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Research Report

1998 Annual Report on Cocaine Use Among Arrestees



A Program of the National Institute of Justice
Research Report

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1998 Annual Report on Cocaine Use Among Arrestees



Arrestee Drug Abuse Monitoring Program

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Research Report*

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Introduction

In 1998, the percentage of adult male respondents who tested positive for recent (past 72 hours) cocaine use in the Arrestee Drug Abuse Monitoring (ADAM) program ranged from a high of 51.3 percent in Atlanta to a low of 8.0 percent in San Jose. For the 32¹ sites that collected data on female arrestees during 1998, cocaine-positive rates ranged from 67.0 percent in New York City to 9.5 percent in San Jose. Generally, older adults (31 and older), whether male or female, are the most likely to use cocaine. Among male cocaine users, recent crack use is self-reported almost twice as frequently as recent powder use. Among female cocaine users, crack use is typically self-reported more than four times as frequently as powder cocaine use. Taken collectively, these findings suggest that the cocaine epidemic continues to vary in intensity by community, gender, age, and other factors.

Currently, 35 urban sites participate in the ADAM program. Twelve of the 35 sites were new to the ADAM data system in 1998, and, for many, these reports represent the first look at rates of cocaine use in arrestee populations. The sites added to ADAM in 1998 were Albuquerque, Anchorage, Des Moines, Laredo, Las Vegas, Minneapolis, Oklahoma City, Sacramento, Salt Lake City, Seattle, Spokane, and Tucson. The lowest cocaine-positive rate for males in a new site was reported in Des Moines (18.1 percent), while the lowest for females was reported in Salt Lake City (19.6 percent). The highest for male arrestees in a new site was reported by Tucson, at 39.4 percent, and for females by Albuquerque at 59.1 percent. In addition to Tucson, Albuquerque (38.7 percent) and Laredo (37.1 percent) registered high male cocaine-positive percentages. For females, Seattle (56.9 percent) and Anchorage (50.0 percent) also had high rates of cocaine positives among the new sites. These figures indicate that the new Western U.S. sites report rates consistent with the general distribution of cocaine positive rates seen among the veteran DUF (Drug Use Forecasting)/ADAM program sites.

¹ Atlanta had too few female cases for analysis purposes in 1998.

METHODOLOGY

To gauge drug use trends in urban areas, the National Institute of Justice established the Drug Use Forecasting (DUF) program in 1987. A modified version of DUF, the Arrestee Drug Abuse Monitoring (ADAM) program, was initiated in 1997. To date, 35 jurisdictions participate in ADAM. ADAM involves administration of a survey instrument, which measures historical and current drug use patterns among arrestees, and collection of a urine sample which is tested for 10 drugs. A more detailed overview of data collection methods can be found in the *1998 Annual Report on Drug Use Among Adult and Juvenile Arrestees*.² This box discusses how data collection methods have affected reporting methods and two significant reporting changes that will appear in next year's reports.

The first and most important change relates to sampling. Data collected after the mid-point of 1999 in all sites will be collected under probability sampling

plans. This means that confidence intervals can be attached to estimates derived from ADAM data which in turn means that analysts can assess whether year-to-year changes in drug prevalence rates are significant. For example, this year in New York City, the cocaine prevalence for males fell from 57.6 percent in 1997 to 47.1 percent in 1998. ADAM cannot report that as a statistically significant decline because of limits to the current sampling plans. The 1999 reports will introduce reporting on standard errors and confidence intervals.

The second important change relates to weighting the data. Each case collected represents similar respondents (age, race, and booking charge to name a few characteristics of interest) that were not selected for interview. If a certain category of offender is represented out of proportion to the actual occurrence in the arrest population, weighting can be used to correct the disproportionality. There are numerous factors that introduce disproportion into the data. The

A comparison between 1997 and 1998 results in the 23 sites for which trend data are available indicates that cocaine-positive percentages declined in a majority of sites. Among all adult male arrestees, the median site rate of cocaine positives decreased from 37.1 percent in 1997 and to 35.8 percent in 1998. For females, the site median decreased 4.5 percentage points, from 45.0 percent in 1997 to 40.5 percent in 1998. The most notable percentage point decreases for cocaine-positives among adult males were witnessed in New York City (10.5), Portland (7.9), and St. Louis (5.9), and for females the

² National Institute of Justice. (1999). "ADAM: 1998 Annual Report on Drug Use Among Adult and Juvenile Arrestees." Washington, D.C.: National Institute of Justice.

jails included in the program have changed over time, most recently as a result of standardizing site catchment areas at the county level. In addition, the DUF program operated according to a charge priority system that emphasized interviewing and testing felony offenders over misdemeanants. Drug offenders, who are more likely to test positive for drugs than their non-drug-offending counterparts, were limited to 20 percent of the total sample to prevent drug offenders from dominating the data. Traffic offenses (e.g., DUI and DWI) were generally excluded from the sample. These practices were revised in the second quarter of 1998 data collection so that all arrestees, regardless of charge, are eligible for inclusion in the ADAM study.

This year's data, as well as data collected during previous years, could be weighted by local arrest data to adjust for the data collection methods. We chose not to weight the data for two reasons. First, there may be additional changes in the data collection protocol this year

that would change the weighting process, forcing us to revise the entire weighted data series. Second, since confidence intervals and quantification of uncertainty cannot be applied to the data series until next year, it seemed appropriate to do all of the design and reporting changes in one year.

