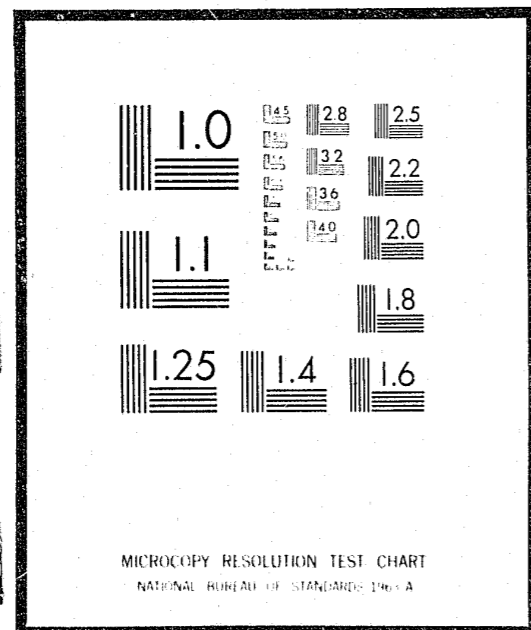# NCJRS

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.

1.0	2.8	2.5
	3.2	2.2
1.1	3.6	2.0
		1.8
1.25	1.4	1.6

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504

Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U.S. Department of Justice.

U.S. DEPARTMENT OF JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE
WASHINGTON, D.C. 20531

10/5/76

Date filmed

FINAL REPORT FOR THE FOURTH YEAR ON THE

CRIMINAL BEHAVIOR OF ARTC (Addiction Research and Treatment Corporation)

DRUG PROGRAM PATIENTS —

First Report on the Year

Dale K. Sechrest

Paul R. Cirel

June 1974

Submitted by: The Center for Criminal Justice
Harvard Law School
James Vorenberg, Project Director
and
The Addiction Research and Treatment
Corporation Evaluation Team, Columbia
University School of Social Work
Irving Lukoff, Project Director

18805

ACKNOWLEDGEMENTS

CONTENTS

This report summarizes the evaluation of the Addiction Research and Treatment Corporation as carried out by the Center for Criminal Justice of Harvard Law School for the period of March 1, 1970 to May 31, 1974 -- four years of study. The program is being jointly evaluated by the staff of the Columbia University School of Social Work, Yale University School of Medicine, and the Center. The major objective of the Center portion of the study is to examine the criminal activity of patients in the ARTC program. The final report, concluding five years of evaluation, will be completed by May 31, 1975.

The Addiction Research and Treatment Corporation

The ARTC program has experienced changes in program philosophy over the four and one half years of its operation (since October, 1969). While it still relies on methadone maintenance, the ultimate goal is to have the patient become abstinent from all drugs including methadone. Therefore, patients may receive methadone maintenance dosages for periods of a year or more. However, these are low dosages and the goal is to detoxify the patient as soon as he is functioning satisfactorily in the community (primarily employed) and free from illegal or legal drug use. The feeling is that methadone maintenance makes the addict amenable to other forms of treatment which will lead to abstinence. Therefore, it is

difficult to make comparisons between the ARTC program and other types of methadone maintenance programs which emphasize high dosages for even more highly selected populations of addicts. The screening criteria at ARTC, for example, are relatively lenient in comparison to other methadone programs, and produce a population reflecting a wide gamut of social characteristics and experiences, ranging from the well-socialized addict to the hard-core criminal, to patients afflicted with problems of alcoholism. This spectrum is further differentiated by factors related to the sex and age of the patients. Also, ARTC has no eligibility standards determined by research requirements which may a priori exclude high-risk applicants; nor do the patients appear to have joined the program primarily as a result of deferred prosecution, court referrals or other legal pressure. All of these factors lead us to expect less impressive results in comparison to other types of methadone treatment programs. Consequently, the successes attributed to the ARTC patients cannot be generalized easily to more conventional types of methadone maintenance programs, although they may be highly regarded with respect to the type of population being treated.

THE CENTER STUDY

Goals

The major goals of the Center portion of the study are (1) to determine the absolute amount of decrease in patient

criminal activity for the total population, both retainees and dropouts, subsequent to admission and treatment, (2) to identify specific patient groups who manifest the greatest improvement, or lack of improvement, based on both personal characteristics prior to (or at) program admission and on outcome measures, (3) to determine what the program staff did by way of treatment to produce improvements in specific patient groups, (4) to determine the meaning of patient improvement within their community setting, and (5) to assess the relationship between the program and criminal justice agencies in the community.

While many questions can and have been generated in an effort to satisfy these goals, the most significant questions are stated as follows:

1. Does ARTC treatment significantly reduce criminal activity -- i.e., is patient criminal activity reduced to pre-addiction levels, or lower, thus having an impact on community crime rates?

   a. Is this true for all those who ever entered treatment, or only for specific groups of patients?

   b. What is the relationship between increases in criminal activity immediately prior to program entry and subsequent decreases, i.e., is an exaggerated decline in criminal activity generated?

   c. Do older patients "burn out" or "mature out" of continued addiction, and hence out of criminal

activity, regardless of treatment efforts?

    d. Does criminal activity precede addiction or vice versa?

2. How are factors such as sex, cultural background (race-ethnicity), socio-economic status, etc., related to one anoti..r and to outcome?

3. What is the effect of variations in treatment on reductions in criminal activity?

    a. Does more intensive patient treatment yield better outcomes?

    b. Does longer program retention time yield better outcomes?

    c. Are there differences based on voluntary or involuntary admission?

    d. How does parole or probation status affect outcome?

4. What is the relationship between patient performance and their environment?

    a. How do patients compare with the residents of the community in which they live?

5. What is the relationship between the addicts as patients in the program and the criminal justice community?

    a. What are law enforcement attitudes toward the program?

    b. How 'ö the courts respond to the addict?

Needless to say, these questions lead to many others. However, these deal with the most important initial concerns. Related questions and issues will be reported on as time allows.

In this report we will summarize earlier analytical work done in response to these questions and present some of the more current findings based on the analysis of a two year follow-up cohort of 990 patients. These findings include data on the relationship between crime and addiction in the pre-addiction, addiction, and post program entry stages of the cohort, patient retention by rates of criminal activity, and comparisons of patients with other community residents on key demographic characteristics. As with earlier reports, charge rates for criminal activity will be used, although a discussion of a transition to the use of arrest rates in future reports is presented. For the final report criminal activity follow-up data will be available on patients who are either on or off the program at the third of fourth year after entering ARTC treatment.

Earlier Findings

Many of the findings from earlier reports on the Center evaluation of ARTC are referred to throughout this report as they relate to the work of the last year. These earlier findings are summarized here and will be presented in greater detail in the final report, since the evaluation has involved both short-term projects and ongoing data analysis. In the

July, 1973, report, which was entitled "Changes in the Criminal
Behavior of Heroin Addicts: A Two-year Follow-Up of Methadone
Treatment," Gila J. Hayim reported on her analysis of 357
ARTC patients who had been followed for two years through
official criminal records. Program retention was about 40
percent up to two years after program entry, which was seen
as low in relation to other programs. The average length of
stay in the program was 15 months, and the reasons given
for the lower retention rate were the more lenient ARTC
admissions criteria which produces more program dropouts and
the absence of specific legal pressures on patients to stay
in the program:

> To summarize, the self-selection process of the
> patients at ARTC, the absence of strict screening
> criteria, and the absence of eligibility standards
> for research requirements render the study of the
> patient behavior at ARTC only minimally affected by
> constraints that can operate in favor of success.
> This is perhaps one reason why the ARTC addicts
> achieve much less impressive results than addicts in
> other major methadone programs...[1]

As with the present report, length of stay on the program was
the principal analytical distinction between patients. The
benefits of a continuous stay in the program are hypothesized
to result in several incremental results:

> Patients exposed to the treatment environment
> for a reasonable length of time will be relieved of

---

[1]Gila J. Hayim, "Changes in the Criminal Behavior of
Heroin Addicts: A Two Year Follow-Up of Methadone Treatment,"
July, 1973, unpublished mimeo., p. 21.

their craving for drugs and may begin to benefit from the rewards of employment opportunities, counseling, vocational training, and the other services offered by the program, inducing them eventually to abandon their former life style; and that all of these influences may produce a reduction in the criminal behavior of the patients.[2]

While retention was thus equated with success, several issues were raised which tend to complicate this relationship, particularly movement by dropouts to other programs and the presence of subtle legal pressures which tend to keep patients on the program who have no genuine desire to change their life style.

Findings for the total population were similar to those reported in the present analysis: sharp increases in criminal activity from pre-addiction to addiction periods, and declines after program admission. The pre-admission year was found to be the peak year of criminal activity, and any subsequent decline in criminal activity appeared to be exaggerated in relation to that year, particularly in the case of drug offenses. Crimes of violence, including robbery, and crimes involving property, forgery, and prostitution maintained a relatively constant level of activity prior to program entry. The rates generated suggested that "addicts who select themselves for methadone treatment at ARTC are motivated to do so, among other reasons, by a heightened demand for drugs which

---

[2]Ibid., p. 23.

led to activities that increased their risk of arrest."[3]
An unexpected increase in crimes of violence was found, and
a relationship between these increases and excessive alcohol
use was suggested.

A determination was made of the types of patients who
benefitted most from ARTC treatment. The active patients
(retainees over two or more years) were seen as largely
responsible for the decline in charge rates at the second
year after program entry. Particularly notable were decreases
in drug possession, purchase and sale, and property crimes
(burglary, larceny, shoplifting). Program dropouts also showed
some decreases in drug offenses, but other crimes remained
relatively constant, except for decreases in prostitution and
forgery charges. As verified in the findings of this report--
based on a much larger cohort, the assault rate increased;
however, the current evidence suggests that dropouts and
retainees differ significantly in this respect after program
admission.

Age was not found to be a critical factor in retention:

> The findings suggest that it is the social and
> occupational legacy that the patient brings with him to
> the program -- rather than age -- which influences most
> his chances to remain longer.[4]

Later analysis of data for the 990 patient cohort does,

---

[3]Ibid., p. 35.

[4]Ibid. p. 23.

however show a relationship between age and length of time addicted to outcome on criminal activity.

The influence of the patients' pre-program social experiences was found to be related to subsequent program success on criminal activity. As indicated in subsequent reports, the relationship between patient background and outcome on criminal activity measures is continuing. As the cohort group has increased in size, it has been increasingly possible to isolate groups based on outcome and retention time in order to determine the influence of demographic and social background characteristics.

Police and Court Studies. The findings to date include two studies which have been completed and will be summarized in the final report. The Brooklyn police study deals primarily with the extent of interaction between police patrolmen and the addcit population, although there is interview data from citizens, businessmen, and community leaders.* Included also are data on police perceptions of heroin-related crime in the community, of addicts and community drug programs -- ARTC in particular -- and of procedures and problems in working with addicts. Among other things, it was found that police have very little interaction with addicts, and that this interaction is largely service-related, similar to that between police and other citizens. It also appeared that police felt powerless to act on their perceptions and that for a variety of reasons

*These data are from the Columbia University evaluation.

they have little motivation to arrest addicts even though
they believe addicts constitute the major crime problem. The
report, which was completed by Robert Coates and Alden D.
Miller of the Center, is to be published in the Sept., 1974,
issue of the Journal of Police Science and Administration.

The Brooklyn Courts Study has just been completed under
the direction of D. Lloyd Macdonald of the Center. It involved
interviews with court personnel -- D.A.'s, defense attorneys,
and judges -- the ARTC trial lawyer, a former ARTC attorney,
and a private attorney having a substantial practice in the
Brooklyn Criminal Court. Unstructure interviews were held
with ARTC staff and various other court personnel as well as
with the administrators of the agencies involved. Extensive
observation of court processes was also done. Findings
showed that addicts were dealt with as a special category of
defendants; the ARTC legal staff was found to be effective,
and plea bargaining was found to be the basic form of diposition
of cases. The earlier findings of the police study were confirmed
in that arrested addict offenders emerge from court with
only modest consequences, although this study was completed
just prior to the implementation of the new "tough" drug
laws in New York State. Finally, there appeared to be little
awareness of the work of ARTC among the judges, procecutors,
and defenders within the court structure.

