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USING A SERIOUS DRUG ABUSER SCALE IN THE CRIMINAL JUSTICE SYSTEM

Bruce D. Johnson, Andrew Golub, and Mokerrom Hossain

October 1993

FINAL REPORT:

Expanding Applications of Drug Use Forecasting Data in New York

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ABSTRACT

This report is designed to help practitioners in criminal justice agencies in Manhattan make informed decisions about whether specific criminal offenders are serious drug abusers and, if so, should be required to participate in drug treatment. A secondary analysis of data from the Drug Use Forecasting (DUF) program in Manhattan from 1987-1991 documents that the vast majority of arrestees in Manhattan are current abusers of heroin, cocaine, or crack. This report develops two *quick-screening devices* as tools to support identification and early intervention during criminal justice case processing. These screening devices do not require actual urine tests and have been empirically derived using standard information available at arrest. They accurately classify individual arrestees according to their likelihood of being detected as cocaine, crack, or heroin (cocaine-heroin) abusers.

The Arrest Charge-Age Model is easiest to use, but classifies relatively fewer arrestees as "extremely likely" or "highly likely" to be cocaine-heroin abusers. The Serious Drug Abuser Scale (SDAS) is a user-friendly, point-scoring system providing practitioners with a probability that a given arrestee is a cocaine-heroin abuser--thus, suggesting a need for drug treatment. The report also provides a strong rationale for and review of the scientific literature regarding the importance of coercing cocaine-heroin abusers into drug treatment, and the importance of treatment for interrupting their drug abuse and criminal careers.

The report provides twelve policy options for using SDAS scores at arrest, adjudication, sentencing, and supervision (within corrections or during probation). Case scenarios suggest how SDAS scores could provide a basis for including a written drug treatment plan for convicted offenders, regardless of other sanctions imposed (such as jail, prison, or probation). The conclusion provides recommendations for future research, especially regarding possible implementation of the SDAS scale in criminal justice processing and supervision.

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CHAPTER 1

OVERVIEW, PROBLEM, and PRINCIPLES

Overview

This report has an overall theme: When a cocaine, crack, or heroin abuser is arrested, the criminal justice system should take the opportunity to help that individual and to protect citizens from future crimes by intervening in the arrestee's drug abuse and criminal career. Criminal justice decisions about recommending drug treatment can be made in parallel with decisions concerning defendant guilt and sentence (if convicted).

Urban criminal courts, especially at arrest and arraignment, process arrestees and cases so rapidly that little or no time is allocated to determining the defendant's pattern of drug use or need for drug treatment. Urinalysis is rarely conducted at arrest due to several practical problems (such as handling body fluids, possible violation of privacy, inconvenience, timeliness of reports, and expense). Thus, few jurisdictions use urinalysis as a reliable screening tool, designed to assist the courts in determining which defendants are drug abusers or to help document levels of drug abuse among their arrest population.

IF cocaine-heroin-abusing offenders can be accurately identified at arrest (the focus of this report), and IF the courts strongly recommend drug treatment for cocaine-heroin abusers convicted of crimes, and IF most such offenders participate in appropriate drug treatment for several months during their criminal justice supervision, then important reductions in the criminality of current and former cocaine-heroin abusers may occur. Our review of the literature, however, suggests these conditions are not occurring at present.

This report provides two *quick-screening devices* as tools to support early intervention in the criminal justice process; these devices:

. do not require actual urine tests, thus, avoid the costs and problems associated with such tests;

. can accurately identify individual arrestees most likely to be detected as cocaine, crack, or heroin abusers;

. have been empirically derived and are valid and reliable; and

. are easy to administer using standard information available at arrest.

The Serious Drug Abuser Scale (SDAS) and the Arrest Charge-Age Model (both defined below) constitute such "quick-screening devices" by which cocaine-heroin abusers can be accurately identified at arrest. This report also:

. describes how criminal justice practitioners can use these screening devices to estimate the proportion of similar arrestees who are likely to be detected for recent cocaine or heroin use at the time of arrest had a urine specimen been provided.

. summarizes findings about major studies regarding the importance of drug treatment coersion for criminal drug abusers.

. provides recommendations about how to use SDAS scores in criminal justice processing, including arraignment, plea negotiation, sentencing, and supervision.

. describes how SDAS information could be used by personnel in various criminal justice agencies to increase participation and retention in high impact treatments for convicted cocaine-heroin abusers.

This report is designed to help criminal justice practitioners in all branches and agencies of the criminal justice system in Manhattan (probably other boroughs and perhaps other major cities) make informed decisions about <u>whether</u> specific offenders have extremely high to moderate probabilities of being serious drug abusers. Although the vast majority of arrestees are documented to have serious drug abuse problems, the use of SDAS scores allows more precise statements about important subgroups of offenders who have extremely high, very high, high, and intermediate probabilities of serious drug abuse. Such data can help inform decision makers at appropriate points as to whether to refer a specific offender to drug treatment or strongly suggest treatment as a condition of release.

While an individual's probability for being a serious drug abuser can be precisely estimated using standard statistical techniques which are relatively straightforward and uncontroversial, the use of SDAS scores for making decisions about individual arrestees by criminal justice personnel should address a variety of ethical and legal considerations, many of which are addressed below.

In a companion paper, Golub, Johnson, and Hossain (1993) present a careful scientific analysis of observed variation in the percent (or base rate) of arrestees detected as as having recently used cocaine and/or opiates by the EMIT^{R} urine test from over 5,000 arrestees interviewed by the Drug Use Forecasting (DUF) program in Manhattan from 1987-91. This report uses the terms ***cocaine-heroin abuser(s)*** or ***detected cocaine-heroin use*** to refer to arrestees providing urines specimens which test positive for cocaine or opiates (mainly heroin use). The base rates for the various arrestee subgroups can be employed by criminal justice staff to estimate the probability that a specific person (whether an arrestee, defendant, probationer, or inmate) would have been detected as a cocaine-heroin abuser at the most recent arrest.

The Problem

Drug abuse and sales have overwhelmed the criminal justice system. Since the mid-1960s, the use and abuse of marijuana, heroin, cocaine powder, and crack[1] have become widespread in New York and other major American cities.[2] After 1985, crack sales expanded dramatically in New York City.[3] The City responded by developing Tactical Narcotics Teams (TNT), which more than doubled the number of drug-related arrests.[4] Moreover, at every stage of criminal justice processing (arraignment, detention, indictment, and sentencing), crack users and sellers received more serious dispositions than cocaine powder sellers.[5] Such practices, along with other factors, led to a more than two-fold increase of inmates in New York City jails and State prisons since 1980.[6] The number on probation and parole also doubled. The 1980s and early 1990s saw an expansion in the number of programs within the criminal justice system designed to provide drug education and treatment to some offenders.[7]

The vast majority of all arrestees in New York City are serious users or abusers of heroin, cocaine, or crack, with strong variation by primary arrest charge(s) or case dispositions.[8] Yet few criminal justice agencies systematically ascertain (other than via self-report) the offender's patterns of

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[1]Johnson et al. 1985, 1990, 1993.
[2]Bureau of Justice Statistics 1992; Inciardi 1986, 1990, 1992
[3]Golub and Johnson 1992; Johnson, et al. 1990, 1993; Johnson, Lewis, Golub 1992.
[4]Kleiman and Smith 1990; Moore 1990.
[5]Belenko, Fagan, Chin 1990.
[6]Bureau of Justice Statistics 1992, 1993; Sourcebook 1992.
[7]Bureau of Justice Statistics 1992; Falkin, Wexler, Lipton 1992; Falkin, Lipton Wexler, 1992; Falkin 1993;Inciardi 1993; Lipton, Falkin, Wexler, 1991.
[8]Bureau of Justice Statistics 1992; DUF 1992; Wish and Gropper 1990.

drug use and prior involvement in drug treatment. Especially at the earliest stages (arrest, prosecution, defense, judicial review), criminal cases are primarily concerned with determination of guilt or innocence of the accused person for the alleged crime(s). While imposition of any criminal sanction depends on a finding of guilt and the application of penal statutes, the actual type of sanction (probation, jail, prison) and length of sentence usually depends upon the length and severity of the offender's prior criminal record and many other factors. Virtually all judicial decisions during plea negotiations and the pretrial period, as well as offender supervision after sentence, include some form of "implicit prediction" about the offender's future behavior and appropriate efforts to control it.[9] Most seasoned practitioners in the criminal justice system employ a personal experience-based "implicit prediction scheme" for efficient case processing and client management.

In some situations, scientific studies and prediction models, however, have been developed and are used by several agencies (e.g., the New York City Criminal Justice Agency's ROR [Release on Recognizance] scale, probation-success scales, and the State parole-success scales). Such scientific prediction scales have several important advantages:

. The application of consistent guidelines by all staff members helps ensure efficient and consistent handling of cases.
. Explicit guidelines reduce training time and improve performance of new personnel.
. Explicit prediction instruments--based on empirical evidence or general theory--tend to be as accurate and perhaps more accurate (due to their consistent criteria) than clinical judgments in identifying high-risk persons.[10]

In the arena of "need for drug treatment" and "referral to treatment," however, criminal justice practitioners in New York have not had access to carefully-developed empirically-based prediction scales.[11] The Drug Use Forecasting (DUF) program, started in 1987, provides important information about the prevalence of and trends in drug abuse among arrestees.[12] These data support

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[9]Gottfredson and Gottfredson, 1986; Gottfredson and Tonry 1987; Morris and Miller 1985.
[10]Dawes 1982.
[11]Such scales are being developed elsewhere: Inciardi, McBride, Weiman 1993; Fiorentine and Anglin 1993; Fiorentine 1993; Martin and Inciardi 1993ab.
[12]Wish & Gropper 1990; Johnson, Golub, Hossain 1992; Visher 1992.

the development of the scales reported below and can provide a basis for referring offenders to the rich array of drug treatment resources available within the criminal justice system and at community-based treatment programs. This report and the companion scientific paper (Golub, Johnson, Hossain 1993) describing the scientific rationale for these base rates and scale scores provide a scientifically-developed, empirically-calibrated scale which can be easily used by criminal justice practitioners to:

. estimate with precision the probability that an arrestee is a serious drug abuser;

. help set priorities about which clients could be directed to various types of drug treatment;

. gain and employ a more accurate understanding of drug treatment and its importance for reducing subsequent offender criminality.

Ethical Considerations

The following principles specify important legal and ethical considerations regarding the use of base rates and SDAS scores for referring arrestees to drug treatment in criminal justice practice.

. **Serious Drug Abuser Scale scores are probabilities; they are not evidence of actual drug use nor the same as actual urine test results.** Very rarely do criminal justice practitioners in New York City have access to actual urine test results for their clientele (only New York City Probation collects urine from probationers on a regular basis). While actual urine test results indicate drug use in past 72 hours by a specific person, base rates only indicate the proportion of comparable arrestees who were detected as cocaine-heroin users at arrest--as well as the proportion who were not (by subtracting from 100 percent).

. **Scale scores suggesting a high probability of drug abuse should not be used to determine guilt or innocence for a specific crime--even for drug possession.** Drug use/abuse (even the consumption of illegal drugs) is not defined as a crime.[13] Drug possession and sales are defined as crimes; however, arresting officers must submit evidence that the person possessed the drug (e.g. confiscated supplies), or that an actual sales transaction occurred. Information from base rates would be considered legally inadmissible as evidence in the determination of guilt or innocence for a crime.

. **A high probability of drug abuse should not justify a more severe disposition of a crime.** A high score on the Serious Drug Abuser Scale should not be employed to sentence a person to a more severe sanction.[14] A more appropriate use of a high base rate or SDAS score would be to negotiate reductions in disposition severity if referral and attendance in drug treatment is accepted by the offender during plea negotiations.

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[13]Drinking or using drugs while driving a vehicle is a crime.

[14]Considerable evidence suggests that judges impose prison sentences (rather than jail/probation) sentences on defendants they determine to be heroin and crack abusers (Belenko, Fagan, Chin 1990; Inciardi, McBride, Weinman 1993). The current authors argue that a defendant's SDAS score should not be included as "evidence" of cocaine-heroin abuser status in making such critical decisions.

These principles are consistently applied in the general guidelines regarding use of base rates and SDAS scores presented herein. SDAS scores have additional value because the empirical evidence suggests the following:[16] 1) Probabilities (the base rates) and SDAS scores are quite accurate and nearly as good as actual urinalysis test results for determining whether a person is a cocaine-heroin abuser, although these measures are not objective and legally admissable evidence of drug use such as actual drug tests may be. 2) Scale scores and base rates for persons detected as cocaine-heroin abusers represent a considerable improvement in accuracy and precision over current practices which rely upon offender self-reports to criminal justice staff to estimate whether an arrestee is a drug abuser and the extent of abuse.

This report does not include nor attempt to address the many legal and procedural issues, and the detailed contingencies and constraints with which staff in every criminal justice agency must deal--and which will effect how base rates and SDAS scores may be used within an agency. Other reports[17] describe how three different cities (Portland, OR, Birmingham, AL, and Brooklyn, NY) have developed different systems for linking drug-abusing offenders to drug treatment and make recommendations for the development of a "systems" approach to integrating criminal justice practices with treatment services.

This report is organized as follows. Chapter two briefly describes the Drug Use Forecasting program and how criminal justice practitioners could quickly employ base rates (based upon Arrest Charge-Age Model) to make initial screening of need for treatment. Chapter three describes the Serious Drug Abuser Scale and how to calculate and interpret arrestee Scale Scores. Chapter four provides a review of major themes and findings in the scientific literature about the "need for treatment" and the importance of coerced treatment for cocaine-heroin abusers. Chapter five provides recommendations for future criminal justice policy options regarding the use of scale scores at arrest and by criminal justice agencies; this chapter also provides examples of how to use base rates and

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[16]Extensive evidence documenting these statements are provided in Golub, Johnson, Hossain (1993) and in the remainder of this report. Persons arrested at the current time (1992-94) are quite similar (demographically and as criminal offenders) to DUF-Manhattan arrestees interviewed in 1987-91. Also see Lewis et al. (1992); Belenko and Mara-Drita (1988).

[17]Falkin 1993; Fiorentine 1993; Field 1985, 1989; Field, McGuire, and Nelke 1991; Hynes and Powers 1992.

Scale Scores in criminal justice processing and supervision. Finally, chapter six provides overall conclusions and discusses the possible contributions of scales. Arenas for further research are also provided.

CHAPTER 2

USING THE ARREST CHARGE-AGE MODEL

This chapter provides a quick and simple means (see Table 1 below) for criminal justice personnel to identify the expected rates of detecting cocaine or heroin use by an arrestee by using the most serious arrest charge and arrestee's age alone.[1] This information can be used as a quick screen for cocaine-heroin abusers before or at arraignment (or during very early case processing).

