



The Arrestee Drug Abuse Monitoring Study (ADAM) in Cook and DuPage County First Quarter 1999 Results

This is the third in a series of quarterly reports jointly produced by the Illinois Criminal Justice Information Authority (ICJIA) and Treatment Alternatives for Safe Communities (TASC). The intent of these reports is to inform individuals working in the criminal justice, policy, and drug-treatment fields as to the latest ADAM results in Cook and DuPage County and, on occasion, report on significant national and international trends and issues based on ADAM data. This report presents first quarter 1999 findings for arrestees tested at the Chicago, Markham, Bridgeview, and DuPage County bond courts and examines the relationship between drug use and arrest charge.

Table 1 presents the urinalysis results for arrestees interviewed and tested in Cook and DuPage County between January and March 1999. In total, 546 males and 115 females were interviewed and provided urine samples for testing.

Chicago Results

Overall, drug use among Chicago arrestees remains significant with just over 80% of the men and women testing positive for any drug including marijuana.

- Cocaine use among men rebounded from around 40% last quarter to over 50% this quarter. Since 1987 when DUF/ADAM was begun, between 50% to 60% of Chicago male arrestees have tested positive for cocaine. Thus, the increase in the rate of cocaine use reflects a return to normal usage levels after a reduction that had persisted for three quarters. Almost three-quarters of the Chicago female arrestees tested positive for cocaine, reflecting a similar increase over the previous

quarter's level.

- The rate of opiate use (primarily heroin) for men was just over 20%, fairly consistent with test results from recent quarters. Chicago female arrestees had a significantly higher rate of use with one-third testing positive for opiates.
- Men continue to test positive at a high rate for marijuana (47%), while only 24% of the women were found to be using marijuana near the time of their arrests.
- Amphetamine use remains almost non-existent among

This publication is the third in a series of quarterly reports that are jointly produced by the **Illinois Criminal Justice Information Authority and Treatment Alternatives for Safe Communities (TASC)**, which has collected Drug Use Forecasting (DUF) / Arrestee Drug Abuse Monitoring (ADAM) data since the inception of the project in 1987. Written by Dr. James Swartz of TASC, the intent of these briefs is to inform individuals working in the criminal justice, policy, and drug treatment fields as to the latest ADAM results in the Chicago area and, on occasion, report on significant national trends.

The Illinois Criminal Justice Information Authority is a state agency dedicated to improving the administration of criminal justice in Illinois. The basic functions of the Authority are criminal justice research, federal and state grants administration and information systems development and support.

TASC is a not-for-profit Illinois agency that specializes in social service delivery and technology. TASC provides direct services, designs model programs and builds collaborative networks between public organizations and community-based human service providers. TASC also conducts research, provides training, and offers management and professional consultation for social service providers and systems.

For more information, or for copies of this or other publications, contact the Authority at (312) 793-8550.

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Cook and DuPage County ADAM Results-First Quarter 1999

Site	Chicago		Suburban Cook		DuPage County	
	Males	Females	Males	Females	Males	Females
	(n=317)	(n=67)	(n=129)	(n=33)	(n=100)	(n=15)
% positive for:						
Marijuana	47%	24%	34%	33%	34%	53%
Cocaine	51	73	32	61	15	27
Opiates	23	33	11	15	8	33
PCP	4	3	2	3	2	0
Valium	2	2	2	0	1	2
Darvon	*	0	*	0	2	0
Methadone	3	3	*	0	2	7
Barbiturates	0	2	0	0	0	0
Amphetamines	*	2	0	0	0	0
Methaqualone	0	0	0	0	0	0
Any drug positive	81	82	63	67	45	67
Any drug positive (-marij)	55	78	39	61	21	40
2+ Drugs positive	38	43	16	36	13	40

* = < 1% positive

Chicago arrestees.

- About 40% of Chicago male and female arrestees tested positive for more than one drug.

Suburban Cook

- Overall illegal drug use was lower in suburban Cook County than in Chicago though still significant. Approximately 65% of all male and female suburban arrestees tested positive for any illegal drug including marijuana.
- Suburban female arrestees had almost twice the rate of cocaine use as males and over twice the rate of polydrug use (i.e., use of more than one substance simultaneously).
- Marijuana and cocaine were used by about one-third of male

suburban arrestees, a rate significantly lower than their Chicago counterparts.

- Opiate use was also lower for suburban male and female arrestees, about half as prevalent for both groups compared to the rates for Chicago arrestees.

DuPage County

This is the first quarter that DuPage County arrestees were tested as part of the ADAM study. As with Suburban Cook County arrestees, the rates of illegal drug use among DuPage arrestees was lower than for Chicago arrestees, but the pattern of use for specific drugs was somewhat different than in suburban Cook County. However, the small number of

females tested in DuPage means that these results should be interpreted cautiously.

- Cocaine use by arrestees in DuPage is relatively low with only 15% of the men and 27% of the women testing positive.
- In contrast, marijuana was the most frequently used drug, especially among women in DuPage with over 50% testing positive for recent marijuana use.
- Opiate use was also elevated among female arrestees in DuPage with one-third testing positive, as was polydrug use with 40% of the women testing positive for two or more drugs.

Drug Use and Arrest Charge

Past analyses of DUF data com-

paring arrest charges and drug use have concluded that there is only a weak or no relationship between the type of drug used and the type of crime committed. For the most part, these analyses have used simple bivariate statistics that looked only at the relationship between type of arrest (e.g., violent or drug-related) and the proportions of arrestees testing positive for a particular drug. Such analyses leave open the possibility that other uncontrolled factors associated with arrest charges such as age and gender, may be masking the relationship between the arrest charge category and drug use.

