocaine users changed across the country between 1999 and 2000? Powder cocaine users follow a somewhat different trend than do crack users. Signs of increase in some powder-cocaine-using populations, particularly younger ones, are reported by epidemiologic and ethnographic sources in five cities: Boston, Denver, Los Angeles, Miami, and Memphis.

By contrast, treatment providers report varying trends among novice users of powder cocaine. The number of novice users in treatment has declined at programs in four *Pulse Check* cities (Denver, Detroit, Honolulu, and Philadelphia), remained stable in eight programs (in Boston, Chicago, El Paso, Los Angeles, Miami, New York, Portland, and Seattle), and increased in four (in New York, Sioux Falls, Columbia, and Memphis).

How old are powder cocaine users? In the majority of *Pulse Check* cities, epidemiologic and ethnographic sources report that powder cocaine users are likely to be in their thirties and older. However, users tend to be slightly younger (twenties through early thirties) in five cities: Billings, Birmingham, Honolulu, Los Angeles, and Seattle. In El Paso, powder cocaine users are most likely to be between ages 14 and 21.

As is the case with crack treatment clients, powder cocaine clients in *Pulse Check* cities are often likely to be young adults, according to treatment sources in Birmingham, Boston, Memphis, New York, Portland, and Washington, DC. Moreover, adolescents are reported as the largest powder cocaine-using group in Los

Then and Now:
How have powder cocaine users changed across the country (1999 vs 2000)?*

According to epidemiologic and ethnographic sources...

Boston, MA	The local high school study shows a small upward "blip," but use remains stable at a low level in that population.
Denver, CO	Increased use is reported among those age 25 and younger, and among females and whites.
Los Angeles, CA	Increases are reported among young people and among whites. The drug is back on college campuses, and some of the stigma associated with it attenuating. It is also leaking back into the club scene.
Miami, FL	A group of multidrug users in the club scene—not necessarily a new group, but a newly discovered group—includes powder cocaine as a ritualistic part of their "evening of drugs."
Memphis, TN	The number of users appears to be increasing slightly.

**No major changes in powder-cocaine-using populations in 15 sites.*

Angeles. Older adults, however, are most likely to use powder cocaine, according to Chicago, Denver, Detroit, El Paso, Honolulu, and Miami treatment sources.

Are there any gender differences in who uses powder cocaine? In only three *Pulse Check* cities do epidemiologic and ethnographic sources report that males and females are equally likely to use powder cocaine: Boston, El Paso, and Philadelphia. In all other *Pulse Check* cities, epidemiologic and ethnographic sources agree that males are more likely to use. According to treatment sources, however, females actually outnumber males in three methadone programs: in Chicago, Sioux Falls, and Washington, DC. (Females are also in the majority at the non-methadone programs in New York, but that program targets women and children.) At the Honolulu non-methadone program, the treatment source reports that older men give powder cocaine to younger women.

Is any racial/ethnic or socioeconomic group more likely to use powder cocaine? Powder cocaine users are more similar to heroin users than to crack users in that their racial/ethnic diversity mirrors the Nation's diversity. According to epidemiologists and ethnographers, whites are more likely than other groups to use powder cocaine in eight *Pulse Check* cities (Billings, Denver, Honolulu, Los Angeles, New Orleans, Portland, Seattle, and St. Louis); blacks are the primary user group in nine cities (Birmingham, Boston, Chicago, Columbia, Detroit, Los Angeles, New York, Philadelphia, and Washington, DC); and Hispanics are more likely to use it in two (El Paso and Miami). Native Americans are reported as the second most likely racial/ethnic group to use powder cocaine in Billings.

Powder cocaine users and crack users also differ socioeconomically: unlike crack users, whom epidemiologists and ethnographers tend to report in the lower SES categories, powder cocaine users in the majority of the *Pulse Check* cities are in middle SES categories or they span a wider range of categories. The few exceptions include Chicago, Detroit, Philadelphia, and Washington, DC, where powder cocaine users tend to be in the lower SES categories.

Similarly, treatment sources suggest that powder cocaine clients come from a wide range of SES backgrounds: among 14 programs where SES classification is discussed, powder cocaine users are most likely to be middle SES according to 6 sources (in Detroit, El Paso, Honolulu, Memphis, and Sioux Falls), upper SES according to 3 (in Birmingham, Denver, and Miami), and lower SES according to 5 (in Chicago, Los Angeles, New York, Portland, and Washington, DC).

Where do powder cocaine users tend to reside? As is the case with their diverse race/ethnicity and SES classification, powder cocaine users seem more akin to heroin users than to crack users in their places of residence. Epidemiologic and ethnographic sources report both inner-city and suburban residences for the various user populations in the various cities. The suburbs are mentioned specifically for some user groups (in addition to inner-city groups) in Birmingham, Detroit, Los Angeles, Miami, and St. Louis. In some cities, such as Boston, powder cocaine use extends from the city into the outlying areas. In other cities, such as Seattle and Washington, DC, many users reside in small affluent neighborhoods within the city, not necessarily in the downtown areas.

By contrast, 11 of the 14 treatment sources reporting on place of residence state that powder cocaine users are more likely to live in inner-city areas. The suburbs, however, are a more likely place of residence for powder cocaine clients in the Sioux Falls methadone program and the Detroit non-methadone program; and powder cocaine clients at the New York non-methadone program are more likely to live in rural areas.

Where and with whom is powder cocaine used? *(Exhibit 11)* Like heroin, powder cocaine is usually used indoors, both privately and in social contexts, including private residences, raves, parties, and nightclubs, as indicated in the table (Exhibit 11). Street use is reported only in Boston, El Paso (parks), and Washington, DC (alleys). Memphis is the only city where crack houses are mentioned as a site for powder cocaine use.

Nearly all treatment sources report that powder cocaine is generally used in groups. Only in Denver and Chicago is solo use reported. The home is the most commonly reported setting. Other reported settings include clubs (in Miami), work (in Denver), and parties (in Columbia and Washington, DC).

Exhibit 11.
Where and with whom is powder cocaine used?*

	City	Setting or context
West	Denver, CO	At home; at work
	Honolulu, HI	At parties; some in homes
	Los Angeles, CA	At raves; some at schools, dance clubs
	Seattle, WA	Alone in cars, houses; some at parties
Midwest	Chicago, IL	In apartments; some at parties
	Detroit, MI	In private settings (same as heroin); some party scene
South	Birmingham, AL	In fellow user's house
	Columbia, SC	At parties
	El Paso, TX	In parks, at parties; some in apartment buildings
	Memphis, TN	In crack houses
	Miami, FL	At home; some in clubs
	New Orleans, LA	At home
	Washington, DC	In abandoned buildings, alleys, apartments; some in clubs, parties, bars, apartments
Northeast	Boston, MA	On the street; some at home
	New York, NY	In private homes, apartments; some in bars, nightclubs
	Philadelphia, PA	At parties, in groups; some in homes
	Portland, ME	In residences, more in social context than heroin, fits into party drug scene

Sources: Epidemiologic, ethnographic, and treatment respondents
**Sources in three sites did not respond: Billings, Sioux Falls, and St. Louis.*

How and with what other drugs do powder cocaine users take their drug? Powder cocaine users, like crack users, often consume alcohol, according to epidemiologists and ethnographers in nearly every city. In many cities, they combine powder cocaine with heroin, often in a speedball, as reported in Chicago, New York (where speedballs are both injected and snorted), Philadelphia (where the combination is cooked and injected), Seattle, and Washington, DC. Marijuana is another substance commonly combined with powder cocaine, as reported in seven cities: Denver, Detroit, El Paso, Los Angeles, Miami, Philadelphia, and Washington, DC.

Some powder cocaine users also use ecstasy, as reported by epidemiologists and ethnographers in several cities: in Los Angeles, where the two drugs are part of the "rave salad of drugs"; in Miami, where the two drugs, along with "everything else" are part of the club scene; and in Philadelphia, where powder cocaine users also use propoxyphene (Darvon®), oxycodone (Percodan®), and phencyclidine (PCP).

Clients in treatment for powder cocaine use continue to primarily snort their drug. However, treatment sources note some exceptions: smoking is reported at the non-methadone programs in Billings and Birmingham and at the methadone program in Washington, DC; freebasing is reported at the Denver non-methadone program; and injecting is reported at the non-methadone programs in Birmingham and Honolulu and at the Memphis methadone program.

Treatment sources also report that powder cocaine clients at their programs use additional drugs: marijuana (in Billings, Birmingham, Miami, New York, and Sioux Falls); heroin (in Boston, Miami, and Columbia ["speedballs"]); LSD ("acid") (in Boston); and alcohol (in Birmingham, Memphis, Miami, Portland, and Washington, DC).

"Doing a Bump"

According to the Miami epidemiologic source...

"In the club scene, a 'bump' (line) of powder cocaine is used to bump up the clubbers to another level of stimulation and alertness as an introduction to an evening of drugs. Cocaine is a ritualistic part of the evening. These individuals are cautious about quantity, using only a little of each drug."

CRACK COCAINE: THE SELLERS

Who, How, Where, and With What?

How are crack cocaine sellers organized? According to law enforcement sources in *Pulse Check* cities, crack sellers are seldom affiliated with trafficking organizations, unlike street-level heroin sellers. However, similar to heroin sellers, crack sellers often are involved in gangs in many cities (Chicago, Columbia, Denver, Honolulu, Los Angeles, Memphis, Portland, and Washington, DC). Law enforcement sources also report that crack sellers are independent in some cities, including Boston, El Paso, Portland (where they are often crack addicts), Sioux Falls, and Washington, DC (where they may have three to four people working for them).

Then and Now: How have crack sellers and sales changed (1999 vs 2000)?

Signs point to a decrease in crack-related activity in many *Pulse Check* cities:	➤ Boston law enforcement and Detroit epidemiologist: Crack-related violence has declined. ➤ Denver epidemiologist: Crack distribution is diminishing because of its poor quality. ➤ Miami law enforcement: "*Crack is no longer the primary drug of sale for most drug dealers; it is sold on the side.*" ➤ Seattle and Washington, DC, law enforcement: The number of crack houses has decreased.
Signs point to an increase in crack-related activity in some *Pulse Check* cities:	➤ Memphis law enforcement: Crack-related gang activity has increased. ➤ New Orleans law enforcement: Crack-related violence has increased. ➤ Seattle law enforcement: "*Recently, crack-related, law enforcement activity has increased in central city areas—the same areas where the crack epidemic of the 1980s and 1990s occurred.*"
Crack marketing has changed in several cities:	➤ New York ethnographer: "Sellers are starting to sell crack rock(s) wrapped in cellophane because crack is now available in larger quantities." ➤ Philadelphia epidemiologist: "*Vials containing crack (referred to as 'skinny') are starting to reappear.*"
Crack distribution methods have changed in several *Pulse Check* cities:	➤ Boston epidemiologist: Crack distribution is becoming more discreet, and turf wars are declining. ➤ Denver epidemiologist: Gang control of crack distribution is declining in some areas due to the decentralization of gangs. ➤ New Orleans epidemiologist: "*Crack dealers are now a one-stop shop for all types of illicit drugs.*" ➤ Washington, DC, epidemiologist: Young adult sellers (typically members of crews) are beginning to use crack. ➤ Washington, DC, law enforcement: Many formerly crack-only dealers have started to sell heroin and crack.

Epidemiologic and ethnographic sources in many cities agree with law enforcement sources that crack-selling organizations often involve gangs, as reported in Chicago, Denver, Detroit, El Paso, Miami, New Orleans, and anecdotally in St. Louis and Washington, DC (where gangs are loosely organized, smaller than most street gangs, and known as "crews"). Only in Honolulu did the *Pulse Check* epidemiologic source report crack sellers as affiliated with trafficking organizations (Mexican). In New York, crack sellers are reportedly independent, and in Philadelphia, crack sellers are organized, but not as street gangs.

How old are crack sellers? In almost all *Pulse Check* cities, law enforcement officials cite young adults (18–30 years) as street-level crack dealers. However, in almost half of the sites, adolescents (in Birmingham, Boston, Columbia, Denver, Los Angeles, New Orleans, Portland, St. Louis, and Washington, DC) and preadolescents (in Denver) are also involved in crack sales. Young adults are also the most common age group reported as crack sellers by epidemiologic and ethnographic sources, although sources also mention adolescents as sellers in Chicago, Detroit, El Paso, and New York. In Washington, DC, older adults, as well as younger adults, sell crack. As with heroin, the Honolulu source reports that youth are picked up in bars in Mexico and offered free trips to Hawaii to sell crack there.

Drug Use Among Crack Sellers

According to law enforcement sources in all *Pulse Check* sites, except for four (Columbia, Los Angeles, Miami, and New Orleans), crack sellers use the drug. The Washington, DC, epidemiologic source reports that young adult sellers (typically members of "crews") are beginning to use crack.

Violence Related to Crack Sales

According to law enforcement sources in all cities but El Paso and Seattle, crack dealers are involved in violence, including homicides, strong-arm tactics with other dealers, and turf wars. The Washington, DC, law enforcement source states that crack sellers are the most violent drug-selling group.

Where is crack cocaine sold? *(Exhibit 12)* Law enforcement, epidemiologic, and ethnographic sources agree that most crack sales occur in inner-city areas. However, law enforcement sources report that in Birmingham, crack is also distributed in suburban areas; in Portland, it is also sold in rural and suburban areas; and in Philadelphia, it is sold throughout the city. Additionally, the epidemiologic source in New Orleans reports that crack is sold "everywhere."

Crack is sold mostly on street corners, indoors in private residences, and in crack houses, according to law enforcement sources. Epidemiologic and ethnographic sources add that in New York crack is sold in the street, and in Portland crack is often sold in hotels.

How is crack cocaine sold? Hand-to-hand crack street sales in cities such as Los Angeles, Memphis, and Washington, DC, are the most common way crack is sold. But, as found in the last issue of *Pulse Check*, telephone and beeper sales, as well as home delivery, continue to be used to purchase and deliver illegal drugs. For example, law enforcement sources cite phone and beeper contact sales as common in Chicago, Memphis, Portland, and Sioux Falls. In Sioux Falls, word-of-mouth contact is also common.

Epidemiologic and ethnographic sources add that telephone orders are also used to sell crack in Detroit; in Miami, crack is often sold around a two-to-three-block area, and the buyers and sellers identify one another with hand signals; in New York, sellers approach prospective buyers on the street; in Philadelphia, street sales involve lookouts, beepers, and hiding places for crack stashes; and in St. Louis, dealers often deliver crack to private residences.

City Snapshots: How do heroin sales differ from crack cocaine sales?

Boston law enforcement: "Crack cocaine dealers are less discreet than heroin dealers and are not as involved in the delivery method of selling their product."

Denver epidemiologist: "Fewer beepers and pagers are used for crack sales than for heroin sales—crack distribution is a sloppier market."

What other drugs do crack dealers sell? *(Exhibit 13)* Crack dealers are often polydrug sellers, as was found in the last issue of *Pulse Check*. Drugs they sell include heroin, powder cocaine, marijuana, methamphetamine, MDMA, and diverted pharmaceuticals. In only five cities (Boston, Chicago, El Paso, Honolulu, Portland, and Seattle) do law enforcement sources report that crack dealers sell no other drugs. Conversely, epidemiologic and ethnographic sources in Chicago and Portland report that crack dealers sometimes sell heroin. Also in Detroit, New York, and St. Louis, epidemiologic and ethnographic sources add that crack dealers sometimes sell heroin.

Exhibit 12. Where is street-level crack sold?*

	City	Street	Private Residences	Crack Houses	Shooting Galleries	Cars
West	Denver, CO	✓				
	Honolulu, HI	✓				
	Los Angeles, CA		✓			
	Seattle, WA	✓	✓			
Midwest	Chicago , IL	✓				
South	Birmingham, AL	✓		✓		
	Columbia, SC	✓		✓		
	El Paso, TX		✓			
	Memphis, TN	✓		✓		
	Miami, FL	✓				
	New Orleans, LA	✓	✓			
	Washington, DC	✓	✓	✓	✓	
Northeast	Boston, MA	✓	✓			
	Philadelphia, PA	✓	✓			✓
	Portland, ME	✓	✓			

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in four sites did not respond: Billings, Detroit, St. Louis, and Sioux Falls.*

Exhibit 13. What other drugs do crack dealers sell?*

	City	Powder Cocaine	Heroin	Mari-juana	Metham-phetamine	Ecstasy	Diverted Pharma-ceuticals	No Other Drugs Sold
West	Denver, CO	✓		✓	✓			
	Honolulu, HI				✓			
	Los Angeles, CA		✓	✓				
	Seattle, WA							✓
Midwest	Chicago, IL		✓					
	Detroit, MI		✓					
	St. Louis, MO		✓	✓				
South	Birmingham, AL			✓				
	El Paso, TX							✓
	Memphis, TN		✓					
	Miami, FL	✓	✓			✓		
	New Orleans, LA	✓	✓					
	Washington, DC	✓	✓					✓
Northeast	Philadelphia, PA		✓					
	Portland, ME		✓	✓			✓	

Sources: Law enforcement, epidemiologic and ethnographic respondents
**Sources in five sites did not respond: Billings, Boston, Columbia, New York, and Sioux Falls.*

How is crack packaged and marketed? Dealers often sell crack in small, plastic zipper bags; in plain, glassine bags; in the torn-off corners of plastic bags tied with one knot (known as the "Dominican tie" in some cities); in bindles; in film canisters; and as loose "rocks." Crack containers are rarely labeled, according to law enforcement sources. However, according to epidemiologic and ethnographic sources in Portland and Boston, small plastic bags containing crack are often stamped with logos, perhaps to appeal to younger users. Additionally, epidemiologic and ethnographic sources report that in Boston dealers sometimes sell crack in balloons, and in New York they sell it in a variety of differently shaped vials with variously colored tops and as "puffs" from a crack pipe. In Seattle, very small amounts of loose rocks, known as "kibbles and bits" are sold to people with little money, as are "seconds," the second inhalation of crack from a pipe.