In addition, it is important that the current analysis be read with an understanding that the weighting and sampling issues limit presentation and interpretation. In particular, small changes from year to year in prevalence figures should not be viewed as definitive. It should be stressed that the arrestee population is a difficult one to access, and one not adequately covered in other data collection efforts that, for example, target households, schools, or treatment populations. The data are most informative over multiple years when longer term trends can be discerned.

greatest decreases were in St. Louis (9.1), Portland (8.4), and San Jose (6.0). The largest percentage point increases for males were in Philadelphia (10.4), Cleveland (10.1), and Detroit (5.7). For females, the largest percentage point increases in cocaine-positives were in Omaha (18.4), Houston (7.9), and Birmingham (7.6).

It cannot be known whether these differences are significant because the samples are currently not selected using statistical methods that would allow that computation (see "Methodology," page 2). Moreover, extra caution should be taken when drawing comparisons between 1998 and previous years. As part of

the ADAM program's move toward probability-based sampling at the county level, the sample in some sites expanded during the data collection year to include cases from additional jail facilities. For example, in New York City the program is now operating in all five boroughs rather than just Manhattan, while data collection in Los Angeles occurred in both city and county jails in the third and fourth quarters of 1998.

Broad trends may, in some cases, be misleading to the extent that they mask important developments in isolated or specific populations. Age, gender, and regional analyses of ADAM data indicate that there are several developments underway that point to the need to monitor subgroups of cocaine users who could be overlooked within the aggregate trends. These subgroups include younger arrestees, among whom there are signs of increasing powder cocaine use in some parts of the country; and female arrestees, whose cocaine use continues at high rates relative to those of their male peers. A review of cocaine data generated by the DUF/ADAM program since 1990 provides a context within which these subtrends can be seen.

Cocaine Trends, 1990-98

Between 1990 and 1998, more than 180,000 adult male and nearly 70,000 adult female arrestees were surveyed and drug tested as part of the DUF/ADAM program. Although there is variation by site, generally both male and female participants have been most likely to test positive for cocaine over the program's history, followed by marijuana, opiates, and, more recently in some sites, methamphetamine. The prevalence rankings in Table 1 illustrate that cocaine has been the drug most frequently detected among all surveyed arrestees between 1990 and 1998. Of the 22³ veteran sites that collected data in 1990, cocaine was the most prevalent drug among males in 17 sites; in 1995, it was most prevalent among males in 16 of 23 sites; and in 1998, it was most prevalent among males in 11 of 35 sites. Among females, cocaine was most prevalent in 19 of 20 sites collecting data in 1990; 19 of 21 in 1995; and 28 of 32 in 1998.

³ Miami did not begin collecting data until 1991.

Table 1. Most Prevalent Drug Among Adult Male and Female Arrestees, 1990-98

MALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
NORTHEAST									
New York City	c	c	c	c	c	c	c	c	c
Philadelphia	c	c	c	c	c	c	c	mj	mj
Washington, D.C.	c	c	c	c	c	c	mj	mj	mj
SOUTH									
Atlanta	c	c	c	c	c	c	c	c	c
Birmingham	c	c	c	c	c	c	mj	mj	c
Dallas	c	c	c	c	c	mj	mj	mj	mj
Ft. Lauderdale	c	c	c	c	c	c	c	c	c
Houston	c	c	c	c	c	c	c	c	c & mj
Miami	—	c	c	c	c	c	c	c	c
New Orleans	c	c	c	c	c	c	c	c	c
Oklahoma City*	—	—	—	—	—	—	—	—	mj
MIDWEST									
Chicago	c	c	c	c	c	c	c	c	c
Cleveland	c	c	c	c	c	c	c	mj	c & mj
Des Moines*	—	—	—	—	—	—	—	—	mj
Detroit	c	c	c	mj	mj	mj	mj	mj	mj
Indianapolis	mj	mj	mj	mj	c	c	c	mj	mj
Minneapolis*	—	—	—	—	—	—	—	—	mj
Omaha	mj								
St. Louis	c	c	c	c	c	c	mj	mj	mj
WEST/SOUTHWEST									
Albuquerque*	—	—	—	—	—	—	—	—	c
Denver	mj	c	c	c	c	c	c	mj	mj
Laredo*	—	—	—	—	—	—	—	—	mj
Las Vegas*	—	—	—	—	—	—	—	—	mj
Los Angeles	c	c	c	c	c	c	c	c	c
Phoenix	c	mj	c	mj	mj	mj	c	c	mj
Sacramento*	—	—	—	—	—	—	—	—	mj
Salt Lake City*	—	—	—	—	—	—	—	—	mj
San Antonio	mj	c	c	mj	c	mj	mj	mj	mj
San Diego	c	c	c	mj	meth	meth	mj	meth	mj

c = cocaine; mj = marijuana; meth = methamphetamine;
 * = New site in 1998

Table 1. Most Prevalent Drug Among Adult Male and Female Arrestees, 1990-98
continued

MALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
WEST/SOUTHWEST (continued)									
San Jose	c	c	c	mj	mj	mj	mj	mj	mj
Tucson*	-	-	-	-	-	-	-	-	c
NORTHWEST									
Anchorage*	-	-	-	-	-	-	-	-	mj
Portland	mj	mj	c	c	c	c	mj	mj	mj
Seattle*	-	-	-	-	-	-	-	-	c
Spokane*	-	-	-	-	-	-	-	-	mj
FEMALES									
NORTHEAST									
New York City	c	c	c	c	c	c	c	c	c
Philadelphia	c	c	c	c	c	c	c	c	c
Washington, D.C.	c	c	c	c	c	c	c	c	c
SOUTH									
Atlanta	c	c	c	c	c	c	c	c	-
Birmingham	c	c	c	c	c	c	c	c	c
Dallas	c	c	c	c	c	c	c	c	c
Ft. Lauderdale	c	c	c	c	c	c	c	c	c
Houston	c	c	c	c	c	c	c	c	c
New Orleans	c	c	c	c	c	c	c	c	c
MIDWEST									
Chicago	-	-	-	-	-	-	-	-	c
Cleveland	c	c	c	c	c	c	c	c	c
Des Moines*	-	-	-	-	-	-	-	-	c & meth
Detroit	c	c	c	c	c	c	c	c	c
Indianapolis	mj	c	mj	c	c	c	c	c	c
Minneapolis*	-	-	-	-	-	-	-	-	c
Omaha	-	-	-	c	c	c	mj	mj	c
St. Louis	c	c	c	c	c	c	c	c	c

c = cocaine; mj = marijuana; meth = methamphetamine;

* = New site in 1998

FEMALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
WEST/SOUTHWEST									
Albuquerque*	—	—	—	—	—	—	—	—	c
Denver	c	c	c	c	c	c	c	c	c
Laredo*	—	—	—	—	—	—	—	—	c
Las Vegas*	—	—	—	—	—	—	—	—	c
Los Angeles	c	c	c	c	c	c	c	c	c
Phoenix	c	c	c	c	c	c	c	c	c
Sacramento*	—	—	—	—	—	—	—	—	c
Salt Lake City*	—	—	—	—	—	—	—	—	meth
San Antonio	c	c	c	c	c	c	c	c	c
San Diego	c	c	c	c	meth	meth	meth	meth	meth
San Jose	c	c	c	c	meth	meth	meth	meth	meth
Tucson*	—	—	—	—	—	—	—	—	c

NORTHWEST

Anchorage*	—	—	—	—	—	—	—	—	c
Portland	c	c	c	c	c	c	c	c	c
Seattle*	—	—	—	—	—	—	—	—	c
Spokane*	—	—	—	—	—	—	—	—	c

c = cocaine; mj = marijuana; meth = methamphetamine;

* = New site in 1998

While cocaine has been the most prevalent drug among DUF/ADAM arrestees between 1990 and 1998, the proportion of cocaine positives has nevertheless decreased in most sites. Table 2 provides a summary of cocaine-positive adults by site from 1990 to 1998. Of the 23 veteran DUF sites, all but 7 (Denver, Ft. Lauderdale, Indianapolis, Omaha, Phoenix, Portland, and San Antonio) showed reductions in male cocaine-positives since 1990. Manhattan⁴, Philadelphia, San Diego, and San Jose witnessed the largest percentage decreases of male cocaine-positive rates during the past nine years. In 1990, the male cocaine-positive rate in San Diego was 44.7 percent. By 1998, however, this rate had

⁴ The New York City ADAM site did not collect data for all five boroughs until the latter part of 1998. The site is now referred to as New York City.

Table 2. Percentage of Adult Arrestees Testing Positive for Cocaine, 1990-98

MALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
	%								
NORTHEAST									
New York City	64.9	61.8	62.1	66.2	67.9	68.5	55.6	57.6	47.1
Philadelphia	65.4	62.2	62.7	56.5	54.2	50.6	40.3	34.1	44.5
Washington, D.C.	47.9	49.5	43.6	36.7	38.2	35.2	33.0	33.4	33.3
SOUTH									
Atlanta	59.0	57.1	58.0	59.3	57.3	56.9	59.2	51.2	51.3
Birmingham	49.5	51.8	48.7	50.9	50.4	44.2	41.6	38.7	41.2
Dallas	42.5	43.2	41.1	44.5	34.9	30.7	31.9	31.7	29.0
Ft. Lauderdale	45.8	43.9	45.5	43.2	40.9	39.0	44.4	50.6	50.2
Houston	53.0	56.5	41.4	40.6	29.1	40.0	38.6	39.8	35.8
Miami	—	60.8	56.3	61.2	55.7	41.8	52.4	45.5	47.3
New Orleans	51.4	50.1	49.2	47.9	46.6	47.0	46.2	45.8	46.0
Oklahoma City*	—	—	—	—	—	—	—	—	27.3
MIDWEST									
Chicago	54.1	61.2	56.2	53.3	56.6	50.7	51.9	49.0	44.9
Cleveland	44.6	47.9	52.8	47.6	47.9	42.4	41.2	26.7	36.8
Des Moines*	—	—	—	—	—	—	—	—	18.1
Detroit	38.3	40.9	37.0	33.8	34.1	29.6	26.9	22.5	28.2
Indianapolis	17.6	22.1	23.0	31.5	47.2	38.8	42.3	31.4	34.2
Minneapolis*	—	—	—	—	—	—	—	—	26.7
Omaha	10.2	13.5	16.2	18.9	25.7	19.3	24.3	20.9	25.1
St. Louis	42.1	48.5	50.2	50.1	50.2	50.7	42.9	40.7	34.8
WEST/SOUTHWEST									
Albuquerque*	—	—	—	—	—	—	—	—	38.7
Denver	23.8	30.0	37.4	40.5	40.3	43.8	43.6	40.1	39.6
Laredo*	—	—	—	—	—	—	—	—	37.1
Las Vegas*	—	—	—	—	—	—	—	—	24.2
Los Angeles	45.0	43.8	51.6	48.5	48.4	44.1	44.2	37.6	42.7