The intent is to develop prediction models for detecting cocaine-heroin abuse (and, by implication, a need for drug treatment) at arrest which can be easily employed by criminal justice practitioners, yet is relatively precise in distinguishing among five subgroups of arrestees. In the process of developing models, a variety of slightly different prediction models were analyzed. Examination of distributions indicated the following convenient cutting points for detecting cocaine-heroin use (and the need for drug treatment):

1) Extremely high rate (90 percent and over) of being cocaine-heroin abusers;

2) Very high rates (80-89 percent);

3) High rates (67-79 percent);

4) Intermediate rates (around 50 percent); and

5) Low rates (less than 45 percent) of being cocaine-heroin abusers.

Development of Base Rates

A secondary analysis was conducted with data obtained from the Drug Use Forecasting (DUF) program sponsored by the National Institute of Justice. Nearly every quarter since 1987, the DUF program in Manhattan (henceforth ***DUF-Manhattan***) completes self-report interviews and obtained voluntary urine specimens from 250 male and 100 female adult arrestees at booking during approximately 10 calendar days. These data are forwarded to DUF contractors who computerize the interview schedule, conduct EMIT^{R} urine tests for 10 drugs, merge the data, and provide data sets for

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[1]Golub, Johnson and Hossain 1993.

analysis. Urinanalysis is quite successful in detecting cocaine (or crack) and heroin (mainly hercin) use within the past 72 hours.[2] NIJ also provides an ongoing series of reports[3] containing results for the 24 cities[4] participating in the Drug Use Forecasting program.

Although not a random sample of arrestees, the DUF sample of adult arrestees provides a good representation of the arrestees who are booked in the particular locations where DUF operates.[5] The statistical profile of DUF-Manhattan subjects is also quite similar to the profiles of Manhattan arrestees provided by the New York City Criminal Justice Agency.[6]

In the scientific report, Golub, Johnson, and Hossain (1993) document that recent serious drug abuse is well indicated by testing positive (by urinalysis) for cocaine or heroin. The analyses are based upon over 5,000 DUF-Manhattan arrestees ages 21 and older.[7] Overall, the average adult DUF-Manhattan arrestee had a 75 percent chance of being a cocaine-heroin abuser. Thus, a prediction that any randomly chosen arrestee was a cocaine-heroin abuser would be correct on the average three out of four times (and incorrect less than one out of four times).

Several independent variables were hypothesized to be associated with detecting cocaine or heroin use. A logistic regression analysis was conducted to determine whether and how much variance in detected cocaine-heroin use was due to each independent variable, after all other factors were held constant.[8] Gender, primary income source, ethnicity, marital status, and felony-misdemeanor charges were significantly, but modestly, related to detected cocaine-heroin use. The most serious arrest charge and age, however, were significantly and most strongly related to detected cocaine-heroin use, after other factors were held constant.

[Figure 1 about here.]

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[2]Visher 1991, 1992; Chaiken, Chaiken, Cavanagh 1991.

[3]Drug Use Forecasting 1992; many other quarterly and special reports are published each year.

[4]Participating jurisdictions include Atlanta, Birmingham, Chicago, Cleveland, Dallas, Denver, Detroit, Fort Lauderdale, Houston, Indianapolis, Kansas City, Los Angeles, Manhattan (NY), New Orleans, Omaha, Philadelphia, Phoenix, Portland, St. Louis, San Antonio, San Diego, San Jose, Washington DC.

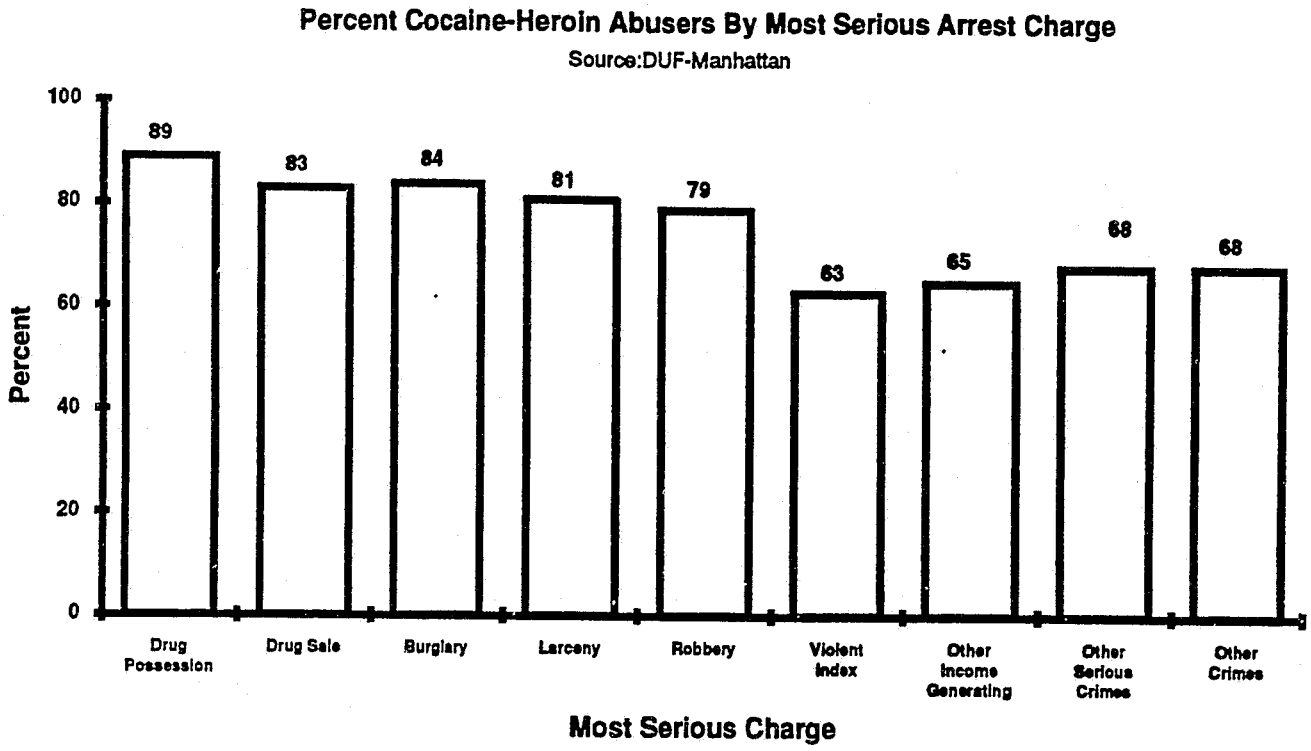
[5]Chaiken, Chaiken, Poulin 1993; Chaiken, Chaiken, Cavanagh 1991; General Accounting Office 1993.

[6]Belenko and Mara-Drita 1988; Lewis et al. 1992; Nickerson and Dynia 1988.

[7]Arrestees ages 15-20 were excluded because they exhibit different and emergent patterns of drug use--which were not well predicted by the statistical models used here. Analyses of drug use by arrestees aged 15-20 document important declines cocaine and crack during 1987-93 time periods (Golub, Johnson 1993). The statistical models developed for persons age 21 and older do not accurately predict detected cocaine-heroin use among those 15-20.

[8]Logistic regression (Hosmer & Lemeshow 1989) was used and is similar to other multivariate regression models.

Figure 1


Percent Cocaine-Heroin Abusers By Most Serious Arrest Charge
Source:DUF-Manhattan
Percent
100
80
60
40
20
0
89
83
84
81
79
63
65
68
68
Drug Possession
Drug Sale
Burglary
Larceny
Robbery
Violent Index
Other Income Generating
Other Serious Crimes
Other Crimes
Most Serious Charge

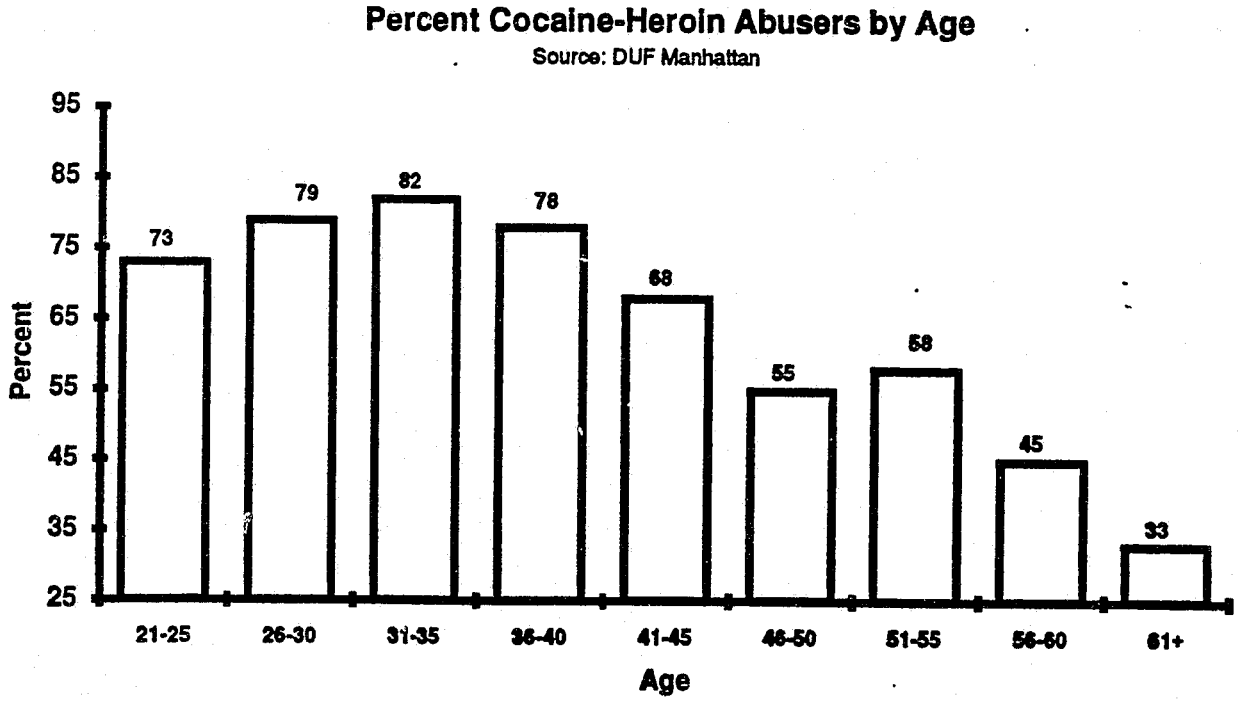

Percent Cocaine-Heroin Abusers by Age
Source: DUF Manhattan
Percent
95
85
75
65
55
45
35
25
73
79
82
78
68
55
58
45
33
21-25
26-30
31-35
36-40
41-45
46-50
51-55
56-60
61+
Age

Figure 1 presents the marginal relationships of detected cocaine-heroin use with age and with top arrest charge. Averaging across all ages, the percent detected as cocaine-heroin abusers was highest among persons arrested for drug possession charges (89 percent), drug sales (83 percent), burglary (84 percent), larceny (81 percent), and robbery (79 percent). Lower base rates were observed for violent index charges (aggravated assault, homicide, rape--63 percent), income generating crimes (66 percent), and other crimes (68 percent). Averaging across all arrest charges, the peak ages for being cocaine-heroin abusers include 30-35 (82 percent), closely followed by ages 26-30 and 36-40 (79 and 78 percent respectively), and 21-25 (73 percent). Arrestees over age 40 generally have lower probabilities of being cocaine-heroin abusers, ranging from 68 percent for those 41-45, to 33 percent for those over 60.

Table 1 presents the variation in cocaine-heroin abuse across both top arrest charge and age simultaneously.[9] This ARREST CHARGE-AGE Model in Table 1 is suggested for use at the earliest stages of case processing (e.g. at booking, arraignment, and early plea negotiation at or soon after arraignment).[10] During early case processing, a tentative conclusion that an arrestee is probably a cocaine-heroin abuser and is likely to need drug treatment if convicted, would be as reasonable as conclusions that "sufficient evidence" exists that a crime was committed and that "probable cause" exists to set bail and/or detain the arrestee. Like such preliminary conclusions, additional information about the offender's drug use/abuse patterns could be obtained for future hearings and case processing.

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[9]Golub, Johnson & Hossain 1993 describes the transformations which smooths variations due to small sample sizes in several cells of Table 1.

[10]During early case processing, much other relevant information (e.g. fingerprints, criminal history record, details of the charges, sufficiency of evidence) about the case and arrestee is being obtained. Dispositions of guilt at arraignment are uncommon (except for crimes which rarely lead to detention or incarceration).

Table 1. Likelihood of Being Cocaine-Heroin Abusers by Top Charge and by Age.

(Arrest Charge-Age Model for DUF-Manhattan, 1989-1991)

Most Serious Arrest Charge	Percent Detected as Cocaine-Heroin Abusers at Age: 21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61+	TOTAL
Drug Possession	88	91	92	91	86	77	79	73	60	89
Drug Sale	81	85	87	85	78	66	70	62	46	83
Burglary	81	86	88	86	79	67	71	63	47	84
Larceny/Auto theft	76	81	84	82	73	63	66	58	42	81
Robbery	76	81	84	82	73	60	64	55	39	79
Violent Index	60	68	72	68	56	42	45	37	24	63
Other Income Generating	64	71	74	71	59	45	49	40	26	66
Other Serious Crimes	65	72	76	72	61	47	51	42	23	68
Other Crimes	65	71	75	72	60	46	50	41	27	68
Total	73	78	82	78	68	55	58	45	33	75

92 Extremely high (90 & over) percent are cocaine-heroin abusers.

84 Very high (80-89) percent are cocaine-heroin abusers.

79 High (69-79) percent are cocaine-heroin abusers.

66 Intermediate and low (66 and less) percent are cocaine-heroin abusers.

Distribution Of Percentages.

Predicted Percent* Cocaine-Heroin Abusers	Actual Percent Cocaine-Heroin Abusers	No. Cases	Percent in range	Cumulative Percent	Likelihood of Being Cocaine-Heroin Abusers
95-99	0	0	0.0	0.0	
90-94	90	225	6.8	6.8	Extremely high
85-89	85	570	17.2	24.0	
80-84	83	663	20.0	44.0	Very high
75-79	74	540	16.3	60.3	
70-74	70	535	16.1	76.4	High
67-69	70	198	6.0	82.4	
65-66	61	184	5.6	87.9	
60-65	56	234	7.1	95.0	
55-59	62**	55	1.7	96.7	Intermediate
50-54	43**	5	0.2	96.8	
45-49	49**	40	1.2	98.0	
40-44	42**	35	1.1	99.1	
35-39		12	9.4	99.4	
30-34	15**	0	0.0	99.4	Low
25-29	33**	13	0.4	99.8	
20-24		6	0.2	100.0	
Total		3315	100.0		

*Predicted percent from Arrest Charge and Age.

**Standard error greater than 5% apt to be unstable.

The advantage of this Arrest Charge-Age Model is that the two most (statistically) important factors associated with cocaine-heroin abuse are included. These data are easily obtained for a given arrestee and need little subsequent verification. These factors can be used for making decisions about case disposition and whether to possibly include a treatment requirement during early case processing.