POWDER COCAINE: THE SELLERS

Who, How, Where, and With What?

How are street-level powder cocaine sellers organized? According to law enforcement sources, the affiliations of powder cocaine distributors vary. The most mentioned affiliations (in seven cities each) are gangs and independent sellers. Gangs are reported in Honolulu, Los Angeles, and Seattle in the West; Chicago in the Midwest; and El Paso and Memphis in the South. Independent sellers are reported in Los Angeles in the West; Sioux Falls in the Midwest; El Paso, Memphis, and Washington, DC (where three to four people typically work for them) in the South; and Boston and Portland (where these sellers are mostly addicts) in the Northeast.

Compared with heroin, powder cocaine sellers are not cited as often as affiliated with trafficking organizations: only in Denver, where they are affiliated with Mexican and South American cartels, is sellers' involvement with trafficking organizations mentioned. In both New Orleans and Washington, DC, Hispanic organizations are said to be major sellers of powder cocaine. In

Then and Now:
How have street-level powder cocaine sales changed (1999 vs 2000)?

Powder cocaine distribution has changed in several *Pulse Check* cities:	➤ Boston law enforcement: The more discreet delivery service method of sale was not seen 1 year ago. ➤ Chicago law enforcement: Sales are more discreet than they were 1 year ago. ➤ Denver epidemiologist: "One-on-ones" (equal amounts of heroin and powder cocaine) are no longer sold. ➤ Los Angeles law enforcement: The number of powder cocaine sellers has increased. ➤ Miami law enforcement: Violence among Haitian cocaine-selling organizations (which was rated as very high) has increased, but violence among Jamaican cocaine-selling organizations has declined.
Club drug sales are changing the way powder cocaine is sold in some *Pulse Check* cities:	➤ Columbia law enforcement: The nightclub crowd is increasingly affiliated with powder cocaine sales. "*Powder cocaine may be becoming the drug of choice in that setting.*" ➤ Columbia law enforcement: Now MDMA sometimes is sold with powder cocaine. ➤ New Orleans law enforcement: "*As rave drug sales have increased in certain settings (raves and nightclubs), powder cocaine sales have decreased.*"

Columbia, the nightclub crowd is now affiliated with powder cocaine sales.

Epidemiologic and ethnographic sources add that in El Paso, the nightclub crowd is affiliated with powder cocaine sales; in Denver, Mexican nationals tied to Hispanic gangs primarily sell the drug; in Philadelphia, sellers are organized, but not as street gangs; and in Washington, DC, sellers are members of crews (small, loosely organized gangs).

How old are street-level powder cocaine sellers? Street-level powder cocaine sellers range widely in age, from 17 to 65 years, with young adults (18–30) mentioned by law enforcement sources in 10 cities (Boston, Columbia, El Paso, Los Angeles, Memphis, Miami, Portland, St. Louis, Sioux Falls, and Washington, DC), followed by older adults in six cities (Boston, Chicago, Los Angeles, Memphis, St. Louis, and Sioux Falls). Law enforcement sources, including those from Denver, New Orleans, and Philadelphia, state that the ages of street-level powder cocaine sellers range widely.

Similarly, all reporting epidemiologic and ethnographic sources (nine of nine) cite young adults as powder cocaine sellers, followed by older adults (three of nine sources). Only in El Paso, are adolescents mentioned as involved in sales. In Honolulu, as is the practice with heroin and crack cocaine sales, youth are reportedly picked up in bars in Mexico and offered free trips to Hawaii to sell powder cocaine there.

Where is powder cocaine sold? *(Exhibit 14)* In many *Pulse Check* cities, street-level powder cocaine sales, like heroin and crack sales, take place in inner-city areas; unlike heroin and crack sales, powder cocaine is also sold in suburban areas. Furthermore, many law enforcement sources, including those in Denver, El Paso, Los Angeles, Miami, and Philadelphia, state that powder cocaine sales occur citywide. The Memphis epidemiologic source reports that powder cocaine sales are more widespread throughout the city than crack sales.

Powder cocaine is sold throughout the United States indoors in residences, outdoors on the street, indoors in commercial buildings (including nightclubs, private bars, and restaurants), and in crack houses. According to the Memphis law enforcement source, its sale is more covert than crack or heroin sales. Additionally, epidemiologic and ethnographic sources report powder cocaine sales in cars, houses, and bars in El Paso, houses and hotels in Portland, homes in St. Louis, and homes and nightclubs in New York.

Drug Use Among Cocaine Sellers

Most law enforcement sources state that powder cocaine sellers use their product. Nearly all independent powder cocaine sellers are said to use the drug, while fewer organized sellers reportedly use it.

Violence Related to Powder Cocaine Sales

Violence is associated with powder cocaine sales in all reporting cities, except for El Paso and Washington, DC, according to law enforcement sources.

Exhibit 14. Where is street-level powder cocaine sold?*

	City	Street	Private Residences	Crack Houses	Nightclubs/ Bars	Cars
West	Denver, CO	✓				
	Honolulu, HI	✓				
	Los Angeles, CA		✓		✓	
	Seattle, WA		✓			
Midwest	Chicago , IL	✓				
	St. Louis, MO		✓			
	Sioux Falls, SD		✓			
South	Birmingham, AL	✓	✓	✓		
	Columbia, SC				✓	
	El Paso, TX	✓	✓		✓	✓
	New Orleans, LA	housing developments			✓	
	Washington, DC	✓				
Northeast	Boston, MA		✓			
	New York, NY		✓		✓	
	Philadelphia, PA	✓	✓			✓
	Portland, ME	✓	✓			

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in four sites did not respond: Billings, Detroit, Memphis, and Miami*

How is street-level powder cocaine sold? Most powder cocaine transactions, according to *Pulse Check* law enforcement sources, involve a phone or beeper; further, in many cities, sellers use a delivery service method, in which dealers have lists of contacts, and sellers drive to customers' houses to deliver the product. Only sources in Washington, DC, and Memphis mention hand-to-hand powder cocaine sales.

Reporting epidemiologic and ethnographic sources concur with law enforcement sources that powder cocaine sales typically involve beepers, telephone orders, deliveries, and meetings between sellers and buyers. In St. Louis, sales reportedly occur through acquaintance networks.

What other drugs do powder cocaine dealers sell? *(Exhibit 15)* According to law enforcement sources, other drugs sold by powder cocaine dealers include heroin, crack cocaine, marijuana, methamphetamine, and MDMA. Epidemiologic and ethnographic sources (in Detroit, El Paso, Philadelphia, and Portland) agree with law enforcement sources that heroin is often sold by powder cocaine dealers. The Denver epidemiologic source reports that some crack and heroin dealers sell powder cocaine.

How is street-level powder cocaine packaged? Powder cocaine is sold mostly in plastic sandwich bags in *Pulse Check* cities, although it is also sold wrapped in tin foil (in Chicago and Denver), paper diamond folds ("bindles") (in El Paso and Portland), in corners of plastic bags knotted around the drug (in El Paso), in manilla baggies (in Miami), and in small glass vials (in Sioux Falls). In Miami, the manilla baggies are stamped with pictures, such as unicorns, which serve as brand identifications. Cartoon characters stamped on powder cocaine packaging often serve as brands in Chicago. Law enforcement sources from most

Exhibit 15. What other drugs do powder cocaine dealers sell?*

	City	Heroin	Crack Cocaine	Marijuana	Metham-phetamine	Ecstasy	No Other Drugs Sold
West	Denver, CO		✓	✓	✓		
	Honolulu, HI				✓		
	Los Angeles, CA						✓
	Seattle, WA	✓	✓				
Midwest	Chicago, IL						✓
	Detroit, MI	✓	✓				
	St. Louis, MO						✓
South	El Paso, TX	✓		✓			
	Memphis, TN	✓	✓				
	Miami, FL	✓		✓		✓	
	New Orleans, LA	✓	✓				
	Washington, DC						✓
Northeast	Philadelphia, PA	✓	✓				
	Portland, ME	✓					✓

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in six sites did not respond: Billings, Birmingham, Boston, Columbia, New York, and Sioux Falls.*

reporting *Pulse Check* cities (including Columbia, Honolulu, Memphis, Portland, and Sioux Falls) state that brand names are not used on powder cocaine packaging.

Additionally, epidemiologic and ethnographic sources report the use of balloons for packaging powder cocaine in El Paso and Boston. In Detroit, "seals" (paper wrappers that resemble magazine covers and do not absorb the powder) are often used to package powder cocaine; in Miami, pictures on plastic bags sometimes serve as brands; and in Washington, DC, "Pacman" was reportedly used as a brand name in 2000.

COCAINE: THE COMMUNITY

What is the impact and community reaction to the cocaine problem? According to epidemiologic and ethnographic sources, the high levels of cocaine use, despite its stabilization in many communities, continues to affect events and the quality of life in those communities in a variety of ways:

- Birmingham, AL: Studies of crack users who successfully participate in treatment show a substantial reduction in their risk for HIV. The epidemiologic source notes the connection between crack use and HIV risk, particularly surrounding unsafe and risky sexual activity, for both men and women—suggesting that the perception of injecting as the main source for an increase in HIV is not necessarily true.

- Denver, CO: Deaths involving cocaine and heroin have been increasing over the past several years. But the two types of mortality stem from different causes: the heroin-related deaths result from both the increase in new users and from purity changes; the cocaine-related deaths are more related to older users whose addiction has intensified and whose health has deteriorated.

- Detroit, MI: A decline in the homicide rate reflects a long-term decline in heroin- and crack-related violence.

- Honolulu, HI: A large multidrug, multiperson bust in neighboring Maui early in 2000 involved large amounts of cocaine (as well as black tar heroin and methamphetamine), temporarily impacting cocaine availability.

- Memphis, TN: A dramatic increase in Department of Housing and Urban Development (HUD) housing initiatives, particularly for the homeless, is believed to have contributed to a slight decline in alcohol abuse and cocaine use.

- New Orleans, LA: A regional task force on cocaine and heroin use, consisting of regional and local police departments and sheriffs in many Louisiana parishes, as well as the Drug Enforcement Administration (DEA) and Food and Drug Administration (FDA), is considering the inclusion of the New Orleans area due to its drug problem.

- Seattle, WA: With the area's economic boom, and the gentrification of the downtown area, more attention is being focused on "cleaning up the street," particularly with regard to the street trade of crack. Local businesses' efforts to develop the downtown area into a destination point have led the press to change their profile of the crack situation, with a greater attention to quality of life. The resulting community response has been a coordinated one, not just involving law enforcement, and has included the rise of drug courts over the past 3 years. The media has been increasingly focusing on the record number of crack arrests, even mapping out the course of those arrests.

Law enforcement sources also note a variety of interrelationships between cocaine use, community life, community events, and community responses:

- El Paso, TX: Gang activity and prostitution associated with cocaine has remained stable.

- Los Angeles, CA: Violent criminal acts (turf issues) and nonviolent criminal acts (robberies and burglaries) have increased. The level of prostitution activities

related to cocaine, however, has remained stable.

- Miami, FL: A seizure in the first 2 months of 2000 involved 3,436 pounds of cocaine. In addition, nonviolent criminal acts associated with cocaine have increased.
- Philadelphia, PA: Large cocaine seizures are reported. For example, a recent seizure of 75 pounds of cocaine has impacted somewhat on the cocaine supply.

What cocaine treatment issues do communities face? Treatment sources point out several interrelationships between the cocaine problem, the treatment system, and community issues such as law enforcement referrals, funding, outreach, and prevention programs:

- Birmingham, AL: Cocaine-related problems have caused longer waiting lists and increased the need for case management. The increase in waiting lists has caused treatment providers to refer clients out to other programs.
- Miami, FL: The number of cocaine users needing treatment has increased, but the number of available treatment slots is limited. Program outreach is responsible for an increase in prevention and awareness.
- New Orleans, LA: Law enforcement referrals to cocaine treatment are increasing, particularly through drug courts. The increase has caused programs to function at high capacity. Insufficient funding for cocaine treatment has left gaps in treatment follow-through. Women and children are sent to special treatment facilities.
- Sioux Falls, SD: Outreach and prevention has helped reduce numbers in treatment.

MARIJUANA: THE PERCEPTION

How serious a problem is marijuana in Pulse Check communities? During this reporting period, marijuana was perceived as the most serious drug problem by 7 sources in 6 *Pulse Check* cities (10 percent of 70 responding sources): Billings, Denver, and Los Angeles in the West; Sioux Falls in the Midwest; Columbia (South Carolina) in the South; and Boston in the Northeast. Overall, it is the third most commonly named "most serious" problem in the 20 Pulse Check cities—the same as methamphetamine—following cocaine and heroin. Furthermore, marijuana is considered the second most serious drug problem by 15 sources in 10 cities (23 percent of 66 responding sources): Billings, Birmingham, Chicago, Columbia, Detroit, El Paso, Honolulu, Memphis, Sioux Falls, and St. Louis.

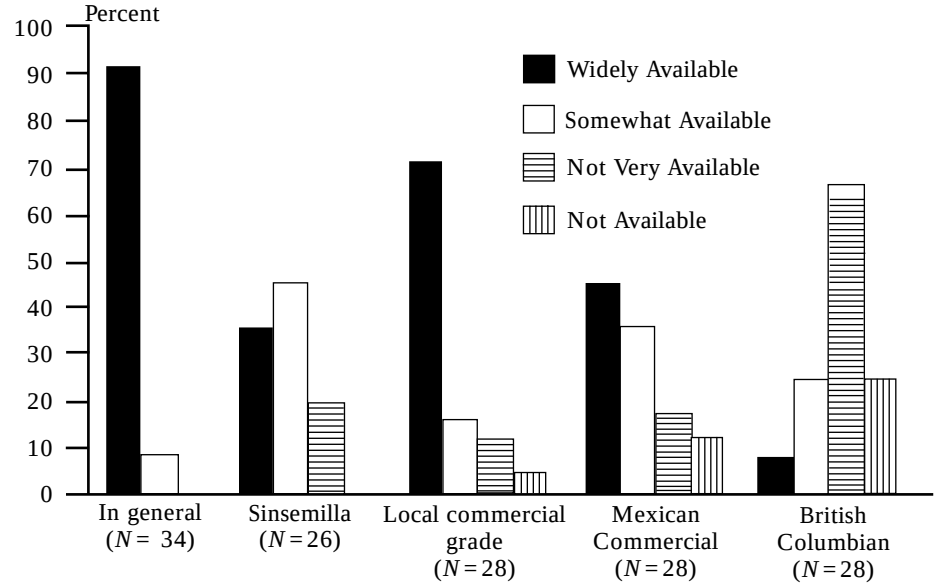
Has the perception of the marijuana problem changed between 1999 and 2000? No changed perceptions are reported: any sources who perceived marijuana as their community's most serious drug problem during 2000 also listed it as such in 1999. However, the epidemiologic source in Honolulu notes an increase in the marijuana problem following decreased interdiction efforts on the Big Island of Hawaii; and the Washington, DC, epidemiologic source notes increased press coverage of marijuana trafficking.

