
Heroin Users in New York, Chicago, and San Diego



**Executive Office of the President
Office of National Drug Control Policy**

Lee P. Brown, Director

November 1994

Heroin Users in New York, Chicago, and San Diego

By

David Boyum
Ann Marie Rocheleau

Contents

Executive Summary	5
Introduction	9
Demographic Characteristics	13
Age, Sex, and Race	13
Family Status and Living Arrangements	13
Educational Attainment	14
Income and Employment	14
Substance Abuse History	17
Heroin Initiation	17
Use of Other Drugs	19
Substance Abuse Treatment	19
Criminal History and Activity	23
Current Drug Use Patterns	25
Polydrug Use	25
Mode of Administration	26
Habit Sizes	26
Policy Implications	29
Appendix A: Study Methodology	33
Overview	33
References	43

Executive Summary

Between January and April, 1994, fifty current heroin users were recruited in each of three cities—New York, Chicago, and San Diego—and interviewed once a week for three weeks. The three cities were selected because they offered geographic variation and because, according to data from the Drug Use Forecasting (DUF) project, they lead American cities in heroin use among male arrestees. The study provided a wealth of important information about current heroin users. However, four findings seem particularly significant from a policy perspective.

First, more users initiated heroin use in 1968, 1969, and 1970 than in any other years. This underscores the importance of avoiding heroin epidemics; twenty-five years after the last one, we are still suffering its effects.

Second, public assistance is a major—and perhaps the single largest—source of income for heroin users. This poses a policy dilemma. On the one hand, public funds are helping to finance illegal drug use. On the other hand, in the absence of such aid, many users might commit more income-generating crimes.

Third, most heroin users are polydrug users, which may complicate efforts to provide treatment for heroin users. Of the study participants who acknowledged a need for substance abuse treatment, 54 percent reported treatment needs for more than one drug. Forty-five percent said that they needed cocaine treatment (in addition to heroin treatment); 24 percent said that they needed alcohol treatment.

Lastly, consumption levels among current heroin users appear to be extraordinarily high by historical standards. This increase in individual habit sizes suggests that total U.S. heroin consumption is considerably larger than generally thought. In recent years, synthetic estimation procedures have improved calculations of the number of heavy heroin users. But calculations of total U.S. heroin consumption have relied on outdated estimates of per-user consumption. Thus, the habit size data from this study indicate that estimates of U.S. heroin consumption should be revised upwards by a factor of two or three.

Introduction

In 1992, the Heroin Availability Project (conducted for ONDCP by BOTEK Analysis Corporation) recruited 32 Boston-area heroin users and interviewed them weekly for a period of eight weeks. The project had two principal goals: first, to learn more about the mechanics of retail heroin purchases, and second, to determine the feasibility of quantifying the retail availability of heroin by measuring users' "search time"—that is, the time it takes users to locate willing sellers.

The present study is a follow-up to the Heroin Availability Project. Between January and April 1994, fifty current heroin users were enlisted in each of three cities—New York, Chicago, and San Diego—and interviewed once a week for three weeks. (See Appendix A for a complete description of the study methodology.) The three cities were selected because they offered geographic variation and because, according to data from the Drug Use Forecasting (DUF) project, they lead American cities in heroin use among male arrestees.¹

The preliminary interview—the first of the three interviews with each participant—elicited information on demographic characteristics, substance abuse history, current substance abuse, criminal activity, dealer relationships, and purchasing behavior. The two subsequent interviews focused only on participants' heroin use and purchases in the prior week.

This report summarizes and discusses the information on user characteristics (demographic characteristics, substance abuse history, current substance abuse, and criminal activity) obtained in the preliminary interviews. The report aims to provide a demographic and behavioral

portrait of heroin users in New York, Chicago, and San Diego. A companion report, *Measuring Heroin Availability in Three Cities*, presents the search-time data as well as other information on the mechanics of heroin purchases.

Interviews at each site were conducted by local agencies or organizations subcontracted for the task: the National Development and Research Institutes (NDRI) in New York, the Community Outreach Intervention Projects of the University of Illinois at Chicago, and the Criminal Justice Research Division of the San Diego Association of Governments.

Each site contractor was asked to recruit heroin users so that participants' demographic characteristics would match local data on heroin users. Specifically, the study sample was supposed to mirror the local heroin-user population in terms of race, ethnicity, gender, and age. It is important to note, however, that this process is imperfect. Any data on local heroin users derives from particular samples of the total user population. Since these samples are generally related to the behavior of users, the data are inevitably biased. In samples of arrestees, for instance, heroin users are represented according to their relative frequency of arrest. Since individual arrest rates tend to peak in an offender's late teens or early twenties,² older heroin users may be underrepresented. In contrast, younger and newer heroin users are apt to be underrepresented in treatment samples.

Moreover, the sample of study participants is also likely to be biased by methods of selection. In both New York and Chicago, heroin users were recruited through community-based AIDS prevention programs. Researchers in San Diego used a snowball sample beginning with new entrants into methadone programs. Since these recruiting approaches were likely to favor older users, each site was asked to recruit a small number of relatively new users—those that initiated use within the last two years. Only Chicago was successful in this regard.