While no further analysis of the courts data is planned,
police data on attitudes and perceptions is to be analyzed

for the final report.

Research Methods

While ARTC has recently moved to a philosophy of treatment which emphasizes moving patients from methadone maintenance to abstinence (after one year), in the early stages of the program methadone maintenance was the principal thrust. Therefore, most of the patients in the cohort population represent long-term methadone treated patients. As with most such programs, ARTC emphasized (and still does) that the following benefits should accrue to their patients: (1) decreased drug use of all kinds, (2) decreased criminal activity, and (3) improved performance in several areas of social functioning, such as employment, family relationships, relationships with friends and associates (including criminal justice agencies), and improved use of time. Recognizing that this may not be the case for all those who submit to treatment, it is also generally held that those who remain in the program for a minimum period may receive some benefits from treatment. Estimates of desireable minimum periods of treatment range from three months to six months, although ARTC specifies no minimum. In any case, program retention is often linked to patient success or failure, i.e., the longer the treatment, the more successful the patient. Also, following the various "maturing out" or "burning out" hypotheses which have been proposed,

advanced chronological age alone is often linked to program

success. Such assumptions continue to be tested for the ARTC

population.

The chief methodological problem in evaluating programs

such as ARTC is the accurate measurement of the   variables

which are considered indicators of program success. These

can be generally defined as improved social performance.

Aside from the issue of whether these are the most appropriate

indicators, the collection of data for patients who have left

the program is very difficult and time-consuming, often limiting

the data to only patients remaining on the program. Follow-up

data in the present study was obtained from official records of

criminal behavior, with all of their inherent problems of

comprehensiveness and accuracy. Adding to this problem is the

fact that there was no way to develop an appropriate control

group against which to measure the performance of program

patients. Physicians consider it unethical to refuse medical

treatment to those who apply for it, and the evaluators agreed

it would be unethical to proceed in that fashion. Thus, the

random placement of addicts into experimental (treated) and

control groups (untreated) was not possible. Further, there

is no strictly comparable treatment modality to which addicts

can be referred for purposes of comparison. At this juncture

all measures of patient progress (outcome performance) have

been made against the patient's own level of functioning at

the time of program admission (baseline).

Design. The design of the study is to make comparisons of patient performance over time in order to determine whether significant differences exist between pre-program baseline functioning and subsequent performance on outcome measures. As indicated, the principal outcome criterion for the Center study is criminal activity. Other outcome variables are used as independent variables in relation to criminal activity. For example, one of the outcome variables, or success measures, for many programs is increased employment of patients. In the present study, becoming employed is seen as possibly contributing to reduced criminal activity (as is higher levels of employment). In this sense, therefore, employment becomes an independent variable, and we hypothesize that evidence of employment may be related to reducing criminal activity. A possible finding of interest, for example, would be that becoming employed may have no impact on future criminality. It may be more likely that an overall improvement in the living standard of the patient (increased economic stability), such as welfare or paid job training or a better job, may be more closely related to decreased criminal activity.

The selection of independent variables which might be predictive of success or failure on the program is a difficult task. The types of independent variables used in this study are shown below; they are similar to thoses studied by Chambers,

Babst, and Warner in their study of retention characteristics
of methadone patients:[5]

PRE-PROGRAM VARIABLES

Demographic; prescribed statuses: age, sex, cultural
background (race, ethnicity) community in which
addiction took place.

Background; attained statuses: marital, education,
occupation/employment, medical complications or
disabilities, drug use background (such as age of
first use, types and style of drugs used, length of
drug "runs," alcohol use/abuse, number of prior
hospitalizations for drug abuse), criminal history
(such as types of crimes, arrests and convictions,
severity of arrests and convictions, time served in
jail or prison or on probation and parole), friend-
ship groups (contiguity with other users).

POST-PROGRAM ADMISSION VARIABLES

During treatment: employment obtained, decreased
drug use, the impact of the treatment program (types
of treatment attempted -- therapy, job skills training,
etc.) intensity of treatment effort, methadone
dosage.

---

[5]Carl D. Chambers, Dean V. Babst, and Alan Warner, "Character-
istics Predicting Long-Term Retention in a Methadone Maintenance
Program," Proceedings of the Third National Conference on Methadone
Treatment, Nov. 14-16, 1970, pp. 140-143.

After treatment: employment obtained, decreased
drug use, long-term treatment.

Obviously, many other variables could be appended to this
listing; however, these variables have been found to be among the
most important predictors of successful outcome in past studies.
Others, such as socio-economic status, will be derived from
the variable listed and are of equal importance. While all of
these variables will be considered in coming progress reports
and in the final report, the major variables considered to
date are sex, age of program entry, onset of heroin use,
number of years addicted, age at program entry, employment
status, drug use, and program retention time. All of these
variables are considered independent (background or experimental)
variables in relation to the dependent variable of (increased
or decreased) criminal activity.

Charge Rates and Arrest Rates. To date the number of charges
preferred by the New York police at arrest has been the primary
measure of criminal activity. Data on charges and arrests
have been provided by the New York City Police Department
and are specific to New York City, where it is believed that
most of the patients have committed and are now committing their
offenses. Verification of this assumption is planned for the
final report through the use of NYSIIS data.* Arrests were not
used as the measure of criminal activity because it was felt

---

*New York State Identification and Investigation System, a divi-
sion of the Criminal Justice services of the state of New York.

that they were less sensitive than the number of charges brought against the individual.[6] While we will continue to work with charge rates, arrest rates will also be used in future analyses for the following reasons: (1) Arrests and arrest rates are comparable with almost all other studies of this type which have been completed, and (2) charges may be _less_ sensitive than arrests due to changes in police policies during the period of the late 1960's when heroin use reached epidemic proportions, i.e., narcotic dealers and users may have been charged with more offenses at the time of arrest to assure their removal from the streets. This assumption will be tested as soon as the data are reformatted to yield a most serious charge at each arrest. An additional reason for not using charges only is described below in the discussion of the revised offense categories and the effects of several charges on each category.

Charge rates were used in order to equalize differences in patient age, length of addiction, and criminal history for the three time periods. As shown below, these rates provide a uniform yardstick with which to measure criminal behavior in each of the time periods under consideration The major problem has been that there are no criminal juvenile records available prior to age 16. Therefore, only the period from

---

[6]Gila J. Hayim, Irving Lukoff, and Debra Quatrone, Heroin Use and Crime in a Methadone Maintenance Program, (U.S. Dept. of Justice, Law Enforcement Assistance Administration, February, 1973), Appendix A, pp. 53-61.

age 16 on can be considered in the analysis. If the patient
reports, for example, that his addiction began at age 15,
he has no "pre-addiction period" for the purposes of the
study because no criminal activity would be available in that
period, and his "addiction period" charge rate would represent
only the time from age 16 to program entry (possible only at
age 21, with one exception). The time periods are defined as
follows with numbers of patients indicated for the two year
cohort:

> The period before addiction (pre-addiction): the period
> from age 16 to the onset of addiction; if addicted before
> (or at) age 16, there would be no pre-addiction period;
> 20.9 was the average age at onset for the present popula-
> tion (N = 864; 126 patients were addicted before age 16).
> The period during addiction: the period from age 16 or
> from the age of daily use of heroin (17 or over) whichever
> is greater, until entry into the program; within this
> period the second year and the year before program entry
> have been analyzed separately, (N = 990).

Each patient's individual charge rate has been computed for
each period, and for each subdivision indicated, based upon
the number of charges brought over the number of years spent
in each period, as shown in Table I. If, for example, the
fictitious figures in Table I were for the pre-addiction
period, patient number 439 is the most serious offender, having

achieved an average of one and one-fifth charge per year for
a five year time period. And, the overall charge rate for all
cases is .56, indicating an average of just over half a charge
per pre-addiction year for the aggregate of these five cases.

TABLE I

EXAMPLE OF COMPUTATION OF CHARGE RATES
(all data are fictitious)

Patient Code Number	Number of years Spent in the Designated period	Number of Charges for the Designated Period	Individual Rate
026	2	0	.0
187	4	2	.50
439	5	6	1.20
475	5	2	.40
550	6	4	.67

OVERALL RATE FOR DESIGNATED PERIOD (2.77 ÷ 5)		.56

In future reports arrests rates will be reported in the same
manner as shown here for charge rates.

Revised Offense Categories. Data on patient charge rates has
been presented in previous reports.[7] Pending the addition of

---

[7] Gila J. Hayim, "Changes in the Criminal Behavior of
Heroin Addicts: A Two Year Follow-Up of Methadone Treatment,"
July, 1973, unpublished mimeo.; see also the February, 1974
Progress Report.

arrest rates, this report continues the analysis of charge
rates for a cohort of 990 patients with two years of follow-up
data. Since the February, 1974, Progress Report, however, all
charges have been placed in a revised series of categories which
more clearly delineate each group of offenses for purposes of
analysis. One additional category was found necessary, that of
"threshold" crimes, which are discussed below. A complete
listing of these categories by type of offenses, severity, and
frequency of occurence is in Appendix A. The revised cate-
gories are as follows, including the major offenses within
each:

1. Drugs

    a. Possession of Dangerous Drugs (1st through 4th)
    b. Selling of Dangerous Drugs (1st, 2nd, 3rd)

2. Property

    a. Grand Larceny (1st, 2nd, 3rd)
    b. Petit Larceny
    c. Burglary (1st, 2nd)
    d. Possession of Stolen Goods (1st, 2nd, 3rd)

3. Forgery

    a. Forgery (1st, 2nd, 3rd)
    b. Possession of Forged Instruments (1st, 2nd, 3rd)

4. Robbery

    a. Robbery (1st, 2nd, 3rd)

5. Assault

    a. Assault (1st, 2nd, 3rd)
    b. Rape (1st, 2nd, 3rd)
    c. Homicide

6. Prostitution

    a. Prostitution
    b. Promoting prostitution

7. Threshold Offenses

    a. Possession of Weapons
    b. Possession of Burglary Tools
    c. Criminal Trespass

8. Violations

    a. Disorderly Conduct
    b. Loitering
    c. Gambling offenses

As indicated, the major change from the earlier categories is in the creation of the category of threshold offenses. This was done in order to make each category as "pure" as possible. Within each category, as previously construed, there were certain offenses which, although more serious than violations, were not necessarily indicative of the activity described by the category in which they were placed. An example is possession of weapons which was previously categorized as assault and made up a major portion of the offenses in that category. Other examples are possession of burglary tools, previously classified as a property crime, and loitering to use drugs, previously classified as a drug offense. All of these offenses were placed in the category of "threshold" offenses because they were indicative of the conduct but did not involve actual participation in it. Assault now represents only those acts which actually involved physical assault.

Furthermore, with the use of charge rates, inclusion of these offenses in their prior categories tended to produce a "doubling" effect that made the previously derived rates spurious. For example, an individual might in a single arrest be charged with both burglary and possession of burglary tools. While only one crime of burglary was actually being charged, the rates indicated two. On the other hand, if it was merely a single charge of possession of tools, we do not believe that it constitutes a property crime with the money-raising implications denoted by that category. Also, were the individual in the above example in possession of a weapon, the assault rate would be affected where no assault or violent activity was actually performed.

The other category most significantly effected by the reclassification is "violations", with the inclusion of several re-classified offenses. This category includes a wide variety of offenses that range in severity (according to the New York Penal Code) from "violations," such as vagrancy, public intoxication, loitering, and disorderly conduct through the misdemeanor categories (A and B), including obscenity (A), unlawful assembly (B), and other offenses against public order, and also a few of the least severe felony offenses (D and E) that do not reflect activity in other categories. The violations category also includes all gambling offenses, previously classified with prostitution and parole violations. "Attempts" are also tempo- rarily classified as violations; but by the next report they will be

reclassified according to the nature of the crime attempted.*

Questions Addressed. As indicated earlier, there are several
questions which can be answered by these data. All questions
deal with the pattern of charges across time as grouped above --
from pre-addiction through addiction and program entry,
through the program entry (treatment) phase, and including
the post-treatment period for program dropouts.