MARIJUANA: THE DRUG

Availability, Purity, and Price

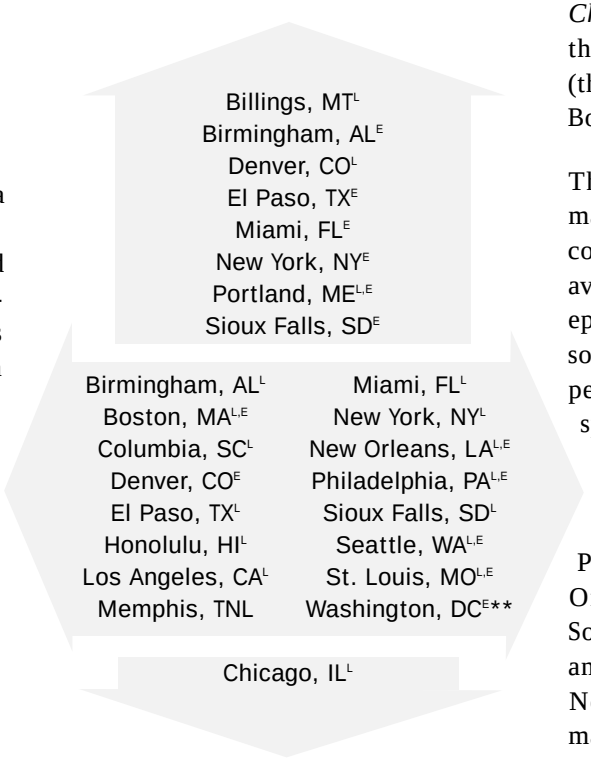
How available is marijuana across the country? *(Exhibit 1)* Of the 34 law enforcement, epidemiologic, and ethnographic sources discussing this question, the vast majority (91 percent) report marijuana, in all its varieties, as widely available—consistent with reports from the last few issues of *Pulse Check*. Only three sources describe the drug as "somewhat available" (the law enforcement sources in Boston, Chicago, and El Paso).

Exhibit 1.
How available are the different forms of marijuana?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

Exhibit 2.
How has marijuana availability changed (1999 vs 2000)?*



[L] *Law enforcement respondents*
[E] *Epidemiologic/ethnographic respondents*
**Sources in Detroit did not respond.*
***Respondent reports that availability "fluctuates."*

The most common variety of marijuana is locally produced commercial grade, ranked as widely available by 20 law enforcement, epidemiologic, or ethnographic sources in 14 *Pulse Check* cities (71 percent of 28 responding sources) spanning all regions of the country: Billings, Denver, Honolulu, and Seattle in the West; Sioux Falls and St. Louis in the Midwest; El Paso, Memphis, Miami, New Orleans, and Washington, DC, in the South; and New York, Philadelphia, and Portland (Maine) in the Northeast. Only three sources report marijuana as only "somewhat available," four report it as not very available, and only one source (in Miami) rates it as not available at all.

Mexican commercial grade is the second most common variety reported in *Pulse Check* cities, cited as widely available by 13 sources in 12 cities (46 percent of 28 responding law enforcement, epidemiologic, and ethnographic sources), again spanning all regions of the country: Billings, Denver, Honolulu, and Los Angeles in the West; Chicago, Sioux Falls, and St. Louis in the Midwest; Birmingham and El Paso in the South; and Boston, New York, and Philadelphia in the Northeast. Another 10 sources in 8 cities consider Mexican commercial as somewhat available, two sources (in Boston and Miami) rate it as not very available, and three sources (in New Orleans, Philadelphia, and Washington, DC) say Mexican commercial marijuana is not available at all in their communities.

Sinsemilla, or the seedless variety of marijuana, is the third most common type of marijuana available in *Pulse Check* cities. It is reported as widely available by 9 sources in 7 cities (35 percent of 26 responding sources): Billings, Denver, and Honolulu, in the West; St. Louis in the Midwest; Memphis and Miami in the South; and Portland in the Northeast. It is considered somewhat available by another 12 sources in 10 cities, and not very available by 5 sources in 5 different cities.

One of the least commonly reported marijuana varieties is British Columbian ("BC bud"), with only two sources (in Billings—perhaps due to its proximity to the Canadian border—and New York) reporting it as widely available, and six sources (in Billings, Denver, Miami, Portland, Seattle, and Sioux Falls) reporting it as somewhat available. By contrast, it is considered not very available by 10 sources in 9 cities, and not available at all by 7 sources in 6 cities. Another variety, Jamaican or Caribbean marijuana, is reported in Miami.

Has marijuana availability changed? *(Exhibit 2)* Availability of marijuana remains stable at high levels in 14 *Pulse Check* cities, according to about two-thirds ($n = 19$) of the 29 responding epidemiologic, ethnographic, and law enforcement sources who discussed this subject. Only nine sources (31 percent) in eight cities report increased availability, and only one source—a law enforcement official in Chicago—reports a decline.

Similarly, the majority of law enforcement, epidemiologic, and ethnographic sources report that availability for the different marijuana varieties has remained stable, and nearly all the remaining sources report increased availability. Only five cases of declining availability are reported: for Mexican commercial-grade, by the law enforcement source in Billings; for sinsemilla, by the ethnographic source in El Paso and the epidemiologic source in Sioux Falls; and for British Columbian marijuana, by the ethnographic source in El Paso and the epidemiologic source in Seattle.

How potent is marijuana across the country? *(Exhibit 3)* According to law enforcement, epidemiologic, and ethnographic sources, the tetrahydrocannabinol (THC) content of commercial-grade marijuana ranges from 4 to 15 percent in *Pulse Check* cities, with most at the lower end of that range. Sinsemilla, a higher-potency marijuana, ranges from 5 to 30 percent THC content, and British Columbian ranges from 15 to 30 percent. Hydroponic marijuana ("hydro"), available in most *Pulse Check* cities, is a high-potency marijuana, with a typically higher THC content than sinsemilla. In New York, it is more potent and much more popular than local, outdoor-grown marijuana ("bio").

Exhibit 3.
Marijuana prices by ounce, by type and city*

CITY	OUNCE PRICE	PURITY (% THC)
Commercial grade (domestic or Mexican)		
Billings, MT	$120	NR
Birmingham, AL	$20–$25	NR
Boston, MA	$100–$200	NR
Columbia, SC	$80–$150	NR
Denver, CO	$100–$300	4.5%
El Paso, TX	$200–$300	NR
Los Angeles, CA	$300–$500	4–6%
Memphis, TN	$50	NR
Miami, FL	$200–$400	NR
New Orleans, LA	$20–$120	NR
Philadelphia, PA	$150–$200	NR
Portland, ME	$350	NR
Seattle, WA	$150	8–15%
Sioux Falls, SD	$50–$500	NR
Washington, DC	$120	NR
Sinsemilla		
Denver, CO	$100–$500	15–20%
El Paso, TX	$40	NR
Honolulu, HI	$400–$800	5–21%
Los Angeles, CA	$1,000–$2,000	20–25%
Miami	$400	12–26%
New York, NY	$70–100	NR
Portland, ME	$450	NR
British Columbian (BC) bud		
Denver	$500	15–20%
Seattle	$300–425	20–30%

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Respondents in Chicago, Detroit, and St. Louis did not provide this information.*

Has marijuana potency changed?

THC levels increased in seven *Pulse Check* cities between 1999 and 2000, while levels declined in only one city:

Chicago, IL
Denver, CO
El Paso, TX
Memphis, TN
New York, NY
Sioux Falls, ND
Washington, DC

Billings, MT

As reported in the last *Pulse Check* issue, most sources attribute any increases to improved cultivating techniques by marijuana growers (especially hydroponic growers).

Have marijuana prices changed?

Prices increased in only three of the seven *Pulse Check* cities where THC levels increased; thus, in Denver, El Paso, Memphis, and Washington, DC, potency is up, but prices are stable. Prices declined in two cities.

Chicago, IL
New York, NY
Sioux Falls, SD

Columbia, SC
Honolulu, HI

What are street-level marijuana prices across the country? *(Exhibit 3)*

Commercial-grade marijuana prices range from $20–$25 per ounce in Birmingham to $300–$500 per ounce in Los Angeles. Sinsemilla and British Columbian prices tend to be higher. Hydroponic marijuana costs $800–$2,500 per pound in New York and $400–$600 per pound in Washington, DC. Marijuana joints, blunts, and bags are common quantities sold in *Pulse Check* cities: commercial-grade blunts range from $5 in Philadelphia to $10–$20 in Washington, DC; commercial-grade joints range from $1–$3 in Columbia to $10–$15 in Los Angeles; and $5, $10, and $20 street bags can be purchased in many cities, including Chicago, Philadelphia, and Washington, DC. In Miami, marijuana dealers often sell hash oil (1–20 percent THC content) at $25 per ounce.

How is marijuana referred to across the country? *(Exhibit 4)*

Similar to reports in previous *Pulse Check* issues, "grass," "Mary Jane," "pot," "reefer," and "weed" remain the common slang terms for marijuana throughout the United States. Other marijuana street names vary by geographic region. In Chicago, "philips" is new slang (in 2000) for marijuana.

MARIJUANA: THE USERS

Who, Where, How, and With What?

How have marijuana users been changing across the country?

Epidemiologic and ethnographic sources generally agree that marijuana use appears to have stabilized at elevated levels, covering a wide range of demographic and socioeconomic groups. In Portland, Maine, for example, marijuana users continue to

Then and Now:
How have marijuana users changed (1999 vs 2000)?*

According to epidemiologic and ethnographic sources...

Denver, CO	The number of younger (<18) users has declined, the number of older (35+) users has increased, and the number of users age 18–34 has remained stable.
Memphis, TN	More young people appear to be smoking marijuana, and the number of black female marijuana users has increased.
Miami, FL	Some users have recently revived an old practice, which supposedly increases marijuana's THC level: they roll a big joint of marijuana, dip it into a new product known as "hash oil" (see description on page 45), let it dry, then smoke it.
New York, NY	Younger users are getting even younger (12 and 13 years old). Many youngsters smoke "bidis" or "beedies"—thin, brown, 3-inch long Indian cigarettes surrounded by a pink thread—pretending that they are marijuana joints (although they contain tobacco)
Philadelphia, PA	While marijuana users appear to be aging, an increase is noted among teens. The number of black users is also increasing.
Washington, DC	Continuing an ongoing trend, the number of female marijuana users has increased.

** No major changes in marijuana-using populations are reported by sources in 14 sites.*

Exhibit 4.
How is marijuana referred to in different regions of the country?

Sources: Law enforcement, treatment, epidemiologic and ethnographic respondents

outnumber heroin and cocaine users. Some changes, however, are noted in a few cities, as indicated above.

How old are marijuana users?

As reported in *Pulse Check* issues over the past few years, marijuana users continue to span all ages, according to epidemiologic and ethnographic sources in many cities. In Portland, Maine, for example, marijuana use is initiated in high school and use continues through middle age. Similarly, the St. Louis epidemiologic source reports fairly high use "among everyone, from teenagers up to adults in their early fifties."

Adolescent users often outnumber the young adult and older adult user groups, according to epidemiologic and ethnographic sources in Boston, Columbia, Denver, El Paso, Seattle, Sioux Falls, and St. Louis. El Paso has the youngest reported age range (10–14 years) for the group most likely to use marijuana; by contrast, that city also has the oldest age range (45–54) reported for the group second most likely to use marijuana. Users as young as 10 years are also reported in Honolulu, and 12-year-old users are reported in New York and Seattle. The Denver epidemiologic source suggests that the older (35+) group is increasingly using the highly potent and readily available marijuana in the mistaken notion that it alleviates "the aches and pains of getting older."

According to treatment sources, adolescents outnumber other age groups among marijuana clients at programs in 11 of the 20 *Pulse Check* cities: Billings, Boston, Chicago, Columbia, Denver, Detroit, Los Angeles, Miami, New Orleans, Portland, and Sioux Falls. Young adults are more likely to use marijuana at reporting programs in the other cities. Pre-adolescents constitute the second largest group of marijuana clients at programs in Billings and Sioux Falls. In Seattle, treatment sources report that the availability of potent marijuana has promoted more use and related debilitating circumstances. Some treatment sources, as in Boston, report that a growing number of adolescents consider marijuana use to be safe.

Are there any gender differences in who uses marijuana?

In four *Pulse Check* cities—Honolulu, Los Angeles, New Orleans, and Portland—males and females are equally likely to use marijuana, according to epidemiologic and ethnographic sources. Elsewhere, males outnumber females within the larger user groups. In many of those cities, however, such as Memphis, the percentage of users who are females is larger for marijuana than for other drugs. Moreover, in Billings, females outnumber males in that city's younger (age 15–24) and smaller user group.

Treatment sources concur that most marijuana users in their programs are male. However, at programs in Chicago, New York, and Sioux Falls, females are more likely to be in treatment for marijuana use than males. In Birmingham, female and male users are about equal in number. Female users appear to be catching up to their male counterparts at programs in several *Pulse Check* cities, including El Paso, Honolulu, Memphis, and Portland.

Is any racial/ethnic or socioeconomic group more likely to use marijuana?

Even more than the heroin problem, the marijuana problem cuts across all racial/ethnic groups. Epidemiologic and ethnographic sources report that racial/ethnic distributions are fairly representative of their respective cities' populations in Boston, Chicago, Honolulu, Los Angeles, New Orleans, New York, and St. Louis. White users are more prominent in Birmingham, Denver (but they are underrepresented there), Miami (where Hispanics are a

close second), Portland, and Seattle. Blacks are more likely to use marijuana in Columbia, Detroit (where they are overrepresented), Memphis, Philadelphia, and Washington, DC.

Treatment sources in the majority of cities, more so than epidemiologic and ethnographic sources, report that marijuana users in their programs are predominantly black. Whites, however, predominate among marijuana clients at programs in Boston, Denver, Miami, Portland, and Sioux Falls. Reflecting general population distributions in their respective cities, Hispanics are the largest racial/ethnic group among marijuana clients at the programs in Los Angeles and El Paso, and Asian/Pacific Islanders are the predominant group in treatment in Honolulu. In the Sioux Falls methadone program, Native Americans constitute the second largest group of marijuana clients.

As with race/ethnicity, marijuana use knows no socioeconomic bounds: epidemiologic and ethnographic sources report that all SES groups are represented relatively evenly among marijuana users in at least 10 *Pulse Check* cities: Boston, Chicago, Denver, Detroit, Honolulu, Los Angeles, New Orleans, Portland, Seattle, and Sioux Falls. Similarly, marijuana use cuts across all SES groups in Miami, but the middle class predominates there; it also runs the gamut of SES groups in New York, but lower-to-middle SES groups are cited as more prominent; and it is found among all groups in St. Louis, but it is slightly more common among that city's lower SES groups. By contrast, epidemiologic and ethnographic sources do note predominance of specific SES groups in five cities. In Birmingham, the largest group of marijuana users is in the middle SES group; the lower middle class is cited in El Paso; the lower-to-middle SES groups are cited in Memphis; and the lower SES groups are cited in Philadelphia and Washington, DC.

Both the lower and middle SES groups are represented among marijuana clients at reporting non-methadone programs in *Pulse Check* cities. The lower SES group is more likely to use marijuana at the programs in Billings, Chicago, El Paso, Honolulu, New York, New Orleans, and Washington, DC. The middle SES group, however, has higher representation at the non-methadone programs in Denver, Detroit, Miami, Memphis, and Portland.

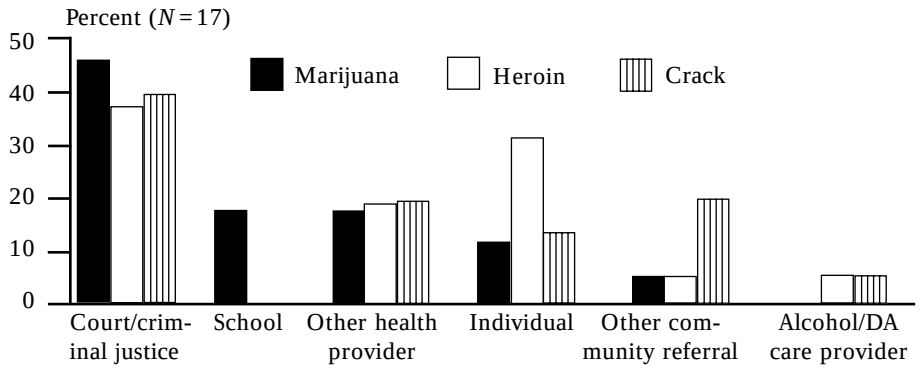
Where do marijuana users tend to reside? More so than other drug users, marijuana users reside "everywhere"—a term used by numerous responding epidemiologists and ethnographers to refer to inner-city, other urban, suburban, and rural places of residence. Two of the few exceptions are Birmingham, where marijuana users are reportedly more likely to reside in the suburbs, and Philadelphia, where urban areas reportedly predominate.

Treatment sources paint a slightly different picture, however, with the majority of marijuana clients at the reporting non-methadone programs generally residing in inner-city areas. Suburban users, however, reportedly predominate at the non-methadone programs in Denver, New York, and Portland, while rural users are most prominent at the Billings and Honolulu programs.

How do marijuana users wind up in treatment? *(Exhibit 5)* Of the 17 non-methadone treatment sources discussing this question, nearly half (47 percent, $n = 8$) report that marijuana clients at their programs come mainly from court or criminal justice referrals—more so than crack clients (40 percent) or heroin clients (38 percent). By comparison, schools are the primary referral source for marijuana clients at only three programs (in Billings, Detroit, and Portland), and other health care providers are the primary referral source at another three (in Boston, Honolulu, and New York).

How do marijuana users take marijuana? As was found in the last few *Pulse Check* issues, "blunts," or hollowed-out cigars, are reported

Exhibit 5.
How are different drug users referred to treatment?



