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Criminal Justice Clients in Drug Treatment

James J. Collins
Robert L. Hubbard
J. Valley Rachal
Elizabeth R. Cavanaugh
S. Gail Craddock

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ABSTRACT

A special criminal justice system program, the Treatment Alternatives to Street Crime (TASC) Program, was conceived in the late 1960s and was designed to divert drug-abusing offenders from the criminal justice system to drug treatment. The first TASC program began in 1972. The Treatment Outcome Prospective Study (TOPS), an ongoing large scale, longitudinal evaluation of federally funded drug treatment programs, has gathered data on the TASC and criminal justice system involvement of TOPS clients and is thus able to estimate partially the impact of this involvement on drug treatment outcome.

This report first provides a comprehensive description of TASC- and criminal justice-referred TOPS clients who entered drug treatment in 1979 and 1980 and compares them to other clients who entered TOPS treatment programs during the same period. Criminal justice and other TOPS clients differ in some ways. The criminal justice clients are more likely than other TOPS clients to be male and young. Criminal justice clients' self-reported drug use patterns also differ from other TOPS clients. Criminal justice clients are much more likely to have been involved with the criminal justice system immediately before and in the year before entering drug treatment.

The report also compares TASC, criminal justice, and other TOPS clients in the lengths of time they are retained in treatment and on the basis of other behavioral indicators for the first six months in treatment. Regression analyses show that TASC and other criminal justice clients stay in treatment longer than other TOPS clients. Comparisons also show that TASC clients improve at least as much as other TOPS clients in the extent of their self-reported drug use and criminal behavior during the first six months in treatment.

The findings show that appropriate drug abusing offenders are referred to drug treatment by TASC and that these clients do as well as other drug treatment clients in the first six months after treatment intake. The findings also show the criminal justice involvement per se has an effect on drug treatment outcomes. Findings are not conclusive because the followup period is relatively short and some known retention and treatment outcome covariates have not been controlled. When more complete TOPS data are available for analysis, TASC effects will be examined more fully.

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I. INTRODUCTION

This report uses the data gathered from the Treatment Outcome Prospective Study (TOPS) to examine the characteristics and performance of criminal justice clients in drug treatment. TOPS is sponsored by the National Institute on Drug Abuse (NIDA) with the cooperation of the National Institute of Justice (NIJ). This long term, large-scale longitudinal study will provide information on the natural history of drug abusers seeking treatment in federally funded drug abuse treatment programs. TOPS is designed to track a multi-year census of persons identified as eligible for treatment at selected drug treatment programs and the Treatment Alternatives to Street Crime (TASC) programs. These clients are interviewed at the time they contact the programs, periodically while in treatment, and then at specified intervals after their terminations from treatment. The research methodology is described in section III of this report.

A. Relationship Between TOPS and TASC

This report focuses on individuals referred by TASC from the criminal justice system into selected drug treatment programs and compares TASC and other TOPS clients, including those involved with the criminal justice system outside TASC. It is well known that a significant percentage of offenders who come to the attention of the criminal justice system regularly engages in the use of illegal drugs, and it is commonly believed that this illegal drug usage is a cause of criminal activity for some offenders. By providing alternatives to drug abusing offenders and a linkage between the criminal justice system and the drug treatment system, TASC has attempted to direct individuals to needed treatment for both their own and society's advantage.

In order to assess the impact of TASC programs, it is important to address three questions: (1) how effectively do TASC programs identify criminal justice system entrants who are in need of drug treatment? (2) how successful are TASC programs at persuading individuals needing drug treatment to seek it? (3) what behavioral changes characterize drug treatment clients referred by TASC after entry into treatment? The TOPS survey of TASC clients described in this report is the second phase of a TASC program evaluation (System Sciences, 1978). The current evaluation of TASC is designed to describe individuals who are diverted from the criminal justice system to treatment for drug abuse

problems and to present data for the outcomes of this treatment. The research issues directly relevant to questions of TASC's effectiveness are also the issues that are being examined in the TOPS research. The report also examines separately clients who were involved with the criminal justice system outside TASC at the time they entered treatment.

B. Focus of this Report

After discussions of background, previous literature, and the TOPS design and methodology, a detailed descriptive analysis of TASC referred, criminal justice, and other TOPS clients is provided. TOPS is a multi-year, longitudinal study of clients entering federally funded drug treatment programs; this report deals with those who entered TOPS programs for the two years beginning January 1, 1979 and ending December 31, 1980. The intent of including extensive descriptive information in this report is to provide a basis for comparing TASC, criminal justice, and other TOPS clients to other aggregates like criminal justice system clients, or those who are described by the Client Oriented Data Acquisition Process (CODAP) system. Following the overall description of TOPS client groups, comparisons are made on a variety of drug use and other behavioral dimensions. TOPS clients who entered treatment via a TASC referral are compared to clients who entered treatment from other sources. These comparisons consider treatment modality variation and describe and discuss differences between TASC-referred and other TOPS clients on a number of pretreatment and treatment intake dimensions.