The first question to be addressed is whether ARTC
treatment significantly reduces criminal activity, i.e., is
there a significant decline in criminal activity relative to
program entry? Or, ideally, is patient criminal activity
reduced to pre-addiction levels, or lower, thus having an
impact on community crime rates? Related to these questions
is that of how quickly reductions can be achieved in the period
after treatment. As indicated in the July report and the
Vorenberg-Lukoff paper, quoted here, the quickest decrease is
usually in the area of drug offenses:

> The most substantial decline for patients receiving
> methadone is in charges associated with the purchase,
> possession, and sale of drugs...It is only in the
> second year of treatment that there is a significant
> decline in charges associated with the acquisition

---

*It should be noted that while attempts will be classified
according to the nature of the crime attempted, conspiracy
charges are included in the threshold category; the reason
for this is that while attempts stand alone, conspiracy
charges are subject to the "doubling" effect described above.

of money or goods in$_8$contrast to their behavior since commencing drug use.[8]

The question of absolute decline or overall impact must first be answered for the total population, regardless of individual differences, and then for specific groups of patients.

One problem with the examination of overall reductions is the rise in criminal activity in the time period prior to program admission (specifically the year prior to entry). If this increase is significant, it has implications for the degree of "drop" in rates post program entry. As indicated from earlier findings:

> Using years immediately preceding entrance into the program in order to assess change tends to exaggerate the decline because this is a peak year for arrest and may be related to the reason many come into treatment, whether voluntarily or through the criminal justice system.[9]

The most important question dealt with in this and earlier analyses has been the degree to which retention affects charge rates after program entry. Using charge rates the various time periods (pre-addiction, addiction, post entry) have been analyzed by retention cohorts

[8]James Vorenberg and Irving Lukoff, "Addiction, Crime, and the Criminal Justice System," Federal Probation (December, 1973), pp. 5-6.

[9]Ibid., p. 5.

for retainees -- 24 months or more on the program, and
dropouts -- less than 24 months on the program. Overall
relationships will be seen to favor retainees in the first
year after entry; the various categories of offenses have
also been examined by retention time. Prior to this analysis,
however, data on patient population characteristics are
summarized from earlier reports, and comparisons of patients
with the Brooklyn community are given for sex, ethnicity
educational attainment, employment, and occupation. The
relationship between crime and addiction has also been
addressed in response to the question of which comes first --
crime or addiction. For the ARTC population, it appears
that the majority have been involved in some type of cri-
minal activity prior to addiction, but there is a substantial
group who were not involved officially prior to their ad-
diction.

Earlier work has been summarized in conjunction with
the presentation of the current findings, and the direction
of future analysis of the data is discussed, including some
of the issues which will be addressed in the final report.

FINDINGS

In this section we will first present a more complete
analysis of patient demographic and backgroud characteristics,
particularly as they compare with the Brooklyn community.
These comparisons are critical to an understanding of the
milieu from which ARTC patients are drawn. Following these
descriptions are the findings on crime and addiction, program
impact, and the effects of retention, dosage, and dirty urines
on patient performance.

Patient Population Characteristics

The distribution of patients by their background and demo-
graphic characteristics is shown in Table V. It is not sur-
prising to find a great deal of criminal justice system in-
volvement; 88.5 percent report that they have been arrested
at some time in their lives, 61.5 percent ever convicted, and
65.5 percent have done time in a jail, prison, or peniten-
tiary, with a mean stay of about three years.* Heroin use began
at about age twenty, and daily use began in less than two
years. The average years of addiction is about ten, leading up
to program admission at age thirty-one.

Much has been said about the issue of age and addiction,
particularly with respect to the "burning out" or "maturing

---

*It is not clear whether this time represents detention
time and sentenced time combined, or just the latter.

TABLE V

PATIENT BACKGROUND AND DEMOGRAPHIC CHARACTERISTICS (N=990)

VARIABLE	MEAN	STANDARD DEVIATION	RANGE (low & high)
Times ever arrested	6.2	6.8	0-28
Times ever convicted	3.6	5.0	0-28
Months ever in jail, prison, penitentiary	34.9	48.3	0-291
Age first used heroin	19.9	4.7	10-47
Age first daily heroin use	21.3	5.1	11-47
Years of addiction	9.9	7.0	1-37
Age at program entry	31.2	7.8	18-68

VARIABLE	PERCENT DISTRIBUTION	
SEX Male	81.1	(100%)
Female	18.9	
CULTURAL BACKGROUND		
Caucasian	9.3	
Black	77.6	(100%)
Spanish-speaking	12.5	
Other	.6	
MARITAL STATUS		
Married	53.3	(100%)
Other	46.7	
HAVE HIGH SCHOOL DIPLOMA	30.3	
EMPLOYMENT IN YEAR PRIOR TO ENTRY		
Full 12 months	8.0	
1-11 months	35.8	(100%)
Completely unemployed	56.2	
NO PRESENT OCCUPATION REPORTED	74.5	

out" hypothesis formulated by Winick.[10] This hypothesis has best been stated in the viewpoint by Ball and Snarr: "...that many addicts give up their dependence on drugs as a result of maturation, as a consequence of treatment, or through remission of the disease."[11] They cite Winick's conclusion that some two-thirds of the opiate addicts in the United States "mature out" of their addiction during their adult years. While this hypothesis requires rigorous testing, as has been done by Winick and others, the data for the present study are not appropriate for such tests. The individuals involved in the methadone treatment population have had their "natural cycle" of addiction interrupted by treatment -- they have not necessarily come to the close of their period of addiction. The individuals studied by Winick in a later paper were cases on record with the Federal Bureau of Narcotics, ranging in age from 18 to 76 at cessation of use, who had been free of the symptoms of drug use for five years.[12] This is the traditional medical criterion for recovery from a chronic disease.

---

[10] Charles Winick, "Maturing Out of Narcotic Addiction," Bulletin on Narcotics (January - March, 1962).

[11] John C. Ball and Richard W. Snarr, "A Test of the Maturation Hypothesis with Respect to Opiate Addiction," Bull. on Narcotics, 21 (Oct - Dec., 1969), p. 9.

[12] Charles Winick, "The Life Cycle of the Narcotic Addict and of Addiction," Bulletin on Narcotics, 16 (January - March, 1964), p. 3.

What can be tested in the present study is the relationship
between the patient's success in treatment and his age of
first heroin use, length of addiction, and age of program
entry. From these comparisons the inference may be made that
the "more mature" patient has been most successful. That is,
the patient who has begun use at an early age, used a longer
period of time, and is older when entering the program, may
be the most successful patient. Since all patients are
addicted at entry -- as required -- it would be difficult
to conclude that they were involved in a natural cycle of
"maturing out" of their addiction. However, evidence of
positive outcome for those described above may be the best
indication that such a process is operating favorably
in conjunction with the treatment process. Whether ARTC
program intervention operates successfully to shorten the
"natural cycle" can only be determined after a long term
(over five years) comparison of these patients with those
reported on by Winick and others. This is the case because
considerable follow-up time is needed to determine when such
a decline becomes permanent. Our emphasis has been on the re-
lationship between program outcome and both the age of onset
and entry and length of addiction.

Referring again to Table V, four out of five patients are
male and nine out of ten are Black or Puerto Rican. About
half are married, and the population as a whole shows a
very poor educational and occupational record. As will be

discussed in the following section on community setting,
we are attempting to determine the meaning of these factors
in relation to the environment from which the patients
are coming.

Comparisons With the Brooklyn Community

Before the evaluator can measure success (or the lack
of it) he must have criteria measures that serve as a standard.
For this study (and we believe for any drug study) we have
chosen the community in which the patients live -- in this
case the Bedford Stuyvesant/Fort Green area of Brooklyn, New
York. When asking how much "better" a community-based, out
patient drug rehabilitation program can make a patient,
it would be unrealistic for funding services or evaluators
to expect that patient to do better than other members of
the community in which he resides. With this in mind, we
have undertaken a demographic study of the catchment area of
the Brooklyn ARTC clinic in order to make comparisons, where
possible, between the community as a whole and the ARTC
patients (at entry).

The bulk of the demographic materials have been gathered
through the volumes of "Employment Profiles of Selected Low-
Income Areas"[13] published by the Bureau of the Census.
Within the Brooklyn Borough of New York City, three areas

---

[13]Employment Profiles of Selected Low-Income Areas,
Brooklyn Borough, New York City, Bureau of the Census,
(Washington, D.C. 1972)

were chosen for the census study. The data presented here are from Area II, which closely parallels the ARTC catchment area. Appendix B contains a map of Brooklyn which outlines both the ARTC and the Census area in question. Although the ARTC area appears to extend to what includes much of Area III in the census study, in fact the overwhelming majority of patients live within Area II. Ensuing reports will include a detailed breakdown of the patient population dispersement by census tract. The census material was published in January, 1972, but was gathered between August, 1970 and March 1971. The patient comparison data is self-report information taken from the NIMH Admission Forms. The 991 patients reported on were admitted between October 8, 1969 and June 23, 1971.

Appendix C-1 shows the population breakdowns by ethnicity and sex. The community N of 149,920 includes all those between the ages of twenty-two and forty-four, women comprise 58.5% of the community population but represent only 18.9% of the patient population. This was not unexpected. However, the latest city health department figures indicate women are becoming increasingly involved with drugs (opiates) over time. This trend will be more fully explored in later reports. There is no significant difference in black representation between the patient population and the community (78.2% of the community and 77.6% of the patient population). The Spanish-speaking population is somewhat underrepresented

(14.8% to 12.5%) and there are a greater number of whites
in the program (9.3% to 5.3%) than would be expected.

Appendices C-2 and C-3 chart educational attainment by
ethinicity and sex, respectively. The community N or 226,548
represent all those aged twenty-five or more. The census data
was gathered in a manner that precludes a finer breakdown
with respect to age.* Assuming that a high school diploma
is the most significant factor in educational attainment,
the patients do not, at program entry, measure up to the
community norm (30.3% of the patients as against 33.6% of the
community.) Although the patient group shows higher attainment
through the third year of high school (this category includes
those completing either the 9th, 10th or 11th grades), it may
be somewhat deceptive and indicative of only the more recent
concepts of compulsory education, as the community group
includes all those aged twenty-five and over. For both popula-
tions the black groups have the highest percentage of high
school graduates, while both Spanish speaking groups have
the lowest; in fact the Spanish patient group is higher
than the Spanish speaking community (16.1%-11.9%). In the
community, there is a minor inversion at the post high
school level, where the whites have the higher attainment
percentage. This is not true, however, with regard to the
patient population, where the whites not only fail to measure up

*The patient N of 983 in Appendix C-2 (educational attainment)
does not include the six ethnic group "others" as the number is
too small for valid comparison. These six are, however, in-
cluded in Appendix Table C-3 (educational attainment by sex).
There are two patients excluded from both charts for lack of data.

to their community counterparts, but also fail to meet the overall program norm. As illustrated in Appendix Table C-3, women do not achieve as highly as men in either group. Also, when males are taken alone, the difference between the patient group and the community becomes even greater; 31% patient high school graduates as compared to 36.6% in the community.

Appeddix C-4, which charts employment activity by weeks during the twelve month period prior to the interview date, illustrates marked differences between the male patient population and the community (data is broken down only by black and white categories in order to conform to the census data). Defining full time employment as forty weeks plus per year, 77.9% of the community could be considered full time employees while only 13.1% of the patients were employed on a full time basis. While only 16.9% of the community were employed less than twenty-six weeks, 79.1% of the patients reported less than half year employment. Over 50% of the male patient population were not employed a single week in the year prior to entry, while only 10.1% of the community shows no employment for the same period.