* New site in 1998

MALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
	%								

WEST/SOUTHWEST (continued)

Phoenix	28.7	20.4	26.6	30.0	28.4	27.2	32.5	32.3	31.1
Sacramento*	–	–	–	–	–	–	–	–	18.2
Salt Lake City*	–	–	–	–	–	–	–	–	20.3
San Antonio	26.0	30.5	31.7	30.7	30.9	23.7	28.0	26.2	27.0
San Diego	44.7	45.0	44.8	36.7	30.0	28.3	26.8	21.4	19.1
San Jose	26.4	32.6	27.7	23.0	19.1	17.5	16.4	13.6	8.0
Tucson*	–	–	–	–	–	–	–	–	39.4

NORTHWEST

Anchorage*	–	–	–	–	–	–	–	–	19.5
Portland	21.5	30.0	35.1	33.2	32.3	29.6	34.5	37.1	29.2
Seattle*	–	–	–	–	–	–	–	–	35.9
Spokane*	–	–	–	–	–	–	–	–	18.3

FEMALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
	%								

NORTHEAST

New York City	64.7	66.0	72.5	69.9	80.4	71.2	68.9	61.9	67.0
Philadelphia	62.6	63.7	66.8	61.4	61.1	59.2	69.1	58.1	60.9
Washington, D.C.	65.0	68.0	64.3	62.1	55.2	46.0	39.6	38.8	40.4

SOUTH

Atlanta	68.1	66.0	58.4	68.4	62.4	62.1	63.4	60.9	–
Birmingham	43.1	43.8	45.8	41.3	49.8	48.1	39.3	49.2	56.8
Dallas	46.8	45.3	47.9	43.3	46.1	43.8	36.0	34.0	29.5
Ft. Lauderdale	54.5	54.7	47.2	45.4	52.0	49.8	51.9	56.8	53.4
Houston	48.9	51.8	43.8	42.8	35.7	32.2	33.8	29.4	37.3
Miami	–	–	–	–	–	–	–	–	–
New Orleans	49.9	42.7	44.5	36.6	25.1	36.9	26.2	31.7	38.7
Oklahoma City*	–	–	–	–	–	–	–	–	–

* New site in 1998

Table 2. Percentage of Adult Arrestees Testing Positive for Cocaine, 1990-98
(continued)

FEMALES	1990	1991	1992	1993	1994	1995	1996	1997	1998
	%								
MIDWEST									
Chicago	–	–	–	–	–	–	–	–	55.5
Cleveland	65.1	75.6	65.4	68.8	73.8	62.8	51.8	38.9	40.5
Des Moines*	–	–	–	–	–	–	–	–	24.2
Detroit	64.0	62.2	62.1	63.3	45.6	60.8	52.5	47.9	46.2
Indianapolis	13.3	25.6	24.9	35.7	56.5	54.2	51.7	45.0	43.2
Minneapolis*	–	–	–	–	–	–	–	–	28.6
Omaha	–	–	–	25.9	34.5	30.2	27.9	17.1	35.5
St. Louis	44.2	47.1	62.1	62.5	68.6	57.1	55.2	52.7	43.6
WEST/SOUTHWEST									
Albuquerque*	–	–	–	–	–	–	–	–	59.1
Denver	39.9	41.1	50.4	47.0	51.4	52.0	53.1	49.6	49.9
Laredo*	–	–	–	–	–	–	–	–	33.3
Las Vegas*	–	–	–	–	–	–	–	–	35.1
Los Angeles	55.3	61.6	58.1	59.0	53.3	49.1	49.3	48.7	44.7
Phoenix	34.6	45.1	48.8	37.4	36.0	33.3	42.2	33.3	39.6
Sacramento*	–	–	–	–	–	–	–	–	30.7
Salt Lake City*	–	–	–	–	–	–	–	–	19.6
San Antonio	22.6	25.3	25.4	23.7	22.5	23.5	22.8	17.9	20.0
San Diego	37.0	40.5	36.6	35.8	18.3	28.2	22.3	22.5	20.4
San Jose	27.1	30.5	31.5	19.3	23.1	16.3	20.7	15.5	9.5
Tucson*	–	–	–	–	–	–	–	–	41.3
NORTHWEST									
Anchorage*	–	–	–	–	–	–	–	–	50.0
Portland	34.2	39.5	54.5	46.8	42.7	40.0	45.8	45.1	36.7
Seattle*	–	–	–	–	–	–	–	–	56.9
Spokane*	–	–	–	–	–	–	–	–	31.7

* New site in 1998

declined to 19.1 percent, a decrease of 25.6 percentage points. In Philadelphia, the male cocaine-positive rate declined from 65.4 percent in 1990 to 44.5 percent in 1998, a decrease of 20.9 percentage points. For females, cocaine-positive rates increased in New York City (2.3 percentage points), Portland (2.5), Phoenix (5.0), Denver (10.0), Birmingham (13.7), and Indianapolis (29.9). The most substantial declines for females were recorded in Washington, D.C. and Cleveland (24 percentage points in each) followed by Detroit (17.8), San Jose (17.6), Dallas (17.3) and San Diego (16.6). While it is not possible to know the standard error of these figures, variations of this size suggest substantial changes.