The major disadvantage is that the Arrest Charge-Age Model classifies relatively few arrestees into the highest categories because it relies upon limited information. Only seven percent of DUF-Manhattan arrestees have base rates of 90 or greater (so that only persons arrested for drug possession are classified as having an extremely high likelihood of being cocaine-heroin abusers).

[Table 1 about here.]

Likelihood of Being Detected As Cocaine-Heroin Abusers Based On Arrest Charge And Age.

To use Table 1, identify an arrestee's top charge (in rows) and locate the arrestee's age group at arrest (in columns). The intersecting cell indicates the appropriate percent (base rate) that are detected as cocaine-heroin abusers. The categories for each variable are defined as follows:

Top Arrest Charge: This is the most serious charge[11] entered at the time of arrest for the offense which led to the current criminal justice contact. Subjects recruited for the DUF-Manhattan program were interviewed at booking, shortly after arrest and before arraignment. Charges after judicial review or case dismissal are not used, nor are formal charges entered after plea bargaining or conviction charges (unless they are the same as the initial arrest charge).

"Drug possession" includes the possession of illicit drugs such as heroin, cocaine, crack, and marijuana, as well as possession of drug-using instruments (e.g. needles, syringes, crack stems).
"Drug sales" includes the sale, attempted sale, and helping with sales of illicit drugs such as heroin, cocaine, crack, and marijuana.
"Burglary" includes crimes of breaking and entering (and usually taking possessions) from residences and businesses without personal confrontation.
"Larceny/auto theft" includes thefts of $300 or more and stolen vehicle.
"Robbery" includes the taking of property from persons and businesses by means of violence or its threatened use; this category excludes the less serious personal offenses of pocketpicking/purse snatching.
"Violent Index" includes all forms of homicide, aggravated (but not simple) assault, and sexual assault (rape).
"Other Income Generating Crimes" include the offenses which typically produce income: thefts under $300, fraud, forgery, shoplifting, pocketpicking/jostling, purse snatching, stolen property, burglary tools, and embezzlement.

[11]The classification of arrest charges is recommended by Chaiken, Chaiken, and Poulin 1993; drug crimes have been separated into possession and sales and burglaries separated from other property crimes.

"Other Serious Crimes" include offenses which do not produce income but are serious crimes against persons or property: arson, property distruction, extortion/threat, weapons possession, family offense, kidnapping, manslaughter, resisting arrest, disturb peace, tresspass, sex offenses.

"Other Crimes" category includes prostitution, commercial sex, driving while intoxicated, bench warrant, parole/probation/ROR violation, bribery, fare beating, liquor law violation, obscenity, indecent exposure, influence of controlled substance, and data not obtained.

Age at arrest: This is the arrestee's age at the time of arrest for the offense leading to the current criminal justice contact; do not use arrestee's age at the date of computing the score (unless it is the same). The base rates in Table 1 are for use only with adult arrestees. Base rates are not provided for persons younger than 21.[12]

Base rates among subgroups of arrestees

Table 1 shows that only 3 cells--those with drug possession charges and aged 26-40--have extremely high base rates (90 percent or more) of cocaine-heroin abuse. Arrestees who exhibit very high base rates (80-89 percent) of cocaine-heroin abuse include persons ages 26-40 arrested for drug sales, burglary, robbery, and larceny. Additionally, persons aged 21-25 and 41-45 arrested for drug possession or sales, plus 21-25 year olds arrested for burglary have very high rates (80-89 percent) of being cocaine-heroin abusers.

Persons arrested for violent index and the "other" crimes and who are 26-40 plus those who are 21-25 and 41-45 arrested for larceny, burglary, or robbery constitute those with high base rates (67-79 percent) of detected cocaine-heroin use. Persons aged 46-55 and arrested for drug charges and burglary also have high base rates. Most of the remaining subgroups have intermediate or low base rates under 67 percent)--mainly those arrestees age 46 and older, arrested for property crimes (burglary, larceny, robbery) as well as those arrested for violence/other crimes who are 21-25 or over age 40.

Data at the bottom of Table 1 indicates that 82 percent of the DUF-Manhattan arrestees, 21 and older, had base rates of 67 and above. Only seven percent were extremely high, while 37 percent were in the very high group, and 38 percent were in the high group. The third and fourth columns indicate the number and percent of DUF-Manhattan arrestees classified into each category, while the

[12]Kandel 1978; Golub and Johnson 1992; Youthful arrestees (ages 15-20) have different drug patterns; their use of cocaine has declined dramatically since 1989 (Golub and Johnson 1993).

last (cumulative) column shows the percent of DUF-Manhattan arrestees with a given base rate or higher. The following examples (also used in Chapters 3 and 5) suggest how Table 1 could be employed for a quick screening of cocaine-heroin abuse during initial case processing.

Examples of how to use Table 1:

Example 1. Robert S., 33 years old, was arrested on a larceny charge and appears before an arraignment judge. Reading across the row for larceny and down the column for "31-35," the judge finds a cell with "86." This number means that among the DUF-Manhattan arrestees ages 31-35 with larceny charges, 86 percent were estimated to be cocaine-heroin abusers. Assuming that Robert is typical of most arrestees and that DUF-Manhattan has fairly sampled Manhattan arrestees, the judge could conclude that Robert would have a 86 percent probability of being a cocaine-heroin abuser, placing him at the middle of the "very high" category; 24 percent of DUF-Manhattan arrestees have rates equal to or higher than Robert. If Robert is convicted or pleads guilty to this crime or to a reduced charge, the judge could appropriately conclude--and so note in the record--that a drug treatment requirement might be appropriate, regardless of other criminal justice sanction(s) imposed.

Example 2. Claude X, age 27 is arrested for a felony sale of crack. Table 1 (column "26-30" and row "drug sale") has an 85 base rate. He would be among the midrange of "very high" likelihood of being detected as a cocaine-heroin user--and among the top 24 percent of DUF-Manhattan arrestees.

Example 3. Ricky W., age 39 is arrested for heroin and cocaine possession. Table 1 (column "25-40" and row "drug possession") indicates a 91 base rate. Ricky would be in the extremely high likelihood of being a cocaine-heroin abuser--and among the top seven percent of DUF-Manhattan arrestees.

Example 4. Linda G., age 22 is arrested for prostitution. Table 1 (column "21-25" and row "other crimes") indicates a 65 base rate. Linda has an "intermediate" likelihood of being a cocaine-heroin abuser; she would be among the lowest 5 percent of DUF-Manhattan arrestees.

Example 5. Larry K., age 57 is arrested for Drinking While Intoxicated. Table 1 (column "55-60" and row "other crimes") shows a 41 base rate; Larry has a low likelihood of being a cocaine-heroin abuser--and among the lowest one percent of DUF-Manhattan arrestees.

While the data in Table 1 may not appear profound at first impression (e.g. persons arrested for drug possession and sale are most likely to be cocaine-heroin abusers), some findings run counter to expectations based upon gradations in offense severity. Thus, persons arrested for drug sales might be expected to have higher base rates than those arrested for drug possession; but this is not the case. Perhaps a small proportion (about six percent) of drug sellers have not used cocaine-heroin recently enough to be detected by urinalysis. Likewise, those arrested on burglary charges have nearly identical base rates to drug sellers at all ages. Persons arrested on larceny and robbery charges have nearly identical base rates--but lower than burglary. Those arrested on violence charges and for "other" crimes have the lowest base rates at all ages.

The primary advantage of this Arrest Charge-Age Model is simplicity and ease of use by criminal justice practitioners. Knowing only an arrestee's age and top arrest charge, Table 1 provides a specific estimate of the probability of being detected as a cocaine-heroin user among offenders having characteristics similar to the current arrestee being processed.

Such information could be used in limited ways for the purpose of determining whether drug treatment (see chapter 5) might be appropriate in subsequent case processing and plea negotiations. Decisions reached during and soon after arraignment would typically necessitate obtaining additional information about the arrestee's drug use/abuse patterns, prior treatment, prior arrest and conviction histories, etc. This information can be improved by a more precise estimate of the offender's probability of cocaine-heroin abuse by using the Serious Drug Abuser Scale, as explained in the next chapter.

CHAPTER 3

SERIOUS DRUG ABUSER SCALE

This chapter introduces a Serious Drug Abuser Scale which provides greater precision and classifies persons more accurately than the Arrest Charge-Age Model into the categories of "extremely high" and "very high" likelihood of being cocaine-heroin abusers. This scale is more appropriate for making decisions about whether to insist on drug treatment during plea negotiations and adjudication, and possibly to help specify the type(s) of treatment to be provided in different criminal justice settings.

Several items included in this scale rely upon information self-reported by arrestees at booking and before arraignment. During booking, many arrestees may lie or misrepresent information about themselves. Such misrepresentation may include provision of false names/identities and addresses,[1] claiming employment without a current job, reporting marriage when separated for several years, claiming no use of cocaine or drugs, etc. While arrestees may provide false or misleading information during their DUF-Manhattan interview, this scale includes such misrepresentation and does not attempt to verify or correct the offender's self-reports. The objective data is the EMIT^{R} urine test results provided by DUF-Manhattan arrestees. The information (whether truthful or not) provided by self-reports of DUF-Manhattan arrestees are employed to estimate their probability of being cocaine-heroin abusers.

This Serious Drug Abuser Scale is derived from a logistic regression model of detected cocaine-heroin abuse.[2] After holding all other factors constant, seven variables were found to be significantly associated[3] with being cocaine-heroin abusers, in declining order of importance: top arrest charge, current age, primary income source, ethnicity, gender, marital status and felony-misdemeanor charge. The relative contributions for the categories of each variable are provided by the points or weights assigned. Table 2 illustrates the system for assigning weights and summing scores for each factor to calculate a score on the Serious Drug Abuser Scale.

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[1]Criminal justice staff rely primarily upon fingerprint(s) to establish the offender's true identity and locate prior criminal history records ("rap sheet"). The NYC Criminal Justice Agency conducts verification of community ties, especially determining how long an offender has lived at a reported address and whether employment is reported by others in the household. If community ties are verified, CJA may recommend Release on Recognizance (ROR) for the arrestee; arraignment judges may accept the ROR recommendation or set bail for a defendant.

[2]As specified in Golub, Johnson, Hossain 1993.

[3]The following factors were not related to detected cocaine-heroin abuse: year or quarter of arrest and education.

Table 2. Serious Drug Abuser Scale Scoring System

Attribute	Level	Points	Score
Arrest Charge	Drug Possession	6	
	Drug Sales	4	
	Robbery	3	
	Burglary	4	
	@Larceny/Auto Theft	3	____
	Violent Index	1	
	Other Income Generating	0	
	Other Serious Crime	1	
	Other	0	
Misdemeanor/Felony	Misdemeanor	1	
	Felony	0	
	Citation	0	____
Race/Ethnicity	Black	2	
	White	0	
	Hispanic	1	____
Gender	Male	2	
	Female	0	____
Age	21-25	6	
	26-30	7	
	31-35	8	
	36-40	7	
	41-45	5	____
	46-50	3	
	51-55	3	
	56-60	3	
	61+	0	
Primary Income Source	Legal Income	0	
	Welfare	2	
	Unemployed	1	
	Prostitute	2	
	Drug Sales	6	____
	Other Illegal	4	
Marital Status	Single	1	
	Married	0	
	Sep/Wid/Div	2	____

FINAL SCORE ____

Score	0-8	9-11	12-14	15-17	18-27
Inference (likelihood of coc-op+)	Low (<45%)	Intermediate (~50%)	High (67-79%)	Very high (80-89%)	Extremely high (≥90%)

[Table 2 -- Serious Drug Abuser Scale scoring system about here.]

Calculating the Serious Drug Abuser Scale Score

An arrestee's score on the Serious Drug Abuser Scale involves summing the *weights* for each of the seven factors used to categorize arrestees. The following provides explicit directions for use of the convenient form presented in Table 2:

1. Identify the person's category for each of the seven factors based on available information. Explicit details for determining a person's level on each factor are described in detail below.
2. Write the weight associated with each factor in the blank at the right side of the form.
3. Sum the weights for the seven factors and enter the sum in the box near the bottom of the form. This is a person's score on the Serious Drug Abuser Scale.
4. Determine the likelihood of cocaine-heroin abuse associated with this person's Scale Score using the conversion chart at the bottom of Table 2.

Description of factors

The following provides detailed instructions regarding how to classify a given individual according to each of the seven factors with the exception of top arrest charge and age which are specified above in Chapter 2. In the event that a given arrestee's information for one or more factors is unclear and affects the weight associated with any factor, use of the scale is not advised [the Arrest Charge-Age Model (Table 1) should be used instead]. The weights in Table 2 have the following properties: all other variables in the model have been held constant; the weights are equal intervals and are additive.

Primary income source: This factor measures the arrestee's self-reported primary source of income (both legal and illegal) just prior to the time of arrest. "Legal income" includes full and part-time work and odd jobs as major source of income. "Legal income" also includes a variety of other legitimate means of support such as being in school or maintaining a home. "Welfare" refers to AFDC, general assistance, food stamps, or SSI payments. "Unemployed" refers to having unemployment compensation or no paid employment, but no self-reports of illegal income. "Prostitution" refers to the sale of sex for money. "Drug sales" refers to self-reports that drug sales were a primary income source (and generally implies no or little income from jobs or transfer payments). "Other illegal" income refers mainly to income from nondrug crimes (e.g., robbery, burglary, or larceny). If the arrestee was not asked about possible illegal income, do not use this scale [use Table 1 instead].

Marital Status: This refers to arrestee's status at time of arrest. "Single" refers to persons who were never legally married, and were not in a common-law relationship at time of arrest. "Married" includes both those legally married and those living in a common-law

relationship. "Separated, Divorced, Widowed" refers to persons who were previously married, but at time of arrest were not living with their spouse, had been legally divorced, or whose spouse had died.

Ethnicity: "Black" includes those of African-American decent and Carribean or African backgounds. "Hispanic" includes Puerto Ricans and others from spanish speaking countries. "Whites" includes those primarily from European decent. "Other" includes those of Asian backgrounds, American Indians, and those missing data on ethnicity.

Gender: Whether the arrestee is male or female.

Misdemeanor-felony: This refers to whether the top arrest charge has a felony penal sanction of 12 months or more (a prison sentence possible), or has a lesser penalty (misdemeanor). A subsequent top charge, after reductions by the district attorney's office or plea negotiations, should not be used. [Many original felony charges are reduced to misdemeanors during arraignment or by plea bargaining.]

[Table 3, Claude X example about here.]

Examples for Computing and Interpreting the Serious Drug Abuser Scale

Table 3 shows the Serious Drug Abuser Scale as completed for one of the case histories above. Table 4 shows the Serious Drug Abuser Scale scores, their associated base rates and distributions of DUF-Manhattan arrestees.