Footnotes

- ¹ See National Institute of Justice, *Drug Use Forecasting 1992 Annual Report* (Washington, D.C.: U.S. Department of Justice, 1993).
- ² Alfred A. Blumstein, Jacqueline Cohen, Jeffrey A. Roth, and Christy A. Visher, eds., *Criminal Careers and "Career Criminals"* (Washington, D.C.: National Academy Press, 1986), 23; Federal Bureau of Investigation, Uniform Crime Reporting Program, *Age-Specific Arrest Rates 1965-1983* (Washington, D.C.: U.S. Department of Justice, 1986); David P. Farrington, "Age and Crime," in *Crime and Justice*, eds. Michael Tonry and Norval Morris, vol. 7 (Chicago: Univ. of Chicago Press, 1986).

Demographic Characteristics

AGE, SEX, AND RACE

The age of participants ranged from 19 to 58. The median was 39; slightly more than half of the users were between 35 and 45. There were some differences in ages across cities, but they were not statistically significant.

Overall, 104 of the 150 participants were male. The fraction was highest in New York (41 of 50) and lowest in San Diego (31 of 50).

The study participants were ethnically balanced, with roughly equal shares of white, Black, and Hispanic users (32 percent, 31 percent, and 33 percent, respectively). However, there were significant differences across cities. In New York, 8 users were white, 18 Black, 21 Hispanic, and 3 other. In Chicago, there were 10 whites, 28 Blacks, 11 Hispanics, and 1 other. The San Diego sample consisted of 30 whites, no Blacks, 17 Hispanics, and 3 others.

FAMILY STATUS AND LIVING ARRANGEMENTS

Fourteen percent of the users were married, and five percent were widowed. Approximately equal percentages of the rest were single, separated/divorced, or living with a mate. The numbers were quite steady across sites.

Eighty percent of the users had children, but only half of those had children living with them. There were notable differences across sites. In

New York, only 7 of the 50 participants had children living with them. In Chicago, 16 of the 50 users lived with children, while in San Diego the fraction was more than half (26 of 50). This is one of many indications that the New York heroin users were more socially dysfunctional than users in Chicago and San Diego.

Living arrangements are another indication. Overall, 16 percent of the participants lived alone, 38 percent lived with a spouse or mate, 27 percent lived with family, 9 percent lived with friends, 7 percent lived in homeless or other shelters, and 3 percent had other living arrangements. Two-thirds of participants paid rent.

However, in New York, only 26 percent lived with a spouse or mate, and fully 18 percent lived in shelters (compared to four percent in San Diego and none in Chicago). Only 48 percent of New York users paid rent, as compared to 80 percent of Chicago users and 70 percent of San Diego users.

EDUCATIONAL ATTAINMENT

Educational attainment of users was very similar across cities. As a group, 39 percent of participants were high school graduates and another 24 percent had G.E.D. degrees. But participants had little higher education: 2 percent had a college degree (6 percent including AA degrees).

INCOME AND EMPLOYMENT

When participants were asked their highest source of income, the most common responses were public assistance (29 percent of users) and non-drug-dealing illegal activity (29 percent). Legal employment—either full-time, part-time, or odd jobs—was third (13 percent), dealing drugs was fourth (11 percent), and prostitution was fifth (10 percent).

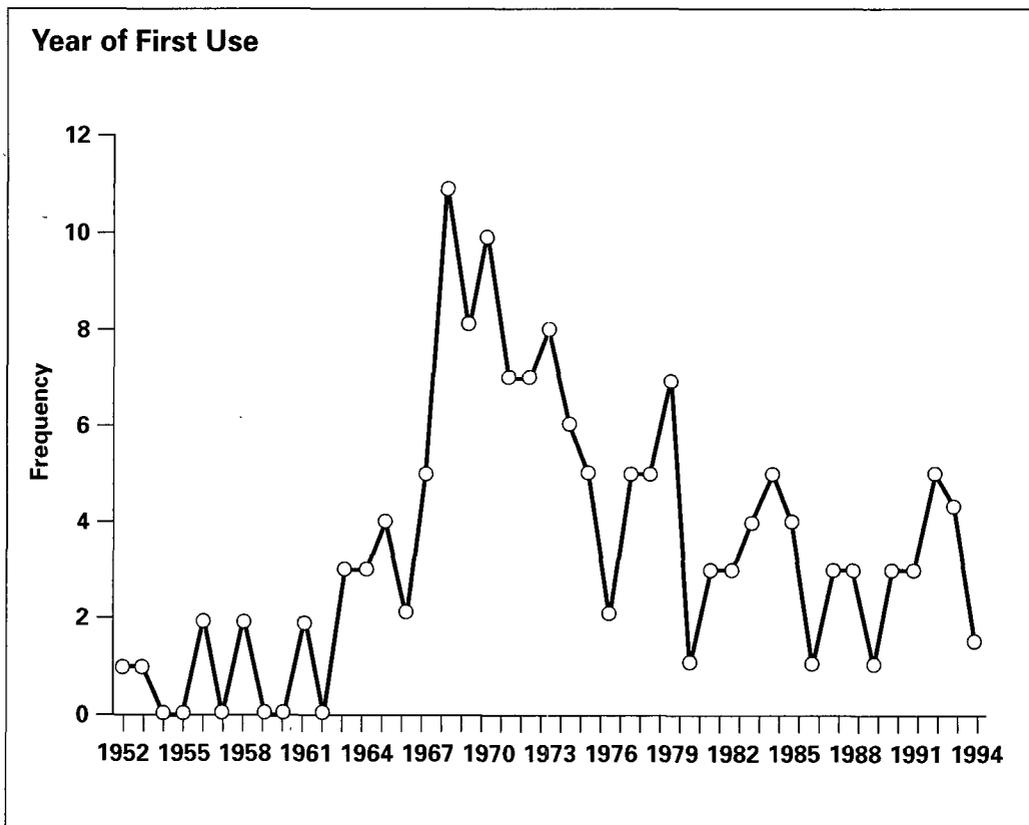
On average, legal and illegal sources made equal contributions to total income. Median legal income for the past month was \$522.50; median illegal income was \$500. When users were asked the percentage of their income derived from illegal sources, the median response was exactly fifty percent.