Appendix Table 5 shows the major occupation of employed males. The community N of 50,733 includes males between the ages of 22-44. The patient population is broken down into three groups defined as pre-addiction, during addiction, and at program entry date. The types of employment are defined according to the following five categories, which

conform to the categories use in both the census data and the
NIMH admission form: (1) professional, business/manegerial;
(2) sales/clerical; (3) skilled manual; (4) semi-skilled;
and (5) unskilled. While there is a significant difference
across category one, there are fewer differences than might
be expected in categories 2-5, although in the entry-date
patient group there is a marked trend toward the unskilled
category.

The current demographic data will be further refined
and additional materials added as we move toward the final
report. It is also expected that data concerning the level
of criminal activity within the designated area will be
available in ensuing reports.

It should be noted that in analyzing the data presented
here, one should read with not only an eye for the differences
between the patients, at entry, and the community as a whole,
but particular notice must also be taken of the depressed
condition of the neighborhood in general. It is only by doing
so that one can begin to comprehend not only the patients'
background, but also their future.

Crime and Addiction

Over the course of the evaluation there has been con-
siderable concern with the question of which came first --
crime or addiction? The design of the ARTC study has allowed for

comparisons of criminal activity for the periods prior to
addiction, during addiction, and subsequent to program entry,
the latter actually representing post-addiction criminal acti-
vity. For purposes of answering this question for the ARTC
population, criminal activity of ARTC patients has been placed
in the format shown in Table II. These figures represent the
numbers of patients arrested in each of the periods. Of the
990 patients, only 926 had a pre-addiction period and were
usuable in the analysis, because the BCI data does not
emcompass juvenile behavior. For this reason, the patient
self-reported involvement (at entry) with juvenile authorities
was counted for each of the eight groups (A to H) represented
in the table. All possible combinations of arrest pattern
are shown for the three periods and they have been generally
ordered from best (A) to worst (H) performance on criminal
activity. While the validity of official records, such as
those supplied by the New York Police Department BCI, can
be questioned, it will be seen that groups A and B have no
criminal activity prior to program entry and they make up
10.9 percent of the total population, or 9.6 percent if
juvenile involvement is included (68 + 33 = 101, less 12
with juvenile involvement). On the NIMH admissions form, 88.5
percent of all program entrants reported an arrest at some
time in their lives. Therefore, unless some overlap is found
in later crosstabulations, it appears tha the BCI records and

TABLE II

CRIMINAL ACTIVITY BY DESIGN GROUPS, INCLUDING ADULT AND JUVENILE INVOLVEMENT

GROUP	EVIDENCE OF CRIMINAL ACTIVITY BY PERIOD PRE-ADDICTION	ADDICTION	POST ENTRY	ADULT ARRESTS (16+ yrs. old) FEMALES (1) N	%	MALES (2) N	%	TOTAL (3) N	%	JUVENILE INVOLVEMENT REPORTED* FEMALES (4) N	% of (1)	MALES (5) N	% of (2)	TOTAL (6) N	% of (3)
A	none	none	none	29	16.5	39	5.2	68	7.3	3	10.3	5	12.8	8	11.8
B	none	none	crimes	12	6.8	21	2.8	33	3.6	3	25.0	1	4.8	4	12.1
C	none	crimes	none	40	22.7	123	16.4	163	17.6	7	17.5	25	20.3	32	19.6
D	none	crimes	crimes	40	22.7	184	24.5	224	24.2	5	12.5	41	22.3	46	20.5
E	crimes	none	none	4	2.3	20	2.7	24	2.3	1	25.0	4	20.0	5	20.8
F	crimes	crimes	none	20	11.4	142	18.9	162	17.5	4	20.0	27	19.0	31	19.1
G	crimes	none	crimes	5	2.8	21	2.8	26	2.8			1	20.0	1	3.8
H	crimes	crimes	crimes	26	14.8	200	26.7	226	24.7	8	30.8	67	33.5	75	33.2
TOTALS				176	100.0	750	100.0	926	100.0	31	17.6	171	22.8	202	21.8

*Self reported juvenile or person in need of supervision; percents are done within each category of criminal activity.

Adul   Post
·176   3.6
24.2   24.2
17.5   2.8
24.9   24.9
84.2   55.5

the self-reported criminal activity show a high level of agreement at program entry.

Further examination of Table II shows that 7.3 percent of the population has never had any involvement with the law (column 3, group A), and that females have had less involvement in criminal activity generally (column 1, group A). This relationship also holds when juvenile involvement is included as criminal activity. For example, in group A, 4.5 percent of the males, 14.8 percent of the females, and 6.5 percent of the total population showed no adult (BCI) or juvenile involvement in any period (post entry can have no juveniles).

Groups B , C, and D represent patients who committed no crimes prior to becoming addicted; these 420 patients are 45.5 percent of the total population, and 33 of them (3.6% of the 420) committed crimes only after coming on the ARTC program. When juvenile involvement is included this figure drops to 338 patients, or 36.5 percent of the 926 patients -- 34.8 percent (231) of the 750 males and 43.7 percent (77) of the 176 females. Therefore, we may say that just over one-third of all Brooklyn ARTC admissions were not involved in either juvenile or adult criminal activity prior to their heroin addiction, and that 45.4 percent were not involved in adult criminal activity (16 or over) prior to their addiction. If adjusted to include only the 840 patients in groups B through H who were ever involved in criminal activity in the population (excluding the 68 patients in group A),

we may say that 39.3 percent of all Brooklyn ARTC admission
who ever committed a crime were not involved in either
juvenile or adult criminal activity prior to their heroin
addiction, and that 48.9 percent were not involved in adult
criminal activity prior to addiction.

The most important comparison in Table II is the
proportion of patients who were involved in criminal activity
prior to program entry and show none subsequent to entry --
groups C, E, and F. These 349 patients make up 37.4 percent
of the total population. Considering that 88.3 percent of the
population had (self) reported an arrest at some time in their
lives at program entry, and that only 59 patients (groups
B,G), or 6.4 percent, move from no criminal activity in the
addiction period to post entry criminal activity, this per-
centage speaks well for the program. However, it is not as
impressive a reduction in criminal activity as is often quoted
for programs utilizing methadone maintenance. We also see
that 450 patients (groups D, H), or 48.9 percent, are engaged
in criminal activity both prior to and after program entry.
Group H shows no let-up in criminal activity across the three
periods, and also represents the group with the greatest
juvenile involvement. If one wished to select a target group
for purposes of developing a greater program impact, group D
appears to be the most likely group, since they show less
juvenile involvement than group H. However, there would be

no way to separate them from group C at program entry unless
they could be identified through relevant background identifiers.
In the final year of study these eight groups will be analyzed
in more detail with respect to demographic and background
factors in order to determine any important differences between
them which will be useful to future program development.

Overall Crime Reductions: Impact

Table III shows the charge rates based on the revised
offense categories, the three major time periods under con-
sideration. The patterns of charge rates established in
earlier reports are still evident. Therefore, new significance
levels were not computed -- particularly since we will be
dealing with arrest rates in the future. An examination of
Table III shows that charge rates rise significantly from the
pre-addiction to the addiction periods in all cases except
robbery and assault. Drug offenses continue to show the
greatest variations across time periods and the greatest
decreases from the addiction period to the second year of
treatment. Property offenses, drug offenses and prostitution
continue to show significant decreases in the treatment period,
and forgery begins to decline prior to program entry.
Robbery and assalut offenses show increases in the treatment
period which are greater than any other period, including
the addiction period, a pattern which has been noted con-
sistently in all analyses of program criminal activity data.

TABLE III

CHARGE RATES AND NUMBER ARRESTED FOR THE TOTAL POPULATION, EACH OFFENSE CATEGORY (N=990)

OFFENSE CATEGORY	Before Addiction		ADDICTION PERIODS During Addiction Total Period		Years Prior to Entry* Second		First		YEAR OF FOLLOW-UP First Year		Second Year	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
DRUGS	.023	130	.309	694	.333	224	.578	307	.343	191	.133	96
PROPERTY	.075	213	.171	487	.157	118	.221	132	.229	134	.150	89
FORGERY	.004	14	.026	92	.022	20	.015	12	.009	8	.013	11
ROBBERY	.016	67	.024	(128)	.022	23	.031	27	.036	34	.041	39
ASSAULT	.044	168	.040	235	.034	27	.034	34	.066	53	.088	71
PROSTITUTION	.001	4	.024	62	.058	28	.062	35	.033	25	.015	13
THRESHOLD	.020	82	.069	333	.101	90	.128	108	.156	117	.091	77
VIOLATIONS	.104	263	.145	505	.125	105	.243	176	.261	198	.215	145
TOTAL RATE	.286		.808		.852		1.313		1.132		.747	

Handwritten annotations:
- Under "Second" (Years Prior to Entry): 333, −519
- Under "First": −578, 735
- Under "First Year": −348, 784
- Under "Second Year": 133, 614
- 1254 / 627
- 1398 / 699
- except —

One explanation for these increases may be that the patients who are leaving treatment account for the increase in criminal activity in the second year after program entry. In the July, 1973, report we found that this was the case for assaultive crimes, and the section on retention which follows again tests this explanation with the revised offense categories.

Before discussing retention, however, some cautions regarding the interpretation of the data in Table III are in order. The marked increases in charge rates prior to program entry coupled with their immediate decreases post entry make the treatment appear to have more impact than it may be producing over the long term. It can also be hypothesized that much of the initial post entry decline may have occurred in any event, since the addict may have reached his peak of drug use prior to program entry. The point at which non-program influenced decline, or "natural" decline stops and program intervention becomes a factor cannot be determined without a control group population. One might assume an unassisted decline to at least the addiction level of criminal activity (total period), particularly if there is no longer a serious habit to support. In this sense, therefore, we refer to a decline to the pre-addiction level of criminal activity as the desired goal. As suggested by Mr. Thomas Rafalsky, ARTC Program Coordinator, a return to the community norm may be considered just as desireable. As soon as that

level can be determined from police records these types of
comparisons will be made.

In conclusion, and as found in earlier analyses with
smaller cohorts, there is clearly no return to the pre-
addiction charge rate levels in the two year period after
program entry. In no category of offenses in the pre-addiction
period is there a charge rate of more than one offense per
patient per year, and for drug and property offenses and for
violations there is still a high charge rate per patient per
year in the second year after entry. In the categories of
forgery, robbery, and assault there are increases in charge
rates in the second year after program entry. While the
increases in forgery and robbery lack explanations, the increase
in assaultive behavior has been attributed to excessive alcohol
use:

> We would like...to advance the tentative speculation,
> based on knowledge of the literature, that the increase
> in assault may be linked to problems of alcoholism. A
> number of studies, expecially those by O'Donnell, have
> documented the high percentage of treated addicts who
> substitute alcohol or barbiturates for opiates. The
> evaluation reports on the New York City methadone treat-
> ment program also blame alcoholism and abuse of amphe-
> tamines for most of the failures in the rehabilitation
> of the addicts in the program.[14]

[14] Hayim, op. cit., p. 47; see also John A. O'Donnell,
Narcotic Addicts in Kentucky, National Institute of Mental
Health, Public Health Service Publication No. 1881, 1969, and
Edward M. Brecher and the Editors of Consumers Reports,
Licit and Illicit Drugs (Boston Little, Brown and Company,
1972), Ch. 15.

For the Santa Clara County (California) study the numbers

of arrests and convictions for assault did not increase from

pre to post program for the total population, or for those

on or off the program at 24 months, although there were

significant differences for felony arrests and convictions.