Example 1: Claude X is a 27 year old, white male, arrested for a felony crack sale; he reports drug sales as his primary income source and is separated from his wife. The weights given in Table 3 would be selected and Claude's Serious Drug Abuser Scale score computed as 21. Table 4 presents the base rates associated with each possible scale score, ranging from 0 to 25. Claude's SDAS score of 21 has an associated predicted base rate of 96 percent. This indicates that among DUF-Manhattan arrestees from 1987-91 who scored 21, an estimated 96 percent were cocaine-heroin abusers at arrest; they were among the very top 3.4 percent of all DUF-Manhattan arrestees. Thus, Claude X has an extremely high[4] probability of being a cocaine-heroin abuser and a serious drug abuser. Assuming Claude X is quite similar to other DUF-Manhattan arrestees, the implication is that Claude X would have a 96 percent probability of being a cocaine-heroin abuser (and a 4 percent chance of being negative for these drugs)--if he had provided a urine specimen at arrest (which he did not do).

Example 2: Robert S., a 33-year-old black male, is arrested on larceny felony charge and reports being married with a part time job as his primary income. He would have a scale score of 15
[= 3 (larceny) + 0 (felony) + 8 (31-35) + 0 (legal job) + 2 (male) + 2 (black) + 0 (single)]
which falls in the "very high" likelihood (82 percent) of being a cocaine-heroin abuser, and a score which is nearly at the median among DUF-Manhattan arrestees.

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[4]Claude X would have shifted from "very high" to "extremely high" by including the additional information on primary income and marital status. In Table 1, Claude had an 85 percent likelihood of being a cocaine-heroin abuser; while in Table 3, Claude's SDAS score of 21 has a comparable rate of 97 percent detected as cocaine-heroin abuser.

Table 3. Serious Drug Abuser Scale Scoring System: Example Claude X.

Attribute	Level	Points	Score
Arrest Charge	Drug Possession	6	
	Drug Sales	4	
	Robbery	3	
	Burglary	4	4
	@Larceny/Auto Theft	3	
	Violent Index	1	
	Other Income Generating	0	
	Other Serious Crime	1	
	Other	0	
Misdemeanor/Felony	Misdemeanor	1	
	Felony	0	0
	Citation	0	
Race/Ethnicity	Black	2	
	White	0	0
	Hispanic	1	
Gender	Male	2	2
	Female	0	
Age	21-25	6	
	26-30	7	
	31-35	8	
	36-40	7	7
	41-45	5	
	46-50	3	
	51-55	3	
	56-60	3	
	61+	0	
Primary Income Source	Legal Income	0	
	Welfare	2	
	Unemployed	1	
	Prostitute	2	
	Drug Sales	6	6
	Other Illegal	4	
Marital Status	Single	1	
	Married	0	
	Sep/Wid/Div	2	2

FINAL SCORE 21

Score	0-8	9-11	12-14	15-17	18-27
Inference (likelihood of coc-op+)	Low (<45%)	Intermediate (~50%)	High (67-79%)	Very high (80-89%)	Extremely high (≥90%)

Table 4. Postdicted Distribution of Scores on Serious Drug Abuser Scale (DUF-Manhattan, 1989-91)

Serious Drug Abuser Scale Score		Actual Percent Detected	Predicted Based on Scale Score	Number of cases[a]	Percent of sample	Cumulative percent
Extremely High	27					
(≥90%)	26					
	25	100[b]	99	3	.1	.1
	24	100[b]	98	9	.3	.4
	23	100[b]	98	15	.5	.8
	23	96	97	26	.8	1.6
	21	97	96	60	1.8	3.4
	20	92	95	87	2.6	6.0
	19	91	93	137	4.1	10.2
	18	90	91	186	5.6	15.8
Very High	17	89	89	258	7.8	23.6
(80-89%)	16	84	85	347	10.5	34.0
	15	82	81	453	13.7	47.7
High	14	75	76	444	13.4	61.1
(67-79%)	13	70	70	417	12.6	73.7
	12	58	64	344	10.4	84.0
Intermediate	11	66	57	232	7.0	91.0
(45-66%)	10	47	49	130	3.9	95.0
	9	42	42	86	2.6	97.6
Low	8	44[b]	35	45	1.4	98.9
(<45%)	7	13[b]	28	16	.5	99.4
	6	33[b]	23	15	.5	99.8
	5	0[b]	18	2	.1	99.9
	4	0[b]	14	2	.1	100.0
	3	0[b]	11	1	.0	100.0
	2					
	1					
	0					

[a]Based on the 3315 DUF-Manhattan arrestees from 1989-1991 whose records include all arrest and demographic information necessary to calculate a score.
[b]Too few cases to accurately estimate the proportion detected as cocaine-opiate users. The standard error for other estimates ranges from 2 to 5 percent.

Example 3: Larry K., a 57-year-old married Hispanic man, is arrested on driving while intoxicated (DWI) [other crime, misdemeanor], reports being unemployed. He would have a scale score of 8
[= 0 (other crime) + 1 (misdemeanor) + 3 (age 56-60) + 1 (unemployed) + 0 (married) + 2 (male) + 1 (Hispanic)]
which falls in the "low" likelihood (44 percent) of being a cocaine-heroin abuser, and a score among the lowest 2 percent of DUF-Manhattan arrestees.

Distribution of Base Rates and Scale Scores

Table 4 provides important information for criminal justice personnel regarding use of this scale: the distribution of Serious Drug Abuser Scale scores among DUF-Manhattan arrestees. Four-fifths had scale scores of 12 and above, which are associated with a probability of 67 percent and higher of being cocaine-heroin abusers. The fourth column shows the number of DUF-Manhattan arrestees classified into each Scale Score, the fifth column shows the percentage so classified, while the last column shows the percentage of DUF-Manhattan arrestees with that Scale Score or higher.

At each scale score, Columns 2 and 3 show slightly different percentages of arrestees who are cocaine-heroin abusers. The use of the actual percent positive in column 2 are recommended for use by criminal justice practitioners.[5]

[Table 5 about here.]

Predictive and Cross Validation of the Serious Drug Abuser Scale

The Serious Drug Abuser Scale requires regular validation to support its value. The continued use of the scale in Manhattan requires an assumption that patterns of serious drug abuse are similar to those prevailing from 1987-1991. A predictive validation showed that DUF-Manhattan SDAS scores developed for 1989-91 were able to accurately predict SDAS scores for DUF-Manhattan arrestees interviewed in 1992 and the first quarter 1993[6] (Table 5). Moreover, the DUF-Manhattan SDAS model was cross validated with comparable 1989 DUF samples combined from four northeast cities

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[5]In Table 4, column 3 provides the percentage as predicted by the statistical model (which may have an error range of 4 to 10 percent on either side of a percentage). Column 2 contains a "postdiction validation" of this scale (see Golub, Johnson, Hossain 1993). While the point spreads are within the error range (two standard deviations), the statistically predicted base rates [column 3] are slightly higher than the percent actually detected as cocaine-heroin abusers [column 2]. Thus, actual percentages appear more appropriate for use by criminal justice practitioners when using scale scores.

[6]The predictions were within four percent of the actual percent positive; see Golub, Johnson, Hossain 1993, Table XX.

(Philadelphia, Cleveland, Detroit, and Chicago). The SDAS scores and distribution of DUF arrestees in these four cities was nearly identical to those in DUF-Manhattan for 1989 (Table 5).[7] Thus, the SDAS scale developed for DUF-Manhattan appears to be highly accurate in predicting serious drug abuse. DUF-Manhattan data will be periodically analyzed (probably annually) to determine the reasonableness of the SDAS assumptions and to make future refinments to the scale. Use of this scale in jurisdictions outside of Manhattan would be appropriate only if drug use patterns are similar to those prevailing in Manhattan from 1987-1991.

The Serious Drug Abuser Scale provides a more precise measure of the probability that a current arrestee is likely to be a cocaine-heroin abuser than the Arrest Charge-Age Model. The SDAS scores can be easily computed using information available to most practitioners, especially near arraignment or during post-arraignment detention or plea negotiations.

The use of the Arrest Charge-Age model or the Serious Drug Abuser Scale by criminal justice practitioners necessitates many other considerations about drug treatment of offenders, including further assessment of an arrestee's drug abuse patterns. These issues are addressed in the next two chapters. In Chapter 5, several examples indicate how to use such information in cases that might be typically encountered by personnel in various criminal justice agencies.

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[7]While the results for the four cities (Golub, Johnson, Hossain 1993, Table 23-25) were nearly identical to Manhattan, the average base rate was identical only in Philadelphia (75 percent), lower in Chicago (68 percent), and lowest in Cleveland and Detroit (both 60 percent). A logistic regression model for these four cities [as well as the predictive validation for 1992-3 in Manhattan] documented variation in the relative importance and category weights of minor factors (gender, ethnicity, marital status, education, misdemeanor-felony charges) when compared to the developmental sample for DUF-Manhattan, 1989-91. Top arrest charge and age were the most important factors in all five cities.

Table 5. Variation in Distribution of Scores on Serious Drug Abuser Scale Across Interview Years and Locations

Serious Drug Abuser Scale Score		Cumulative Percent with Score by Year: Manhattan 1989	1990	1991	1992	1993	Four Cities[1] 1989
Extremely High	27						
(90-100%)	26					.3	
	25	.1		.2		.5	.1
	24	.2	.2	.7	.3	.5	.2
	23	.6	.5	1.3	2.4	2.6	.3
	22	1.3	1.1	2.3	4.2	3.4	.7
	21	3.0	2.8	4.3	6.6	6.9	2.0
	20	6.3	4.3	7.4	10.6	9.8	5.0
	19	10.8	7.9	11.6	17.1	15.0	9.6
	18	16.2	12.8	18.1	23.1	26.1	16.1
Very High	17	24.4	19.1	26.8	32.6	34.6	25.6
(80-89%)	16	34.3	31.2	36.3	40.8	43.5	37.1
	15	48.3	46.0	48.6	52.1	53.8	50.6
High	14	60.8	60.1	62.3	63.0	65.2	63.6
(67-79%)	13	73.3	72.6	75.0	75.2	74.4	74.0
	12	84.1	82.9	85.1	85.0	83.1	84.6
Intermediate	11	90.5	91.2	91.4	92.0	90.5	91.2
(45-66%)	10	94.8	95.3	94.8	96.1	95.5	95.6
	9	97.6	97.5	97.6	97.7	97.6	97.9
Low	8	98.8	98.9	99.0	99.0	98.9	99.1
(0-44%)	7	99.3	99.5	99.4	99.9	100.0	99.6
	6	99.8	99.9	99.8	100.0		99.8
	5	99.9	99.9	99.9			99.9
	4	99.9	100.0	100.0			100.0
	3	100.0					100.0
	2						
	1						
	0						
Mean Scale Score (Standard Error)		14.4 (.1)	14.2 (.1)	14.6 (.1)	15.0 (.1)	15.0 (.2)	14.5 (.1)
Percent Detected as Cocaine-Opiate Users		76.4	74.1	71.1	75.1	76.2	68.3
Number of Subjects		1119	1045	1151	866	379	2758

[1]Philadelphia, Chicago, Cleveland and Detroit.

CHAPTER 4

THE "NEED FOR TREATMENT:" RESEARCH ON COERCING TREATMENT

This chapter argues that persons with high SDAS scores (12 or higher) have such a high probability of being serious drug abusers that they "need drug treatment," regardless of their beliefs about treatment. The terms "serious drug abuser" and "cocaine-heroin abuser" will be used interchangeably to refer to persons who typically use heroin, crack, or cocaine powder on a weekly, to daily (or more frequent) basis, and who would be detected as positive for cocaine or opiates if they provided a urine specimen at arrest. The following discussion describes the meaning(s) of "need for treatment" based upon both a public health and criminal justice perspective. Subsequently, major research findings are provided about the impacts of drug treatment for long-term criminality and drug abuse of offenders under criminal justice supervision.

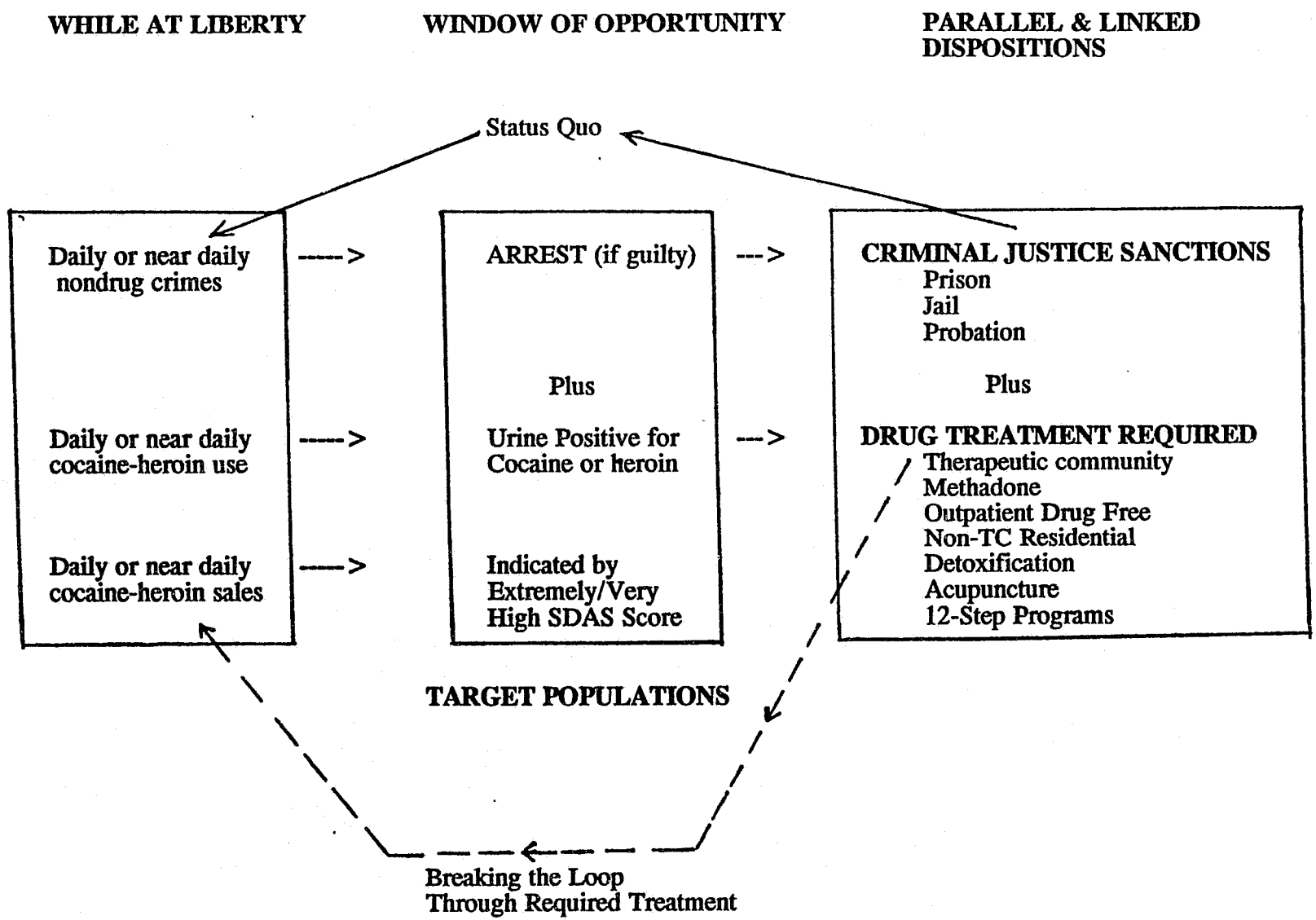
The "need for treatment" and for criminal justice coersion.