By the end of 1998, two veteran sites retained cocaine-positive rates higher than 50 percent for males (Atlanta and Ft. Lauderdale) and four veteran sites for females (Birmingham, Ft. Lauderdale, New York City, and Philadelphia). In addition, four sites in their first year of female arrestee data collection (Albuquerque, Anchorage, Chicago, and Seattle) had at least 50 percent of females test positive in 1998. San Jose experienced the lowest rate of cocaine-positive rates for both males and females in 1998 (8.0 and 9.5 percent, respectively), followed by Des Moines (18.1 percent) for males and Salt Lake City (19.6 percent) for females.

Variation of Cocaine Use by Age

Changes in drug use patterns among age groups, or cohorts, can be used to anticipate future changes in overall drug use. Young users are particularly important in this regard because, all other factors held constant, their presence is likely to be felt in the community for a longer period of time than that of older drug users. Thus, significant changes in drug use patterns among young adults should be examined closely.

Recent analyses of cocaine use variation by age have revealed two interesting findings. First, older cohorts generally tested positive for cocaine at much higher rates than their younger cohort counterparts (Golub and Johnson, 1997; NIJ, 1998). This finding suggests that younger users are not being recruited into cocaine use at rates high enough to replace current older users. Thus, as the current oldest cohorts age out, many communities can expect to witness overall

declines in cocaine use. Moreover, because many current users in the oldest cohorts are crack users, as opposed to powder cocaine users, the declines can be expected to be sharpest in crack cocaine use.

Running counter to this trend, however, are findings that the percentage of young adults who test positive for cocaine has been growing in certain sites; that young adults have been more likely than the oldest adults (36 and older) to test positive for cocaine; and that substantial fractions of the young adults test positive for cocaine. Of the 23 ADAM sites for which trend data are available, 9 demonstrate patterns among young adult cohorts (ages 15-20) that suggest cocaine use may be growing, or at least not declining, and 14 demonstrate patterns that indicate cocaine use is declining. Four factors were used to characterize young adult cocaine use as potentially growing or declining: a comparison of the 9-year (1990 to 1998) trend among young adults; the 1997 to 1998 change among young adults; the absolute level of cocaine positives among young adults; and the level of cocaine positives of young adults relative to that of oldest adults. Respectively, these factors provide information about long-term trends in the communities; recent changes in communities; the potential size of the initiation or new use cohort in the communities; and the potential size of the initiation cohort relative to the existing magnitude of the problem. Figures 1 and 2 compare two sites (San Antonio and Washington, D.C.) summarize differences along these four dimensions.

Figures 1 and 2 show male cocaine-positive trends for San Antonio and Washington, D.C. between 1990 and 1998. In both figures, the gray line represents the cocaine-positive rate for men age 36 and older; the white line represents the cocaine-positive rate for young adult males (age 15-20); and the bar represents the overall male cocaine-positive percentage. The data for Washington, D.C. show that cocaine prevalence among young adult males (age 15-20) has dropped substantially, from a peak of 21.3 percent in 1990 down to 2.8 percent in 1998. One consequence is that the District of Columbia's overall male cocaine-positive rate has declined even though it has increased somewhat in recent years for the 36 and older cohort. In contrast,