However, there was a marked tendency for patients leaving the

program to be more involved in excessive alcohol use:

> ... those who go off the program are involved in
> twice as much heroin use as those staying on, with
> increases in excessive alcohol use, and decreases in
> excessive barbiturate and other drug use. Patients who
> stay on the program up to 24 or more months show less
> comparative heroin use, less of an increase in excessive
> alcohol use, and a considerable drop in excessive
> barbiturate use.
> When patients are distributed by design groups,
> those classified as "failures"... show a very marked
> increase in excessive alcohol use and a very sharp
> drop in barbiturate use .... The real concern is the
> extent to which excessive alcohol use might be inter-
> fering with the performance of patients classified as
> failures. These individuals may be drug-related fail-
> ures, but not due to heroin.[15]

Since data on alcohol use will be available for patients

retained in the ARTC program at one year, it will be possible

to test this conclusion for patients who have become involved

in assault and robbery types of offenses after program

entry.

The greatest improvements in arrests and charge rates are

---

[15]Dale K. Sechrest et al, "Social Evaluation and Impact
Study of the Santa Clara County Methadone Treatment and Reha-
bilitation Program, "Final Report," July, 1973, American
Justice Institute, p.28.

for drug, property, and prostitution offenses, followed by
threshold and minor types of violations. Who accounts for
these improvements? Is retention or a particular form of
treatment most critical in producing decreased criminal
activity? Or are patient background and demographic charac-
teristics specific to certain groups of patients predictive
of their success on this type of program? The following
section deals with the variable of retention as a factor in
decreased criminal activity. Later reports will deal more with
background variables; hopefully, some data on the treatment
program itself will become available in the final year of
study.

Retention and Criminal Activity

Retention as reported here (Table IV) differs somewhat
from the way in which it has been traditionally reported here
and elsewhere. In previous Center reports a patient was
considered retained only up to the period at which he first
left the program. Out of 969 patients on whom these data were
available, 152, 15.6 percent, had one or more breaks in their
treatment prior to final termination, and only 76 of these
were off the program for more than four months prior to re-
turning -- 7.9 percent of the total population These groups
were examined separately for differences in their charge rates
in relation to the total population. None appeared. Therefore,
they were included as retained for the entire number of months

TABLE IV

PROGRAM RETENTION FOR A COHORT OF
953 ARTC PATIENTS ENTERING BETWEEN
OCTOBER 8, 1969, AND JUNE 23, 1971

MONTHS FROM START	NUMBER RETAINED	NUMBER LOST	PERCENT RETAINED
START	969	. .	100.0
1-5	914	55	94.3
6-11	707	207	73.9
12-17	505	202	52.1
18-23	233	272	24.0
24-29	91	142	9.4
30+	91		
			-

they were treated, _excluding_ untreated months. An example
of such a case is the first individual to be treated on the
program who was treated for 34 months in a three year (36 month)
period, having missed months nine and eleven. In earlier
retention studies he would have been counted as having dropped
out at nine months; here he is included as having been treated
for over thirty months.

The question is whether longer patient retention yields
better patient outcomes on criminal activity. That is, will
program retainees show significant degreases in crimimal
activity after program entry in comparison with program
dropouts? Related to this question is whether patients
destined to drop out of the program were significantly better
or worse in their criminal activity prior to program admission.
The hypotheses to be tested are that if a patient is retained
on the program (1) he will have been less criminal to begin
with and (2) he will do better after program entry due to the
fact of his retention. Other hypotheses are to be tested in the
fifth year of study.

In order to test these hypothses the 969 patients were
divided into two groups: 736 (74%) who had dropped out of the
program prior to completing their 24th month of treatment,
and 233 (24%) who were retained in the program at their 24th
month (or beyond). For nine combinations of time periods the
numbers of patients showing increases, decreases, or no changes

CONTINUED

1 OF 2

in charge rates were compared as shown in Table V. For the pre-addiction to the addiction periods, we see in Table V that about the same percentage of patients showed increased charge rates in both groups -- 69.7 percent of the dropouts and 71.4 percent of the retainees. The "no change" category primarily represents individuals who had no charges (hence zero rates) in either period, as demonstrated earlier in Table II where 10.9 percent of the population had no criminal activity in the pre-addiction or addiction periods.* For the pre-addiction to the addiction periods, reference is made to Table III where we see a three-fold increase in the charge rate for the total population. The 586 patients (70.1%) shown in the "increase" row of Table V were responsible for this increase, while 161 patients (19.3%) showed a decrease in criminal activity over these two time periods. Overall, therefore, dropouts and retainees performed about the same on criminal activity from the pre-addiction to the addiction periods.

As indicated, such comparisons were made for eight other time period combinations in order to determine the relationship between dropouts and retainees for the total cohort population for total offenses and for the eight offense sub-categories.

*The N is 836 in Table V because several patients had no pre-addiction period or retention data.

TABLE V

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE PRE-ADDICTION TO THE
ADDICTION PERIODS - TOTAL COHORT

CHARGE RATE CHANGE	PROGRAM RETENTION STATUS				TOTAL	
	Dropouts ($\leq$ 23 mo.)		Retainees ($\geq$ 24 mo.)			
	Number	Percent	Number	Percent	Number	Percent
INCREASE	439	69.7	147	71.4	586	70.1
NO CHANGE	74	11.7	15	7.3	89	10.6
DECREASE	117	18.6	44	21.4	161	19.3
TOTAL	630	100.0	206	100.0	836	100.0

$x^2 = 3.60$, $p < .17$ (df = 2)

Various comparisons for the total population for their total
offenses, as done in Table V, showed no significant differences
between dropouts and retainees in criminal charge rate
changes in the pre program entry periods -- the overall charge
pattern of both groups was similar. In examining performance
after program entry, however, differences between the two
groups began to emerge. In Table VI charge rates are compared
for the pre-addiction period to the first year after entry.
Decreases in charge rates (improved performance) is not in-
dependent of program retention -- the retainees do signifi-
cantly better in returning to pre-addiction charge rate
levels in the first year after entry, even though Table III
rates (for the total population) show that the magnitude
of the change has not been significant for the total population.
As may be expected, decreases in charge rates from the addiction
period to the first year after entry also favor program re-
tainees (x^2 = 26.9, <.001). This relationship does not hold
in comparing charge rates in the pre-addiction period and
in the second year after entry, however, as shown in Table
VII. The performance of retainees remains stable (with modest
increases) from the first year after entry (Table VI) to the
second year after entry (Table VII), while dropouts' perfor-
mance has improved to the point where there are no significant
differences between groups based on charge rate increases

TABLE VI

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE PRE-ADDICTION PERIOD TO THE
FIRST YEAR AFTER ENTRY - TOTAL COHORT

CHARGE RATE CHANGE	PROGRAM RETENTION STATUS				TOTAL	
	Dropouts ($\leq$ 23 mo.)		Retainees ($\geq$ 24 mo.)			
	Number	Percent	Number	Percent	Number	Percent
INCREASE	268	42.5	52	25.1	320	38.2
NO CHANGE	200	31.7	72	34.8	272	32.5
DECREASE	162	25.7	83	40.1	245	29.3
TOTAL	630	100.0	207	100.0	837	100.0

$x^2 = 23.8$, p $<.001$ (df = 2)

TABLE VII

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE PRE-ADDICTION PERIOD TO THE
SECOND YEAR AFTER ENTRY - TOTAL COHORT

| CHARGE RATE CHANGE | PROGRAM RETENTION STATUS | | | | TOTAL | |
| | Dropouts ($\leq$ 23 mo.) | | Retainees ($\geq$ 24 mo.) | | | |
	Number	Percent	Number	Percent	Number	Percent
INCREASE	174	27.6	58	28.0	232	27.7
NO CHANGE	244	38.7	70	33.8	314	37.5
DECREASE	212	33.7	79	38.2	291	34.8
TOTAL	630	100.0	207	100.0	837	100.0

$x^2 = 1.93$, $p < .39$ (df = 2)

or decreases from the pre-addiction period (268 down to 174
for increases). This relationship is verified by the data
in Table VIII, which compares charge rates in the first and
second years after program entry. Retainees show little change
in charge rates (61.4% no change), having made significant
decreases in their first year of the program. Dropouts, on
the other hand, account for the significant difference between
the groups by producing marked decreases in charge rates for the
first two years of treatment. Both retainees and dropouts are
similar in the numbers of patients having increased charge
rates. Critical to future analyses of these data is the
question of the magnitude of these increases and decreases for
retainees and dropouts. In these comparisons we are only
dealing with changes, not the extent of these changes for
patient groups.

After this examination of charge rates for retainees
and dropouts based on all charges, each offense category was
examined in a similar way. As shown in earlier reports,
drug and property offenses account for much of the increases
and decreases in charge rates across time. And for both of
these offense categories, the patterns of criminal activity
for retainees and dropouts were generally the same as for the
total population. The major exception was that in the
category of drug offenses retainees were significantly
different from dropouts the pre-addiction to addiction
periods. However, retainees produced _more_ increases in charge

TABLE VIII

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE FIRST TO SECOND YEAR AFTER
PROGRAM ENTRY - TOTAL COHORT

| CHARGE RATE CHANGE | PROGRAM RETENTION STATUS | | | | TOTAL | |
| | Dropouts ($\leq$ 23 mo.) | | Retainees ($\geq$ 24 mo.) | | | |
	Number	Percent	Number	Percent	Number	Percent
INCREASE	132	17.9	44	18.9	176	18.2
NO CHANGE	345	46.9	143	61.4	488	50.4
DECREASE	259	35.2	46	19.7	305	31.5
TOTAL	736	100.0	233	100.0	969	100.0

$x^2 = 20.9$, $p < .001$ (df = 2)

rates than the dropouts for these periods, as shown in
Table IX. While not statistically significant, this relationship
also existed for the same periods in the category of property
offenses. For these periods (pre-addiction to addiction)
assaultive offenses was the only other category which produced
significant differences between retention groups. However,
for assault it was the dropouts who showed the greatest
numbers of increases in charges from the pre-addiction to
the addiction period. The category of assault is also unique
in comparison with all other offense categories (and total
offenses) because the decrease in assaultive offenses does
not favor retainees in the first year of treatment -- it is
in the second year of treatment that retainees become different
from dropouts on assault charges, as shown in Table X. Fifty-
three dropouts showed increases in the second year of treatment
as compared with their pre-addiction period, which is 18
more dropouts showing increases than for the 35 in the pre-
addiction to the first year of treatment. Therefore, it appears
that the increases in assaultive behavior after program entry
which were attributed to the entire population in earlier
reports are attributable primarily to program dropouts.
Whether these increases are related to excessive alcohol use
in the dropout population is yet to be demonstrated since
such data are not yet available (at the Center) from the first

TABLE IX

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE PRE-ADDICTION TO THE ADDICTION
PERIODS FOR DRUG CHARGES

CHARGE RATE CHANGE	PROGRAM STATUS				TOTAL	
	Dropouts (≤ 23 mo.)		Retainees (≥ 24 mo.)			
	Number	Percent	Number	Percent	Number	Percent
INCREASE	416	66.0	155	75.2	571	68.3
NO CHANGE	187	29.7	39	18.9	226	27.0
DECREASE	27	4.3	12	5.8	39	4.7
TOTAL	630	100.0	206	100.0	836	100.0

$x^2 = 9.4$, $p < .01$ (df = 2)

TABLE X

CHARGE RATE CHANGES BY PATIENT RETENTION
STATUS FOR THE PRE-ADDICTION PERIOD TO
THE SECOND YEAR AFTER ENTRY FOR ASSAULT CHARGES

CHARGE RATE CHANGE	PROGRAM STATUS				TOTAL	
	Dropouts ($\leq$ 23 mo.)		Retainees ($\geq$ 24 mo.)			
	Number	Percent	Number	Percent	Number	Percent
INCREASE	53	8.4	7	3.4	60	7.2
NO CHANGE	478	75.9	159	76.8	637	76.1
DECREASE	99	15.7	41	19.8	140	16.7
TOTAL	630	100.0	207	100.0	837	100.0

$x^2 = 7.1$, $p < .03$ (df = 2)

year follow-up questionnaire. This pattern has been noted
elsewhere, however, as indicated earlier in the quote from
the Santa Clara County methadone evaluation in which it was
found that excessive alcohol use was significantly higher for
program dropouts (using the same retention classification as
used here). While property, drug, threshold, and total
offenses showed significant differences between retention
groups after program entry in the present study, assault
offenses did not show significant differences between retainees
and dropouts from the first to the second year after program
entry. That is, while retainees were returning to their
pre-addiction assault level and dropouts were increasing in
numbers of assault charges, they were not yet significantly
differentiated from the first to the second year after entry.
Perhaps the data on criminal activity in the third year will
yield a significant divergence in charge rates.