The most notable difference in incomes across cities was the higher legal income among San Diego users. A legal activity (employment, panhandling, gifts, loans) was the highest source of income for 32 percent of San Diego users, compared to 18 percent of New York users and 12 percent of Chicago users. Moreover, 52 percent of San Diego users reported legal income of over \$750 for the past month, and 28 percent reported legal income of over \$1000. By contrast, only 16 percent of New York users, and 14 percent of Chicago users, reported more than \$750 in legal income.

Substance Abuse History

HEROIN INITIATION

Study participants were asked their age at initiation to heroin. Based on their responses, the figure below provides the estimated year of first use for the 150 heroin users.



Note that 1968, 1969, and 1970 are the three most common years of first use. This is powerful testimony to the importance of avoiding heroin epidemics; a quarter-century after the last heroin epidemic, we are still dealing with its consequences. (Inferences probably should not be drawn from the apparent increase in heroin initiates during the early 1990s; sites were specifically asked to recruit a small number of new users.)

The median age of initiation was 18. The overwhelming majority of users were initiated to heroin by acquaintances. Only 14 percent (21 of 150) of participants “sought it out,” as opposed to being introduced to the drug. Snorting was the most common mode of ingestion for first-time users (73 of 150 participants). Injection was the second most common method (63 of 150), followed by skin-popping (11) and smoking (3). Given that heroin purity was very low (and thus not favorable for snorting) at the time most of these users were introduced to the drug, the high initial use of intranasal ingestion suggests that many new users are fearful of needles.

Indeed, when asked what factors, if any, made them hesitate about first using heroin, 28 percent of users who responded cited “afraid of needles.” Other barriers included fear of “getting hooked” (cited by 34 percent of those who responded), heroin’s bad reputation (31 percent), and “fear of overdosing” (17 percent). Notably, only one user cited price or availability. When asked what factors, if any, made them hesitate about first injecting heroin, 58 percent of those who responded cited “afraid of needles.”

Users were also asked what factors, if any, influenced their initiation into heroin use. The most common responses were “peer pressure” (cited by 39 percent of those who responded), “curiosity” (28 percent), “boy/girlfriend” (15 percent), and “heard about high” (13 percent).

Two other aspects of participants’ initial heroin use are worth noting. First, most became heavy heroin users almost immediately after initiation. Asked how often they used when they first started using heroin, 22 percent reported “more than once a day” and 52 percent reported “once a day.” Only 12 percent reported using less than once a week. Second, although most users did not inject heroin at initiation, they switched to injection fairly quickly. More than half switched in less than a year.

USE OF OTHER DRUGS

As one would expect, users have extensive experience with drugs other than heroin. Ninety-five percent of participants have used alcohol, 95 percent have used marijuana, and 97 percent have used cocaine (64 percent have used crack). The percentages are smaller for less common drugs: tranquilizers: 73 percent; other downers: 60 percent; street methadone: 56 percent; Darvon: 56 percent; LSD: 51 percent; and amphetamines: 41 percent.

Most used other drugs before they used heroin. Alcohol and marijuana were the most common. One of these two was the first drug used for 81 percent of participants; only 5 percent used heroin first. As noted above, the median age of initiation to heroin was 18. By contrast, the median age for alcohol initiation was 13 and the median age for marijuana initiation was 14. The median age for cocaine initiation was 19—old by today's standards, which in part indicates how much less popular and prevalent cocaine was twenty years ago.

SUBSTANCE ABUSE TREATMENT

Only 15 percent of the heroin users in the study (23 of 150) had never participated in substance abuse treatment. Of the 85 percent who had received treatment, one-third (42 of 127) were currently enrolled in a treatment program. (White users were the most likely to be currently involved in treatment; Black users were least likely.)