Figure 1. Male Cocaine-Positive Rates, San Antonio 1990-98

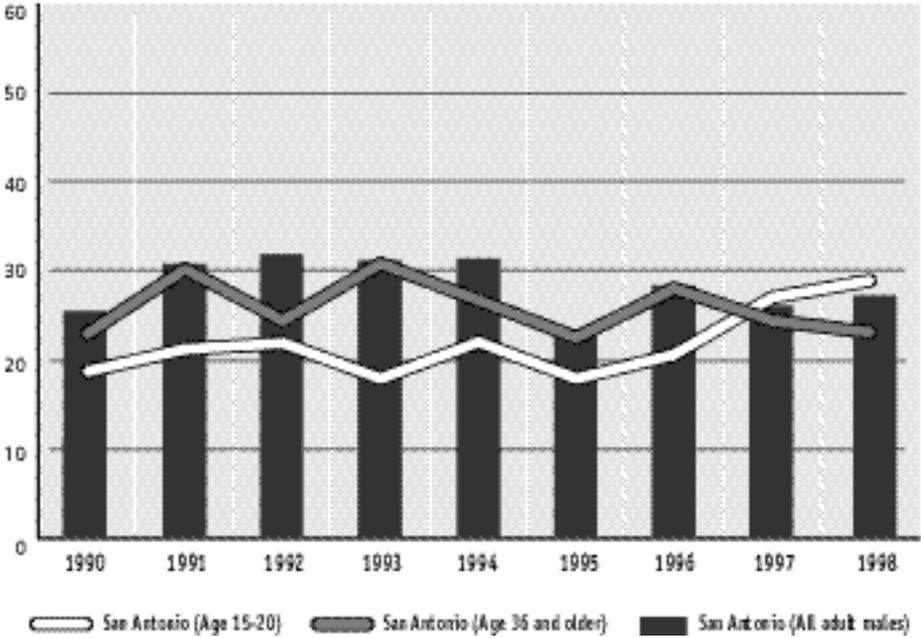
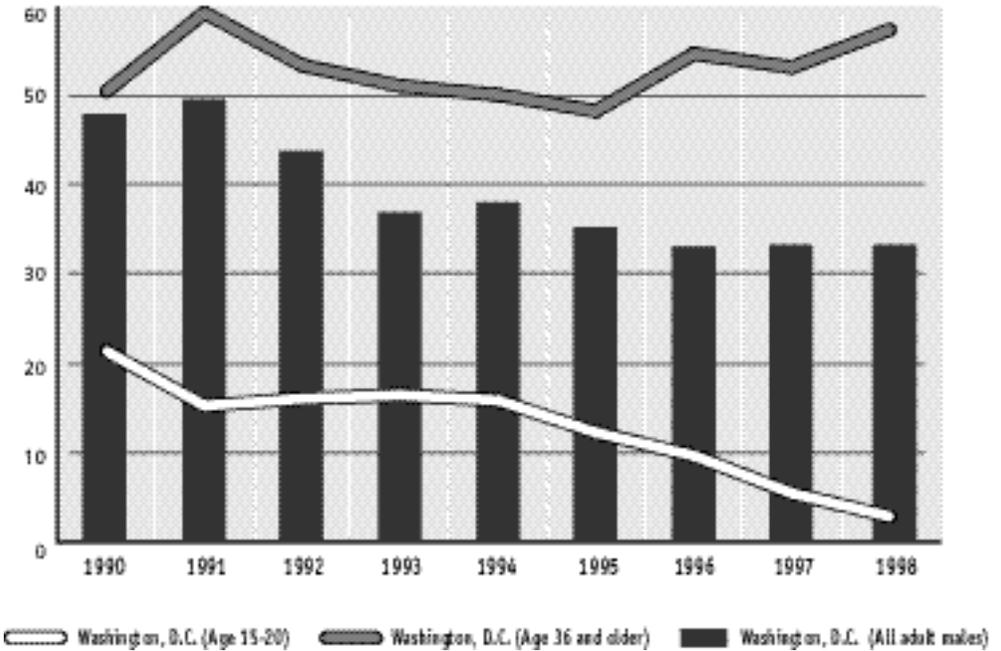


Figure 2. Male Cocaine-Positive Rates, Washington, D.C. 1990-98



young adult male cocaine positives in San Antonio have been rising since 1995. Beginning in 1997, the 15- to 20-year-old male cohort overtook the 36 and older cohort with respect to the group with the highest cocaine-positive percentage. To the extent that young adults continue to exceed the oldest adults, and to the extent that members of the 15- to 20-year-old cohorts in San Antonio continue to use cocaine in future years, the size of the cocaine-using population in San Antonio may increase.

In addition to San Antonio, there are eight other sites where cocaine trends for young adults bear watching. Of these nine sites, six (Atlanta, Ft. Lauderdale, Los Angeles, New Orleans, Phoenix, and San Antonio) had some increase in young adult male cocaine positives between 1997 and 1998 and had at least 20 percent (Atlanta, Ft. Lauderdale, Phoenix, and San Antonio) or more than 30 percent (Los Angeles and New Orleans) of the 15-20 age cohort testing positive for cocaine in 1998. The three remaining sites (Birmingham, Houston, and Miami) showed overall declines for 1990-1997 in young adult cocaine positives, but still registered more than 20 percent of that age group as positive for cocaine in 1998. In addition, 4 of the 12 new sites (for which trend data are not available) show medium (between 20 and 30 percent) or high (greater than 30 percent) cocaine-positives among young adults: Anchorage (20.0), Albuquerque (27.7 percent), Tucson (37.0 percent), and Laredo (41.4 percent).

In contrast, in the 11 sites with trend data where cocaine positives among 15-20 year olds have been declining and are below the 20 percent threshold, some of the drops have been substantial. As shown in Figure 2, in Washington, D.C. in 1990, 21.3 percent of the males age 15-20 tested positive for cocaine, compared to 5.4 percent in 1997 and 2.8 percent in 1998. Similar reductions, though perhaps not as sharp, are demonstrated in many other of the 11 sites, including New York City and Detroit.

The factor distinguishing the two groups of sites appears to be powder cocaine use. Drug testing cannot yet distinguish crack from powder

cocaine, so self-report data must be used to assess trends within the larger category of cocaine. With few exceptions, sites which have low levels of cocaine positives among young males (less than 20 percent) have also shown declines in both crack and powder self-reports (3-day and 30-day) in the past 9-year period. In contrast, sites with high levels of cocaine positives among 15-20 year olds (at least 20 percent) are typically showing declines in self-reported crack use, but increases in self-reported powder cocaine use. In other words, the composition of cocaine use in these sites (Houston, Ft. Lauderdale, New Orleans, and Atlanta) may be in the process of changing toward stable or slowly declining crack use that may be offset by increasing powder use among younger offenders.