The final section of this report compares TASC-referred, criminal justice and other TOPS clients on several outcome measures, attempting to understand the implications of coming to drug treatment through a TASC referral, or being involved with the criminal justice system at treatment intake. Client groups are compared with each other with respect to retention in treatment, drug use, depression symptoms, criminal behavior and employment while in treatment. These analytic comparisons permit judgments about the effects of legal involvement at treatment intake.

The information developed in this report provides important insights into the effectiveness of TASC and similar programs. It should be noted, however, that a more comprehensive and definitive assessment of TASC must await the availability of followup data which will describe the posttreatment behaviors of TASC referred clients.

II. BACKGROUND AND LITERATURE

A. Rationale for TASC

One of the most consistent findings in social research is the statistical relationship between the use of illicit drugs and law-violative behavior. Researchers have consistently found that high rates of illicit drug use and criminal behavior occur within the same ecological environment or neighborhood milieu (Chein, Gerard, Lee, and Rosenfeld, 1964; Dai, 1937; Farris and Dunham, 1939). It has been frequently found that a high percentage of those arrested and/or incarcerated engage in illicit drug use (Anslinger and Thompkins, 1953; Barton, 1976; Eckerman, Bates, Rachal, and Poole, 1971; Ford, Hauser, and Jackson, 1975; Kozel and DuPont, 1977; Petersilia, Greenwood, and Lavin, 1978; Peterson and Braiker, 1980; Stephens and Ellis, 1975). Many criminological researchers have concluded that in the country's major metropolitan areas, large proportions of those arrested for property crimes are heroin users and, perhaps, a majority of all property crimes is accounted for by heroin users (Ball, Rosen, Flueck, and Nurco, 1980; Drug Use and Crime, 1976; Inciardi and Chambers, 1974; McBride, 1976). The relationships between crime and drugs and the assumed impacts of those relationships on street crime, especially property crime, provided a major impetus to develop programs to help break the linkages between crime and drugs by referring drug abusers identified in the criminal justice system to appropriate treatment.

1. The Diversion Concept

Clinicians and researchers have long agreed that traditional criminal justice system approaches are not effective in treating drug abuse. The ineffectiveness of the those approaches, particularly as they affected status offenders such as drug users, played a major role in the development of the diversion concept. Criticisms of traditional criminal justice focused on the inadequacy of the rehabilitative model of the penal system, the adverse labeling and learning effects of criminal justice processing and incarceration, and the costs associated with the criminal justice system. The arguments for diversion grew out of these criticisms (American Friends Service Committee, 1971; Carter and Klein, 1976; Clemmer, 1950; Lemert, 1976; Lipton, Martinson, and Wilks, 1975) and the 1967 Presidential Task Force which recommended the development of criminal justice diversion programs (President's Commission, 1967). Based

on the recommendations of the Task Force, diversion programs of various types have been developed. General diversion programs currently exist in almost every state for many types of offenders (American Bar Association Commission, 1975).

Diversion may be more effective for some clients because it is outside the criminal justice system. Diversion may also be less expensive than the traditional criminal justice system in that (1) pretrial diversion saves court time and the expense of court officers and personnel and reduces the work load of the court system, (2) diversion is cheaper than incarceration, and (3) diversion programs are usually shorter than prison sentences, reintegrating the individual into society at a lower daily and total economic cost. As will be discussed below, TASC programs have increasingly become modified from pretrial diversion programs to a variety of approaches that function at different points in the criminal justice system.

Drug users were once thought to be poor candidates for diversion both because of their assumed higher rates of crime commission and because they were thought more likely than non-drug using offenders to become fugitives. However, several states and cities independently developed diversion programs for drug users in the criminal justice system. Washington, D.C. had both the city Narcotics Treatment Administration and the experimentally designed Narcotics Diversion Project, a provider of direct treatment services. In New York City, drug dependent offenders (except those charged with drug sales or violent crimes) were eligible for diversion under the Court Referral Project (CRP). Operated by the city's Addiction Services Agency, CRP constituted one of the largest drug diversion programs in the country. The California Penal Code permits any individual charged with possession or use of drugs who has not been diverted or convicted of a felony within the past five years to be diverted for a treatment period of six months to two years.

Rufener, Rachal, and Cruze (1976) have demonstrated reduced costs for the criminal justice system in calculations of the cost-benefit ratios for drug treatment programs, although Schmidt (1979) has questioned whether social costs have simply been shifted from the criminal justice system to the health care system. McGlothlin (1979) concluded that there was some evidence that criminal justice supervised clients reduced narcotic use and remained in drug treatment longer than legally unsupervised clients. Though the assumptions upon which diversion is based have not been entirely validated, the National

Association of Commissioners on Uniform State Laws recommended that all states adopt a law which would provide for mandatory diversion of certain drug offenders and discretionary diversion of all drug using offenders (Wynstra, 1976).