Among users with treatment experience, the median number of times enrolled in treatment was five. However, more than a fourth reported having been in treatment on more than ten occasions. One user reported 67 treatment experiences. Of course, one cannot infer from these statistics that treatment of heroin users is ineffective. Since the study involves only current users, it by definition excludes heroin users who quit their habits through treatment and are now abstinent. What the numbers do indicate is that most long-term heroin users have entered treatment programs on several occasions, on average once for each four years of use.

Methadone and detox were the most common treatment modalities. Eighty-two percent of those with treatment experience had been

enrolled in a methadone program; 81 percent had gone through detox at some point. A smaller percentage (62 percent) of those with treatment experience had received formal counseling (individual, group, or therapeutic community) and two-thirds had participated in Narcotics Anonymous.

Participants were not asked how long they had used heroin before entering into treatment, but since methadone is the most common treatment modality, an indication can be obtained by looking at the age at which users first received methadone in treatment. On average, users who had received methadone in treatment first did so seven years after initiating heroin use. (Interestingly, of those who have used both street and treatment methadone, a slight majority used street methadone first.)

Criminal History and Activity

Seventy-eight percent of the participants reported at least one criminal conviction. The median number of convictions was two, although some users had many more. Twenty-seven percent of respondents reported five or more convictions, and 18 percent reported ten or more.

At least in terms of relatively recent convictions, drug violations are the most common crime; 37 percent of users reported a drug conviction within the last ten years. By contrast, 31 percent reported a property conviction, 10 percent reported a violent conviction, and 10 percent reported another type of conviction.

Almost all of the study participants were involved in some criminal activity. Only 17 percent of users reported no illegal income in the past month. Moreover, when asked how they obtained money to buy drugs the last time they did not have it, 4 in 10 participants cited an illegal activity. “Steal” was most common (19 percent of users), followed by “prostitution” (11 percent), “deal drugs” (8 percent), and “rob someone” (1 percent). The most common legal source was “borrow/ask for money” (38 percent), which must, to some degree, encourage future illegal activity to repay debts.

Current Drug Use Patterns

POLYDRUG USE

All of the participants were heavy heroin users. But most use other drugs as well, frequently in combination with heroin. Only 36 percent of users report that heroin by itself is their “favorite drug or drug combination,” while almost all of the rest (61 percent) cite heroin in combination with another drug. Cocaine and heroin, commonly referred to as “speedballing,” is the most popular combination, picked by 43 percent of the users. (It is especially popular among Blacks, 59 percent of whom chose it as their favorite drug or drug combination.)

Two-thirds of users currently use cocaine and heroin in combination. Other combinations are also common: 42 percent use heroin with methadone; 32 percent use crack and heroin together; 42 percent combine heroin and alcohol; 28 percent combine heroin and marijuana; 19 percent use heroin and tranquilizers; and 14 percent mix heroin and amphetamines.

Although a large majority of the participants used a number of drugs, most did not use drugs other than heroin on a daily basis. For instance, when asked how many days in the past week they used cocaine, 49 percent had not used at all, and only 22 percent had used cocaine every day. Percentages were similar for alcohol: 48 percent had not drunk at all, and 19 percent drank all seven days in the previous week.

MODE OF ADMINISTRATION

Injection was the primary mode of administration for 79 percent of the users. Intranasal ingestion (snorting) was relied on by 15 percent of users, skin-popping by 5 percent, and smoking by only 1 percent. There were some differences across cities. Injection was favored by 84 percent of users in New York, 64 percent in Chicago, and 90 percent in San Diego.

At least in New York and Chicago, injection is almost certainly more common among study participants than it is among heroin users overall. (The San Diego figure might be more accurate, since black tar, the type of heroin used there, is difficult to snort.) In New York City, for example, half of all users entering treatment programs report snorting as their primary mode of administration, and newer users, who are less likely to show up in treatment programs, are even more likely to snort. The discrepancy is probably a result of the recruiting methods. In New York and Chicago, participants were contacted by community outreach workers, who work primarily with intravenous users.

HABIT SIZES

Most research on heroin consumption among users dates from the 1960s, 1970s, or early 1980s.¹ In those studies, it was generally estimated that heavy heroin users (in New York) consumed between 200 and 300 milligrams of pure heroin per week. But there is reason to suspect that habit sizes are now much larger. First, heroin prices are much lower than they were ten or twenty years ago. Adjusted for purity and inflation, heroin prices are less than a third of what they were at the beginning of the 1980s. We estimate that, in 1992 dollars, the average price per pure milligram (on a nationwide basis) fell from \$2.84 in 1981 to \$0.75 in 1992.² Even if demand were moderately inelastic ($= -0.5$), heroin consumption would have doubled on price effects alone.