The offense category of robbery, which is not only an
aggressive but a gainful type crime, did not show the same
pattern as assault for the retention groups, even though
the total population charge rates in Table III also show
increases in the first to second year after program entry. As
with the drug and property offenses, retention was a factor in
robbery charge rate changes in the first year after entry
($x^2 = 6.6$, $< .04$), and at the second year the predominant

pattern emerged -- no significant relationship between charges and retention. As with assault, however, there were no significant differences from the first to the second year after entry, although there was no tendency for robbery offenses to be increasing for dropouts as in assault offenses. The pattern was the same as for total offenses, drugs, property, and threshold crimes.

The offense category of forgery is linked to robbery and assault in the sense that it also shows increases in the overall charge rate (Table III) in the first to second years after program entry. However, changes in charge rates over time for forgery bear little relationship to program retention, perhaps because of the small numbers of patients involved in this type of offense and its marked decline prior to program entry. Threshold type crimes show relationships to retention in the same pattern as total offenses, drug, and property crimes. The categories of violations and prostitution show no relationship to retention time.

In summary, total offenses, drug, property, threshold, and to some extent robbery crimes manifest the same pattern across time in their relationship to dropouts and retainees. The retainees make the initial improvement in returning to the pre-addiction level of criminal activity, but by the second year after entry dropouts have made reductions so significant

that they are on a par with retainees, the latter having
made little more improvement from the first to the second
year of treatment. The assault pattern stands alone -- dropouts
and retainees are not significantly different in the first
year of treatment; however, in the second year of treatment
dropouts and retainees are significantly different on charge
rate increases and decreases. Dropouts have increased their
numbers of assault charges while retainees remain stable.
Forgery, violations, and prostitution show little relationship
between charge rate changes and retention status. It is
anticipated that arrest and charge data for the third and fourth
years after program entry will further delineate the findings
presented here. More refined data analysis is also planned
which will deal with the magnitude of the changes in charge
rates and with the relative ranges of charge rates for each
group. A more serious problem is that of gathering data on
patients reasons for leaving the program and whether or not
they went to other treatment programs upon leaving ARTC.
Patients who left the program after a satisfactory period
of treatment, as judged by staff, should be grouped with
program retainees for purposes of analysis. So also should
patients who were deceased while on the program, since they
can no longer produce rate changes. Or, they might be
separated out for analysis. Patients who went to another
program for treatment who are grouped with dropouts may
well account for the decreases in charge rates for program
dropouts. In all three of these cases it will be possible

to identify individuals now classified as dropouts and place
them in either the retention category or another category of
patient for analysis, such as "transferred to another treatment
modality."

CONCLUSIONS

The purpose of this report has been to summarize the
findings of the Center for Criminal Justice for the evaluation
of the ARTC drug treatment program, and to present the most
recent findings at the end of the fourth year of study.
The principal outcome, or dependent, variable is criminal
activity, and both numbers of arrests and charge rates have
been used in examining ARTC patient criminal behavior across
three periods -- pre-addiction, addiction, and post program
entry. While the questions to be answered are many and
diverse, there are two key concerns in this evaluation:
(1) does the ARTC program produce an impact on the patient
and the community, and (2) if it produces an impact on the
patients in terms of reduced criminal activity, which patients
does it benefit the most and the least?

As part of the description of the demographic and
background characteristics of the patients, they were compared
with the population of the Brooklyn census area from which
they come. The patients' ethnic backgrounds are largely
representative of the community distribution, although whites
are somewhat overrepresented. While the patient population
is typically male, women comprise almost sixty percent of

the community population. In the key categories of educational
attainment and employment, the patients, at program entry,
did not measure up to community norms. This was particularly
evident in the area of employment with regard to both the
number of working patients and the amount of time worked in
a twelve month period. Less affected was the type of work
done by those who are employed.

Some level of program impact was evident. The data
on addiction and crime for the three design periods of concern
indicate that a large group of patients (37.4%) are decreasing
their criminal activity after program entry, although about
half the patients who enter appear to be making little
progress in reducing their pre program criminal activity
as determined from official records. The data on arrests
and charge rates verify this conclusion and give some indication
of the areas of greatest impact -- principally in drug,
property, and prostitution types of offenses, although on
the average there is no return to pre-addiction charge levels.
Since these offenses show the greatest increases from the
pre-addiction to the addiction period, it is not unlikely
that they should be the first to decrease in the treatment
period, which may be related to the continuing need to do
petty types of gainful crime to survive economically. In
terms of charge rates, but not actual numbers of arrests, the
offense categories of assault and robbery rise from the pre-

addiction to the second year of treatment. It appears that
a small number of patients become involved in aggressive
types of behavior subsequent to program admission. However,
analysis of the data by retention cohorts has shown that
assaultive offenses are being committed by short term
retainees, or the early program dropouts. Results from
other drug studies suggest that the increasing involvement
of dropouts and a smaller proportion of program retainees with
alcohol may account for the increased level of aggressive
behavior after program entry. For the category of robbery
there is no clear explanation of why charge rates should
increase. The increases are not related to retention,
however, and only a small group of patients account for the
increases found.

An analysis of total offenses and the eight offense
categories was done based upon retention status; retainees
were patients who had been on the program at least to their
24th month after entry, and dropouts had left the program
prior to completion of their 24th month. Total offenses,
drug, property, threshold, and to some extent robbery crimes
manifest the same pattern across time periods in their
relationship to program retention. It appeared that retainees
make the initial improvement in criminal activity based on
increases or decreases in charge rates, but that by the second
year after treatment dropouts are also beginning to show decreases

approaching those of the retainees, the latter remaining
fairly stable on criminal activity after the first year of
treatment.

Assaultive behavior stood alone in that dropouts
accounted for increases in charge rates from the first to
the second year after program entry, while retainees remained
stable. Forgery, violations, and prostitution showed little
relationhsip to retention.

The thesis often stated that patients who begin the program
with less serious criminal involvement will show the most
improvement was not substantiated using these retention
categories. There were no significant differences in charge
rate movement prior to program entry for either retaineees or
dropouts. It has been found to be the case in other studies,
such as the Santa Clara County (California) Methadone Program
evaluation, that patients who start better, do better:

> [For patients on or off the program at two years] ...
> these are different populations in criminal justice
> system performance prior to program admission. Patients
> who stay on theprogram are "better" to begin with and
> either remain the same or do better. Patients who
> eventually leave are "worse" to begin with and either
> remain so or do worse.16

It is expected that more refined analysis of the data will
provide more insights into this question for ARTC program

16Sechrest et al, op. cit., p. 23.

patients. For example, the influence of the magnitude of increases and decreases in charge rates and of the relative ranges of charge rates for each group must be determined. Also, the post entry population must be further sub-divided based upon the reason for leaving the program and whether or not the patient who dropped out of the ARTC program sought treatment in another program. Social background and demographic factors must also be considered in analyzing pre and post program entry performance.

Fifth Year of Study. Along with the refinements in data analysis indicated above, the cohort of 990 patients along with a smaller cohort of about 450 third and fourth year follow-up cases will be carefully examined for social background and demographic characteristics which will allow for a determination of those patients who are most likely to succeed in the ARTC treatment setting. A preliminary study of this type was done in the February, 1974, progress report.[17] Using only males, an outcome analysis was performed based upon age of program entry, years addicted, and employment at one year after entry. The conclusions were that older patients, i.e., those who entered when they were over 30 years of age, and patients addicted for longer periods of time -- over 9 years -- were producing greater reductions in criminal activity at the second year of program follow-up.

Being employed in the first year after entry did not appear

to be a major factor based upon the self-reported data available.

In the fifth year of study such variables as retention time,

age of onset of drug use, age of onset of criminal activity,

evidence of continued drug abuse (including alcohol), data

on treatment, and improved employment data will be included

in an analysis of outcome on criminal activity subsequent

to program entry. It is anticipated that this type of analysis

will be useful in identifying the types of addicts who can

be helped by ARTC type treatment, and that it will provide

useful feedback to program staff for program planning.

Finally, in the fifth year of study we are continuing

to examine the results of other types of drug programs on

the variable of patient criminal activity. It is anticipated

that findings will show variations based on the type of treat-

ment used. Representative of high dosage, more conventionally-

organized methadone maintenance programs claim, for example,

that their programs are more likely to produce successful

patient outcomes, particularly if retention rates are

sufficiently high and heroin abuse sufficiently low after

program entry, and there is a sufficient exposure to the treatment

regime. Drug free programs operated in conjunction with

methadone treatment will also be reviewed where they are

used as comparison populations with methadone treatment

populations.

Our main objectives in studying the results of other
methadone programs is to find the background or treatment
variables most relevant to the success of reducing criminal
activity, and to gather data on the relationship of heroin
addiction to crime. The largest obstacle is the lack of
uniformity in both the kind and quality of the information
reported, which is discussed below.

Perhaps the most significant factor is the admission
criteria. Who the patient is bears very heavily on how much
progress he is likely to make. It is no longer startling to
find retention rates and reduced criminality that do not
measure up to the original Dole-Nyswander model, because
not only has the model been modified, but few, if any,
facilities (now including the Dole-Nyswander program) provide
the initial six week in-patient phase which eliminated time
at risk during the most crucial period of treatment. The
selective method of admissions has also been relaxed to the
point where most programs require only minimum age, proof
of addiction, and domicile within the necessary geographic
boundaries. Although less restrictive admission standards
have apparently led to less impressive results, it is not
enough to restate the theory that the good get better,
because factors such as age and length of addiction cannot
be broken down into good and bad.

Admissions criteria can be weighed with regard to four

factors: age, length of addiction, the admissability of

law enforcement referrals, and patient admission area.

Apparently, the optimum configuration for absolute success

(i.e., those most likely to stay on the program, off drugs,

and out of jail) are the older patients with longer histories

of addiction, who are participating in treatment on their

own initiative, which is in keeping with the "maturing out"

theory of addiction. This is indicated by our initial analysis

of other programs, by comparing the reported results of those

programs on opposite ends of the admissions spectrum, and

by comparing the progress of representative patients from

programs with open admissions.

While the spectrum of high/low admissions selectivity

generally runs from the "high" Dole-Nyswander model through

the "low" ARTC type, there is yet another model on the low

end-- the methadone clinic run (not merely funded) by criminal

justice agencies. There is a two-fold problem in analyzing the

success of criminal justice agency programs. First, their

success is usually defined by the single criterion of retention

which is their indicator of non-recidivism (although some

programs have defined a "success" category of non-retained

non-recidivists). Second, it may well be that in this instance,

retention is a red herring. As suggested in earlier reports,

since many patients are all probationers and parolees, they

could be guarding their behavior until full civilian status

is attained. Therefore, an extensive follow-up study would seem necessary to adequately assess these programs. Should such a study be available, it will be included in the analysis of other program results.

A crucial question is to what extent, if any, is methadone maintenance treatment a larger factor toward success than individual motivation and/or other forms of treatment? Program evaluators and others sometimes suggest that the "crisis" phenomenon -- the drastic increase of crime and drug use immediately preceding treatment -- reported earlier by the Columbia and Harvard ARTC evaluators, and others, indicates that motivation alone is not the larger contributor to program success, since in many cases this crisis actually occurs while the prospective patient is on a waiting list. The critical factor in success, therefore, is seen as program participation itself. It is doubtful that many studies will have data on patient motivation prior to treatment which will answer this question, principally because there is little information available on waiting list patients.