Sources: Non-methadone treatment respondents

as common vehicles for smoking marijuana in several cities, including Boston, Chicago, Philadelphia, and Washington, DC, according to epidemiologic, ethnographic, and treatment sources. Boston marijuana users also reportedly smoke "bongs" and "joints." Detroit and New Orleans, by contrast, do not have large blunt cultures. Joints are the most common marijuana vehicle in those cities, as well as in Los Angeles and Portland. In Seattle, grams of "bud" are smoked through glass pipes or other pipes.

What other drugs do marijuana users take? Epidemiologic and ethnographic sources in nearly every *Pulse Check* city report that marijuana users also use alcohol (sometimes malt liquor). Cocaine use is also reported among marijuana users in some cities. For example, blunts in Boston and Philadelphia sometimes contain marijuana combined with either powder cocaine or crack. In New York, marijuana is combined with powder cocaine in either a blunt or a cigarette. Crack is also reportedly used by marijuana smokers in Washington, DC (as a dip, and sometimes including heroin too), and Detroit. Adolescent marijuana smokers in the Miami suburbs use both forms of cocaine.

Heroin is sometimes included in blunts in Boston and in either cigarettes or blunts in New York. Also in New York, marijuana is sometimes dipped in phencyclidine (PCP). PCP use by marijuana smokers is also an ongoing problem in Philadelphia, where the *Pulse Check* epidemiologic source reports occurrences of hallucinogenic behavior, such as people jumping into traffic or off buildings. In New Orleans, by contrast, PCP lacing is not the norm but, rather, an occasional practice by "uptown" affluent young marijuana users. A Washington, DC, treatment source reports that clients are smoking high-purity marijuana laced with PCP.

"Hash Oil" or "Jamaican Crude": A New Substance Used in a New Practice

Miami, FL: Not the traditional, highly refined "hash oil," this new product is a highly flammable, highly viscous dark green (almost black) oil. It is produced by a crude operation: after the marijuana plant harvest, the leftovers are boiled down in 55-gallon drums and shipped in gas containers. Some users dip marijuana joints into this substance, let it dry, and then smoke it, believing that this practice increases the marijuana's THC level.

Some epidemiologic and ethnographic sources mention other drugs used by marijuana smokers: flunetrazepam (Rohypnol) in El Paso; alprazolam (Xanax®) in Philadelphia; and methylenedioxymethamphetamine (MDMA, or "ecstasy"), lysergic acid (LSD), and some methamphetamine among a small group of young, white, middle-class partygoers and clubgoers in Washington, DC.

Treatment sources, like epidemiologic and ethnographic sources, report that marijuana is used most commonly with alcohol. Additionally, marijuana users, both at their programs and in their local communities, also use cocaine (in Birmingham, Chicago, Columbia, Detroit, El Paso, Honolulu, Los Angeles, and Miami), PCP (in Chicago), club drugs (in Denver), methamphetamine (in Billings and Seattle), and ice (in Honolulu, where the marijuana supposedly smooths out the effects of ice).

What are some slang terms for drug combinations involving marijuana?

The New York ethnographer reports several street names for marijuana combinations:

- "Illie" or "illing": Marijuana dipped in PCP
- "B-40": A blunt plus a 40-ounce bottle of beer or malt liquor, via one of two techniques:
  Users dip the blunt into the "40," drip-dry it, and smoke it, or they puff the blunt, blow smoke into the 40, shake it, and drink it.
- "Coolie": Marijuana plus powder cocaine in a cigarette or blunt
- "Woola" or "woolie": Marijuana plus heroin in a cigarette or blunt

Elsewhere, treatment sources report additional terms:

- "Happy stick": The Chicago term for marijuana laced with PCP
- "Primo": The Chicago term for marijuana plus powder cocaine
- "Geek joint": The Columbia and Miami term for marijuana laced with cocaine and smoked
- "Tobacco 51s": The Detroit term for marijuana plus cocaine

Where and with whom is marijuana used? The word "everywhere," once again, is frequently mentioned by *Pulse Check* epidemiologic and ethnographic sources, not just in response to where marijuana users reside, but also in response to where they use the drug. From the malls and railroad tracks of El Paso to the beaches of Honolulu to the reggae concerts of Miami, marijuana is used in a wide range of settings and contexts, both indoors and outdoors, both alone and socially.

Similarly, treatment sources report that marijuana users smoke their drug both alone and socially, and almost anywhere: at home, in cars, at parties, on the job (as reported in Denver), in the street, and in other public areas. At the Seattle methadone program, solitary use of marijuana has increased since the previous reporting period; however, group use still predominates at that program and in the greater local area. Additionally, eight of the non-methadone treatment sources report frequent use (four to six times a week) or daily use of marijuana in their local communities (in Billings, Birmingham, Boston, El Paso, Los Angeles, Miami, New Orleans, Portland).

MARIJUANA: THE SELLERS

Who, How, Where, and With What?

How are street-level marijuana sellers organized? *(Exhibit 6)* The way marijuana sellers are organized in the United States varies widely, with independent dealers cited most often as marijuana dealers. Biker gangs are mentioned as dealers in Seattle (where they sell high-quality British Columbian marijuana) and in Detroit. However, street gangs are mentioned much less often as involved with marijuana sales than with heroin or cocaine sales. In Denver, as with heroin and cocaine, Mexican cartels are involved with marijuana sales. In Memphis, some marijuana is sold by marijuana growers. Epidemiologic and ethnographic sources add that in Miami, many small organizations consisting of 3–10 male members sell marijuana.

Then and Now:
How have street-level marijuana sales changed (1999 vs 2000)?

Signs point to increasing marijuana availability and sales in some *Pulse Check* cities:	➤ Memphis law enforcement: Indoor marijuana growing increased. ➤ Philadelphia epidemiologist/ethnographer: *"In 2000, we've seen more marijuana availability, more volatility in the market, and more competition for selling."* ➤ Washington, DC, law enforcement and epidemiologist/ethnographer: Marijuana sales, use, and related violence have increased.
Other features and methods of sales have changed in some cities:	➤ Chicago law enforcement: *"Marijuana sellers are more cautious now."* ➤ Miami epidemiologist/ethnographer: New people are entering the marijuana sales business. The weight of street-level marijuana buys has changed recently: the 1/4- gram amount replaced the ounce. ➤ Philadelphia epidemiologist/ethnographer: Sales of formaldehyde-soaked marijuana joints increased. ➤ St. Louis epidemiologist/ethnographer: *"Younger, small time marijuana dealers are beginning to sell ecstasy."* ➤ Seattle law enforcement: More British Columbian marijuana ("BC bud") is staying in the local market. Furthermore, biker gangs selling the drug may have left the United States for British Columbia and may be becoming more organized. ➤ Washington, DC, law enforcement: Law enforcement officials first encountered local hydroponic marijuana ("hydro") in 2000.

Exhibit 6. How are marijuana sellers organized?*

	Site	How organized?
West	Denver, CO	Mexican trafficking organizations
	Honolulu, HI	Independent
	New Orleans, LA	Independent; crack-dealing gangs
	Seattle, WA	Independent; biker gangs
Midwest	Detroit, MI	Biker gangs
South	Columbia, SC	Closely knit groups
	Miami, FL	Small gangs
	Washington, DC	Independent; Hispanic organized groups
Northeast	Portland, ME	Independent
	New York, NY	Independent

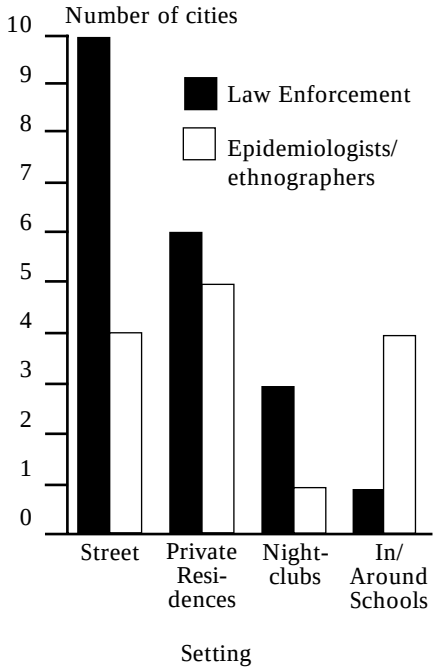
Source: Law enforcement respondents
**Respondents in 10 sites did not provide this information.*

How old are street-level marijuana sellers? As with seller affiliation, the ages of street-level marijuana sellers vary widely, ranging from 10 to 65 years. According to most law enforcement sources, adolescents and young adults predominate among marijuana sellers. Epidemiologic and ethnographic sources concur that the ages of marijuana dealers range widely. Those sources cite adolescents and young adults as the predominant age groups of marijuana sellers.

Where is street-level marijuana sold? *(Exhibit 7)* In reporting *Pulse Check* sites, marijuana is sold throughout the city, with many sources reporting it as sold "everywhere." In Birmingham, Boston, Memphis, and New Orleans, it is sold in inner-city, as well as suburban, areas. In El Paso's inner-city areas, smaller amounts of marijuana are sold per transaction than in its suburban areas. In Birmingham, suburban distributors receive marijuana from sources outside the State, store large quantities in the suburbs, then contact city residents to distribute there, in crack houses and on street corners.

According to law enforcement sources, marijuana is sold mostly on the street, followed by homes and nightclubs. It is sold in high schools in New Orleans and even in hospitals in Columbia. Epidemiologic and ethnographic sources agree that marijuana is commonly sold in private residences, streets, and nightclubs, but they cite schools as the second most common place (along with streets) for marijuana sales. They add that in El Paso, marijuana is sold at concerts; in Miami, it is sold at open street markets; in New York, small amounts are sold on the street, and larger amounts are sold indoors; and in Philadelphia, it is sold in streets, rundown areas, and abandoned buildings.

Exhibit 7.
Where is street-level marijuana sold?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

Drug Use Among Marijuana Sellers

Almost all responding law enforcement sources (15 of 17) report that marijuana sellers use their drug. Only in two sites (Miami and Seattle) do marijuana sellers reportedly not use the drug.

Marijuana Sales-Related Violence

Violence among marijuana sellers is reported by law enforcement sources only in five areas (Birmingham, Boston [at low levels], Denver, Miami, and Washington, DC). Epidemiologic and ethnographic sources agree that violence related to marijuana sales is nonexistent or low level.

How is street-level marijuana sold? As with the setting of marijuana sales, marijuana distribution methods vary widely. Hand-to-hand marijuana sales are mentioned by Los Angeles, Memphis, and Washington, DC, law enforcement sources. Beepers are used in Memphis, and beepers and cellular phones are used in Chicago, where sellers also drive up to residences and honk. According to the epidemiologist in Boston, most marijuana is sold through informal networks of friends. Some telephone ordering of marijuana is reported in Detroit, and delivery services are noted in St. Louis.

What other drugs are sold by marijuana dealers? *(Exhibit 8)* Crack cocaine and heroin are the most common drugs other than marijuana sold by marijuana dealers, according to law enforcement, epidemiologic, and ethnographic sources. Other drugs sold by marijuana dealers include powder cocaine, methamphetamine, ecstasy, LSD, and PCP. The latter is combined with marijuana and sold in several cities, including El Paso, New York, and Washington, DC. In St. Louis, younger marijuana dealers sometimes sell ecstasy, and in Seattle, sources state that other drugs sold by marijuana dealers depend on what drugs are available. In Philadelphia, adolescents report sales of formaldehyde-soaked marijuana joints. In five sites (three of them in them Midwest), no other drugs are reportedly sold with marijuana.

How is marijuana packaged and marketed? The most common packaging for marijuana in U.S. cities is plastic zipper bags, according to *Pulse Check* sources. Sources also mention wrapped bundles in El Paso, cigar boxes in New Orleans, and small, glassine bags or by the bale in Portland. In Washington, DC, local hydroponic marijuana ("hydro") is packaged in small, glass bottles, and commercial-grade marijuana is often sold in $10 "street bags." Brand names or labels for marijuana were not mentioned except in New York (where plastic bags containing marijuana are stamped with four leaf clover designs), in El Paso (where brand names include "red colitas"), and in Miami (where brand names for sinsemilla include "krippie" and "Seattle," and brand names for commercial-grade marijuana include "regs").

Exhibit 8. What other drugs do marijuana dealers sell?*

	City	Heroin	Crack Cocaine	Powder Cocaine	Metham-phetamine	Ecstasy (MDMA)	Halluci-nogens	No Other Drugs Sold
West	Honolulu, HI				✓			
	Los Angeles, CA		✓					
	Seattle, WA	✓		✓			✓	
Midwest	Chicago, IL							✓
	Detroit, MI							✓
	Sioux Falls, SD							✓
	St. Louis, MO	✓	✓			✓		
South	El Paso, TX				✓	✓	✓	
	Memphis, TN							✓
	Miami, FL	✓	✓					
	New Orleans, LA		✓	✓				
	Washington, DC		✓				✓	
Northeast	Boston							✓
	New York, NY						✓	
	Portland, ME	✓						

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in five sites did not respond: Billings, Birmingham, Columbia, Denver, and Philadelphia.*

MARIJUANA: THE COMMUNITY

What is the impact of and community reaction to the marijuana problem? Widespread marijuana use has had a variety of repercussions in local communities; conversely, the varied community responses have had varied impact on the problem:

- Denver, CO: The epidemiologic source links the recent increase in marijuana-related hospital emergency room visits to the increase in new users.
- Honolulu, HI: After operating for 15 years, the Big Island's Operation Green Harvest marijuana eradication effort has been nearly stopped by threats of legal action against the county council. The epidemiologic source notes concern about increased marijuana availability throughout the State.
- Miami, FL, and New York, NY: According to treatment sources, marijuana has become the target for program outreach activities. In Miami, illegal drugs used by youth are particularly targeted. As a result, treatment programs are noting more calls for help from youth, but there are not enough treatment slots available to treat them.
- Portland, ME: Maine's new medical marijuana bill, which allows for possession of a number of plants, has not been fully operationalized. Its impact, notes the epidemiologic source, remains to be seen.
- St. Louis, MO: According to the epidemiologic source, large marijuana seizures occur every few weeks on the local interstate highway, increasing the general public's awareness of the problem. A treatment source notes an increase in marijuana-related media attention in the local area.
- Washington, DC: The epidemiologic source reports a new sentencing practice: selling more than half a pound of marijuana, which used to be a misdemeanor (up to 1 year in jail), is now considered a 5-year felony. Also, a recent drug bust in neighboring Prince George's County involved 38 pounds of marijuana.

METHAMPHETAMINE: THE PERCEPTION

How serious a problem is methamphetamine in Pulse Check communities? During 2000, methamphetamine was perceived as the most serious drug problem by 7 responding sources (10 percent of 70) in 3 cities: Billings and Honolulu in the West; and Sioux Falls in the Midwest. Furthermore, it was considered the second most serious drug problem by 6 responding sources (9 percent of 70) in 5 cities: Billings and Denver in the West; Memphis in the South; and Sioux Falls and St. Louis in the Midwest.

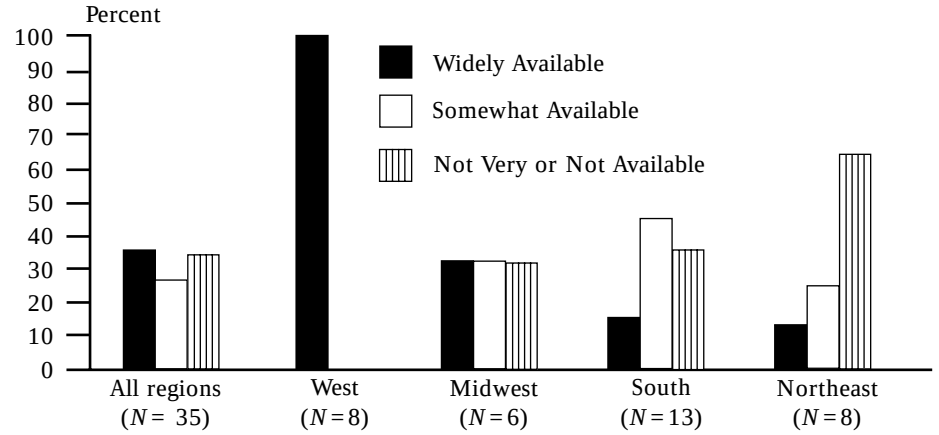
Has the perception of the methamphetamine problem changed between 1999 and 2000? No changes are reported: all sources who considered methamphetamine as either the first or second most serious drug problem in their cities during 2000 also reported that the drug's status had remained stable since the previous year. The drug, however, was seen as an emerging or intensifying problem by five sources in five cities: Denver and Seattle in the West; Sioux Falls in the Midwest; Birmingham in the South; and Philadelphia in the East.