There is also the issue of tolerance. Increased heroin consumption is habitually reinforcing, and so rising purities will tend to increase habit sizes. We estimate that from 1981 to 1992, average heroin purity rose from 10 to 44 percent.³

A third potential effect on habit sizes is the growth in snorting as a route of administration. Snorting is less efficient than injecting—i.e., snorting requires the consumption of more heroin to achieve the same

effect. Obviously, this could bring about an increase in habit sizes as well.

The study data confirms that habit sizes have indeed grown. Among the New York users, median consumption was 28 bags per week. Mean consumption was even higher: 38.8 bags per week. A bag of heroin in New York typically contains around 25 milligrams of pure heroin. This suggests a median consumption of 700 grams per week and a mean consumption of 972.5 milligrams per week.

Similar calculations for Chicago suggest a median weekly heroin consumption of 280 milligrams and a mean weekly consumption of 350 milligram. Reliable estimates of habit sizes could not be obtained for San Diego, since retail heroin is sold there in a variety of quantities and packagings, making reports of “bag” consumption inconsistent. However, on average, users in San Diego reported higher weekly expenditures on heroin than users in either New York or Chicago.

Footnotes

- ¹ See, e.g., Mark H. Moore, *Buy and Bust* (Lexington, Mass.: Lexington Books, 1977), 75-92; Bruce D. Johnson, Paul J. Goldstein, Edward Preble, James Schmeidler, Douglas S. Lipton, Barry Spunt, and Thomas Miller, *Taking Care of Business: The Economics of Crime by Heroin Users* (Lexington, Mass.: Lexington Books, 1985).
- ² David Boyum, David Cavanagh, and Ann Marie Rocheleau, *Heroin Trends Assessment* (Washington, D.C.: Office of National Drug Control Policy, forthcoming).
- ³ *Ibid.*

Policy Implications

The study uncovers a wealth of important information about current heroin users. However, four findings seem particularly important from a policy perspective.

First, more users initiated heroin use in 1968, 1969, and 1970 than in any other years. This underscores the importance of avoiding heroin epidemics; twenty-five years after the last one, we are still suffering its effects.

Second, public assistance is a major—and perhaps the largest—source of income for heroin users. This poses a policy dilemma. On the one hand, public funds are helping to finance illegal drug use. On the other hand, in the absence of such aid, many users might commit more income-generating crimes.

Third, most heroin users are polydrug users, which may complicate efforts to provide treatment for heroin users. Of the study participants who acknowledged a need for substance abuse treatment, 54 percent reported treatment needs for more than one drug. Forty-five percent said that they needed cocaine treatment (in addition to heroin treatment); 24 percent said that they needed alcohol treatment.

Lastly, consumption levels among current heroin users appear to be extraordinarily high by historical standards. This increase in individual habit sizes suggests that total U.S. heroin consumption is considerably larger than generally thought. In recent years, synthetic estimation procedures have improved calculations of the number of heavy heroin

users.¹ But calculations of total U.S. heroin consumption have relied on outdated estimates of per-user consumption.² Thus, the habit size data from this study indicate that estimates of U.S. heroin consumption should be revised upwards by a factor of two or three.

Footnotes

- ¹ William Rhodes, "Synthetic Estimation Applied to the Prevalence of Drug Use," *Journal of Drug Issues* 23 (Spring 1993):297-322.
- ² William Rhodes, Paul Scheiman, and Kenneth Carlson, *What America's Users Spend on Illegal Drugs, 1988-1991* (Washington, D.C.: Office of National Drug Control Policy, 1993).

Appendix A: Study Methodology

OVERVIEW

This study is a replication of the Heroin Availability Project conducted by BOTEC in Boston during 1992, in which 32 current heroin users were recruited and interviewed for eight consecutive weeks about their heroin-buying habits. The current study was conducted between January and April, 1994, in Chicago, New York, and San Diego. In each city, 50 current heroin users were recruited and interviewed for three consecutive weeks. The preliminary interview given to each participant elicited information on demographics, substance abuse history, current substance abuse, criminal activity, and relationships with dealers. In addition, detailed descriptions of heroin-purchasing behavior were obtained during the preliminary and two follow-up interviews.

Questionnaire Construction

As a result of the original Heroin Availability Project, BOTEC developed an extensive preliminary questionnaire that probed demographic characteristics, substance abuse history, current heroin and other drug use patterns, criminal history, and substance abuse treatment history, as well as heroin-purchasing habits. A much shorter questionnaire was developed for the weekly follow-up interviews, focusing mainly on the prior week's heroin purchases and usage, including the search-time questions. However, since the ultimate goal would be to add the search-time questions to the Drug Use Forecasting (DUF) system, parts of the DUF questionnaire were used for the preliminary interview, supplemented by BOTEC's search-time questions and those other questions

that address the mechanics of heroin purchase. Using the DUF questionnaire as a basis for the preliminary interview had two benefits: 1) two of the agencies were already DUF data collectors and were thus familiar with most of the questionnaire; and 2) the results from this study could be compared to the results obtained from the proposed Part B of this study, in which search-time questions would be added to selected DUF sites. A shortened version of the follow-up questionnaire developed in the original study was used for the two follow-up interviews in this study.