Cocaine Use Among Female Arrestees

Several factors suggest the need to separately examine cocaine use among female offenders (Morash, Bynum, and Koons, 1998). The population of incarcerated women is growing more rapidly than the incarcerated male population, suggesting that service and intervention needs in correctional facilities may change. Female offenders are far more likely than male offenders to have dependent minors living with them, but not have the other parent available to assist with care. High percentages of females entering the criminal justice system report physical or sexual abuse, which may be co-morbid factors relating to substance abuse.

Despite the fact that the crack epidemic is generally thought to be abating, female arrestees tested positive for cocaine at rates as high as 67.0 percent in New York City, 60.9 percent in Philadelphia, and 59.1 percent in Albuquerque in 1998. In contrast, the highest rates of cocaine positives for male arrestees in 1998 were 51.3 percent in Atlanta, 50.2 percent in Ft. Lauderdale, 47.3 percent in Miami, and 47.1 percent in New York City. Table 2 on page 8 shows cocaine-positive rates for females and males in DUF/ADAM sites from 1990 to 1998. Female arrestees have generally tested positive for cocaine at higher rates than males, a finding that has been stable over time.

Table 3. Percentages of Female and Male Arrestees Reporting 72-Hour Crack and Powder Cocaine Use in Selected Sites, 1990-98

SITE	1990	1991	1992	1993	1994	1995	1996	1997	1998
	%								
Atlanta									
Powder									
Females	10.9	5.8	6.0	5.5	5.0	4.7	3.1	6.2	–
Males	10.2	7.8	5.6	7.2	5.5	7.2	5.8	3.2	3.7
Crack									
Females	37.7	34.7	30.5	37.6	34.8	31.6	35.3	44.1	–
Males	23.9	28.0	22.4	24.9	25.5	22.9	27.2	24.6	20.7
Los Angeles									
Powder									
Females	13.9	15.8	13.1	10.7	8.6	7.4	4.6	3.2	3.4
Males	9.5	10.6	11.2	7.8	8.7	6.8	8.0	5.6	8.2
Crack									
Females	25.6	31.7	31.6	30.5	31.4	25.4	26.1	29.7	24.6
Males	19.0	20.5	26.0	22.6	25.0	18.6	20.3	15.8	18.6
New York City									
Powder									
Females	18.8	23.5	19.3	13.1	17.4	12.4	20.6	17.0	11.1
Males	22.2	16.6	16.9	15.8	14.5	13.3	16.5	22.7	13.4
Crack									
Females	37.1	38.1	42.6	38.7	46.4	40.8	40.7	32.8	37.7
Males	27.5	30.2	28.4	29.1	28.8	26.8	17.8	23.4	18.8
Philadelphia									
Powder									
Females	16.7	9.7	8.9	8.3	8.2	6.6	6.2	5.3	5.4
Males	19.5	12.8	12.2	10.5	10.3	6.7	6.3	5.5	4.8
Crack									
Females	29.4	34.1	37.9	34.9	33.8	35.9	44.9	41.9	40.0
Males	23.8	23.2	29.0	25.8	25.1	24.2	18.2	17.7	25.1

SITE	1990 %	1991 %	1992 %	1993 %	1994 %	1995 %	1996 %	1997 %	1998 %
Washington, D.C.									
Powder									
Females	15.6	10.0	9.7	9.9	8.1	5.0	4.8	2.0	1.6
Males	9.4	8.5	7.2	5.1	5.0	2.8	3.4	3.4	2.8
Crack									
Females	31.4	35.4	39.2	27.4	30.5	26.8	20.9	22.3	21.2
Males	15.0	17.5	16.1	11.9	12.7	13.4	10.5	13.8	12.3

Self-reports of recent use of crack and powder cocaine suggest that female arrestees are more likely than male arrestees to be using crack cocaine. It should be noted that self-reports of drug use are less reliable than urinalysis data, and validity studies of self-report data show that males are somewhat less likely to report accurately than females. Type of drug is linked more strongly than gender to underreporting, with cocaine the least likely to be reported accurately and crack self-reports less reliable than powder cocaine self-reports (Harrison, O'Neil, Wish, Lively, 1990; Wish, Gray, Sushinsky, 1998). The differences are not great enough, however, to account for the growing deviation between male and female arrestees' self-reports of crack and powder cocaine. Table 3 displays the percentages of female and male arrestees reporting recent (72-hour) use of crack cocaine and powder cocaine from 1990 to 1998 for the sites historically showing the highest cocaine-positive rates for both males and females. Table 3 shows that in the early 1990s, female and male arrestees reported similar rates of recent powder cocaine and crack use. By 1998, while both male and female arrestees were reporting generally lower rates of powder cocaine use (notwithstanding the trend for young adults noted above), males were reporting less or stable crack use, while females were reporting stable or increasing crack use. Females are now approximately twice as likely to report recent crack use as males in the sites

Table 4. Distribution of Primary Offense Charge for Female and Male Arrestees in Selected Sites, 1998

SITE	PERSONAL %	DRUGS/ALCOHOL %	PROPERTY %	OTHER %
Los Angeles				
Females	21.4	32.6	23.3	22.7
Males	33.5	35.0	23.9	7.7
New York City				
Females	15.1	43.0	23.1	18.8
Males	22.9	29.5	23.8	23.8
Philadelphia				
Females	20.6	28.3	18.9	32.3
Males	23.8	54.9	14.1	7.2
Washington, D.C.				
Females	43.5	17.1	17.6	21.8
Males	38.4	28.3	17.9	15.3

that have historically had the highest cocaine-positive percentages. It would appear that there is an entrenched level of crack use among female arrestees that is abating very slowly, if at all. At the same time, their male peers continue to report declining levels of crack use.