METHAMPHETAMINE: THE DRUG

Availability, Purity, and Price

How available is methamphetamine? *(Exhibit 1)* More than any other drug on which *Pulse Check* reports, methamphetamine availability varies by U.S. region: in the West, it is considered widely available by every reporting source (in Billings, Denver, Honolulu, Los Angeles, and Seattle); in the Midwest, it ranges from widely available to somewhat available (in Sioux Falls and St. Louis) to not very available or not available at all (in Chicago); in the South, it ranges from not available (in Miami) to widely available (in Birmingham and Memphis); and in the Northeast, methamphetamine is reported as either not very available or somewhat available (by sources in Boston, New York, Philadelphia, and Portland).

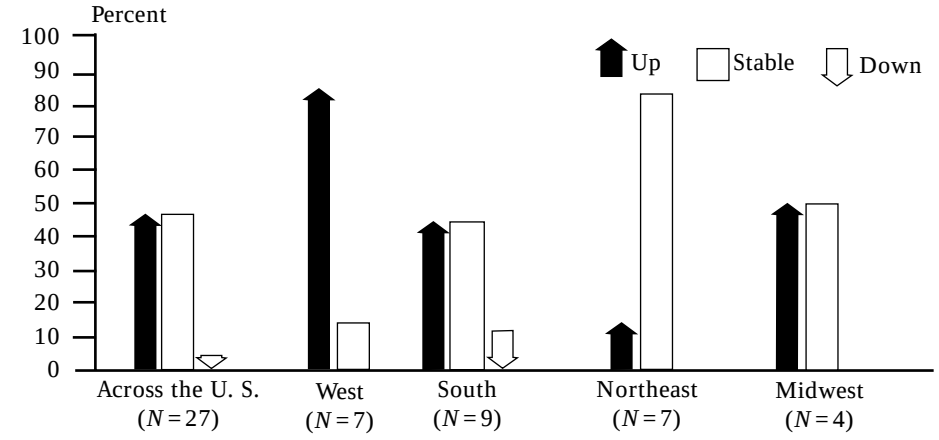
Exhibit 1.
How available is methamphetamine by U.S. region?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

How has methamphetamine availability changed? (Exhibit 2) Nearly half (48 percent) of *Pulse Check* sources report increases in methamphetamine availability between 1999 and 2000, and another 48 percent of responding sources report stable availability between those time periods; only 4 percent report declines. By region, the vast majority of western sources (86 percent) report methamphetamine availability increases, while southern and midwestern sources report mostly increasing or stable trends, and northeast sources generally report stable trends (85 percent).

Exhibit 2.
How has methamphetamine availability changed by region?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

What type of methamphetamine is available? Low- to mid-grade methamphetamine is the most available type of methamphetamine according to 10 law enforcement, epidemiologic, and ethnographic sources in 7 cities: Billings, Denver, Los Angeles, and Seattle in the West; Sioux Falls and St. Louis in the Midwest; El Paso in the South; and Boston in the Northeast. "Ice" (nearly 100 percent pure methamphetamine) is not very available or not available at all, according to the majority (63 percent) of *Pulse Check* sources. However, it is widely available according to sources in four cities in the West (Billings, Denver, Honolulu, and Los Angeles) and one city in the South (Memphis). Ice is considered "somewhat available" by sources in only three cities: Birmingham, El Paso, and New York.

Most methamphetamine available in the United States is produced in clandestine labs, either in Mexico or locally. The ephedrine/pseudoephedrine reduction method and cold-cooking method ("nazi method" made with anhydrous ammonia and lithium) are the two types of methamphetamine manufacturing most cited by *Pulse Check* sources, and many sources report both methods within one area. Two other methods mentioned are the red phosphorous and the phenyl-2-propanone (P2P) methods. Local clandestine lab "busts" (especially in rural areas) seem to be increasing in many *Pulse Check* cities, including Denver, Memphis, St. Louis, and Seattle.

Changes in methamphetamine manufacture?

According to epidemiologic and ethnographic sources...

- Seattle, WA "Mexican methamphetamine may be losing its market share due to the increase of locally produced methamphetamine."
- Philadelphia, PA "Traditionally, cookers used the 'P2P [phenyl-2-propanone] method' to manufacture methamphetamine, but more recently, the ephedrine reduction and 'nazi' methods are being used."

Exhibit 3.
Methamphetamine gram prices and purity by region and city*

	CITY	GRAM PRICE	PURITY
West	Billings, MT	$100	NR
	Denver, CO	$100–$125	20%
	Honolulu, HI	$200–$300	60%
	Los Angeles, CA	$80–$100	$15–$20
	Seattle, WA	$80–$120	
Midwest	Chicago, IL	$80–$330	NR
	St. Louis, MO	$100	
South	Columbia, SC	$125	NR
	El Paso, TX	$40–$60	50%
	Miami, FL	$80–$100	NR
	New Orleans, LA	$150	NR
	Washington, DC	$150	
Northeast	New York, NY	$200	
	Philadelphia, PA	$80–$100	
	Portland, ME	$120	50%

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Respondents in five sites did not provide this information: Birmingham, Boston, Detroit, Memphis, and Sioux Falls.*

How pure is methamphetamine, and how much does it cost? *(Exhibit 3)* Actual methamphetamine purity levels are reported only by law enforcement, epidemiologic, and ethnographic sources in Denver, El Paso, Honolulu, Los Angeles, and Portland. Purity changes between 1999 and 2000 were reported only by treatment sources in Billings, where purity levels decreased, and in Chicago and Columbia, where they increased.

Gram prices for methamphetamine range from $40–$60 in El Paso to $80–$330 in Chicago. In Honolulu, high-purity ice (widely available there) costs $200–$300 per gram. From 1999 to 2000, prices increased only in Chicago and Denver, and decreased only in Columbia and Memphis according to law enforcement, epidemiologic, and treatment sources.

How is methamphetamine referred to? *(Exhibit 4)* Street names (slang) for methamphetamine across the United States include crank, meth, speed, and crystal. Other names are based on the appearance of the methamphetamine available. For example, "sparkle" is a somewhat shiny methamphetamine available in Denver, "clear" is a clear high-purity methamphetamine in Honolulu, and "peanut butter" describes the yellowish methamphetamine available in Washington, DC.

METHAMPHETAMINE: THE USERS

Who, Where, How, and With What?

How old are methamphetamine users? In most *Pulse Check* sites, young adults are most likely to use methamphetamine, except in Miami and Los Angeles where treatment sources indicate that adolescents are the most common age group. Older adults also use methamphetamine in many areas. In Denver, use among young adults is slightly up while older adult use appears to be declining slightly. Los Angeles treatment providers are observing an increase in adolescent clients.

Is any racial/ethnic or socioeconomic group more likely to use methamphetamine? According to epidemiologic and ethnographic sources in 13 *Pulse Check* reporting cities, whites appear to be the

Exhibit 4.
How is methamphetamine referred to in different regions of the country?

Sources: Law enforcement, treatment provider, epidemiologic, and ethnographic respondents

predominant users of methamphetamine. Some use, however, is reported among other racial/ethnic groups, especially in cities where they are substantially represented, such as the following: Hispanics in Denver and Los Angeles; Native Americans in Billings and Sioux Falls; and Filipinos in Honolulu. In particular, the Los Angeles epidemiologist reports an increase in methamphetamine use among Hispanics. Treatment providers report similarly, except in El Paso where they serve a Hispanic population reportedly using methamphetamine. In Washington, DC, epidemiologic and ethnographic sources suggest possible new use in the black community. Middle and lower socioeconomic groups are more likely to use methamphetamine, except in New Orleans where moderate to upper socioeconomic groups are reported by epidemiologic and ethnographic sources.

Are there any gender differences in who uses methamphetamine?

The majority of methamphetamine users are male, except in five *Pulse Check* cities: in Los Angeles, New Orleans, Sioux Falls, and Washington, DC, users are evenly split between males and females; and in El Paso, users are more commonly females. Methamphetamine use is reportedly an increasing problem among women in Denver and Honolulu. The drug is a particular problem within the gay communities in Los Angeles and Seattle, where the drug is perceived by users as a "health aid" to combat chronic fatigue associated with HIV.

Then and Now:
How have methamphetamine users changed across the country (1999 vs 2000)?*

According to epidemiologic, ethnographic, and treatment sources...

Denver, CO	According to epidemiologic and ethnographic sources, use among young adults is slightly up, while older adult use appears to be declining slightly, and the problem is reportedly increasing among women. Treatment sources report an increase in cocaine use as a secondary drug. Users have switched from snorting to injecting, according to both types of respondents.
Honolulu, HI	Methamphetamine use is reportedly an increasing problem among women.
Los Angeles, CA	Treatment sources observe an increase in adolescent clients, and the epidemiologic source reports an increase in use among Hispanics. Continuing a 5-year upward trend, smoking has increased.
New York, NY	According to the ethnographic source, methamphetamine use is beginning to be observed in the gay community
Seattle, WA	Smoking has increased, according to treatment sources. According to the epidemiologic source, anecdotal reports of methamphetamine-related child abuse and neglect and cases of domestic abuse have increased. That source also notes the spread of methamphetamine use from older adults to adolescents and young adults.
Washington, DC	The epidemiologic source suggests initiation of use in the black community.

**No major changes in methamphetamine-using populations are reported in 14 sites.*

Methamphetamine in the Gay Community

Denver, CO: According to the epidemiologic source, gays of all ages inject cocaine and methamphetamine.

Los Angeles, CA: Methamphetamine taken with sildenafil citrate (Viagra®) has produced adverse medical effects in the gay community, according to the epidemiologic source.

New York, NY: The *Pulse Check* ethnographic source notes, "You don't see much methamphetamine, but gays have been starting to use it within the last year, especially in bars. Now that the AIDS epidemic is slowing, the 'fear factor' among younger gays is down, and they are going back to risky behaviors."

In Denver, gays reportedly inject cocaine with methamphetamine. Methamphetamine use is also beginning to be observed in the gay community in New York, according to epidemiologic and ethnographic sources.

Where do methamphetamine users tend to reside? Suburban and rural areas are the most likely place of residence for methamphetamine users in Birmingham, Chicago, Detroit, New Orleans, Los Angeles, and St. Louis. Conversely, methamphetamine use is more frequently observed among those in urban areas in Billings, Boston, El Paso, Memphis, and Philadelphia. Methamphetamine use appears to be a problem in all types of areas in Denver, Honolulu, and Seattle.

How do users administer methamphetamine? Route of administration varies widely across *Pulse Check* cities, with no clear regional pattern. Injecting is the most common route in Billings, Denver, Philadelphia, and Seattle, according to epidemiologic and ethnographic sources; by contrast, users in Chicago, Detroit, and Washington, DC, most frequently snort methamphetamine. Smoking is the most common route of administration in Honolulu, Los Angeles (where it is increasing), and Sioux Falls. In Birmingham and El Paso, epidemiologic and ethnographic sources report that oral administration is the most common route, while treatment providers report injecting as the most common route. In Denver, users have been switching from snorting to injecting, according to epidemiologic and ethnographic sources. In Seattle, treatment sources cite an increase in smoking.

What other drugs do methamphetamine users take? Many methamphetamine users also have problems with other licit and illicit substances of abuse. Alcohol is the most common substance they use. Marijuana is also frequently used, as in Denver, where it is used to "come down" after methamphetamine use. Other drugs cited by epidemiologic and ethnographic sources are cocaine injection in Denver (in the gay community), club drugs in New Orleans and Washington, DC, and poppers in Seattle. In the Los Angeles gay community, medical consequences have resulted from methamphetamine taken with sildenafil citrate (Viagra®). Treatment providers in Denver report an increase in cocaine use as a secondary drug, and the El Paso non-methadone source lists heroin, injected with methamphetamine as a "speedball," as the most common concurrently used drug.

Where and with whom is methamphetamine used? Methamphetamine use tends to be a group activity, according to epidemiologic and ethnographic sources. They cite parties, raves, trailer parks, bars, bathhouses, and homes as the usual places for methamphetamine use. In contrast, treatment sources indicate that methamphetamine is often taken alone in many cities. In most reporting cities, methamphetamine is used several times each week, but multiple daily use is reported by epidemiologic and ethnographic sources in Billings, Columbia, and Seattle.

METHAMPHETAMINE: THE SELLERS

Who, How, Where, and With What?

How are street-level methamphetamine sellers organized? Methamphetamine distributors are affiliated with trafficking organizations in 5 of the 12 reporting *Pulse Check* cities where law enforcement sources reported on the subject. Ties with Mexican organizations are reported in Denver, Honolulu, and Seattle. Domestic organizations are reported in Denver and Honolulu (Californian groups), and biker gangs are reported in New Orleans and Philadelphia. Other Philadelphia distributors include some Italian groups and some independent groups. Independent groups are also cited by the other seven reporting law enforcement sources in the following cities: Boston; El Paso, where the law enforcement source notes that "makers are users"; Los Angeles, where the drug is obtained from friends and intimates; Memphis; Sioux Falls, where "independents" who deal methamphetamine are slightly more organized, via family ties, than those who distribute other drugs; and St. Louis, where independent distributors are affiliated with other users and sellers.

Then and Now:
How have street-level methamphetamine sales changed (1999 vs 2000)?

Despite the many reported increases in availability, the methamphetamine sales scene has remained remarkably stable since the previous reporting period, with only a few exceptions:

Lab seizures have increased:	➤ Detroit epidemiologist: Methamphetamine labs have recently been seized in western Michigan. ➤ Denver epidemiologist: Many methamphetamine lab busts have recently been reported in the Rocky Mountain area: for example, in the second quarter of fiscal year 2000, 166 such busts were reported. ➤ Seattle epidemiologist and law enforcement: The number of local lab seizures has gone up dramatically, totaling 76 in the first 8 months of 1998, 171 during the same period in 1999, and 233 during that period in 2000. ➤ Sioux Falls epidemiologist: The number of methamphetamine busts has increased.
The number of sellers has increased:	➤ Memphis law enforcement: The number of sellers has increased. ➤ Seattle epidemiologist: The number of sellers, both local and Mexican, has increased.
The problem has spread from rural areas:	➤ Seattle epidemiologist and law enforcement: While the methamphetamine scene remains generally a rural phenomenon, it has started spreading to suburban and inner-city areas.

Epidemiologic and ethnographic sources corroborate the Mexican connection in Denver and Seattle and also indicate a similar connection in Sioux Falls. They cite biker gangs in Detroit (where those gangs are not a visible group) and New York, local cooks in Seattle and the rural areas outside of Detroit, small "mom-and-pop" lab operators in St. Louis rural areas, and independent distributors in Washington, DC.

How old are street-level methamphetamine sellers? In 9 of the 12 *Pulse Check* cities where law enforcement sources reported on seller age, the age range is remarkably wide: 20–50 in Billings; 18–40 in Boston; 15–65 in Denver; 17–early-fifties in Honolulu; 20–40 in Los Angeles; early-twenties-late-forties in Memphis; 20–45 in New Orleans; and "all ages" in New York. In Seattle, the law enforcement source notes that it is "hard to establish a(n age) pattern for the local labs because the stuff is everywhere." By contrast, sellers' age ranges are narrower in El Paso (18–25), Sioux Falls (20–35), and St. Louis (26–38).

Epidemiologic and ethnographic sources generally note that sellers are in their twenties and thirties, except in Detroit where the small number of methamphetamine sellers have a wider age range of 20–50.

Violence Among Methamphetamine Sellers

Violence is a part of the methamphetamine sales scene in 11 of 12 *Pulse Check* cities whose law enforcement sources discussed this question. In Honolulu, for example, "ice" plays a large role in domestic violence (both on the part of the perpetrators and victims) and it is involved in other violent criminal acts. In Seattle, methamphetamine-related domestic violence (again, both on the part of the perpetrators and victims) has reportedly increased since the last reporting period. Sioux Falls is another example, with methamphetamine involved in gang activity, prostitution, violent criminal acts, and domestic violence (perpetrators). Only in El Paso is violence not seen as part of the methamphetamine scene.

Epidemiologic and ethnographic sources, however, describe a more mixed picture. Low-level methamphetamine-related violence is reported in Denver, Detroit, Honolulu (only when turf problems are encountered), St. Louis (domestic violence in rural areas), and Washington, DC. Higher levels of violence are reported in Seattle, involving both turf wars and domestic violence and both local and Mexican sellers. By contrast, methamphetamine is not associated with violence in Birmingham and Chicago.

Do methamphetamine sellers use their own drugs? In all 13 cities whose *Pulse Check* law enforcement sources discussed this question, methamphetamine sellers do indeed use their own drug. As a matter of fact, just about all the sellers in Denver reportedly do so, as do the majority in Honolulu and approximately 80 percent of sellers in St. Louis. In Seattle, "cooks" often start their trade because they are users to begin with. In Sioux Falls, however, quite a few methamphetamine sellers do not use their drug.

Epidemiologic and ethnographic sources confirm that the sellers use their own drug. In Seattle, however, while local cooks reportedly use their own methamphetamine, Mexican sellers do not.