Site Selection

Chicago, New York, and San Diego were chosen as sites for this project because they varied geographically and they had the highest heroin usage among male arrestees as reported by the DUF system. In the 1992 DUF figures, 19 percent of males in Chicago; 18 percent of males in Manhattan, New York; and 16 percent of males in San Diego tested positive for heroin. It was decided that it would be preferable to subcontract the interviewing, rather than conduct the interviews ourselves. Agencies/institutions were chosen that either had experience with heroin users and/or had experience conducting DUF interviews, since we were planning to use portions of the DUF questionnaire in our interviews. In Chicago, the Community Outreach Intervention Projects, headed by Wayne Weibel at the University of Illinois at Chicago, was chosen because of their extensive work with heroin users in its AIDS prevention and research efforts. In New York, National Development and Research Institutes (NDRI) - USA, Inc.—and specifically Bruce Johnson—were chosen because of their experience in both conducting the DUF interviews and conducting research on heroin users. Finally, in San Diego, the Criminal Justice Research Division, headed by Susan Pennell at the San Diego Association of Governments, was chosen for its experience in interviewing both DUF arrestees and drug users in general. The site contractors were given guidelines for recruiting and conducting the interviews with heroin users, but were asked to submit work plans with the details of the interviewing logistics. At each site, a site supervisor and one or two interviewers were selected to work on the project. The combined staff from all three sites traveled to Boston for training on the logistics of the project and the interview process.

Site Staff

The original study depended on street-level recruitment of participants, hiring ex-heroin users to recruit and interview participants. This approach worked well: the ex-users were able to recruit ample appropriate participants for the study, although the use of inexperienced interviewers posed problems during the interview process. To replicate the street recruitment, but to avoid the problems resulting from using inexperienced interviewers, it was decided that this study would use a different approach—recruiters still were paid to recruit the current heroin users as participants, but experienced interviewers were hired to actually conduct the interviews. The recruiters could be anyone who had extensive contact with current heroin users, including ex-heroin users, current heroin users, and AIDS/heroin outreach workers. The recruiters were responsible for recruiting the participants, initially explaining the study to them, and escorting them to their first interview. Each site selected a site supervisor who was responsible for the overall subcontract for that site. He/she supervised the interviewers and recruiters, and monitored the entire interview process, including the quality of the interviews. The number of interviewers hired varied by site. In Chicago, two interviewers were utilized and the site supervisor also conducted interviews on a part-time basis. In New York, one interviewer conducted all of the interviews. Finally, in San Diego, two interviewers were utilized. New York and Chicago each had one interviewer who was Spanish-speaking.

Interview Location

Each site was required to identify interview locations that would ensure the safety and confidentiality of the interview process. A description of each site's interview location(s) is outlined below.

Chicago

The Community Outreach Intervention Projects of the University of Illinois at Chicago maintains a number of field stations in Chicago for their AIDS prevention and research efforts. Three of these field stations were

used as locations for recruiting and interviewing participants for this study. The field stations, located in the North, South, and Northwest Sides of Chicago, are basically storefronts in easily accessible areas that consist of reception rooms, meeting rooms, and private interview rooms. An equal number of participants were recruited and interviewed at each of the three field stations. Both of the two interviewers and the site supervisor were each assigned to a field station and were responsible for overseeing the interview process at their respective site.

New York

In New York, NDRI's AIDS Outreach Program also maintains storefronts in a number of locations. Most of the interviews for this study were conducted at the South Bronx and Harlem sites. These sites were familiar to many potential subjects and provided good security for research staff and participants alike.

San Diego

The San Diego Association of Governments (SANDAG) worked in conjunction with the San Diego Health Alliance and two of their methadone clinics to recruit and interview potential participants. This alliance resulted in the interviews being conducted at the two methadone clinics; one in the City of San Diego and one in the North County. Although they are both in suburban locations, the clinics draw upon clientele from throughout San Diego County. Interviews were conducted in private interview rooms in the clinics to ensure the confidentiality of the participants, some of whom were also new clients of the clinics.

Participant Recruitment

Each site subcontracted to recruit and interview 50 participants three times each over a ten-week period. Due to a number of last-minute participant replacements, an additional two weeks of interviewing were added. Participants who were "dropouts" after their first interview had to be replaced. There were a total of 21 replacements: twelve in New York, seven in Chicago, and four in San Diego. The most frequent reason for participants being replaced was due to their not showing up for the interview and not being able to be located subsequently. There were

a couple of cases where it was evident at the preliminary interview that the person had mental health problems and thus would not be competent to answer the questions. Several other participants were replaced when it became evident at the preliminary interview that they did not purchase heroin frequently enough to qualify for the study. A few others were replaced as a result of being hospitalized or jailed. Replacements were not required when a participant completed the preliminary and first follow-up interviews. There was no second follow-up interview for only three of the 150 participants.