Other focal points of investigation in this matter are the multi-modality and abstinence programs. Although we are still in the process of gathering existing information on these models, it appears that while success is uniform for those patients remaining in treatment, methadone patients have a much higher retention rate than abstinent patients.

Further study in this area will deal with identifying any
possible differences in the pre-treatment profiles of the
patients in the various modalities. Another approach will
be to chart the data gathered from other studies so that
valid comparisons and inferences can be made. This will
involve hurdling the major logistical obstacle of transposing
the data into a single criterion measure, as there are
apparently as many methods of reporting as there are studies.

The obvious corollary to this line of thought is a very
difficult question; given budgetary constraints and limited
facilities, should the major effort be concentrated on those
most or least likely to achieve success? If drug rehabili-
tation becomes largely a law enforcement effort, we are faced
with the possible anomalous situation where the more
motivated and "likely to succeed" patients would receive
the more negligent treatment. These questions will be
addressed in the final report.

Finally, there is the problem alluded to above, of the
vagueries and lack of uniformity in reporting data. At the
very least, this creates the very tedious problem for the
researcher of transposing the various methods into a single
criterion measure. Crime data, for example, has been reported
in rates, percentages, man-months, man-years, and raw figures.
More importantly this can often lead to uncertainty and mis-
conception. One study has reported crime data in percent

per patient, percent per man-months, and as raw figures.
When computed into a single measure, their findings were hardly
as imposing. Another study, reporting reasons for discharge,
offered rates of 7%, 7%, 14%, 14%, and 58% for an N of
twenty. A third study, diagraming arrest rates for three
cohorts, showed the smallest group of patients, who were in
treatment for the longest period of time and with the lowest
post treatment arrest rate, as having the highest pre-treat-
ment arrest rate. If this ambiguity was not a typographical
error (escaping at least two editors, as the study appears
in two known journals) then it is surely a phenomenon worthy
of comment in the body of the paper. The respective authors
are currently being contacted in hopes of clarifying these
points.

While it may be that these are simply examples of shoddy
reporting, the problem could at least in part be alleviated
by a uniform method of data reporting. The final report will
include such a proposal.

To summarize, one of the major goals of this report
has been to indicate the direction of and progress toward
the final report (for May, 1975). The questions to be answered
have been presented along with the progress made toward
their answers. Some work has been completed, such as the
police study and the Brooklyn Courts study, and it will be
integrated into the final report. There is data yet to be
analyzed from the patient Criminal Evaluation Questionnaire.

New sources of data on patient performance are also being pursued, particularly with respect to the intensity of treatment, and offical records on criminal dispositions and patient earnings.

Finally these data will be interpreted as they relate to the criminal justice system in particular. The relationship between various types of drug treatment programs and criminal justice agencies needs clarification. Criminal justice agency personnel must understand the capabilities and the limitations of drug treatment programs such as ARTC in impacting on the populations they serve. They also require guidance regarding the future role of criminal justice agencies in funding treatment and research in drug treatment programs.

Violations

Offense #	Offense - name	Severity	Frequency
15.99	Public intoxication	V	88
55.10	Traffic Violation	V	57
70.40	Violation of Parole		209
75.05			1
10.00	Attempt (any)	Range: A/F-B/M	2
10.05	Attempt (any)		30
10.15	Attempt (any)		1
10.99	Attempt (any)		1
11.11	Removal of a dead body		1
16.54			1
25.45	Abortion-1	D/F	1
30.20	Sexual Misconduct	A/M	2
30.38	Consensual Sodomy	B/M	36
30.40	Sodomy-3	E/F	1
30.99	**Sexual Misconduct (any)	Range: B/F-B/M	77
55.20	Larceny - Scalping	V	7
65.05	Unauthorized use of motor vehicle	A/M	43
70.60	Unlawfully using slvgs-1	E/F	5
70.65	Forgery of Vehicle I.D.#	E/F	1
70.70	Illegal possession of license plates	E/F	3
75.25	Tampering with public records -1	D/F	3
77.99			1
80.00	Sports bribe		1
90.25	Criminal Impersonation	A/M	9
95.05	Obstructing Gov't Admin'tion	A/M	47
95.10	Refusing to Aid a police officer	B/M	1
00.05			1
00.51			1
10.05			5
10.40	Perjury (oral)	E/F	3
10.45	Perjury (written)	E/F	1
15.05	Bribe receiving by witness	D/F	1
05.00	*Escape (any)	Range: A/M-D/F	1
05.05	Escape-3	A/M	5
05.10	Escape-2	E/F	6
05.30	Resisting arrest	A/M	131
05.35	Bail Junping-2	A/M	3
05.50	Hindering Prosecution (any)	A/M-D/F	1
05.60	Hindering Prosecution-2	E/F	2
05.99	*Avoiding arrest/prosecution (any)	Range: A/M-D/F	4
25.00	Gambling (policy)	V	25
25.05	Promotion of Gambling-2	A/M	88
25.10	Promotion of Gambling-1	E/F	26
25.15	Possession of Gambling re- cords-2	A/M	63

ffense #	Offense - name	Severity	Frequency
5.20	Possession of Gambling Re-cords-1	E/F	· 3
5.30	Possession of Gambling Devices	A/M	1
5.35	Gambling (phoning numbers)		1
5.40	Gambling, Lottery		1
5.99	*Gambling offense (any)	A/M, E/F	16
5.05	Obscenity	A/M	3
5.21	Discriminating Indecent Material to Minors	E/F	2
5.99	*Obscenity (any)	Range: A/M-D/F	1
0.06	Riot-1	E/F	5
0.10	Unlawful Assembly	B/M	12
0.20	Disorderly Conduct .	V	617
0.25	Harrassment	V	97
0.30	Harrassment (aggravated)	A/M	42
0.35	Loitering	V	554
0.40	Public Intoxication	V	40
0.45	Criminal Nuisance	B/M	5
0.99	*Offenses against Public Order (any)	Range: V-E/F	218
5.00	Public Lewdness	B/M	1
5.05	Offensive Exhibitions	V	1
6.35			1
0.00	Abandonment of child	E/F	3
0.05	Non-support of child	_ A/M	9
0.10	Endangering the Welfare of a child	A/M	16
0.00	Possession of fireworks	V	5
0.20			1
4.30			1
5.07			1
1.00	Unregistered Motor Vehicle		12
1.60			1
5.00	Violation of Firework Permit	V	1
2.00			1
0.00	Juvenile Delinquence		119
1.00	Unlicensed Operator		29
3.00			7
4.00			2
5.00			2
0.00	Military Desertion		6
0.10	AWOL		16
0.99	*Unspecified Military		29
0.00	Sanitary Code Violation	V	26
9.91		V	1
0.00	Vagrancy	V	72
0.00			11

Offense #	Offense - name	Severity	Frequency
	Drug Offenses		
20.00	* Dangerous Drug Offensés (any)	Range: B/M-B/F	50
20.05	Possession of dangerous drugs-4	A/M	1477
20.10	Possession of dangerous drugs-3	E/F	59
20.15	Possession of dangerous drugs-2	D/F	359
20.20	Possession of Dangerous drugs-1	C/F	56
20.30	Selling Dangerous Drugs-3	D/F	57
20.35	Selling Dangerous Drugs-2	C/F	232
20.40	Selling Dangerous Drugs-1	B/F	15
20.45	Possession Hypodermic Instruments	A/M	919
20.09	Crim Possession of Dangerous drugs-5	C/F	1
20.99	* Unspecified drug offenses	Range: A/M-B/F	587
20.33	Possession, controlled substance		2
20.50	Criminally using drug paraphanalia-2	A/M	8
20.55	Criminally using drug paraphanalia-1	D/F	1
20.25	Possession, Drugs in Automobile		·6
	Prostitution		
30.00	Prostitution	V	234
30.20	Promoting Prostitution-3	A/M	12
30.25	Promoting Prostitution-2	D/F	4
30.99	* Prostitution Offense (any)	Range: V - B/F	1
	Property		
40.25	Burglary-2	C/F	137
40.30	Burglary-1	B/F	28
40.99	** Unspecified Burglary-related	Range: V - B/F	521
55.05	* Larceny - Unspecified	Range: A/M-C/F	27
55.25	Petit Larceny	A/M	754
55.30	Grand Larceny-3	E/F	220
55.35	Grand Larceny-2	D/F	108
55.40	Grand Larceny-1	C/F	26
55.50			1
55.90			1
55.99	* Larceny (any)	Range: A/M-C/F	445
65.00	Misaplication of Property	A/M	2
65.12			1
65.15	Theft of Services	A/M	35
65.25	Jostling (pick pocketing)	A/M	74
65.30	Fraudulent Accosting (on game)	A/M	5
65.40	Crim. Possession of Stolen prpty-3	A/M	253
65.45	Crim. Possession of stolen prpty-2	E/F	150
65.50	Crim. Possession of Stolen prpty-1	D/F	29

Offense #	Offense - name	Severity	Frequency
165.55	Criminal Use of Credit Cards	.	1
165.65	Accomplice to Possession of stolen Prpty		2
165.99	*Some Misaplication of Prpty	Range: A/M-D/F	60
300.00	Theft of Mail		6
	Robbery		
160.00	*Robbery (unspecified)	Range: D/F-B/F	2
160.05	Robbery-3	D/F	29
160.10	Robbery-2	C/F	114
160.15	Robbery-1	B/F	142
160.99	*Robbery (any)	Range: D/F-B/F	155
	Assault		
120.00	Assault-3	A/M	139
120.05	Assault-2	D/F	203
120.10	Assault-1	C/F	109
120.15	Menasing	B/M	40
120.20	Reckless Endangerment-2	A/M	9
120.25	Reckless Endangerment-1	D/F	35
120.35	Promoting a Suicide attempt	B/F	1
120.65			1
120.99	*Assault (unspecified)	Range: B/M-B/F	319
125.00	*Homicide (any)	Range: E/F-A/F	1
125.15	Manslaughter-2	C/F	2
125.20	Manslaughter-1	B/F	4
125.25	Murder	A/F	29
125.99	*Homicide (unspecified)	Range: E/F-A/F	2
130.25	Rape-3	E/F	22
130.30	Rape-2	D/F	9
130.35	Rape-1	B/F	15
130.50	Sodomy-1	B/F	1
130.65	Sexual Abuse-1	D/F	3
135.05	Unlawful Imprisonment-2	A/M	1
135.20	Kidnapping-2	B/F	2
139.09			1
135.99	*Unspecified Coercion Offenses	Range: A/M-B/F	3
	Forgery		
170.05	Forgery-3	A/M	10
170.10	Forgery-2	D/F	178
170.15	Forgery-1	C/F	12
170.20	Possession of forged instrument-3	A/M	4
170.25	Possession of forged instrument-2	D/F	34
170.30	Possession of forged instrument-1	C/F	2

Offense #	Offense - name	Severity	Frequency
70.26			1
70.35	Unspecified Forgery	Range: A/M-C/F	1
	Threshold Crimes		
05.00	Conspiracy-4	B/M	3
05.10	Conspiracy-2	E/F	2
05.15	Conspiracy-1	C/F	1
05.99	*Conspiracy (any)	Range: B/M-C/F	3
15.99	*Crim. Facilitation (any)	Range: A/M-C/F	1
40.05	Criminal Tresspass-3	V	32
40.10	Criminal Tresspass-2	B/M	52
40.15	Criminal Tresspass-1	A/M	23
40.35	Possession of Burglary Tools	A/M	405
50.10	Arson-2	C/F	5
50.99	*Arson (unspecified)	Range: E/F-B/F	8
70.40	Possession of forgery Devices	D/F	4
40.36	Loitering to use drugs	B/M	124
65.05	Possession of Weapons	A/M	413
65.10	Mfg/transportation of weapons	D/F	6
65.20	Not Carrying Weapons Permit	V	2
65.35	Prohibited use of weapons		7
65.99	*Unspecified Weapons Offense	Range: V - A/M	3