Where and how is street-level methamphetamine sold? *(Exhibit 5)* Methamphetamine is often sold in rural areas, as reported by law enforcement sources in Memphis, Seattle, and St. Louis. In other cities, however, it is sold in urban areas: in El Paso, labs are small enough to be in residential areas; in Memphis, methamphetamine is sold in the inner city, but to a lesser extent than in rural areas; in New Orleans the drug is processed in rural areas but sold in urban areas; in New York it is sold in both residential and commercial urban areas; in Philadelphia, it is sold in the northern part of the city; and in Seattle sales are beginning to spread from the rural areas into the suburbs and inner city. Moreover, methamphetamine is reportedly sold "all over" or "citywide," according to law enforcement sources in Billings, Honolulu, Los Angeles, and Sioux Falls. Epidemiologic and ethnographic sources corroborate many of these reports and add that methamphetamine is also sold in the suburbs of Birmingham and Chicago.

Exhibit 5.
Where is street-level methamphetamine sold?*

	City	Private residences	Street	Bars, restaurants, clubs, parties	Businesses	Hand-to-hand	Cars	Truck stops
West	Billings, MT	✓						
West	Denver, CO		✓	✓				
West	Honolulu, HI	✓	✓	✓	✓			
West	Los Angeles, CA		✓	✓		✓	✓	
West	Seattle, WA	✓						
Midwest	Chicago, IL	✓						
Midwest	St. Louis, MO	✓				✓		✓
Midwest	Sioux Falls, SD					✓		
South	El Paso, TX	✓				✓		
South	Memphis, TN	✓	✓	✓		✓		
South	Washington, DC			✓				
Northeast	New York, NY			✓				

Sources: Law enforcement, epidemiologic, and ethnographic respondents
**Sources in eight sites did not respond: Detroit in the Midwest; Birmingham, Columbia, Miami, and New Orleans in the South; and Boston, Philadelphia, and Portland in the Northeast.*

Methamphetamine sales take place both outdoors—as reported in Denver, Honolulu, Los Angeles, and Memphis—and indoors in a variety of settings, such as private residences, bars, clubs, restaurants, parties, cars, truck stops, and even places of business. The drug is often sold in small closed social groups—hand-to-hand, friend-to-friend, or acquaintance-to-acquaintance—as reported in El Paso, Los Angeles, Memphis, St. Louis, and Sioux Falls. None of the midwestern sources report methamphetamine sales in the club or bar scene.

What other drugs do methamphetamine dealers sell? Only five law enforcement sources report that methamphetamine dealers also sell other drugs:

- Denver, CO: Marijuana, cocaine
- Honolulu, HI: Marijuana, cocaine, heroin ("everything")
- New Orleans, LA: Methcathinone ("cat")
- Seattle, WA: Marijuana
- Sioux Falls, SD: Marijuana

The Seattle epidemiologic source corroborates that methamphetamine sellers also sell marijuana, and the Washington, DC, epidemiologic source adds that some methamphetamine sellers also sell "ecstasy" and LSD.

How is methamphetamine packaged and marketed? Small plastic bags are the most commonly reported packaging for methamphetamine, according to *Pulse Check* law enforcement sources in El Paso, Honolulu, Los Angeles, New Orleans, New York, Sioux Falls, and St. Louis. Other reported packaging includes foil in Denver and, in Memphis, either a small cellophane pack or wax paper knotted up. An epidemiologic source adds that methamphetamine in Detroit is packaged in paper wrappers.

METHAMPHETAMINE: THE COMMUNITY

How is the impact of and community reaction to the methamphetamine problem? Methamphetamine affects communities in many ways: it is associated with violence, as discussed above, and with adverse medical consequences. As a result, media attention often focuses on the problem and communities react with a variety of prevention efforts, law enforcement efforts, and changing sentencing practices.

Adverse medical consequences:	➤ Honolulu, HI: Methamphetamine-related episodes are sporadically reported from psychiatric wards, where the drug is viewed as a real problem.
Media and other prevention efforts:	➤ Detroit, MI: The *Pulse Check* epidemiologic source notes some media efforts, such as TV spots, targeted at methamphetamine. It is still too early to assess the impact on the community. ➤ Honolulu, HI: The Women's Amphetamine Treatment for Community Health (WATCH) has sponsored several public service announcements (PSAs) targeting female users of crystal methamphetamine. The epidemiologic source notes, however, that these PSAs are usually aired at around 2:00 am, thus having a limited impact. ➤ Sioux Falls, SD: The epidemiologic source suggests that the community's education efforts, based on zero tolerance and increased parent involvement, have resulted in a drop in adolescent use of methamphetamine. ➤ Seattle, WA: Methamphetamine lab education sessions for the community were started in Olympia, Washington, a little more than a year ago. The sessions are extremely popular and are growing statewide; they now train others to educate. The law enforcement source notes that the impact of these sessions should be evident by the next *Pulse Check* issue.
Law enforcement efforts:	➤ Detroit, MI: Recent methamphetamine lab busts have gotten some publicity. ➤ Los Angeles, CA: Newspaper reports of major methamphetamine seizures so far have not affected supply, which remains high. ➤ Seattle, WA: The epidemiologic source notes that the sharp increase in methamphetamine lab seizures is the direct result of the Washington State Patrol response team, which targets these labs. The law enforcement source suggests that these efforts are completely reactive: as the community knows more, the budget targeted at methamphetamine increases, and more busts occur. ➤ Sioux Falls, SD: The epidemiologic source links the increase in methamphetamine busts as to a methamphetamine task force. ➤ Denver, CO: Law enforcement efforts have targeted methamphetamine specifically. ➤ Miami, FL: Some law enforcement efforts and legislation have targeted precursors: in a major national case, massive amounts of ephedrine were seized in the Ft. Lauderdale area, where a drug ring was involved in warehousing the drug for shipment to Los Angeles.
Changing sentencing practices:	➤ Portland, ME: Possession of methamphetamine is now considered a felony, according to the law enforcement source, who also notes that more aggressive judges are taking more interest in these cases.

SPECIAL TOPIC: "ECSTASY" AND OTHER CLUB DRUGS

The last issue of *Pulse Check* addressed "club drugs" as a special topic because of increasing reports that a wide variety of illicit drugs were being used and sold, mostly by white youth from middle to upper SES groups, in nightclub and rave settings. Since then—amid concern about increased consequences and possible spread to other populations and broader settings and contexts—this problem has continued to be monitored by numerous sources, including the Drug Abuse Warning Network (DAWN), the Monitoring the Future (MTF) study, the Community Epidemiology Work Group (CEWG), the Drug Enforcement Administration (DEA), and numerous local law enforcement and public health agencies. The growth of the problem, particularly the proliferation of "ecstasy" (methylenedioxymethamphetamine or MDMA), has warranted further scrutiny by *Pulse Check*, and so this issue once again devotes a special focus to this broad category of drugs, which includes the following:

- Ecstasy, a synthetic, psychoactive substance with stimulant and mild hallucinogenic properties, is most often used in pill form.

- Gamma hydroxybutyrate (GHB) is a central nervous system depressant usually sold as an odorless, colorless liquid in spring water bottles or as a powder and mixed with beverages. GHB precursors, gamma butyrolatone (GBL) (a chemical used in many industrial cleaners) and 1,4-butanediol (BDL), convert into GHB in the body and have been sold as nutritional supplements in health food stores and over the Internet, often in powder or capsule form.

- Ketamine is a prescription anesthetic with hallucinogenic and dissociative properties and marketed for human use, but primarily for veterinary use. Ketamine can be used in liquid or powder form.

- Rohypnol (flunitrazepam) is a benzodiazepine, no longer marketed in the United States, that is obtained by prescription in Mexico (and sometimes Colombia) and smuggled across the border. It has been involved in numerous drug rapes, but its most common abuse pattern is episodic use by teenagers and young adults as an "alcohol extender" and disinhibitory agent, most often in combination with beer.

- Methamphetamine is a stimulant (discussed in the previous section).

- Nitrous oxide is an inhalant often referred to as laughing gas.

- Lysergic acid diethylamide (LSD) ("acid") is a hallucinogen, most commonly distributed on blotter paper and taken orally.

The club or rave experience typically involves music, dancing, and socializing and usually lasts through the night. Club drugs are commonly combined with one another and with other illicit drugs and alcohol.

For this issue, all four categories of *Pulse Check* sources were asked about club drug use and activity in their areas. The law enforcement, epidemiologic, and ethnographic sources provided most of the information, whereas treatment sources had little first-hand knowledge of club drug use, suggesting that club drug users have not yet entered the treatment system in large numbers.

Pulse Check discussions suggest that club drug availability and use are increasing, corresponding to reports from the sources listed above. For example, according to DAWN, emergency department mentions for GHB and MDMA increased significantly between 1998 and 1999 (from 1,282 GHB mentions in 1998 to 2,973 in 1999, and from 1,143 MDMA mentions in 1998 to 2,850 in 1999), whereas other club drugs did not increase significantly during this time period. Additionally, emergency department episodes involving club drugs usually involve multiple substances, such as marijuana, cocaine, and other club drugs. Alcohol is a common factor in these episodes.

Similarly, MTF data showed that ecstasy use (both lifetime and past-30-day use) continued to rise sharply between 1999 and 2000 among 8th, 10th, and 12th graders. Furthermore, perceived ecstasy availability among 12th graders (the only grade for which perceived ecstasy availability was reported) also increased markedly during that time period. The other club drugs included in the survey are LSD, Rohypnol, and methamphetamine, use of which declined among 8th, 10th, and 12th graders. GHB, ketamine, nitrous oxide use were not specifically surveyed.

Pulse Check discussions in 2000 further indicate that club drug activity may be expanding from nightclubs and raves to high schools, streets, and

open venues; further, they suggest that whites are no longer the exclusive users and sellers, which now include more blacks and Hispanics. *Pulse Check* sources corroborate the DAWN reports of the continuing practice of combining club drugs with one another, with other illicit drugs, and with alcohol.

ECSTASY AND OTHER CLUB DRUGS: THE PERCEPTION

How serious a problem are club drugs in Pulse Check communities in 2000? Club drugs (including ecstasy) or ecstasy alone were perceived as the emerging drugs in their communities by 27 sources in 18 of the 20 *Pulse Check* cities (52 percent of 52 responding enforcement, epidemiologic, ethnographic, and treatment sources). Billings and Birmingham were the only two cities where these drugs were not named as an emerging problem. While no sources reported club drugs or ecstasy as their communities' most serious drug problem in 2000, three did report club drugs as the second most serious drug problem: the non-methadone treatment source in Boston, the law enforcement source in Miami, and the law enforcement source in New Orleans.

ECSTASY AND OTHER CLUB DRUGS:

Availability, Form, Price, and Purity

How available are club drugs in Pulse Check communities? (*Exhibits 1 and 2*) Ecstasy is the most available of club drugs, with more than 90 percent of epidemiologic, ethnographic, and law enforcement respondents reporting it as somewhat or widely available, followed by GHB (and its precursors). Interestingly, all respondents reporting wide GHB availability are from cities in the West or South: Denver, Los Angeles, Miami, New Orleans, and Seattle. Similarly, Rohypnol is considered widely available by respondents only in western and southern cities: Denver, El Paso, and Los Angeles.

Exhibit 1.
How available are club drugs across the United States?

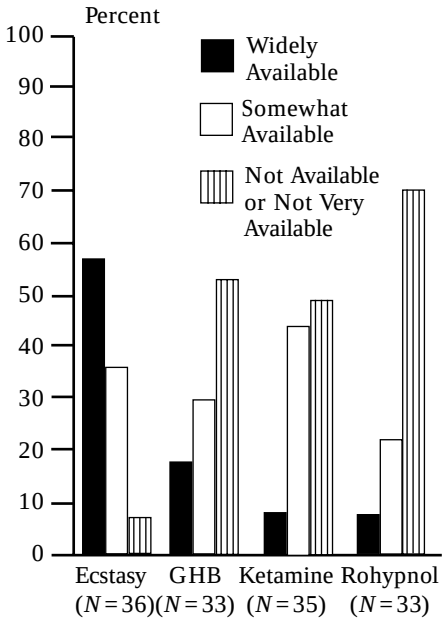
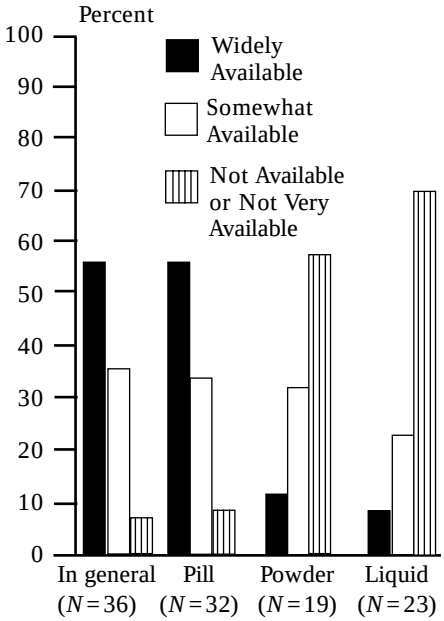


Exhibit 2.
How available are the different forms of ecstasy?



Sources: Law enforcement, epidemiologic, ethnographic respondents

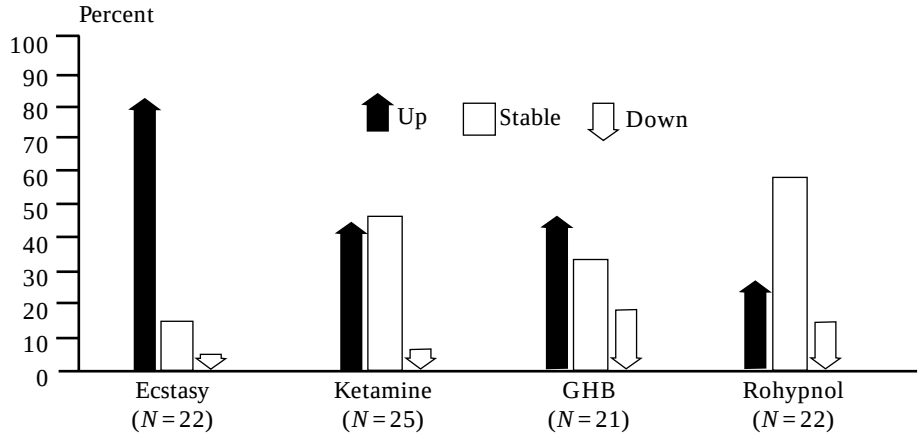
The most common type of ecstasy available in *Pulse Check* cities, by far, is the pressed pill (tablet), followed by powder and liquid forms. In Brooklyn, New York, a street gang is reportedly selling a powder form of ecstasy that, like heroin, may be snorted or injected. In Los Angeles, homemade ecstasy is reportedly increasing, albeit not widely available, according to the epidemiologic source.

Has club drug availability changed? (*Exhibit 3*) More than 80 percent of epidemiologic, ethnographic, and law enforcement respondents report that ecstasy availability increased between 1999 and 2000; only one source (in Portland, Maine) reports that ecstasy availability declined. Ketamine availability increased or remained stable according to most respondents, whereas GHB availability was mixed, with 48 percent of sources from all four U.S. regions reporting increases, and 18 percent reporting declines (in El Paso, Los Angeles, and Miami). Rohypnol availability trends are also mixed, with increases in Denver, El Paso, Los Angeles, Memphis, New Orleans, and St. Louis and declines in Los Angeles and Miami.

Miami, FL: According to the law enforcement source, ecstasy availability and use are surging. The drug is replacing crack, GHB, and Rohypnol.

How are club drugs and their combinations referred to across the United States? (*Exhibit 4*) Slang terms for ecstasy are similar across the Nation. It is generally

Exhibit 3.
Has club drug availability changed between 1999 and 2000?



Sources: Law enforcement, epidemiologic, and ethnographic respondents

Exhibit 4.
Slang terms for club drugs and club drug combinations across the United States

Drug or drug combinations	Slang term	City
GHB, GBL, 1,4-BD	date rape drug	Birmingham, AL
	liquid X, liquid E	Boston, MA
	liquid G, G	Chicago, IL
	wonder stuff	Columbia, SC
	liquid E, liquid X, G, scoop, water	Detroit, MI
	shot (liquid), hit (powder), G	Los Angeles, CA
	Blue Nitro, ReNewtrient (GBL "nutritional supplement" brand names)	Miami, FL
	G, gamma	New Orleans, LA
	G, liquid X, verve	New York, NY
	Georgia home boy	St. Louis, MO
	liquid ecstasy	Seattle, WA
Ketamine	cat	Denver, CO
	super K	Los Angeles, CA
	bump (one dose), cat valium	New York, NY
	been rowing	Columbia, SC
Nitrous Oxide	nitrous, N-2, hippie crack	Los Angeles, CA
Ecstasy + LSD	trolling	Miami, FL
Ecstasy + LSD (in pill form)	nexus	Washington, DC
Ecstasy + psilocybin mushrooms	hippie flipping	Boston, MA
Ecstasy + powder cocaine	bump	Miami, FL
Ecstasy + heroin	down ecstasy	Washington, DC
Ecstasy + methamphetamine	up ecstasy	Washington, DC
Ketamine + LSD	the matrix	Chicago, IL

Sources: Law enforcement, epidemiologic, ethnographic, and treatment respondents

referred to as "X," although "E," "roll," and "the hug drug" are more recent names. The practice of taking ecstasy is referred to as "rolling."