When a cocaine-heroin abuser sustains an arrest and is [or is likely to be] a cocaine-heroin abuser, the criminal justice system has both a responsibility to protect citizens from future crimes by this offender, and an opportunity to steer such an offender toward drug treatment--which criminal offenders may otherwise evade. While the criminal justice system cannot sentence a convicted offender to a drug treatment program (as offenders can be sentenced to jail, prison, or probation), the courts and criminal justice personnel can make various conditions for release--such as participating in, making progress in, and completing drug treatment (while awaiting trial, or when on probation or parole)--or provide advisories for early release from jail or prison. These conditions could be imposed even if the individual arrestee does not agree that he/she needs drug treatment at the time of arrest or sentence.

[Figure 2 about here.]

Thus, arrestees (or offenders in other criminal justice agencies) exhibiting high base rates could be routinely required to and have on-going legal pressure to enter, remain in, and complete drug treatment. If drug treatment resources are inadequate to handle large numbers of drug-abusing offenders, persons having very high rates (e.g. 80 percent and above) could be given priority for limited treatment resources within various criminal justice settings.

Figure 2. Model of Drugs-Crime Linkages, and Breaking The Loop with Required Treatment.



Many reasons exist for requiring drug treatment for persons likely to be cocaine-heroin abusers at arrest. Extensive research[1] on the links between drugs and crime document clearly that cocaine-heroin abusers are often high frequency drug users, committing many different types of crimes and using many different kinds of drugs.[2] The same literature also suggests that cocaine-heroin abusers typically commit 50 to 100 nondrug crimes while at liberty for each arrest they experience.[3] Thus, a current arrest provides society and criminal justice agencies with a window of opportunity to interrupt an offender's long-standing pattern of criminality and drug abuse. The following research findings delineate critical policy issues concerning the need for and impact of drug treatment upon the criminality and drug abuse of cocaine-heroin abusers.

a. The majority of arrested cocaine-heroin abusers deny needing drug treatment, and three-quarter report never having been in treatment. The critical fact is that 50 percent of DUF-Manhattan arrestees[4] detected as cocaine-heroin abusers reply "no" when asked if they need drug treatment. Addiction research consistently finds that serious abusers of cocaine or heroin often refuse to admit to having a drug "problem"--even when such problems are evident to their family and close associates.[5] Most abusers have had friends and agencies offer to make referrals to drug treatment which they have either refused at the time, declined to pursue, or otherwise failed to accept. A sizable proportion of cocaine-heroin abusing arrestees feel strongly that they do not need drug treatment and many have historically selected jail or prison sentences instead of referral to a drug treatment program.[6] Moreover, among DUF-Manhattan cocaine-heroin abusers, only a quarter report any lifetime involvement in drug treatment.[7] Even among cocaine-heroin abusers who self-report that they need drug treatment, many do not or cannot gain entry to drug treatment.[8] In short, a majority of cocaine-heroin offenders deny needing or have avoided drug treatment immediately prior to

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[1]Anglin and Speckart 1986, 1987; Ball et al. 1981, 1982; Ball, Shaffer, Nurco 1983; Chaiken and Chaiken 1980, 1990, 1991; Johnson et al. 1985, 1990.

[2]Chaiken and Chaiken 1990:212. Strong linkages between criminality and regular use of marijuana, LSD, PCP, are not well documented; so these drugs are not included in this report.

[3]Johnson et al. 1986; Inciardi 1979, 1984; Ball 1986.

[4]Golub, Johnson, Hossain 1993. Among street cocaine-heroin abusers recruited from near a housing project, three-quarters were "not interested" in drug treatment (Lipton, Goldsmith, Morales 1993).

[5]Anglin and McGlothlin 1984; Anglin and Hser 1990a,b; 1991.

[6]Anglin and Hser 1990ab, 1991; Hynes and Powers 1992.

[7]Golub, Johnson, Hossain 1993.

[8]Johnson and Muffler 1992; Lipton, Goldsmith, Morales 1993.

arrest--and have done so for many years.

b. Few cocaine-heroin-abusing offenders are enrolled in drug treatment at time of arrest. Among DUF-Manhattan arrestees detected as cocaine-heroin abusers, only seven percent report being in drug treatment at arrest.[9] If they report any prior drug treatment, approximately 70 percent of the cocaine-heroin abusers have dropped out of treatment at an earlier time. Most treatment dropouts have relapsed to daily or near daily cocaine-heroin abuse and criminality--leading to their current arrest.[10]

c. A positive urine test for cocaine or opiates generally indicates daily (and multi-daily) abuse at the time of arrest. Urine tests can only detect cocaine and opiates (mainly heroin) consumed within 48-72 hours prior to specimen acquisition. Among DUF-Manhattan arrestees detected as cocaine-heroin abusers and who self-report use within 72 hours, 62 percent report being daily users and 90 percent report being weekly users of cocaine, crack, or heroin.[11] Moreover, 80 percent self-report being dependent on or needing treatment for cocaine or crack or heroin. Likewise, much evidence shows that cocaine-heroin abusers typically sustain arrests when they are daily and multi-daily users,[12] that is, when their abuse is most frequent.

d. Cocaine-heroin-abusing arrestees usually report lengthy and chronic patterns of drug abuse involving cocaine/crack and often heroin injection. Among DUF-Manhattan arrestees, cocaine-heroin abusers typically reported initiation to illicit drugs in their teens and early 20s.[13] Other studies[14] document that most arrestees and cocaine-heroin abusers at liberty have drug abuse careers of two years and usually more (depending on age). Such drug abuse careers typically involve near-daily to multi-daily use of heroin or cocaine/crack during many of these years, with occasional interruptions due to arrest, treatment, imprisonment, voluntary abstinence, or lower consumption.[15]

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[9]Golub, Johnson, Hossain 1993; Lewis et al. 1992; Fiorentine 1993; Fiorentine and Anglin 1993.
[10]Anglin and Hser 1990ab, 1991; DeLeon 1984; DeLeon and Ziegenfuss 1986; Simpson 1979.
[11]Golub, Johnson, Hossain 1993.
[12]Ball et al. 1981, 1982; Anglin and Hser 1990ab, 1991; Chaiken and Chaiken 1990; Johnson et al. 1985, 1992, 1993.
[13]Golub and Johnson 1992; Golub, Johnson, Dunlap 1993.
[14]Golub, Johnson, Hossain 1993; Anglin and Speckart 1986, 1987; Johnson et al. 1985.
[15]Anglin and Hser 1990ab, 1991; Wexler, Lipton, Johnson 1988.

e. After release from criminal justice custody, cocaine-heroin abusers are very likely to return to near-daily to multi-daily use of cocaine or heroin. Without involvements in drug treatment (the *status quo*), almost all cocaine-heroin abusers will relapse to illicit drug use. The vast majority will have become daily users during six months after release from arraignment, jail, prison, or probation.[16] In short, untreated drug-abusing offenders leaving criminal justice supervision are nearly certain to relapse to cocaine-heroin abuse soon after release.

f. Without drug treatment, jail and prison sentences only interrupt--but do not decrease--drug abuse and criminality after release. A wide variety of studies shows that regardless of length of jail or prison sentence, offenders are likely to re-offend, be rearrested, and return to drug use/abuse at about the same rates as before incarceration.[17] Likewise, when not in drug treatment, offenders on probation and parole have high rates of reoffending, rearrest, and relapse to drug abuse, although perhaps somewhat less than when without criminal justice supervision.[18] An arrest indicates, and is an interruption in, a long-term ongoing career as a cocaine-heroin abuser and high rate criminality.[19]

In short, without requiring drug treatment for arrestees likely to be cocaine-heroin abusers, the imposition of standard criminal justice penalties (probation, jail, prison) may incapacitate, but will not result in reduced post-supervision offending and drug abuse, nor substantially alter offenders' chronic, on-going criminal and drug-abuse careers. Only interventions of and requirements by the criminal justice system are likely to persuade many recalcitrant cocaine-heroin abusers to enter drug treatment.

g. When cocaine-heroin abusers are enrolled in drug treatment, their crime rates and drug abuse patterns are much lower than when not in treatment. A major finding of much research[20] is that the criminality and frequency of drug abuse among cocaine-heroin abusing offenders is significantly reduced <u>while</u> they are attending drug treatment. While the magnitude of reductions vary by study and modality, criminality and drug use are typically reduced by over 50 percent <u>during treatment</u> compared with pretreatment levels.[21] Most notably, criminality and drug use are often

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[16] Anglin and Hser 1990ab, Wexler, Lipton, Foster 1985; Wexler, Lipton, Johnson 1988.
[17] Andrews et al. 1990; Anglin and Hser 1990ab, 1991; Beck and Shirley 1989 ;Bureau of Justice Statistics 1992; Farrington, Ohlin, & Wilson 1986; Golub 1992; Hunt, Lipton, and Spunt 1984; Karacki 1989; Maltz 1984; McGlothlin, Anglin, Wilson 1977.
[18] Anglin and Hser 1991; Wexler, Lipton, Johnson 1988; Petersilia 1990.
[19] Chaiken and Chaiken 1980, 1990.
[20] Anglin and Hser 1990ab, 1991; Mieczkowski et al. 1992; Wexler, Lipton, Johnson 1988.
[21] DeLeon 1984; Gerstein and Harwood 1990; Simpson 1979.

reduced by 80-90 percent while attending methadone treatment programs and therapeutic communities.[22] The crime-reducing impact of drug treatment may be a major reason that so few persons arrested (only seven percent of cocaine-heroin abusers among DUF-Manhattan arrestees) are currently enrolled in drug treatment--even though nearly 50,000 persons are enrolled in drug abuse treatment in New York City at any given time.[23]

h. Criminal justice coercion supports retention in drug treatment programs for cocaine-heroin abusers most likely to dropout. Cocaine-heroin abusers with no legal employment, few family ties, extensive and frequent criminal activity (characteristics of most arrestees) are the least likely to seek, be admitted to, and voluntarily enter treatment; if they do so, they are the most likely to leave treatment early.[24] Treatment stays of three months or more appear to be necessary to generate significant reductions in postrelease criminality.[25] Clients entering treatment under legal coercion may stay in treatment longer than voluntary clients.[26] Thus, conditions set by the judge or criminal justice personnel directing entry into and remaining in drug programs help ensure that cocaine-heroin-abusing offenders remain in treatment, even though such persons would otherwise be likely to leave early.

i. Cocaine-heroin abusers who are coerced into drug treatment by the criminal justice system emerge from programs with the same success rates demonstrated by those who enter treatment voluntarily. Several comprehensive reviews of the scientific literature[27] show that many cocaine-heroin abusers are not interested in changing their behaviors, will not voluntarily enter treatment programs, and resist or avoid pressures from friends and family to do so. When such cocaine-heroin abusing offenders are coerced by the criminal justice system, however, they exhibit improvements (less criminality, less drug use, more employment) similar to persons who voluntarily enter treatment and have equal lengths of participation.[28]

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[22]Anglin and Hser 1990ab; Ball et al. 1987; Ball and Ross 1991; DeLeon 1984.
[23]Office of Alcoholism and Substance Abuse Services 1993.
[24]Johnson and Muffler 1992; Wexler, Lipton, Johnson 1988.
[25]Anglin and Hser 1990, 1991.
[26]Anglin and Hser 1990a:393; Collins and Allison 1983.
[27]Anglin and Hser 1991:244; Anglin, Brecht, Maddahian 1990; Anglin and Hser 1990ab; Gerstein and Harwood 1990; Leukefeld and Tims 1988; Office of Technology Assessment 1990.
[28]Collins and Allison 1983; DeLeon and Schwartz 1984.

j. Legally pressuring cocaine-heroin abusers into drug treatment is generally more cost-effective in reducing their long-term criminality and drug abuse patterns than standard criminal justice sanctions alone. Overall, intensive legal supervision is better than no intervention at all, but methadone maintenance and therapeutic community treatments have been documented to be superior to probation/parole supervision alone in reducing the criminality and drug abuse patterns of cocaine-heroin abusers.[29] While selected offenders are removed from the streets for the duration of their incarceration--at a high cost to the government--almost no long-term reduction in their criminality and drug abuse occurs after release.[30] The costs of incarcerating cocaine-heroin abusers in New York State prisons exceed $30,000 annually, and a jail bed costs over $45,000 annually in New York City.[31] By contrast, a treatment slot in a community-based therapeutic community typically costs $15,000 annually, a methadone program slot costs $5,000, and an outpatient drug-free program slot costs $4,000.[32]

k. <u>Not</u> requiring drug treatment for convicted offenders who are cocaine-heroin abusers is a common outcome, representing missed opportunities to interrupt their drug abuse and criminal careers. Annually, thousands of convicted cocaine-heroin abusers are sentenced to probation, jail, or prison--without a requirement for drug treatment. Indeed, plea negotiations may offer less severe sentences if drug treatment is accepted, but many of these cocaine-heroin abusers will decline treatment and (effectively) choose a longer non-treatment disposition.[33] While on probation, in jail, or in prison, such recalcitrant cocaine-heroin abusers continue to avoid participation in drug treatment which may be available and recommended to them. Equally important, many cocaine-heroin abusers may agree to enter drug treatment, but treatment slots are not available. Many community-based programs may not want a large number of convicted offenders. Due to offender refusals to enter treatment and lack of treatment slots, the majority of convicted cocaine-heroin abusing offenders do not participate (or have only limited participation) in drug treatment while under criminal justice supervision.[34] Yet during such supervision, society has a maximum opportunity to constrain and

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[29]Anglin 1988ab; Anglin and Hser 1987, 1991:255; Lipton 1993; Wexler, Lipton, Johnson 1988.
[30]Andrews et al. 1991; Wexler, Lipton, and Johnson 1988.
[31]Bureau of Justice Statistics 1991; McDonald 1980; Johnson, Lipton, Wish 1986.
[32]Office of Alcohol and Substance Abuse Services 1993.
[33]Hynes and Powers 1992.
[34]Chaiken 1989.

direct cocaine-heroin abusers into treatment, as well as provide treatment while in criminal justice settings. Requiring almost any kind of drug treatment program for cocaine-heroin abusers represents a more rational and appropriate policy response for reducing criminality and drug abuse than providing no treatment at all or than imposing only the common criminal justice sanctions.

l. Additional assessments and procedures are necessary to identify the few convicted offenders referred to treatment who are actually not drug abusers. Among DUF-Manhattan subjects and most convicted offenders, less than 12 percent would be likely to have little or no illicit drug use.[35] Additional assessments of a convicted offender's drug use/abuse patterns could or would be undertaken by both criminal justice personnel (by medical staff in detoxification and detention facilities, presentence investigations, etc.) and also by intake staff of drug programs.