The differences between males and females should be considered within the context of the criminal justice system, and how individuals are “selected” into the population by arrest. As Table 4 illustrates, in many sites females are more likely than males to be arrested for “other” offenses, which in these large cities

Table 5. Percent Positive for Cocaine by Primary Offense Charge for Female and Male Arrestees in Selected Sites, 1998

SITE	PERSONAL %	DRUGS/ALCOHOL %	PROPERTY %	OTHER %
Los Angeles				
Females	21.4	63.7	35.2	48.7
Males	27.8	61.5	39.6	32.4
New York City				
Females	43.3	81.0	71.2	49.3
Males	37.5	51.1	56.1	42.0
Philadelphia				
Females	36.1	66.7	28.8	90.3
Males	28.8	48.4	50.0	55.3
Washington, D.C.				
Females	23.8	57.6	38.2	61.9
Males	25.8	35.0	43.4	36.9

includes a high proportion of arrests for prostitution. In general, as shown in Table 5, individuals, whether male or female, arrested on drug charges are more likely to be cocaine positive than those held on personal, property, and other charges. In addition, females arrested on “other” charges, a large portion of which represents prostitution, are also very likely to be cocaine positive. In contrast, such a pattern is less evident when males and females are compared across violent and property crime categories. Regardless, female arrestees, it would appear, are more likely to be drug-involved than male arrestees.

Conclusions

Results from ADAM are consistent with trends seen in national drug data programs that track populations other than those entering the criminal justice system. The National Household Survey on Drug Abuse (NHSDA), Monitoring the Future (MTF), the Drug Abuse Warning Network (DAWN), *Pulse Check* (ONDCP), and the Community Epidemiological Work Group (CEWG) have all shown, in broad terms, that overall (crack and powder) cocaine use is slowly decreasing or stabilizing. However, some systems, such as Pulse Check and CEWG, have also noted recent increases in powder cocaine use.

Nonetheless, while cocaine use may be stabilizing, it is doing so at an unacceptably high level among ADAM arrestees. In 19 of the 35 ADAM sites, at least one-third of all adult male arrestees tested positive for cocaine in 1998, and in 23 of 32 sites that collect female data, at least one-third of females tested positive for cocaine. A median 35.8 percent of males and 40.5 percent of females tested positive for cocaine at ADAM sites. More importantly, these aggregate findings may mask important trends in subgroups. Two areas in particular that merit close observation are cocaine use among the youngest adult cohorts and cocaine use among females.

In some ADAM sites in the Southwest and South, there is evidence that young users may be moving away from crack, but using powder cocaine. Why this phenomenon appears confined to Southwestern and Southern sites, is not immediately clear. It is easier to explain in general terms why mode of use may be changing among young adults. It stands to reason that young adults may be rejecting crack use in favor of powder cocaine use in part because they have learned from the devastation that widespread crack use has caused. Information from other sources (Office of National Drug Control Policy, 1998; National Institute on Drug Abuse, 1998) indicates that powder cocaine appears to be gaining currency among those who are socioeconomically more advantaged than crack users. This suggests not that crack users are substituting powder cocaine, but rather that powder cocaine users represent a distinct new drug-using cohort. Other work (Riley, 1997) sug-

gests that powder and crack cocaine users have different exposures to the risk of law enforcement intervention because of differences in how they participate in drug markets. Policing tactics or drug purchase methods may have changed in some communities, resulting in a greater representation of powder users among the arrested population. Still, these explanations cannot fully explain the apparent regional concentration of the changing composition of cocaine use.

Trends among females also defy simple explanations, with ADAM findings sometimes in conflict with those of other national datasets. Estimates of cocaine use in other populations, such as those reached by the NHDSA, MTF, and DAWN, generally show that use among females is lower than among males. As a research program with access to a large portion of hard-core drug users, however, ADAM may reflect a different segment of the female user population, those with the most severe levels of addiction.

The arrested population continues to have extensive involvement with both crack and powder cocaine. Developing patterns among young adults in the Southwestern and Southern United States suggest that policymakers should be aware of new or different opportunities to identify and intervene with powder cocaine-using cohorts in the affected communities. Law enforcement should be alert to potential changes in drug transactions and drug markets. Similarly, treatment and public health service officials should monitor their data for signs of an increased shift to powder cocaine use.

The need for strategies aimed at reducing crack-cocaine use among females continues to exist. ADAM data suggest that there is a concentration of crack use among female arrestees in urban areas and, consequently, an opportunity to tailor programming to this population. Services and interventions that target drug offenders and prostitutes in particular would seem to offer the best opportunity for addressing female crack use.

Although the news relating to cocaine is generally positive, it is important to remember that not every community is experiencing a decline or stabilization in cocaine use among arrestees. The magnitude and duration of cocaine epi-

demics vary substantially within communities (by age, gender, etc.) and across communities. Moreover, it is important to observe that the general decline and stabilization in cocaine use may be largely driven by reductions in the use of crack cocaine among male arrestees in the past decade that have, at least in some communities, overshadowed changes involving the use of powder cocaine and persistent use of crack among female arrestees. In short, ADAM data suggest that while progress in the reduction of cocaine use has been made, a persistent problem remains.

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