In the current set of analyses, a more sophisticated approach was taken to model the ADAM data to reexamine the relationship, if any, between drug use and arrest charge. Specifically, a multivariate statistical technique called logistic regression was used that allowed a

simultaneous control for differences in ADAM subjects on age, gender, and charge class (i.e., misdemeanor versus felony) before comparing the proportions testing positive. Results for logistic regressions are expressed in terms of “odds ratios.” Odds ratios express the chance that a particular event is expected to happen given a certain set of circumstances. Odds greater than 1.0 indicate an increased likelihood of an event occurring while odds ratios less than 1.0 indicate a decreased likelihood. For example, in the present context, an odds ratio of 2.0 would mean that testing positive for a given drug was twice as likely if the arrestee were charged with a drug-related offense.

The logistic regression analyses presented in Table 2 show the odds ratios associated with different arrest charge categories compared to those charged with vio-

lent offenses. Past work has consistently shown that those charged with violent offenses (e.g., homicide, criminal sexual assault, robbery) are the least likely to test positive for an illicit drug (but the most likely to have been using alcohol.) We examined the odds ratios for the three most frequently used drugs by Cook and DuPage County arrestees: marijuana, cocaine, and opiates.

The results show that those charged with a drug-related offense, such as possession, were twice as likely to test positive for marijuana, three times as likely to test positive for cocaine, and five times as likely to test positive for opiates compared to those charged with a violent offense and controlling for gender and age. A similar though somewhat less pronounced pattern was found for those charged with a property offense such as theft or burglary and those

T a b l e 2

The likelihood of a positive drug test by category of arrest charge*

Drug	Marijuana	Cocaine	Opiates
The odds (ratio) of a positive test for those arrested for a:**	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
Drug-related Offense	2.1 (1.2 – 3.6)	2.9 (1.7 – 4.9)	5.1(2.4 – 10.7)
Property Offense	***NS	2.2(1.4 – 3.8)	4.6(2.3 – 9.5)
Other Offense	NS	1.7(1.1 – 2.7)	2.5(1.2 – 5.1)
(compared to those arrested for a violent offense)			

*Based on stepwise logistic regression analyses controlling for gender, age, and offense class

**Odds greater than 1.0 indicate an increased likelihood of an event occurring while odds ratios less than 1.0 indicate a decreased likelihood.

*** NS = Non-significant result; all other results significant at the p < .05 level or greater

charged with a miscellaneous or "other" offense (e.g., arrested on a warrant, prostitution, or public peace disturbance). In all cases, those charged with a violent offense had significantly lower odds of testing positive for cocaine and opiates while those charged with drug-related and property offenses had the highest likelihood of a positive drug test. Of the three drugs analyzed, opiates had the strongest relationship to charge category while marijuana had the weakest. In part, this may be a reflection of the fact that both cocaine and opiates are much more likely to lead to dependence than marijuana, require greater financial resources, and hence may promote income-generating crime, such as drug sales or theft, as opposed to violent crimes. Also, those selling cocaine and opiates may be inclined to use the products that they sell or to take their payment in trade (i.e., a small amount of heroin for personal use) rather than in money.

Although not a focus of the present analyses, the results for the three covariates of offense class (i.e., misdemeanor versus felony), age, and gender are interesting to consider. Compared to those charged with a misdemeanor offense, those charged with a felony were more likely to be using heroin than misdemeanants but there were no significant differences in their use of cocaine or marijuana. Compared to men, women were twice as likely to be using heroin and two to three times as likely to be using cocaine.

Male and female arrestees were not significantly different with respect to marijuana use. These results are generally consistent with a considerably large body of past research which shows that female criminal offenders tend to have higher rates of cocaine and opiate use compared to males, but lower rates of marijuana and alcohol use.

Finally, the statistical models showed that the use of all three drugs was associated with the age of the arrestees: younger arrestees were the most likely to be using marijuana, while cocaine and opiate use showed slight increases for each year of increasing age. Though we did not test for a curvilinear relationship between age and drug use in the logistic regression model, past research strongly suggests that the use of drugs such as cocaine and opiates tends to increase until the mid to late thirties after which there is a gradual decline in use. Marijuana use, however, tends to peak much earlier, when an individual is in their early twenties again followed by a gradual decline in use. Though this pattern of results has suggested to some that marijuana is a gateway drug directly leading to the use of harder substances, there is relatively little evidence supporting a direct causal path.

Further Information

Additional information about ADAM and national and international ADAM findings can be obtained from a number of sources. The national ADAM website is at <http://www.adam-nij.net/adam/index.htm>. Past copies of the ADAM quarterly reports for Cook County can be viewed or downloaded online at either the ICJIA website at: <http://www.icjia.state.il.us> or the TASC research department website at <http://www.tasc-il.ORG/Preview/ris.html>, which also includes more detailed descriptions of the study protocol, trend information, and other analyses based on ADAM data. Raw data for research purposes may be obtained, with permission from NIJ, from the Inter-university Consortium for Psychological and Sociological Research (ICPSR) at the University of Michigan by calling 800-999-0960 or accessing their web site at <http://www.icpsr.umich.edu/index.html>. Specific questions pertaining to the Cook County ADAM study can be e-mailed to Dr. James Swartz at: jswartz@tasc-il.org. Dr. Swartz encourages inquiries from other investigators interested in using ADAM as a research platform for investigating issues related to drug use among arrestees.