Miami: The epidemiologic source notes that users have stopped referring to ecstasy as MDMA or 'X' and are now calling it 'E.' Also, fewer users think of it as a drug and more as a feeling, a pick-me-up, a fantasy.

Ketamine is referred to as "K" or "special K" in most cities, with additional terms by locality. Where available, Rohypnol is referred to by many names, including "roofies," "roches," and "R-2." Slang for other club drug and drug combinations are national or vary by city. The numerous terms for club drug combinations (for example, LSD combined with ecstasy is referred to as "candy flipping" across the Nation) highlight the practice of using club drugs with other club drugs, hallucinogens, heroin, and cocaine, particularly in eastern cities.

What are street-level ecstasy prices across the country and have they changed? (*Exhibit 5*)

Ecstasy ranges from $10 to $45 per pill in *Pulse Check* cities, according to law enforcement, epidemiologic, and ethnographic sources. Price ranges in the Midwest seem to start at higher levels than elsewhere, while the lowest prices are reported in southern cities. Little information is available on the purity of ecstasy or any club drug.

What adulterants are added to ecstasy across the country?

According to law enforcement, epidemiologic, and ethnographic sources, ecstasy may contain many substances other than MDMA, and adulterants include mostly stimulants.

Exhibit 5.
Ecstasy prices per pill by region and city

	CITY	PRICE
West	Denver, CO	$22
	Honolulu, HI	$25–$45
	Los Angeles, CA	$20–$30
	Seattle, WA	$15–$20
Midwest	Chicago, IL	$25–$35
	St. Louis, MO	$35
	Sioux Falls, SD	$30
South	Columbia, SC	$25–$35
	El Paso, TX	$10–$30
	Miami, FL	$14–$30
	New Orleans, LA	$30
	Washington, DC	$20–$30
Northeast	Boston, MA	$20–$40
	New York, NY	$20–$25
	Philadelphia, PA	$20–$35
	Portland, ME	$20–$30

Sources: Law enforcement and epidemiologic/ethnographic respondents

Have ecstasy prices changed?

The few 1999-to-2000 changes reported show mixed trends:

Los Angeles, CA
Miami, FL
New Orleans, LA

Denver, CO
Portland, ME

Do some ecstasy tablets contain heroin?

Heroin is mentioned anecdotally as an adulterant in Chicago, New York, and Washington, DC. However, two Miami sources (both law enforcement and epidemiologic) suggest that sellers falsely claim that their ecstasy pills contain heroin as a marketing scheme: if ecstasy users believe that they have tried heroin once, they might be willing to use heroin (with or without ecstasy) at a later time.

Then and Now:
How have ecstasy users changed across the country between 1999 and 2000?

Ecstasy user groups and settings seem to be shifting or expanding according to epidemiologic sources:

- New Orleans, LA: In the recent past, ecstasy was used only in underground, private settings, but in the last 2 months a New York promoter publicly advertised raves and concerts, where club drugs are used fairly openly.
- New York, NY: As ecstasy availability has increased on the street, Hispanics and blacks are starting to use the drug.
- St. Louis, MO: "Ecstasy use has become more noticeable in the past 6 months."

City	Adulterants
Boston, MA	amphetamine, caffeine
Chicago, IL	caffeine, vitamins, heroin (anecdotal)
Los Angeles, CA	caffeine, methamphetamine
Memphis, TN	ephedrine
New York, NY	amphetamine, caffeine, ephedrine, heroin (anecdotal)
Washington, DC	heroin (anecdotal)

Sources: Law enforcement, epidemiologic, and ethnographic respondents

Seattle, WA: According to the law enforcement source, what is being sold as GHB and ecstasy may be methamphetamine, and this practice seems to be increasing substantially.

According to a law enforcement source, very weak, home-pressed ecstasy pills were seized in Columbia, South Carolina, where the seller reportedly "sold as many as he wanted to for $25 each."

ECSTASY: THE USERS

Who, Where, How and With What?

Who uses ecstasy? According to all responding epidemiologic and ethnographic sources, ecstasy users are predominantly adolescents and young adults, with many sources mentioning high school and college students (in Boston, Los Angeles, Philadelphia, St. Louis, and Washington, DC). Of 14 epidemiologic and ethnographic respondents, half report that ecstasy users are predominantly male, and half report that they are evenly divided between the genders. Nearly all epidemiologic and ethnographic respondents (87 percent) report that ecstasy users are predominantly whites. In El Paso, however, both Hispanics and whites are reportedly the predominant users, and in Sioux Falls, users represent a cross-section of the general population. Most ecstasy users range from middle to upper socioeconomic status, although in New York, users reportedly fall into all socioeconomic groups. Treatment sources who provided information on club drug use concur that the groups most likely to use ecstasy are adolescents (in Honolulu and Portland) and young adults (in Denver, El Paso, and Los Angeles).

Seattle, WA: According to a treatment respondent, ecstasy users are becoming more prevalent across all income levels.

Where do ecstasy users tend to reside? (*Exhibit 6*) Suburban and urban areas are equally mentioned by *Pulse Check* epidemiologic and ethnographic sources as areas where ecstasy users reside, with sources in Chicago, St. Louis, and Seattle mentioning both suburbia and the central city as areas where ecstasy users live. Additionally, users tend to reside in affluent areas in Los Angeles and in college apartments and dorms in Philadelphia. In New Orleans, most ecstasy users are young out-of-towners who visit the city.

Exhibit 6.
Where do ecstasy users tend to live?

	City	Suburban Areas	Urban Areas
West	Seattle, WA	✓	✓
Midwest	Chicago, IL	✓	✓
	Detroit, MI	✓	
South	Birmingham, AL	✓	
	El Paso, TX		✓
	St. Louis, MO	✓	✓
	Miami, FL		✓
	Washington, DC		✓
Northeast	Boston, MA	✓	

Sources: Epidemiologic and ethnographic providers

Where and how is ecstasy used? Ecstasy is used at social settings (mostly nightclubs and dance clubs, raves, and private parties), although it is also reportedly used in private homes, on college campuses (including dorms), and at bars. Ecstasy is almost exclusively taken orally in pill or powder form, although it has also been reportedly used anally in Miami (only one case reported), snorted in Philadelphia, and diluted with water and drunk in St. Louis.

Then and now:
How have street-level ecstasy sales changed in the last year?

Ecstasy sales settings are shifting or expanding in several *Pulse Check* cities:

- Miami, FL: According to the law enforcement source, the settings for club drug sales seem to be changing constantly: from raves to homes and nightclubs. Legitimate nightclubs are now sponsoring "electronights" and "technonights," which are profitable rave-like parties. Club drugs are everywhere, even at ice skating rinks.
- New York, NY: Ecstasy is more available on the street partially due to the involvement of organized crime and street gangs in sales and the involvement of Long Island youth in sales via the Internet and in malls.
- Portland, ME: According to a law enforcement source, rave activity has increased dramatically.
- Seattle, WA: The law enforcement source states that ecstasy, GHB, and ketamine are finding their way into high schools and colleges.

What other drugs do ecstasy users take? According to law enforcement, epidemiologic, ethnographic, and treatment sources, ecstasy—and all club drugs, for that matter—is often used in combination with many other drugs, most commonly alcohol, other club drugs (including GHB and ketamine), marijuana, methamphetamine, psilocybin mushrooms, and LSD. Other combinations vary geographically: Rohypnol in El Paso; antidepressants or sildenafil citrate (Viagra®) in Los Angeles (to gain a "better bump"); powder cocaine in Miami; benzodiazepines in Miami, New York, and Philadelphia; powder heroin or cough syrup in Philadelphia; opiates other than heroin in Portland, Maine; and heroin and diverted pharmaceuticals in Washington, DC.

Miami, FL: The law enforcement source reports a new phenomenon in club drug combinations: the practice of placing five to nine "lines" of drugs (including marijuana and powder cocaine) on a tray and taking one after the other.

ECSTASY: THE SELLERS

Who, How, Where, and With What?

Who sells ecstasy? According to law enforcement, epidemiologic, and ethnographic sources, ecstasy sellers, like ecstasy users, are predominantly white, male, middle-class young adults, whose ages range from 14 to 32 years. In Miami, rave operators, nightclub personnel, and security guards at raves also sell ecstasy, and in St. Louis, sellers are predominantly high school and college students. In Birmingham, sellers are often "regular" nightclub patrons who may or may not know the owners of the clubs. Similarly, in Billings, sellers are often nightclub frequenters and rave partygoers. In New York, street gangs and organized crime are becoming involved in ecstasy sales.

Drug Use Among Ecstasy Sellers

Law enforcement, epidemiologic, and ethnographic sources overwhelmingly report that ecstasy dealers use their drug. Only in Billings and Los Angeles do some sources report that dealers do not tend to use ecstasy.

Where is ecstasy sold? (*Exhibit 7*) Similar to ecstasy user settings, *Pulse Check* law enforcement, epidemiologic, and ethnographic sources overwhelmingly mention nightclubs and raves as the settings for ecstasy sales, with nightclubs or bars mentioned in 17 of 20 *Pulse Check* cities (by 24 sources), raves in 16 cities (by 19 sources), followed by private parties, private residences, college campuses, streets, and high schools. Other settings for ecstasy sales include dealers' homes in Los Angeles, sex and strip clubs in Miami, shopping malls in New York, and coffee shops in Washington, DC. Law enforcement sources in New York and Philadelphia also report use of the Internet by promoters to advertise nightly raves and by rave goers to locate them.

How is ecstasy sold? According to law enforcement, epidemiologic, and ethnographic sources, the way that ecstasy is sold often depends on the setting. For example, in Birmingham and Chicago nightclubs, buyers are referred to and approach sellers. At Los Angeles raves, buyers may ask users who seem "high" to refer them to an on-site dealer. At Miami raves and nightclubs, "runners" on dance floors are used as liaisons between ecstasy dealers and buyers, and rave operators, security guards, and bar personnel may sell the drug. At raves in Columbia, South Carolina, young, female heroin addicts sell ecstasy and other club drugs for male dealers ("hustling"), so that they can support their heroin habits. In settings other than nightclubs and raves, ecstasy is most often sold hand-to-hand among friends and associates or through introductions and referrals by friends (as reported in Billings, Boston, Columbia, Detroit, and Seattle). In Philadelphia, ecstasy is sold from user to user, and in Washington, DC, it is sold through contacts and beepers.

Exhibit 7.
Where is street-level ecstasy sold?

	City	Nightclubs/ Bars	Raves	Private parties	Private residences	College campuses	Streets	High schools
West	Billings, MT					✓		✓
	Denver, CO		✓					
	Honolulu, HI	✓	✓					
	Los Angeles, CA	✓	✓	✓				
	Seattle, WA	✓	✓	✓	✓	✓		✓
Midwest	Chicago, IL	✓	✓					
	Detroit, MI		✓					
	St. Louis, MO	✓				✓		
	Sioux Falls, SD	✓	✓					
South	Birmingham, AL	✓	✓					
	Columbia, SC	✓			✓			
	El Paso, TX	✓	✓	✓	✓			
	Memphis, TN	✓	✓					
	Miami, FL	✓	✓	✓	✓			
	New Orleans, LA	✓	✓					
	Washington, DC	✓	✓					
Northeast	Boston, MA	✓	✓			✓		
	New York, NY	✓	✓				✓	
	Philadelphia, PA	✓	✓					
	Portland, ME	✓	✓	✓			✓	

Sources: Law enforcement, epidemiologic, and ethnographic respondents

How is ecstasy packaged and marketed? (*Exhibit 8*) All law enforcement, epidemiologic, and ethnographic respondents reporting on packaging state that ecstasy is sold as loose pills. Additionally, the pills are packaged in various ways: in small, plastic zipper bags in Honolulu, Los Angeles, Miami, and New Orleans; in plastic pill bottles in Memphis; and in bottles in New Orleans and St. Louis. Liquid ecstasy in New Orleans is packaged in

Exhibit 8.
How are ecstasy pills labeled in reporting Pulse Check cities?

	City	Label
West	Los Angeles, CA	Nike and other logos
Midwest	Chicago, IL	Ferrari and other logos
	Detroit, MI	cartoon characters, colored pills
	Sioux Falls, ND	buddha
South	Columbia, SC	double dip diamond, double dip, democrat, republican
	El Paso, TX	"E"
	Washington, DC	Star of David, Versace, Mitsubishi
Northeast	Boston, MA	rabbits, race car logos
	Portland, ME	"E"

Sources: Law enforcement, epidemiologic, and ethnographic respondents

bottles. Most sources report that ecstasy pills are stamped or impressed with a wide variety of designs and logos and that new designs and logos emerge often. Only in Memphis and St. Louis are pills reportedly unlabeled.

OTHER CLUB DRUGS: THE USERS AND SELLERS

Who uses and sells ketamine, GHB, and Rohypnol? (*Exhibit 9*)

Regardless of the specific drug, club drug user and seller characteristics are usually similar with a few key differences. For example, Internet sales are mentioned primarily in conjunction with GHB, veterinary break-ins and pharmacy diversions are mainly associated with ketamine, and Hispanic involvement in use and sales is mentioned only for Rohypnol.

Treatment sources report that the number of clients in treatment for club drugs is small but warrants watching:

Boston, MA: Treatment sources identified ketamine users as white suburban adolescents and preadolescents. Referrals to treatment in these cases were generally made by school professionals.

Birmingham, AL: Young adults are using GHB due to its easy access.

Denver, CO: GHB is easily obtained and available, according to some young adults in treatment.

Miami, FL: According to the epidemiologic respondent, 20–40-year-old, middle-class whites of both genders who use GBL at home have become a problematic user subgroup. Indications of addiction in this group increased during 2000, probably due to the supply cutoff when GBL was banned from health food stores. These users are now being treated in emergency departments for depression and suicides.

Exhibit 9.
Club drug user and seller characteristics

Club drugs	Who uses?	Where reside?	Where used?	Who sells?	Where sold?
GHB, GBL, 1,4-BDL	➤White middle-class youth ➤Males ➤Young adult body builders	➤Suburban areas	➤Raves ➤Nightclubs ➤Private residences	➤White, male, middle-class ➤Companies (many international) over the Internet	➤Raves ➤Nightclubs ➤College campuses ➤Health clubs and gyms ➤Health food stores ➤Internet
Ketamine	➤White middle class youth	➤Suburban areas ➤Gay communities ➤Urban areas	➤Raves ➤Nightclubs ➤Private residences ➤Private parties	➤White middle-class youth who divert them from pharmacies or veterinary offices	➤Raves ➤Nightclubs ➤Private parties ➤College campuses
Rohypnol	➤Hispanic and white youth	➤Urban areas ➤Suburban areas	➤Raves ➤Private parties ➤Urban high schools	➤Hispanic and white male youth from legal prescription drug sales in Mexico	➤Raves ➤Nightclubs ➤Private parties ➤College campuses ➤High schools ➤Gyms
Nitrous oxide	➤White adolescents	➤Suburban areas	➤Raves ➤Outdoor concerts		➤Raves ➤Outdoor concerts

Sources: Law enforcement, epidemiologic, and ethnographic respondents

APPENDIX 1: METHODOLOGY

How were the sites selected?

(See map in the Introduction) A total of 20 sites were studied for this issue of *Pulse Check*. We selected sites using Census Bureau regions and divisions with a goal of achieving geographic and demographic diversity. In addition, we made an effort to select sites in areas with special drug abuse problems of national concern. More specifically, we applied the following methodology in selecting sites.

We purposely selected the most populous States in the four census regions: New York in Region I (Northeast Region); Texas in Region II (South Region); Illinois in Region III (Midwest Region); and California in Region IV (West Region). In three of these States, we selected the most populous metropolitan areas: New York City, Chicago, and Los Angeles. In Texas, however, we selected El Paso—a known high trafficking area with particularly high levels of unemployment, population growth, and poverty—because of its proximity to the United States border with Mexico.

We included four rural States, one per census region. (Rural States are defined by the Census Bureau as those in which 50 percent or more of the State's population reside in census-designated rural areas.) The four rural sites selected are as follows:

- Region I (Northeast): Portland, Maine—Of the three rural States in the Northeast Region (including New Hampshire and Vermont), Maine has the only Atlantic coastline and shares the longest border with Canada. It also includes an ONDCP-designated High Intensity Drug Trafficking Area (HIDTA). Portland is Maine's most populous metropolitan area.

- Region II (South): Columbia, South Carolina—The three other rural States in the South census region are Kentucky, Mississippi, and West Virginia. However, South Carolina's location along a major drug trafficking corridor makes that State a strategic choice. Recent cocaine seizures in Columbia further highlight its strategic importance.

- Region III (Midwest): Sioux Falls, South Dakota—Sioux Falls is the most populous metropolitan area within the Midwest Region's two rural States (North Dakota and South Dakota).