Even if the judge issued a treatment plan that might be inappropriate (e.g. the offender is not actually a drug abuser) for a convicted offender, this would likely result in less deprivation of liberty and possibly less governmental cost than an incarcaration sentence. A convicted offender wrongly sent to drug treatment will most likely have several related problems (e.g. educational, vocational, mental health, etc.) which can be partially addressed when drug program staff make appropriate referrals for needed services.

m. Drug treatment resources and slots for criminal justice-involved clients are currently scarce and could be allocated carefully. The criminal justice system in New York City annually arrests and finds guilty so many cocaine-heroin abusers that if all such offenders entered treatment, the number of treatment slots would need to double or triple.[36] Further, many community programs will accept only limited numbers of court-referred offenders, primarily accepting clients who apply voluntarily. The most limited number of treatment slots are in therapeutic communities, which many criminal justice staff prefer due to the greater security provided. Without an enormous expansion of therapeutic communities treatment slots, only a fraction of cocaine-heroin abusers with a court order will be able to enter such programs.

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[35]Golub, Johnson, Hossain 1993.
[36]Bureau of Justice Statistics 1992; Holden et al. 1990.

Several treatment options may be inappropriate or less-than-desirable to mandate as treatments for various types of offenders. For those with a very high score (15 or over) on the Serious Drug Abuser Scale or those having lengthy and serious criminal histories, mandating only attendance at 12-step programs, or acupuncture, or detoxification would likely be inadequate. Such programs are short-term, low-impact treatments that would be unlikely to address the complex and chronic drug abuse behaviors of serious offenders.[37]

Likewise, for convicted offenders with intermediate scores (11 or less) on the Serious Drug Abuser Scale or those having modest and relatively less serious criminal histories, mandating completion of therapeutic community treatment might be inappropriate. While such persons might benefit greatly and do well in TC programs, they would occupy treatment slots which could be occupied by more serious drug-abusing offenders.

In the following chapter, a variety of policy options are provided for including drug treatment plans at various critical stages in the criminal justice system. Moreover, examples are given about how Serious Drug Abuser Scale Scores could be employed by criminal justice practitioners.

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[37] Andrews et al. 1990; DeLeon 1984; Gerstein and Harwood 1991.

CHAPTER 5

OPTIONS FOR FUTURE POLICY IMPLEMENTATION

This chapter outlines several policy options for consideration by New York City and State policy makers. These policy options cut across the functional responsibilities of and procedures followed by specific criminal justice agencies. Examples are provided of how policies could be implemented by criminal justice personnel with typical drug-involved offenders.

The following options provide general guidelines about policies which could use the Arrest Charge-Age Model and Serious Drug Abuser Scale and could be implemented at various stages of criminal justice processing. These options do not address the many considerations central to the actual approval and implementation of these policies, including the likely costs, achieving consensus within and across criminal justice agencies, and training of personnel.

The following policy options are based on the overwhelming need for drug treatment and the potential of these screening devices to accurately identify cocaine-heroin abusers at arrest. The options are organized according to the major stages of criminal processing: pre-arraignment, pretrial and plea negotiation, conviction and sentencing, post-adjudication and criminal justice supervision.

PREARRAIGNMENT POLICY OPTIONS

Option 1. An arrestee's Serious Drug Abuser Score and associated likelihood of being detected as a cocaine-heroin abuser could be provided to judges at arraignment.

The New York City Criminal Justice Agency (CJA) (and similar pretrial agencies in other cities) routinely interview every arrestee at booking and obtain information about their community ties (residential stability and employment). CJA recommends to judges that a given arrestee be given ROR (release-on-own-recognizance).[1] At the same time, the pretrial service agency could also compute the Serious Drug Abuser Scale score and provide associated base rates to judges, along with an initial option as to whether a drug treatment plan might be included, if the defendant is subsequently found guilty (also see #6 below).

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[1]Belenko and Mara-Drita 1987; Nickerson and Dynia 1988.

Option 2. Arrestees predicted to be a cocaine-heroin abusers could be offered a voluntary urine test at pretrial interview to document that they are not current cocaine-heroin abusers.

Since an arrestee's score on the Serious Drug Abuser Scale is a probability, persons having a scale score of 12 or greater or a base rate above 60 percent should be informed that the pretrial services staff may recommend that drug treatment be required, and provide an opportunity for the arrestee to request a voluntary urine test. For arrestees who provide a urine specimen which is negative for cocaine or opiates, the pretrial agency would change its recommendation from "may need drug treatment" to "urinalysis negative for cocaine-opiates," noting that the individual may not need a drug treatment contingency. A high SDAS score should serve as a "flag" to alert criminal justice personnel, and initiate subsequent clinical assessments of the offender's drug abuse history. The pretrial services agency and arraignment judge should recommend further assessment of drug use/abuse patterns for those arrestees scoring 12 or more on the Serious Drug Abuser Scale. Such assessments may be done by medical services at detention facilities, by community treatment providers, or by personnel at other stages in the criminal justice system.

PRE-ADJUDICATION

Option 3. For persons classified as cocaine-heroin abusers at booking, personnel in several criminal justice agencies could include them in drug programs during detention AND attempt to persuade defendants to accept drug treatment and/or arrange placements in community-based programs.

This policy option is partially in place in New York City[2] but might be more accurately and consistently implemented with Serious Drug Abuser Scale scores available for all persons. Such scores could be used to identify the numerous defendants with very high scores, but who otherwise would not seek (and probably avoid) drug treatment during the pre-adjudication phase. Appropriate staff in key agencies responsible for plea negotiations (prosecution, defense, judiciary) and supervision of defendants (pretrial services, medical services, detention facilities), and intake units of community-based treatment programs interviewing criminal justice clients, can coordinate efforts to

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[2]Falkin 1993; Hynes and Powers 1992.

arrange a disposition which includes a non-incarceration sentence with placement in drug treatment. The prosecution and judiciary could make known their intent to require a drug treatment placement, regardless of other sanctions (see below #6-8). For defendants released on bail or ROR, pretrial services agency could offer opportunities for persons to enter community drug treatment. For defendants who do not make bail or who are detained, medical services in jail could provide a more intensive assessment of drug abuse patterns, and refer them to drug detoxification or other in-jail treatment programs.

Option 4. Decisions about requiring drug treatment for offenders with high SDAS scores should be considered separate from, but can be made in parallel with, decisions regarding legal and criminal justice decisions about guilt, sentence, or supervision.

Decisions made by the judiciary and staff in various criminal justice agencies about whether an offender needs drug treatment, the appropriate type(s) of drug treatment, participation in, and completion of drug treatment could be kept separate from (but parallel to) other criminal justice decisions about guilt or sentence for the instant charges. Likewise, among sentenced offenders, the choice of drug treatment(s), length of participation, success or failure in treatment could be separate decisions from (but made in parallel with) criminal justice supervision while on probation or when incarcerated. Criminal justice personnel could be encouraged to make decisions about drug treatment[15] needs or participation which are analytically and procedurally distinct and independent from criminal justice decisions. [As explained in more detail in below.]

Option 5. Scores on the Serious Drug Abuser Scale could provide criminal justice personnel recommending alternative drug treatments with some indications of the type of drug treatment offenders need.

Scores on the Serious Drug Abuser Scale may provide a reasonable basis by which to differentiate among those needing different intensities of drug treatment. In general, arrestees with very high scores (15 or above) could be referred (if possible) to effective or intensive treatments, such as therapeutic communities or methadone maintenance--and seldom referred only to 12-step programs or acupuncture. Conversely, arrestees with lower scores (11 and under) would generally not be

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[15]Wexler, Lipton, Johnson 1988; Gendreau and Ross 1984, 198). See Chapter 4 for a review of findings about the importance of drug treatment for drug-abusing offenders.

referred to therapeutic communities, but could be referred to 12-step programs--if outpatient drug free programs were not available for them. An offender's SDAS score may be particularly valuable to staff preparing a pre-sentence investigation report (as they do not have to rely upon self-disclosure or difficult-to-obtain information) and drafting a drug treatment plan. [Note: The case scenarios below provide examples of the range of scores on the Serious Drug Abuse Scale that might be appropriate to recommend various type(s) of drug treatment by different agencies of the criminal justice system.]

The SDAS scores, however, are not and have not been validated as an effective guide for recommending specific types of drug treatment. In fact, scientific efforts to predict appropriate client-treatment matchs have not been successful, or provide only weak predictions. Crude guidelines (as given in the previous paragraph) about the types of drug treatments for persons with different SDAS scores is governed mainly by the limited supply of high-impact treatment slots, rather than by well-designed assessments of client needs for specific types of treatment.

AT CONVICTION AND SENTENCING

If a defendant is found (or pleads) guilty to a crime and a standard criminal justice sentence (probation, jail, or prison) is negotiated or is to be imposed (or suspended), the sentencing judge may also wish to include the following options regarding drug treatment in the sentencing order.

Option 6. If a defendant is found (or pleads) guilty and has a high SDAS score, the judge may provide a written recommendation for drug treatment with every disposition.

Society's interests are best served when cocaine-heroin abusers enter and complete drug treatment.[3] In addition to the person's score on the Serious Drug Abuser Scale, the presentence investigation report could include considerable specificity about the offender's prior cocaine-heroin abuse history and drug treatment involvements (or its lack). Judges and other criminal justice personnel could provide the offender with a relatively severe disposition, but include written provisions that if a drug treatment program is successfully completed, the period of incarceration or community supervision could be reduced. Participation in and completion of such programs would

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[3] Andrews et al. 1990; Anglin 1988ab; Anglin and Hser 1990ab, 1991; Chaiken and Chaiken 1982, 1984b, 1985, 1987, 1990ab; Collins and Allison 1983; Cullen et al. 1985; Falkin, Lipton Wexler 1992 Falkin 1993; Gerstein and Harwood 1990; Hubbard et al. 1989; Inciardi 1990, 1992; Lipton, Falkin, Wexler 1991; McGlothlin and Anglin 1992; Petersilia and Petersilia 1992; Wexler, Lipton, Johnson 1988; Wish 1991.

provide a strong basis for earlier termination of criminal justice supervision and the sentence.

Option 7. **In addition to any criminal justice sentence, the sentencing judge could provide a written recommendation for drug treatment regarding: appropriate type(s) of drug treatment, anticipated lengths of participation, criteria for successful "completion," and how much the criminal justice sentence might be reduced if treatment is completed.**

The written recommendation provided by the sentencing judge could provide a plan for drug treatment designed to motivate the offender to seriously consider entry, but not force him/her into treatment. The offender's unwillingness at sentencing to accept drug treatment conditions need not prevent the judge from including a written drug treatment plan along with rest of the sentence. Based partially upon the offender's score on the Serious Drug Abuser Scale and presentence report, the judge could specify those treatments which appear most appropriate for the offender [also see case scenarios below]. Inclusion of a written drug treatment plan in the sentence would provide opportunities for probation and correctional staff to subsequently "encourage" and "motivate" even the most recalcitrant cocaine-heroin abusers into treatment. Continued failure by the offender to participate in drug treatment(s) in the written plan, especially those offered and made available during criminal justice supervision would be understood to indicate that the offender could expect to complete most of the sentence.

Option 8. **The sentencing judge could narrowly, but clearly, specify criteria for "successful completion" of drug treatment.**

Since length of time in treatment is the most critical factor in long term outcome, the judge could clearly specify several months of time in treatment and regular attendance. If the person makes a strong recovery, then criteria for "successful completion" could be employed to reduce the length of time in treatment or completion of a longer sentence. Criteria for "successful completion" could be developed in advance by the judiciary and different type(s) of drug treatment programs to which cocaine-heroin abusers may be referred. The criteria for "successful completion" of drug treatment should only include those behaviors which treatment program staff can observe and ascertain. Criteria which the treatment program cannot observe nor provide should not be specified in the

judge's written treatment plan--such as gaining a job, finding housing, avoiding criminal associates, etc. [*The latter may be relevant conditions, however, for probation or parole or other criminal justice supervision orders].*

Option 9. Prosecutor and judge's recommendations could emphasize "positive treatment plans" rather than "negative treatment plans."

In order to increase cocaine-heroin abuser motivation to enter into and remain in drug treatment, positive treatment mandates need to be carefully constructed to encourage voluntary entry into, participation for extended periods in, and completion of, a drug treatment regime. The offender would realize that completion of treatment would substantially reduce the time until completion of the criminal justice sanction (or release to a less restrictive status). Specification of criteria for successful completion and treatment credits in the written plan would place responsibility upon the recalcitrant cocaine-heroin abuser to seek assistance in arranging entry into drug treatment (which he/she would likely decline or otherwise avoid). Once enrolled in drug treatment, staff could note time-in-treatment and reward retention, regular attendance, and quality of progress. Transfer(s) from one program to another (within a month period) could be considered as continuing treatment. *Reductions in an offender's actual time served [especially in prison] for completion of a positive treatment mandate would likely [in states with mandatory minimum sentences] necessitate changes in legal statutes and possibly involve new legislation.*

Negative treatment plans include plea negotiations and written orders for treatment which might lengthen the time that an offender may actually serve on probation, or in jail or prison. That is, at plea negotiation, the offender may have to choose between a jail/prison sentence with a known definite time period (e.g. prison for 12 months), or entry into a drug treatment program. The choice often includes that if the offender leaves treatment, he or she will have a longer period of criminal justice supervision (e.g. will be returned to prison for 12 months with no credit for time spent in treatment). Such negative treatment plans (or plea offers) lead many recalcitrant cocaine-heroin abusers to choose the definite sentence, thus avoiding drug treatment entirely. Positive treatment plans avoid punishment for early departure or failure to complete drug treatments: offenders who drop out of drug treatment do not face additional sanctions which might lengthen their sentence or time under criminal justice supervision.

DURING CRIMINAL JUSTICE SUPERVISION, POST-ADJUDICATION

After cocaine-heroin-abusing offenders have been convicted of a crime and sentences containing a written drug treatment plan have been provided by the sentencing judge, personnel in jails, prisons, probation, parole, and drug treatment programs can use the following guidelines.

Option 10. Criminal justice personnel can encourage offenders to enter drug treatment programs following the written treatment plan.

Criminal justice personnel can provide counseling to offenders about the importance of seeking entry into drug treatment, and remind them of the possibility of shortening their criminal justice sentence and supervision. Even if a recalcitrant offender refuses treatment entry at a given time, repeated efforts can be made to encourage him or her to seek drug treatment or to learn more about drug treatment. Special discussion groups with clients could focus upon providing information about and attempting to motivate them to seek drug treatment.

Option 11. When offenders are willing to enter drug treatment, criminal justice staff can advocate for their clients and seek entry into appropriate types of treatment.