Note: There are 23 unclassified
offenses, with a total of 45
cha rges. Of these 23 offenses
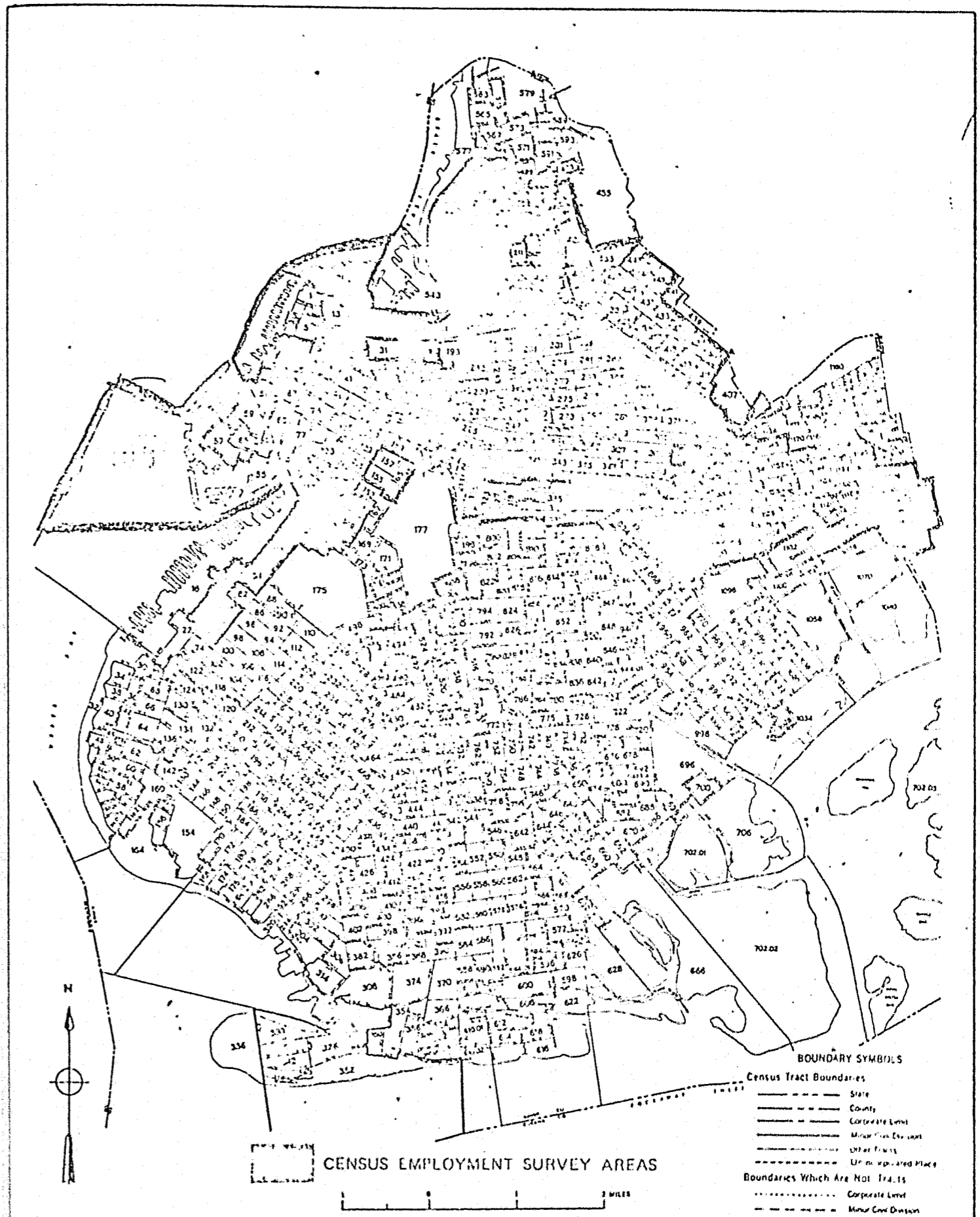18 of them have a single charge

KEY TO SEVERITY SCALE FOR NEW YORK CITY OFFENSE CODES

V= Violations
B/M= "B" Misdemeanor (least serious non-violation offense)
A/M= "A" Misdemeanor
E/F= "E" Felony
D/F= "D" Felony
C/F= "C" Felony
B/F= "B" Felony
A/F= "A" Felony (most serious offense)

*These offenses are subject o further revision within the category
it is now placed, pending discovery of the particular offense
degree. The severity column will note the range of the various
degrees.

**These offenses are subject to further reclassification both within
and without the category it is now placed pending discovery of the
particular offense degree. They are currently classified according
to the category containing the bulk of such offenses where the
degree is known.

Portion of Borough Including Census Employment Survey Areas

CENSUS EMPLOYMENT SURVEY AREAS

BOUNDARY SYMBOLS

Census Tract Boundaries

State
County
Corporate Limit
Minor Civil Division
Other Tracts
Unincorporated Place

Boundaries Which Are Not Tracts

Corporate Limit
Minor Civil Division

N

2 MILES

Based on Preliminary 1973 Census Tract Outline Map

U. S. DEPARTMENT OF COMMERCE   BUREAU OF THE CENSUS

C-1

DEMOGRAPHIC CHARACTERISTICS

	Community N = 149,920*						Patient Population N = 991					
	41.5% Males (62,284)		58.5% Females (87,636)		Totals		81.1% Males (804)		18.9% Females (187)		Totals	
Ethnicity	N	% TOTAL POPULATION	N	% TOTAL POPULATION	N	%	N	% TOTAL POPULATION	N	% TOTAL POPULATION	N	%
Blacks	47,368	31.6%	69,887	46.6%	117,255	78.2%	630	63.6%	139	14%	769	77.(
White	4070	2.7%	3857	2.6%	7927	5.3%	72	7.3%	20	2%	92	9.:
Spanish Speaking	9257	6.2%	12,908	8.6%	22,165	14.8%	100	10.1%	24	2.4%	124	12.!
Others	1589	1.1%	984	.6%	2573	1.7%	2	.2%	4	.4%	6	.(

*Based on population aged 22 – 44

EDUCATIONAL ATTAINMENT (by ETHNICITY)

	Community (age 25+) N = 226,548				Patient Population N = 983*			
Yrs. Completed	Black 173,779	Spanish 27,298	White 25,471	Total 226,548	Black 767	Spanish 124	White 92	Total 983
Grades 1 - 8	136,597 78.6%	14,249 52.2%	17,297 67.9%	168,143 74.2%	737 96.1%	106 85.5%	90 97.8%	933 94.9%
1 - 3 years of High School	116,070 66.8%	10,209 37.4%	13,417 52.7%	139,696 61.7%	712 92.8%	95 76.6%	83 90.2%	890 90.5%
High School Graduate	65,449 37.7%	3253 11.9%	7478 29.4%	76,180 33.6%	251 32.7%	20 16.1%	27 29.3%	298 30.3%
1 - 3 years of college	12,240 7%	531 2%	2322 9.1%	15,093 6.7%	33 4.3%	0	2 2.2%	35 3.6%
College Graduate	3944 2.3%	155 .6%	1278 5%	5377 2.4%	1 .1%	0	0	1 ..1%

*No patients currently enrolled in school: does not include 6 "others"

EDUCATIONAL ATTAINMENT BY SEX

	Community N = 226,548			Patient Population N = 989		
	Males 95,620	Female 130,928	Total 226,548	Males 802	Females 187	Total 989
1 - 8	72,176 75.5%	95,967 73.3%	168,143 74.2%	767 95.6%	169 90.4%	936 94.6%
1 - 3 Yrs. H.S.	60,849 63.6%	78,847 60.2%	139,696 61.7%	734 91.5%	158 84.5%	892 90.2%
H.S. Grad	34,968 36.6%	41,212 31.5%	76,180 33.6%	249 31%	50 26.7%	299 30.2%
1 - 3 Coll.	8809 9.2%	6284 4.8	15,093 6.7%	35 4.4%	2 1.1%	37 3.7
Coll. Grad	3615 3.8%	1762 1.3%	5377 2.4%	1 .1%	0 0	1 .1%

EMPLOYMENT DURING LAST 12 MONTHS (BY ETHNICITY) MALES

Employed by weeks	Community 61,324 (age 22 - 44)			Patients (793) *		
	Blacks 47,998	White 13,326	Total 61,324	Black 621	White 172	Total 793
50 - 52	35,108 73.1%	8725 65.5%	43,833 71.5%	55 8.9%	15 8.7%	70 8.8%
40 - 49	2919 6.1%	1036 7.8%	3955 6.4%	30 4.8%	4 2.3%	34 4.3%
27 - 39	1898 4.0%	1264 9.5%	3162 5.2%	43 6.9%	17 9.9%	60 7.6%
14 - 26	1902 4.0%	495 3.7%	2397 3.9%	71 11.4%	27 15.7%	98 12.4%
1 - 13	1379 2.9%	392 2.9%	1771 2.9%	100 16.1%	27 15.7%	127 16%
0	4784 10%	1417 10.6%	6201 10.1%	322 51.9%	82 47.7%	404 50.9%

* done only by blacks/white to conform to Census data

MAJOR OCCUPATION OF EMPLOYED (MALES)

Community (aged 22 - 44)		Patient Population (N = 804)		
Kind of work	50,733	Occupation before drug problem* (771)	Since drugs N = 746**	Current N = 231***
Professional, Business/Managerial	5578 11%	26 3.4%	25 3.4%	9 3.9%
Sales/Clerical	9391 18.5%	156 20.2%	153 20.5%	30 13%
Skilled Manual	7479 14.7%	127 16.5%	124 16.6%	46 19.9%
Semi skilled	15961 31.5%	253 32.8%	241 32.3%	64 27.7%
Unskilled	12321 24.3%	209 27.1%	203 27.2%	82 35.5%

* 33 reported no jobs before drug problem

** 58 reported no jobs since

*** 573 reported no jobs

BIBLIOGRAPHY

Cartey, Desmond, "How Black Enterprisers Do Their Thing: An Odyssey Through Ghetto Capitalism," in (ed.) Glenn Jacobs, The Participant Observer (New York: George Braziller, 1970)

Clinard, Marshall B. and Quinney, Richard, Criminal Behavior Systems, A Typology (New York: Holt, Rinehart and Winston, Inc., 1967)

David, Deborah S. and Kleinman, Paula, "Victimization and Perception of Crime in a Ghetto Community," May, 1972, (Addiction Research and Treatment Corporation Evaluation Team, Columbia University School of Social Work, Mimeograph)

Glaser, Daniel, Social Deviance (Chicago: Markham Publishing Company, 1971)

Lemert, Edwin M., Human Deviance, Social Problems and Social Control, (Englewood Cliffs, New Jersey, Prentice Hall, 1967)

Lowenthal, David, "Race and Color in the West Indies," Daedalus, Vol. 96 (2), 1967

Lowenthal, David, West Indian Societies, (New York: Oxford University Press, 1972)

Lukoff, Irving F., "Social and Ethnic Patterns of Reported Heroin Use and Contiguity with Drug Users," June, 1972 (Addiction Research and Treatment Corporation Evaluation Team, Columbia University School of Social Work, Mimeograph)

Matza, David, Becoming Deviant (Englewood Cliffs, New Jersey, Prentice Hall, Inc., 1961)

Narcotics Register, "Rates of Heroin Use by Boroughs and Health Areas in New York City," April, 1964 (Mimeograph)

Reid, Ira de A., The Negro Immigrant; His Background, Characteristics and Social Adjustment, 1899-1937, (AMS Publisher, 1939)

Tardola, Harold, "The Needle Scene," in (ed.) Glenn Jacobs, The Participant Observer (New York: George Braziller, 1970)

Rubin, Vera (editor), Caribbean Studies: A Symposium, University College of the West Indies, 1957

END