- Region IV (West): Billings, Montana—Montana is the only census-designated rural State in the West Region, and Billings is its most populous metropolitan area.

The remaining 12 sites were selected to ensure that the entire list included at least 2 sites from each of the 9 Census Bureau divisions (East North Central, Mountain, Middle Atlantic, New England, Pacific, South Atlantic, South East Central, South West Central, and West North Central). Additional selection criteria included population density, representation of racial/ethnic minorities, and emphasis on high drug trafficking areas.

Applying these criteria resulted in the final selection of the following 20 *Pulse Check* sites:

Billings, Montana
Birmingham, Alabama
Boston, Massachusetts
Chicago, Illinois
Columbia, South Carolina
Denver, Colorado
Detroit, Michigan
El Paso, Texas
Honolulu, Hawaii
Los Angeles, California
Miami, Florida
Memphis, Tennessee
New Orleans, Louisiana
New York City, New York
Philadelphia, Pennsylvania
Portland, Maine
St. Louis, Missouri
Seattle, Washington
Sioux Falls, South Dakota
Washington, DC

How do the 20 sites vary demographically?

Appendix 2 highlights the demographic diversity of these 20 sites. For example, their population density per square kilometer ranges from a sparse 18.4 in Billings, Montana, to a crowded 2,897.4 in New York City (1997 estimates). Their unemployment rates range from a 2.7 low in Columbia, South Carolina, to an 11.2 high in El Paso, Texas. The racial/ethnic breakdowns in the 20 sites further exemplify their diversity: white representation ranges from 31.4 percent in Honolulu, Hawaii, to 96.7 percent in Sioux Falls, South Dakota; black representation ranges from 0.5 percent in Billings, Montana, to 42.1 percent in Memphis, Tennessee.

What other data are available at the 20 selected sites? Information from other national-level data sources will be useful for framing, comparing, corroborating, enhancing, or explaining the information obtained for *Pulse Check*. The following data sources are available in nearly every site: ONDCP's past *Pulse Check* reports; the National Institute on Drug Abuse (NIDA) Community Epidemiology Work Group (CEWG); the Substance Abuse and Mental Health Services Administration (SAMHSA) Drug Abuse Warning Network (DAWN); and the National Institute of Justice (NIJ) Arrestee Drug Abuse Monitoring (ADAM) program.

Who are the Pulse Check sources, and how were they selected? Consistent with previous issues, the information sources for *Pulse Check* were telephone discussions with 4 knowledgeable individuals in each of the 20 sites: 1 ethnographer or epidemiologist, 1 law enforcement official, and 2 treatment providers. Ethnographers and epidemiologists were recruited based on several criteria: past participation in the *Pulse Check* program; membership in NIDA's CEWG; research activities in local universities; or service in local community programs. We recruited law enforcement officials by contacting local police department narcotic units, Drug Enforcement Administration (DEA) local offices, and HIDTA directors.

To identify treatment sources, we randomly selected providers from the 1998 Uniform Facility Data Set (UFDS), a listing of Federal, State, local, and private facilities that offer drug abuse and alcoholism treatment services. For this purpose, we excluded facilities that reported more than 50 percent of their clientele as having a primary alcohol abuse problem, served a caseload of fewer than 100 clients, or provided only prevention or detox services. We then divided the remaining facilities into two groups—methadone and non-methadone treatment facilities—in order to capture two client populations whose demographic characteristics and use patterns often differ widely. We selected one from each of these two categories of programs for each of the 20 selected sites. Because Billings, Montana, has no UFDS-listed methadone treatment facilities, we selected two non-methadone facilities in this site. Despite several attempts, in a few sites we were unable to recruit a second treatment provider, so we solicited a referral from the one treatment provider successfully recruited from the UFDS data file.

Of the 80 sources identified and recruited, we successfully obtained information for this *Pulse Check* issue from 74: a response rate of 93 percent. The nonresponding individuals included a law enforcement official in Detroit, the methadone treatment providers in Denver, Miami, and Honolulu, and the non-methadone treatment providers in Philadelphia and St. Louis.

What kind of data were collected, and how? For each of the 74 sources, we conducted a single telephone discussion, lasting about 1 hour. We asked sources to explore with us their perceptions of the change in the drug abuse situation between 1999 and 2000, reflecting back on the first 6 months of 1999 compared with the same 6 months in 2000. In general, we discussed the following topic areas with *Pulse Check* sources, noting source opinions about the drug use problem in 2000 compared with the previous year:

- An overall snapshot of the community's drug use situation, including the perceived seriousness of the problem and the relative concern about specific major drugs of abuse—heroin, cocaine, marijuana, methamphetamine, club drugs, and any emerging drug abuse problems
- Population groups in the site most likely to use major drugs of abuse, user characteristics (such as age, gender, race/ethnicity, socioeconomic status, and residence), and patterns of use (such as route of administration, concomitance, setting, and context)
- Availability of major drugs of use (such as drug forms, supply levels, quantities, prices, and purity)
- Trafficking patterns (such as how drugs are manufactured or grown, where drugs originate, where they are transshipped, how they enter local areas, and where they ultimately end up)
- Seller characteristics (such as gang or organized crime affiliation, age, gender, race/ethnicity, seller drug use patterns, and drug-associated violence)
- Sales practices (such as where drugs are sold, settings, street names, packaging, adulterants, marketing strategies)
- Other activities associated with drug sales or use (such as gang activity, prostitution, violence)

- Community context issues that might have impacted on the drug use situation during the study periods (such as treatment availability, medical consequences, large Seizures, law enforcement policy initiatives, policing and sentencing practices, legislation, task forces, media campaigns, or major news events)

Not surprisingly, ethnographic and epidemiologic sources seemed to be very knowledgeable about users and patterns of use; they were somewhat knowledgeable about drug availability; and they were less informed about sellers, distribution, and trafficking patterns. Treatment providers had a similar range of knowledge, but they generally focused on the specific populations targeted by their programs. Some providers, however, were able to provide a broader perspective about the communities extending beyond their individual programs. Among the three *Pulse Check* source types, law enforcement officials appeared to be most knowledgeable about drug availability, trafficking patterns, seller characteristics, sales practices, and other associated activities; they were, understandably, less knowledgeable about user groups and characteristics.

APPENDIX 2: POPULATION DEMOGRAPHICS IN THE 20 PULSE CHECK SITES

			Race Percent[a]									
	Proposed Site	MSA Size* (S, M, L)	White	Black	American Indian Eskimo Aleut.	Asian and Pacific Islander	Percent Hispanic[a]	Population Density/ Square KM[a]	Percent Population Change[b]	Violent Crime/ 100,000 Population[c]	Percent Persons Under 18 Below Poverty Level[d]	Unemployment Rate[a]
West	Billings, MT	S	95.8	0.5	3.1	0.6	3.1	18.4	10.9	NA	17.0	4.5
	Denver, CO	M	90.0	6.2	0.8	2.9	14.4	195.4	17.1	460	13.1	2.8
	Honolulu, HI	M	31.4	3.8	0.5	64.3	7.4	559.8	4.0	313	12.6	5.3
	Los Angeles, CA[1]	L	75.3	11.1	0.6	13.0	43.7	869.7	3.2	1,278	33.7	6.8
	Seattle, WA[2]	M	85.4	4.6	1.2	8.7	3.9	197.9	11.6	421	11.7	3.3
Midwest	Chicago, IL	L	76.0	19.4	0.2	4.4	14.1	592.6	4.9	NA	19.0	4.5
	Detroit, MI	L	75.3	22.5	0.4	1.9	2.4	442.3	4.6	957	22.5	3.9
	Sioux Falls, SD	S	96.7	0.8	1.7	0.8	0.8	44.7	15.4	385	11.2	2.0
	St. Louis, MO-IL	M	80.9	17.6	0.2	1.2	1.4	154.5	2.6	745	17.9	4.1
South	Birmingham, AL	M	70.3	29.0	0.2	0.5	0.7	109.0	7.2	782	22.1	3.4
	Columbia, SC	M	68.3	30.1	0.2	1.4	1.8	133.5	11.0	999	19.8	2.7
	El Paso, TX	M	94.5	3.5	0.5	1.5	74.4	267.4	18.6	811	41.9	11.2
	Memphis, TN	M	56.6	42.1	0.2	1.1	1.2	139.0	7.5	1,419	27.7	4.6
	Miami, FL	M	77.1	21.0	0.2	1.7	55.7	406.0	5.5	NA	36.0	7.1
	New Orleans, LA	M	62.7	34.9	0.3	2.1	4.9	148.5	1.8	1,355	32.6	5.5
	Washington, DC[3]	M	67.9	25.4	0.3	6.3	7.0	273.0	9.0	678	11.5	3.7
Northeast	Boston, MA[4]	M	90.5	5.8	0.2	3.5	5.3	348.0	2.5	560	13.1	3.8
	New York City, NY	L	61.7	29.1	0.4	8.7	25.0	2,897.4	0.8	1,195	36.1	8.5
	Philadelphia, PA-NJ	L	76.8	20.0	0.2	3.0	4.4	494.8	0.4	NA	18.0	4.9
	Portland, ME	S	97.9	0.7	0.2	1.1	0.8	116.2	3.4	249	12.3	2.9

*Small = <150,000 persons; Medium = 250,000–999,999 persons; Large = >1 million persons (NOTE: None of the sites are in the 150,000–249,000 category.)

[1]Includes Los Angeles-Long Beach
[2]Includes Seattle, Bellevue-Everett, WA
[3]Includes Washington, DC-MD-VA-WVA
[4]Includes Worcester, Lawrence, Lowell, Brockton MA-NH

[a]1997
[b]1990–1997
[c]1996
[d]1995

Source: 1999 County and City Extra: Annual Metro, City, and County Data Book, Eighth Edition. Eds: Gaquin, D.A., and Littman, M.S. Washington, DC: Bernan Press

APPENDIX 3: NATIONAL-LEVEL DATA SOURCES AVAILABLE IN THE 20 PULSE CHECK SITES

	Site	HIDTA[1] State	Past *Pulse Check*	CEWG[2]	DAWN[3]	ADAM[4]
West	Billings, MT					
	Denver, CO	✓	✓	✓	✓	✓
	Los Angeles, CA	✓	✓	✓	✓	✓
	Honolulu, HI	✓	✓	✓		
	Seattle, WA	✓	✓	✓	✓	✓
Midwest	Chicago, IL	✓	✓	✓	✓	✓
	Detroit, MI	✓		✓	✓	✓
	Sioux Falls, SD	✓				
	St. Louis, MO	✓		✓	✓	
South	Birmingham, AL	✓				
	Columbia, SC					
	El Paso, TX	✓	✓	✓		
	Memphis, TN	✓				
	Miami, FL	✓	✓	✓	✓	✓
	New Orleans, LA	✓		✓	✓	✓
	Washington, DC	✓	✓	✓	✓	✓
Northeast	Boston, MA	✓	✓	✓	✓	
	New York, NY	✓	✓	✓	✓	✓
	Philadelphia, PA	✓		✓	✓	✓
	Portland, ME	✓				

[1]High Intensity Drug Trafficking Area of the Drug Enforcement Administration (DEA)
[2]Community Epidemiology Work Group of the National Institute on Drug Abuse (NIDA)
[3]Drug Abuse Warning Network of the Substance Abuse and Mental Health Services Administration (SAMHSA)
[4]Arrestee Drug Abuse Monitoring program of the National Institute of Justice (NIJ)

Note: Shaded boxes indicate that selected cities are in a rural area.

	Epidemiology/Ethnography	Law Enforcement
Billings, MT	Roland Mena Department of Health/Substance Abuse	Scott Forshee City/County Special Investigations Unit
Birmingham, AL		Sergeant T.E. (Thomas) Thrash Birmingham Police Department Vice and Narcotics Division
Boston, MA	Thomas W. Clark Health and Addictions Research, Inc.	Lieutenant Francis Armstrong Drug Control Division Boston Police Department
Chicago, IL	Larry Ouellet, Ph.D. University of Illinois at Chicago School of Public Health	Prefers anonymity
Columbia, SC	Prefers anonymity	Prefers anonymity
Denver, CO	Bruce Mendelson, M.P.A. State Treatment Needs Assessment Contract Colorado Department of Human Services Alcohol and Drug Abuse Division	Prefers anonymity
	Stephen Koester, Ph.D. Urban Links	
Detroit, MI	Richard F. Calkins Michigan Department of Community Health Division of Substance Abuse Quality and Planning	Nonrespondent
El Paso, TX	Alviane, Inc.	Prefers anonymity
Honolulu, HI	D. William Wood, Ph.D., M.P.H. University of Hawaii Department of Sociology	Lieutenant Mike Moses Narcotics, Vice Division Hawaii Police Department
Los Angeles, CA	Richard Rawson, Ph.D. University of California, Los Angeles Integrated Substance Abuse Programs (ISAP)	Prefers anonymity
Memphis, TN	Randy Dupont, Ph.D. University of Tennessee Department of Psychiatry	Sergeant Richard Parker Memphis Police Department Vice Narcotics Unit
Miami, FL	James N. Hall Up Front Drug Information Center	Prefers anonymity
New Orleans, LA	Gail Thornton-Collins New Orleans Health Department	Lieutenant Commander Bruce Adams Narcotics Major Case Section New Orleans Police Department
New York, NY	John A. Galea, M.A. New York State Office of Alcoholism and Substance Abuse Services Street Studies Unit	Drug Enforcement Administration New York Division
Philadelphia, PA	Philadelphia Behavioral Health System Coordinating Office for Drug and Alcohol Abuse Programs	Drug Enforcement Administration Philadelphia Field Division Divisional Intelligence Group
Portland, ME	Nate Nickerson, R.N., M.S.N. Public Health Division Department of Health and Human Services City of Portland	George Connick Augusta Field Office/ Maine Drug Enforcement Agency
Seattle, WA	Thomas R. Jackson, M.S.W. Evergreen Treatment Services	Steve Freng High Intensity Drug Trafficking Area
Sioux Falls, SD	Darcy Jensen, CCDCIII, CPS Prairie View Prevention Services	Lieutenant Mark Moberly Sioux Falls Police Department, Narcotics Division
St. Louis, MO	James M. Topolski, Ph.D. Missouri Institute of Mental Health	Detective Leo Rice St. Louis Police Department, Narcotics Division
Washington, D.C.	Alfred Pach, Ph.D., M.P.H. National Opinion Research Center	Sergeant John Brennan Washington, D.C., Police Department

	Non-Methadone Treatment	Methadone Treatment
Billings, MT	Deena Vandersloot South Central Mental Health Center Journey Recovery Program	Illegal in the State of Montana
	Mona Sumner Rimrock Foundation	
Birmingham, AL	Eleanor Powers Alcohol and Drug Treatment Centers, Inc.	Bill Garrett, M.P.H. University of Alabama Substance Abuse Program
Boston, MA	Prefers anonymity	Jayne Wilson, LICSW CAB Health and Recovery Services
Chicago, IL	Del Larkin Association House of Chicago	Cornell Interventions
Columbia, SC	Carolyn Flemming Lexington/Richland Alcohol and Drug Abuse Council	Columbia Metro Treatment Center
Denver, CO	Beth Leighton, R.N., M.S.N. Addiction Treatment Service Presbyterian St. Luke's Medical Center	Nonrespondent
Detroit, MI	Prefers anonymity	Octavius Sapp, CAC City of Detroit Detroit Department of Human Services Drug Treatment
El Paso, TX	Casa Blanca Therapeutic Communities	James Sabal, M.D. El Paso Methadone Maintenance and Detox Treatment Center
Honolulu, HI	Prefers anonymity	Nonrespondent
Los Angeles, CA	Mari Radvik, M.D. Substance Abuse Treatment Program, Division of Adolescent Medicine Children's Hospital of Los Angeles	Sandy MacNicoll West LA Treatment Program
Memphis, TN	Prefers anonymity	Prefers anonymity
Miami, FL	Prefers anonymity	Nonrespondent
New Orleans, LA	Eleanor Glapion New Orleans Substance Abuse Clinic	Letetia Nelson, BA, LPN, LSBCSAC, RCS Metropolitan Treatment Center, Inc.
New York, NY	(Prefers anonymity)	Eugenia Curet, M.D. The New York Presbyterian Hospital Adult Service Clinic
Philadelphia, PA	Nonrespondent	Peter A. Demaria, Jr., M.D., FASAM Department of Psychiatry and Human Behavior Jefferson Medical College
Portland, ME	Stephen Leary Milestone Foundation, Inc.	Prefers anonymity
Seattle, WA	Prefers anonymity	Therapeutic Health Services
Sioux Falls, SD	Prefers anonymity	Robin Erz, CCDCIII Avera McKennan - Turning Point Heisler Adolescent Treatment Program
St. Louis, MO	Nonrespondent	Prefers anonymity
Washington, D.C.	Prefers anonymity	LaTonya Sullivan Umoja Treatment Center