If and when mandated offenders are willing to enter, appropriate treatment slots are often not available immediately. The offender's score on the Serious Drug Abuser Scale (along with other information about the offender's drug abuse and treatment history) could be used as a guide for seeking the most appropriate type(s) of treatment (while on probation, or in jail or prison). For many offenders with a written treatment plan, drug treatment may also occur within a probation setting, jail or prison where these clients may be more easily placed. The judge may also have recommended type(s) of treatment that are hard to obtain for any given offender. Thus, criminal justice personnel will need to advocate for and make special efforts to refer and place clients in the types of programs specified in their sentence.

Option 12. Statistics should be accumulated showing the relationship between SDAS scores and written treatment plans provided by judges, as well as document a basis for seeking funding and resources for additional drug treatment slots in criminal justice settings and/or community drug treatment programs.

The most serious problem with implementing the above options (1-11) is that vastly more offenders will receive written treatment plans with their sentence than is currently the case--greatly expanding the demand for drug treatment slots. Moreover, the admission of many such coerced offenders into an agency which ordinarily admits voluntary clients could greatly undermine the recovery process and client satisfaction.

Given that community-based treatment programs are filled with voluntary clients, special efforts and new funding will be needed to create additional treatment slots for offenders with written drug treatment plans. Slots will be needed in correctional settings, by the probation and parole systems, and for community-based programs contracted to provide treatment to criminal justice clients. The absolute number of offenders receiving a written treatment plan as part of their sentence, as well as judical recommendations about the type(s) of treatment and lengths of stay (as well as other criminal justice sanctions), would provide important policy and planning information for all criminal justice agencies. Such information could be employed to lobby the legislature for more funds for drug treatment slots for drug-abusing offenders.

CASE SCENARIOS

These 12 recommendations plus the rationales for drug treatment of offenders provided in Chapter 4 will provide the basis for an improved systems[4] approach wherein most cocaine-heroin abusers found guilty[5] of specific crimes would have a written drug treatment plan as part of their sentence. This would support the criminal justice system and drug treatment system to develop more routine and effective links to share clients and information about recovery. Criminal justice personnel will need to be quite flexible in implementing drug treatment plans, seeking treatment slots for willing clients, and motivating recalcitrant cocaine-heroin abusers into treatment. So few slots are available in long-term high impact treatments that only a small proportion of mandated offenders will be able to enter such treatments. Criminal justice personnel referring clients to limited-impact treatments can recognize that additional treatment may be needed, but offenders who participate in detoxification,

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[4]Falkin 1993; Falkin, Lipton, Wexler 1990; Wexler, Lipton, Johnson 1988.

[5]This includes offenders whose cases are suspended while attending treatment or whose charges will be dropped if they complete treatment.

acupuncture, or 12-step programs are initiating the recovery process--which remains superior to the usual regimen of no treatment or avoidance of treatment.

The following examples of fictitious, but reasonably typical, cases suggest how the Arrest Charge-Age Model and Serious Drug Abuser Scale scores compiled at arrest could be used by staff in various criminal justice agencies as offenders are processed, cases settled, and convicted offenders supervised. The cases introduced in Chapter 2 are considered at greater length here.

EXAMPLE 1 (CLAUDE X)

Claude X is a 27 year old, white male arrested for a felony crack sale. At arrest, the arresting officer provides details of the sale, and provides the property clerk with seven vials of crack purchased from Claude. Claude is booked, fingerprinted, and interviewed by the pretrial services agency. He reports being separated from his wife, and provides a residential address which cannot be verified. Also, he reports no employment but indicates that drug sales may be his primary income. He declines the pretrial service interviewer's offer to provide a voluntary urine specimen to document that he may be negative for cocaine or heroin.

From Table 1 (Chapter 2--the Arrest Charge-Age Model), the interviewer locates the row for "drug sale" and column for "26-30;" the cell shows a base rate of 85. Among DUF-Manhattan arrestees from 1987-91, an estimated 85 percent (of those ages 26-30 arrested for drug sales) were cocaine-heroin abusers at arrest. Thus, Claude X would have a very high probability of being a cocaine-heroin abuser, and among the top 29 percent of DUF-Manhattan arrestees. Assuming Claude X is quite similar to 1987-91 DUF-Manhattan arrestees, Claude X would have a 85 percent probability of being a cocaine-heroin abuser--if he had provided a urine specimen at arrest (which he did not do).

The pretrial agency also computes a Serious Drug Abuser Scale score of 21 for Claude (see example in Table 3). At central booking, Claude's criminal history ("rap

sheet") is received and verifies his age of 27. His prior record reveals several arrests[6] for drug possession and occasional sales but no arrests for burglary, robbery, or violent crimes. He also gave an alias (a false identification) to the arresting officer and his residential information could not be verified by CJA. His self-report of drug selling as his primary income source is implied by his arrest history, and moves Claude from the "very high" to "extremely high" category for being a cocaine-heroin abuser--placing him among the top 3 percent of all arrestees. [Note: if Claude was classified as unemployed (a weight of one for primary income source), his SDAS score would be 16.] His SDAS score of 21 (a 97 percent probability of being cocaine-heroin positive) is added to Claude's case record and routing slip.

At arraignment, the prosecutor recommends that a drug treatment plan be included, regardless of the criminal justice sanction imposed. He also initially recommends a sentence of 5-10 years in prison. The defense attorney notes that Claude reports never being in drug treatment and seems uninterested in doing so. Noting that an SDAS score of 21 is among the highest in Table 3, the defense attorney argues that Claude needs drug treatment, not prison or jail time. Since an undercover officer observed Claude selling crack and purchased seven vials from Claude at arrest, a guilty verdict appears highly probable to the arraignment judge. He sets bail at $15,000 which Claude cannot make--so he is detained at Rikers Island.

His prior record shows that Claude has several prior misdemeanor and two felony drug sale convictions, so is a predicate felon. If he is found guilty of the current felony crack sale, Claude X would go to prison for 5-12 years under New York State law. The judge suggests both the prosecutor and defense attorney explore the possibility of a negotiated plea for prison combined with a drug treatment mandate for participation at an in-prison therapeutic community. Further information about Claude's drug use career and treatment history is requested as well.

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[6]The DUF-Manhattan data collection process does not obtain the arrestee's criminal history--which is not included in the statistical models of base rates for being cocaine-heroin abusers. Such criminal history record information is critical for determining appropriate criminal justice sanctions (jail, prison, probation)--but is not especially relevant for ascertaining the need for drug treatment nor type of treatment.

The defense attorney argues that Claude will not be convicted, but might plead guilty to a lesser charge and accept probation with outpatient drug treatment. The prosecutor believing his case is strong, is unwilling to reduce the charges, and will recommend drug treatment in prison. At the suggestion of his defense attorney, Claude participates actively in a jail-based drug treatment program (having six months of treatment time) during detention and case processing. Due to his high SDAS score, his attorney contacts a leading therapeutic community program which interviews him and writes a letter indicating willingness to accept Claude as a client.

Despite the defense attorney's efforts to negotiate a lesser charge and success in locating a appropriate placement, the mandatory sentencing provisions of the penal code reduce options for the prosecutor and judge. Claude X is indicted, pleads guilty, and is sentenced to prison for 5-9 years. Both the judge and prosecutor agree that they would have preferred to give a sentence of 24 months probation with mandated participation in a therapeutic community, but could not do so due to mandatory provisions of the penal law.

During the presentence investigation, Claude, his attorney, and therapeutic community staff work closely with the probation officer to carefully draft a "drug treatment plan" which will help Claude access intensive drug treatment in prison. It is accepted by the judge and included in his sentencing order: it specifies that Claude enter a therapeutic community in prison 12-15 months prior to his earliest parole date. It also specifies a minimum of 12 months of treatment during incarceration, and specifies "completion" to be a positive vote by a two-thirds majority of the treatment staff.

During his prison sentence, Claude participates actively in the Correctional Department's Alcohol and Substance Abuse Treatment (ASAT) programs, attends prison education programs and receives an associate degree in computer repair. He is a model prisoner and receives much "good time" credit. After two years, the State legislature passes a law which would permit convicted predicate felons to have their minimum sentence reduced by up to 50 percent if they complete an in-prison drug treatment program. Claude immediately applies for the prison-based therapeutic community.

Because so many inmates seek entrance, corrections staff wish to delay his entry into treatment for another year. When Claude's prison counselor reads his Serious Drug Abuser Scale score and the treatment plan signed by the sentencing judge, and brings it to the attention of corrections staff, Claude is admitted to the therapeutic community within three month.

Claude does very well, rapidly moving to the upper levels of responsibility within the therapeutic community. Within six months, 100 percent of all staff vote that he has completed the treatment they can provide. The six months of treatment during detention (and his ASAT participation) means that all conditions of his 12-month treatment mandate have been fulfilled. This documentation is submitted to the parole board which grants early parole based upon his exemplary record in prison and completion of treatment mandate. Thus, Claude serves somewhat over 3 years in prison, but about 60 percent of his mandatory minimum sentence. The parole board requires him to remain in a therapeutic community outpatient program after-care program for 24 months. When he enters aftercare, Claude finds employment repairing computers and remains active as a leader in the therapeutic community program's aftercare program and also in Cocaine Anonymous (a relapse prevention activity). At discharge from parole two years later, Claude is clear that the treatment requirement was an important factor motivating his efforts to seek treatment, participate in treatment, and preventing his return to drug abuse and criminality.

EXAMPLE 2 (ROBERT S.)

Robert S., a 33 years old black male, is arrested on a larceny felony charge. During his pretrial interview, he reports that he is married, and that his primary income is from "part-time jobs." His SDAS score is computed at 15 (placing him in the "very high" category--82 percent chance of being cocaine-heroin positive) and is added to his case record and routing slip. Although offered an opportunity to provide a urine sample to show that he is drug negative, Robert does not do so. He receives no ROR recommendation, is detained, and never makes bail. During arraignment, the prosecutor

suggests that drug treatment be mandated, if he is later found guilty. During plea negotiations, the prosecutor does not recommend Robert for a therapeutic community (in order to reserve such slots for offenders with higher scale scores--18 and above). The prosecutor might recommend a methadone treatment mandate, if Robert is a heroin addict; if a cocaine or crack abuser, outpatient drug-free treatment would be suggested. The defense attorney argues that drug treatment is inappropriate and should not be imposed if the defendant is found guilty. During plea negotiations, the judge suggests that a drug treatment plan appears appropriate.

When Robert enters the detention facility, medical services conducts a more intensive assessment of his drug treatment history and needs, and provide entry to the drug detoxification unit, if needed. Robert would also be encouraged to meet representatives from various drug treatment programs in order to arrange a possible placement in a community-based program. Staff assess him for methadone maintenance, but his heroin or opiate use is so limited that they feel it inappropriate. He meets with an outpatient drug-free program representative who determines that his SDAS score is appropriate and offers him a slot if the attorneys and judge agree.

While the prosecutor recommends a 12-month jail sentence with drug treatment in jail, the defense attorney seeks 12 months probation with sentence suspended while Robert participates in drug treatment. After further negotiations, the judge accepts a plea for 15 months probation, with a drug treatment mandate specifying 3-9 months of regular attendance and participation in an outpatient drug free program. The criteria for completion will be 3-times weekly attendance and recommendation by program staff that treatment was near completion. If treatment is declared complete after month eight, the remaining seven months of probation will be revoked and the sentence ended. If Robert drops out of treatment against program staff advice, however, the probation sentence of 15 months remains in effect.

During months 1-3, Robert attends the treatment program as scheduled, but begins erratic attendance in month 4. The probation officer helps him arrange a transfer to another program where he has relatively regular attendance. At month eight,

treatment staff will not declare his treatment nearly complete, so Robert remains in the program until month 11, when staff declare him complete. His probation is terminated in month 12.

EXAMPLE 3 (RICKY W.)

Ricky W., a 39 year old black man, is arrested for misdemeanor possession of a bag of heroin and cocaine powder, as well as possession of a needle and syringe. Looking at Table 1 (Arrest Charge-Age Model) for drug possession and age 36-40, the base rate of 91 percent places Ricky in the "extremely high" category for being a cocaine-heroin abuser. During the pretrial interview, Ricky reports being widowed and indicates being unemployed. His SDAS score is computed as 21, among the very highest SDAS scores possible, with near certainty (97 percent) of being a cocaine-heroin abuser at arrest.

The prosecutor's review of Ricky's prior record reveals several arrests and misdemeanor convictions for drug possession and sales more than a decade ago (when Ricky was in his 20s), but within the past 2 years a prior arrest only for "works" which was dismissed. No recent arrests for drug sales are noted in his record. Since no prison time will occur with this misdemeanor charge, his drug treatment plan will be the major focus of prosecutor's bargaining. At arraignment, the prosecutor suggests a 12 month jail sentence with a drug treatment mandate. The defense attorney suggests a reduction to probation with mandated attendance at Narcotics Anonymous. The judge sets bail at $5,000 and urges both parties to negotiate a plea with heavy emphasis upon Ricky's enrollment in a high impact drug treatment. He requests further information about Ricky's drug abuse and treatment history.

At Rikers Island, Ricky enters the detoxification unit for reduction of his heroin habit. Thinking that he will soon be back on the streets, Ricky declines entry into the jail methadone (KEEP) program or other jail treatment programs. Learning of Ricky's recalcitrance about entry into high impact (other than detoxification) drug treatments in jail, the prosecutor refuses a plea offer of 12 months of probation with mandated

attendance at Narcotics Anonymous. Emphasizing Ricky's extremely high SDAS score, the prosecutor insists upon a 12 month jail sentence with a drug treatment plan for a high impact treatment while in jail, followed by 12 months of probation and drug treatment in the community.

With further bargaining, a plea is arranged which includes both criminal justice sanctions and a treatment mandate which specifies either methadone maintenance or therapeutic community treatment. If Ricky does not complete six months of in-jail drug treatment, he will serve 12 months in jail followed by 12 months of probation (assuming that he remains recalcitrant about avoiding treatment). If he participates for six months in the jail treatment program and can be placed in a community program for another 12 months, he will be released to probation early. If the community-based program declares his progress as satisfactory, the probation term can be terminated before 24 months (from arrest) has occurred.

After sentencing, Ricky avoids treatment entry for two months. At the repeated urging of his jail counselor, he attends a briefing for prisoners about the jail methadone and therapeutic community programs. He decides to enter the in-jail therapeutic community, but it has a long waiting list. Because Ricky has a misdemeanor sentence with a strong treatment mandate, has a extremely high SDAS score, and could be released earlier, he is admitted before other detainees and misdemeanants without treatment mandates. During the first month in the Rikers TC program, Ricky is upset by the encounter group and asks to be returned to the general population. Within a week, he again changes his mind and asks to return to the therapeutic community. During the next six months he makes important progress in addressing his denial, life patterns, and attitudes towards authorities. Corrections staff recommend him for release in month 10 (of his jail sentence) and arrange a placement at a community-based therapeutic community. While on probation, Ricky remains in therapeutic community for six months and is ready for the reentry phase of treatment. Because he had previous employment and skills as a store clerk, he is able to arrange a steady job and can live

with his adult son. Therapeutic community staff indicate that Ricky's treatment progress is complete and with his lawyer, request that his treatment mandate be declared fulfilled. His probation term is ended at month 20.