Each site was required to set broad targets for participant demographic characteristics and to tailor their sampling plan to local data on either heroin users in treatment or some other identifiable segment of heroin users. In addition to mirroring the local heroin-user population in terms of race, ethnicity, gender, and age, we expected each site to recruit a small number of relatively new heroin users—those that initiated use within the last two years. However, only Chicago was able to recruit new users. They did so through contacts at a methadone clinic and through the outreach workers' close familiarity with long-time users whose children had recently begun to use heroin. In San Diego, the heroin subculture is such that new users keep to themselves until they become acclimated to the heroin-using underground. Those interviewed in San Diego were seasoned veterans who associated with others in their circle. They were not able to recruit new users who had not joined their subculture yet, and therefore were not in the network. Below are the sampling plans and recruitment strategies for each of the three sites.

Chicago

The sociodemographic characteristics of the Chicago participants varied by each field-station site. A targeted sampling scheme was set up that adhered closely to the sociodemographics of heroin-injection drug users in the communities covered by the field stations. The field stations are in inner-city locations of the highest usage of heroin in the city, and the participants recruited were approximately representative of the heroin-injection users found in these areas. In the Northside, participants were 45 percent Black, 20 percent Hispanic, 35 percent white, and 70 percent male. In the Southside, they were 99 percent Black and 66 percent male. In the Northwest Side, they were 22 percent Black, 57 percent Hispanic, 18 percent white, and 65 percent male. The two

interviewers and the site supervisor therefore attempted to recruit participants according to the above distribution of heroin users at each station. All participants in Chicago were 18 years or older.

All participants were recruited from the heroin-user social networks that are in contact with the Community Outreach Intervention Projects (COIP). The interviewer at each of the Chicago field stations was responsible for overseeing the recruitment of participants at his site. Field-station outreach workers were utilized as recruiters and directly contacted and recruited participants from the community social networks of heroin users for whom they serve as liaisons with the COIP project. Outreach workers were paid either a lump sum of \$150, if there were two outreach workers recruiting participants at a site, or \$100 each, if there were three outreach workers involved at a site. One of the three sites did not use outreach workers, but the interviewer recruited participants himself by telephone or through his daily contact with the heroin users at the field station. Most of the participants were clients of the COIP project. However, between 15 and 20 percent of them were not clients. The outreach workers (who were all former addicts) utilized their knowledge of individual heroin users in the area to personally contact and recruit participants either directly on the streets or by telephone.

New York

New York set broad targets for recruiting their participants based on the sociodemographic characteristics of the DUF-Manhattan sample of arrestees who were heroin users. This resulted in targeting 50 participants who were 75 percent male, 15 percent white, 35 percent Hispanic, and 50 percent Black.

Participants were recruited by the interviewer and trained outreach workers associated with other outreach and research projects taking place at each NDRI storefront location.

San Diego

San Diego participants were taken from various neighborhoods in San Diego County. The broad targets utilized to select participants were based on the sociodemographic characteristics of the heroin-using

DUF-San Diego population and those in publicly funded treatment in San Diego County. It should be noted that in San Diego, methadone clinics are privately funded. Users in both groups were somewhat similar, except that the treatment attendees tended to have a higher percentage of whites (54 percent) than the DUF sample (41 percent) and a lower percentage of Hispanics (19 percent) than those in DUF (44 percent). Both the treatment and DUF samples were about two-thirds male and one-third female.

The San Diego Health Alliance and two of their methadone clinics agreed to help facilitate the recruitment of participants for this study and to provide interview locations. The maintenance clients of the methadone clinics were generally not eligible to participate in this study, although a few were accepted who were simultaneously using heroin. New clients coming into the 21-day detoxification program were targeted for participation in the study, since new clients generally continue to use heroin for the first few weeks. The SANDAG interviewers held an informational meeting to brief new detox clients on the study. Potential participants were given a screening questionnaire which they filled out and forwarded to the interviewers. If they fit the criteria for the study—namely, regular heroin use and heroin purchase—they were scheduled for their preliminary interview. In addition, a snowball approach was used where detox client participants recruited other general heroin users for the study. Detox clients were paid \$20 for each participant they recruited who actually completed his or her preliminary interview. Each recruiter was allowed to recruit a maximum of three participants to ensure that the respondents were representative of a large area and not grouped in a specific location.

Participant Interviews

Interviews were conducted over a ten-week period with fifty current heroin users at each site. Although in the original study a preliminary interview was followed by eight weekly follow-up interviews, an analysis of the data led us to conclude that three weeks of search-time questions would be sufficient to collect reliable data. Therefore, each participant was given a preliminary interview of about an hour, followed by two weekly interviews which lasted approximately fifteen to thirty minutes each. Interviewers explained the study and components of the consent form and ensured that participants signed the consent forms before the preliminary interview began. All interviews were taped in order to mon-

itor interview quality and to capture as much detail as possible. Up-front discussion of the taping and the reasons for it were sufficient to overcome any potential participant's fears, and no participant refused to do the interview as a result of his or her being taped.