EXAMPLE 4 (LINDA G.)

Linda G., a 22-year-old single, white female, is arrested on prostitution charges. At her pretrial interview she reports being single and indicates that "prostitution" is her primary income source. Using data from Table 1 (Arrest Charge-Age Model) "other crime" and "21-25" age show an intermediate (65 percent) likelihood of being a cocaine-heroin abuser. Linda's SDAS score is computed as 9--placing her at the bottom of the bottom of the "intermediate" category--among the 3 percent least likely to be a cocaine-heroin abuser.

At arraignment, the prosecutor suspects that Linda's clothes smell of "crack" smoke and she should be evaluated for need for treatment. But the prosecutor's policy does not support detaining prostitutes; they usually plead guilty, are fined and released. The prosecutor asks for a plan for assessment for drug abuse and/or referral to treatment. The defense attorney argues that Linda's SDAS score is marginal and asks for the usual fine of $100 and immediate release for time served. The arraignment judge believes that Linda is a crack abuser, but sets a fine of $100, and verbally directs her to attend Cocaine Anonymous for a month. No one anticipates that Linda will actually attend and the mandate has no enforcement mechanism. Linda's boyfriend pays the fine. She is back on the streets--and ignoring the Cocaine Anonymous mandate. The low priority placed upon prostitution by prosecutors and judiciary in Manhattan is associated with the absence of an enforcement mechanism which could support attendance at Cocaine Anonymous or other drug treatment.

EXAMPLE 5 (LARRY K.)

Larry K., a 57-year-old Hispanic man, is arrested on driving while intoxicated (DWI) [other crime, misdemeanor], reports being unemployed and supported by his common-law wife (married). Table 1 (Arrest Charge-Age Model) data for "other crime" and "age 56-60" provides a base rate of 41 percent, placing Larry in the category of "low" likelihood of being a cocaine-heroin abuser. His SDAS score is computed as 8, placing him among the lowest 1 percent of all DUF-Manhattan arrestees. The prosecutor concludes that Larry does not need a treatment mandate for cocaine-heroin abuse.

He may, however, have a serious alcohol problem which the base rates in Table 1 and SDAS scores were not designed to measure. He is visibly alcoholic, and failed to walk in a straight line for the police at arrest, and exceeded legal intoxication limits on a breath test. His rap sheet shows prior arrests for intoxication and DWI. The prosecutor recommends a jail stay of two weeks, suspension of driver's license for 12 months, and a mandate to attend Alcoholics Anonymous meetings four days per week. The defense attorney argues for no criminal sanction. The defense attorney reports that Larry's wife owns the car and needs to drive it to work, but agrees that an alcohol treatment plan might be appropriate. They negotiate a plea for no jail time, probation for 6 months, suspension of driver's license for 12 months and removal of car keys. A clear mandate for alcohol treatment is also included. Completion is defined as documentation of attendance at Alcoholics Anonymous meeting three days a week for three months, and participation in an alcohol treatment program for three months. A court date is set for three months. Lifting the suspension of driver's license and car use will be reconsidered based upon evidence of recovery.

While on probation, Larry K. continues drinking heavily, and does not participate in alcohol treatment, other than the required Alcoholics Anonymous meetings. His wife cooperates with the probation officer by leaving the car parked a few blocks from the house, and leaves the car keys hidden in a neighbor's house, so Larry cannot "borrow" the car and go for a drive while drunk. After three months on probation, the court does not have evidence of recovery or completion of the treatment plan. Larry's license

remains suspended and he is prohibited from driving a car for the remainder of probation. When Larry has made no effort at alcohol treatment at the end of probation, the judge orders that his licence remain suspended for an additional 12 months.

These case scenarios suggest that the availability of SDAS scores would have been critical for supporting the recovery process by Claude X and Ricky W. Both offenders at arrest had no prior drug treatment and were initially opposed to being in treatment. Decisions by the prosecutor and judge to impose a drug treatment plan in addition to other criminal justice sanctions were central to both offenders entering drug treatment while incarcerated--which they would have likely avoided otherwise. The treatment mandate was important for the probation officer to keep Robert S. in an outpatient drug treatment while on probation--even though it extended during his entire probation period. Drug treatment mandates were less important for Linda S. and Larry K., in part because of the low importance and supervision provided to persons arrested on prostitution and DWI.

CHAPTER 6

CONCLUSIONS

Drug abuse, especially of cocaine, crack, and heroin, is chronic and endemic among persons arrested in New York City (and many other large jurisdications). Nevertheless, information about an arrestee's drug use patterns are not routinely available to criminal justice personnel. If available, drug abuse information generally relies upon arrestee's self-reports. While arrestees who self-admit recent cocaine-heroin use are quite truthful (97 percent are detected as cocaine-heroin abusers), self-reports claiming no recent cocaine-heroin use are frequently misleading (52 percent are detected as cocaine-heroin abusers).[1]

This report provides important information and screening devices for determining whether an arrestee or offender is (or was) likely to be a cocaine-heroin abuser at arrest. Specifically, secondary analysis of data from over 5,000 DUF-Manhattan arrestees, age 21 and older, document important variability in the likelihood of being cocaine-heroin abusers. The base rates (probabilities) of detected cocaine-opiate use range from over 90 percent to less than 40 percent. The Arrest Charge-Age Model, based upon an offender's top arrest charge and age (Table 1), and a seven-factor Serious Drug Abuser Scale, provide a convenient means for classifying arrestees according to their probablities of being cocaine-heroin abusers as: extremely high (90 percent and above), very high (80-89 percent), high (67-79 percent), intermediate (45-66 percent), and low (below 44 percent).

While based upon urine test results for DUF-Manhattan arrestees, these SDAS scores do not necessitate conducting urine tests, nor having a person's actual test results. Practitioners could employ such data with the following understandings:

1) Persons arrested for an instant offense are quite similar (demographically and as criminal offenders) to DUF-Manhattan arrestees interviewed in 1987-91.
2) Arrestees do not need to be completely truthful about their true employment or marital status; the scores have been developed to include arrestee misrepresentation and deception at booking.

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[1]Golub, Johnson, Hossain 1993, Table 6.

3) Probabilities (the base rates) and SDAS scores are nearly as good as actual urinalysis test results, although legally they are not objective evidence of drug use as actual tests may be.

4) Scale scores and base rates of detected cocaine-opiate use represent a considerable improvement in accuracy and precision over current practices which rely upon criminal justice staff to guess whether an arrestee is a drug abuser.

This report has introduced a two quick screening devices which were developed from a secondary analysis of the Drug Forecasting Data from Manhattan, 1987-91. This analysis found that two factors, current arrest charge and age at arrest, provide a simple, easy-to-use model.

The simple-to-compute SDAS score are based on large samples of arrestees who are very similar to those being processed in Manhattan at any given time. The Serious Drug Abuser Scale provides a powerful statistical model for accurately postdicting and predicting the probability of being cocaine/opiate positive at arrest in Manhattan. The SDAS was cross validated with four other cities (Philadelphia, Cleveland, Detroit, Chicago).[9] Over four-fifths of DUF-Manhattan arrestees have probabilities greater than 67 percent of being cocaine-heroin abusers, and only 2 percent have less than 45 percent probability.

This report documents how to compute Serious Drug Abuser Scale scores for individual arrestees or offenders, how to read, and how to interpret tables and figures designed to help make decisions about criminal justice processing and supervision. The report also provides a rationale regarding the importance of drug treatment for drug-abusing offenders, and recommends providing drug treatment plans, regardless of other criminal justice sanctions imposed. The intended long-term outcome is to open more widely and systematically an opportunity for the courts to intervene in drug abuse and criminal careers. Criminal justice personnel can use SDAS scores and base rates to improve identification of drug-abusing offenders (despite their denials of use), to mandate drug treatment for them despite resistence to treatment, and to increase the number and proportion participating in effective treatment programs while under criminal justice supervision, regardless of whether the offender is in jail, prison or on probation/parole.

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[9]Golub, Johnson, Hossain 1993.

RESEARCH AND DEMONSTRATION-RELATED RECOMMENDATIONS

Needless to say, implementing the new policies suggested above would necessitate demonstrating that the Serious Drug Abuser Scale scores and base rates can be provided by pretrial services and would be useful to criminal justice personnel. Additional research is needed on both the implementation of such policies and careful empirical assessment of whether such information improves outcomes.

The following recommendations specify research activities which may improve criminal justice policies regarding the provision of drug treatment to cocaine-heroin abusers. The National Institute of Justice, National Institute on Drug Abuse, and the State Justice Institute are all likely funding sources. Personnel in several criminal justice agencies in New York City, however, would need to support these studies by assigning key management personnel to collaborate with, provide necessary data for, as well as discuss policies, findings, and implications with researchers.

A. The criminal justice system in New York City support a study of whether and how base rates and scores on the Serious Drug Abuser Scale might actually be used by specific criminal justice agencies during case processing or for offender supervision.

The goals of such a study[2] would include documenting: a) a procedure by which the Serious Drug Abuser Scale (derived from DUF-Manhattan subjects) could be computed at booking and made available to all criminal justice agencies as they deal with an offender; b) whether the Serious Drug Abuser Scale score helps criminal justice practitioners improve identification of cocaine-heroin abusers at booking or arraignment; c) whether and how SDAS scores are used during pretrial negotiations and if they effect rates of referral to drug treatment of cocaine-heroin abusers; d) whether writtten drug treatment plans increases the proportion of cocaine-heroin abusers participating and completing drug treatment during criminal justice supervision.

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[2]A similar study of persons referred to TASC programs (mainly probationers or those whose cases are adjourned while they are in treatment) is underway (Inciardi, McBride, Weinman 1992). This study does not use urinalysis to ascertain whether persons are detected as cocaine-heroin abusers at arrest.

This study could also document the appropriateness of base rates and SDAS scores for other boroughs and jurisdications outside of Manhattan, include additional information on criminal history and related information, and attempt--in the long run--to estimate the potential impact in crime reduction and a time-frame resulting from systematic implementation of SDAS scores and mandates for drug treatment.

B. The criminal justice system in New York City support a study of the linkages between high-rate predatory career criminality and drug treatment placement.

The criminal justice system has vast responsibilities to effectively allocate offenders found guilty of specific crimes to various dispositions. After guilt is determined, the most important decision is whether an offender will be sentenced to prison or jail, and the length of such sentences. While prosecutors prefer to send career criminals to prison[3]--especially high-rate dangerous offenders, many such offenders may be missed. Likewise, the majority of defendants are not "high-rate dangerous offenders," but many of these are high rate (but not violent) offenders, and many are persistent offenders over long periods of time, even if not especially violent or high rate.[4] Sizable proportions of persons arrested as sellers of cocaine, heroin, and crack are not dangerous (e.g. do not commit violent crimes) but may have very high rates of selling[5] to support their consumption of these drugs.

Most high-rate dangerous offenders who are convicted and sent to prison or jail would likely have extremely to very high scores on the Serious Drug Abuser Scale, and would be strong candidates for an intensive therapeutic community program within prison or jail, with possible release to community treatment programs while on parole. Arrestees who are not high rate dangerous offenders, but are convicted of sales of cocaine, crack, or heroin, would also benefit greatly from drug treatment--which they avoid or rarely obtain when in jail or prison or while on probation.

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[3]Chaiken and Chaiken 1982, 1987, 1990.
[4]Chaiken and Chaiken 1990b.
[5]Chaiken and Chaiken 1990ab; Johnson et al. 1993.

Research could document: a) which arrestees are high rate, persistent, or dangerous offenders (as well as document those offenders lacking these characteristics); b) what dispositions they receive and whether drug treatment is offered, avoided, or provided--and if so, for how long; and c) whether drug treatment mandates could increase the proportions of offenders seeking and receiving drug treatment without long prison sentences.

C. The criminal justice system in New York City seek funding for a careful study of whether and how beneficial drug testing for cocaine-heroin abuse may be as a component in early case processing.

Since 1970, the Washington, D.C. pretrial services agency has included voluntary urinalysis as an integral element of its initial case processing and supervision of detainees prior to trial or completion of plea bargaining.[6] Detailed guides[7] have been published about how jurisdictions can incorporate voluntary drug testing, including extensive reviews of the many legal issues poised, summaries of drug testing technologies, financial costs, research findings about drug detection, and many related issues. New detection technologies (e.g. sweat patches, hair testing, etc.) may provide more convenient, less costly, or more accurate detection of cocaine-heroin use.

The goals of this study would be to: a) document whether actual drug test results substantially improve the accuracy of documenting which offenders could be mandated for drug treatment, b) increase the proportion of cocaine-heroin-abusing arrestees referred to and placed in drug treatment prior to adjudication of guilt, and c) improve the accuracy of predictions of failure to appear and rearrest, especially among first-time arrestees and/or those with only prior misdemeanor arrests.[8] An important question is whether the availability of actual urine test results at arrest significantly improve the prediction of drug abuser status above that provided by SDAS scores.

D. Further analyses of existing DUF data may estimate aggregate severity levels of cocaine-heroin abuse and need for drug treatment in jurisdictions that do not conduct urinalysis nor participate in the DUF program.

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[6]Carver 1990; Wish and Gropper 1990; Visher 1992.
[7]American Probation and Parole Association 1991, 1992.
[8]Belenko Mara-Drita 1987; Goldcamp et al. 1990; Smith et al. 1989, 1990; Smith and Polsenberg 1992; Visher and Linster 1990).

During 1987-1992, the Drug Use Forecasting program has compiled over 300,000 subjects with self-reported and detected (via EMIT^{R} urine tests) drug use. This large DUF data base could be subjected to more extensive secondary analyses to replicate the DUF-Manhattan SDAS models for each of the 24 DUF cities. Moreover, with appropriate weighting for the volume of arrests and controls for other sampling issues, a 24-cities combined estimate could be developed for the Arrest Charge-Age Model and the SDAS scale. Likewise, reasonable estimates of the probabilities of cocaine-heroin abuse could be calculated for cities with populations of 250,000-500,000 and 500,001 to 1,000,000, even though a majority of such cities do not participate in the DUF program. A variety of other very important secondary analyses of the DUF data could provide important new tools (such as the SDAS) and policy relevant information about the changes in drug abuse patterns within specific DUF localities and for the nation as a whole.

By comparing an individual arrestee's score with the base rates and distribution of SDAS scores, a reasonably accurate estimate of the given arrestee's likelihood of being a cocaine-heroin abuser is available at low cost. This scale would provide the quick screening device for detecting serious drug abuse. Further improvements in creating additional drug treatment slots and integrating drug treatment as an integral component of the criminal justice system remains to be accomplished.

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