Each site was given sufficient resources to pay up to \$60 per participant for all three interviews. In San Diego and Chicago, participants were paid \$20 for each interview, regardless of whether it was the preliminary or follow-up interview. In New York, participants were paid \$20 for the preliminary interview, \$15 for each follow-up interview, and an additional \$10 if they completed all three interviews. All participants were paid in cash and were required to sign receipts for payment. To assist them in keeping track of time, participants were given inexpensive digital watches at the completion of the preliminary interview, regardless of whether or not they initially carried timepieces. A few of the San Diego participants refused the watches, since they had "better" ones themselves.

Data Analysis

Interview tapes and questionnaires were forwarded to BOTEC as they were completed. This was especially important in the first week of interviewing so that the interviews could be monitored for quality and consistency. During the initial weeks of interviews, general and site-specific feedback was given to the sites about the interview process. Questions concerning search time again proved to be easily misunderstood by both the interviewers and participants. Every tape was listened to, and the answers given on tape were compared to the one on the questionnaire for accuracy. BOTEC staff also transcribed a number of 'stories' that participants told in discussing their initiation into heroin use, their first injection, and their most recent, easiest, and most difficult heroin purchase of the week.

Once all of the interviews were completed, listened to, and coded, BOTEC staff entered the data into the computer. Analysis was conducted using the SPSS program.

References

Agar, Michael. 1973. *Ripping and Running: A Formal Ethnography of Urban Heroin Addicts*. New York: Seminar Press.

Blumstein, Alfred, Jacqueline Cohen, Jeffrey A. Roth, and Christy A. Visher, eds. 1986. *Criminal Careers and "Career Criminals."* Vol. 1. Washington, D.C.: National Academy Press.

BOTEC Analysis Corporation. 1992. *Heroin Situation Assessment*. Prepared for the Office of National Drug Control Policy. January, 1992.

BOTEC Analysis Corporation. 1993. *Cocaine and Heroin Market Structure*. Prepared for the Office of National Drug Control Policy. March, 1993.

BOTEC Analysis Corporation. 1993. *Measuring Heroin Availability: A Demonstration*. Prepared for the Office of National Drug Control Policy. September, 1993.

Boyum, David, David Cavanagh, and Ann Marie Rocheleau. Forthcoming. *Heroin Trends Assessment*. Washington, D.C.: Office of National Drug Control Policy.

Farrington, David P. 1986. "Age and Crime." In *Crime and Justice*, eds. Michael Tonry and Norval Morris, vol. 7. Chicago: Univ. of Chicago Press.

Federal Bureau of Investigation. 1984. *Age-Specific Arrest Rates 1965-1983*. Federal Bureau of Investigation Uniform Crime Reporting Program. Washington, D.C.: U.S. Department of Justice.

Hughes, Patrick H., MD, and Jerome H. Jaffe, MD. 1971. "The Heroin Copping Area." *Archives of General Psychiatry*, May, 24: 394-401.

Hughes, Patrick H., MD 1977. *Behind the Wall of Respect*. Chicago: The University of Chicago Press.

Inciardi, James. 1986. *The War on Drugs*. Mountain View; California: Mayfield Publishing Company.

Inciardi, James A. 1979. "Heroin Use and Street Crime." *Crime and Delinquency*, July, p. 335-346.

Johnson, Bruce D., Paul J. Goldstein, Edward Preble, James Schmeidler, Douglas S. Lipton, Barry Spunt, and Thomas Miller. 1985. *Taking Care of Business: The Economics of Crime by Heroin Users*. Lexington, Mass.: Lexington Books.

Kleiman, Mark A.R. 1988. "Crackdowns: The Effects of Intensive Enforcement on Retail Heroin Dealing." Program in Criminal Justice Policy and Management Working Paper #88-01-11, John F. Kennedy School of Government, Harvard University.

Kleiman, Mark A.R. and Kerry D. Smith. 1990. "State and Local Drug Enforcement: In Search of a Strategy." In *Crime and Justice: An Annual Review of Research*, eds. Norval Morris and Michael Tonry. Chicago: University of Chicago Press.

Kleiman, Mark A.R. and Rebecca M. Young. 1992. "The Effects of Retail Drug Enforcement on Drug Consumption and Associated Criminal Behavior." Prepared for the National Institute on Drug Abuse.

Moore, Mark H. 1977. *Buy and Bust*. Lexington, Mass.: Lexington Books.

Moore, Mark H. 1973. "Policy Toward Heroin Use in New York City." Ph.D. Dissertation, John F. Kennedy School of Government, Harvard University.

National Institute of Justice. 1993. *Drug Use Forecasting 1992 Annual Report*. Washington, D.C.: U.S. Department of Justice.

Rhodes, William. 1993. "Synthetic Estimation Applied to the Prevalence of Drug Use." *Journal of Drug Issues* 23 (Spring):297-322.

Rhodes, William, Paul Scheiman, Kenneth Carlson. 1993. *What America's Users Spend on Illegal Drugs, 1988-1991*. Washington, D.C.: Office of National Drug Control Policy.

**Office of National Drug Control Policy
Executive Office of the President
Washington, D.C. 20500**