2. The TASC Concept

The Treatment Alternatives to Street Crime (TASC) concept was created by the Special Action Office for Drug Abuse Prevention (SAODAP) in 1972. Federally funded and locally administered, these programs are intended to become institutionalized under state or local auspices at the expiration of their grant periods. The functions of the TASC programs are to identify drug users who come into contact with the criminal justice system, to refer those who are eligible to appropriate treatment, to monitor clients' progress, and to return violators to the criminal justice system. Early in the history of TASC, some programs were also the providers of some limited services where other treatment facilities were not available.

As originally conceived, TASC was meant to serve a pre-trial criminal justice system diversion function. Many arrested drug abusers are thought to be involved in crime to support their drug habits, and empirical evidence shows that successful treatment of the individual's drug problem will reduce the likelihood or level of further criminal behavior (Ball et al., 1980; Burt Associates, 1977; McGlothlin, Anglin, and Wilson, 1977; Sells, Demaree, Simpson, Joe, and Gorsuch, 1977; Simpson, Savage, Lloyd, and Sells, 1978). Additionally TASC is thought to reduce the criminal justice system caseload burden. As TASC programs have proliferated and responded to drug treatment needs and the needs of local criminal justice systems, the original TASC concept has been modified to include several types of programs.

The identification, diagnostic, referral, and monitoring functions of TASC are carried out in various ways in different jurisdictions. For example, some TASC programs emphasize diagnosis; others emphasize monitoring. In some jurisdictions TASC referrals are usually made after arrest but prior to adjudication; under other programs, TASC operates as a conduit to treatment after adjudication or as a monitor of individuals sentenced to probation conditional on enrollment in drug treatment. While the operational objectives and modes vary across TASC programs, the general goals of the TASC model--to assist the criminal justice system and to help control drug-related crime--have remained consistent.

B. Evaluation Studies of TASC

TASC evaluation efforts have focused on a limited number of programs or on a general overview of the TASC concept. Several across program evaluations of TASC have been performed, though none has examined client behavior independently from program records. The first evaluation (System Sciences, 1974) included the first five projects funded - Cleveland, Indianapolis, Wilmington, New York and Philadelphia. It found these projects to be generally successful in their goals of identifying drug users among arrestees, referring them to treatment, monitoring clients and, ultimately, reducing crime.

The 1976 evaluation by the Lazar Institute (Toborg, Levin, Milkman, and Center, 1976) covered 22 existing TASC projects. Its findings were based on data from a larger number of projects which had existed for relatively long periods of time. This report found that the existing projects effectively identified drug users in the arrestee population, appeared to reduce rearrest rates, and were generally considered by the criminal justice system to be viable alternative methods of handling drug using criminals. The Lazar Institute report pointed out, however, that many important questions regarding the most effective criteria and mechanisms, and long-term effects had not been examined.

A System Sciences report (1978) found that screening, diagnostic and referral, and monitoring procedures were effective. Based on a definition of success as retention in treatment or successful discharge from treatment, 64 percent of clients were deemed successful. However, no information on behavior after leaving treatment was available. Thus, long-term impacts of TASC and changes in client behavior after leaving treatment are unknown.

Studies have been conducted of individual TASC programs in Denver (Colorado Division of Criminal Justice, 1975), Cleveland (Mackie, 1974), and Philadelphia (Drug Use and Drug Users in an Arrestee Population, 1974). These studies generally provide information on the characteristics of clients entering TASC and the identification procedures employed. Some descriptive information is also available on diagnostic and referral procedures. Cost-benefit analyses are not available for most program reports or studies except on a very general level. No study included gathering the type of followup data after a client left treatment that are now being collected in TOPS.

Perhaps the most extensive research and data collection efforts that have been conducted were in the TASC program in Dade County, Florida. Specifically,

data were collected on (1) a probability sample of all individuals arrested on a felony or major misdemeanor charge in Dade County; (2) all those identified and referred by TASC to the community treatment system; and (3) the treatment process and treatment outcome (including re-arrest) of TASC diverted clients in the community treatment system. Initial analyses of these data have been published and presented on (1) the proportion of arrested population identified as drug users (McBride, 1976), (2) drug-using arrestees not diverted by Miami TASC compared to those diverted (McBride and Dalton, 1976), (3) the impact of diversion on a treatment system (McBride and Bennett, 1978), and (4) the treatment outcomes of TASC clients (McBride and Weppner, 1978). Although these reports provide much useful information, they have not provided a comparison of behavior for TASC and non-TASC clients during and after treatment. Such comparisons are vital to any complete understanding and evaluation of TASC programs. Also, Schmidt (1979) is skeptical of some aspects of the Miami TASC program effects. While he admits drug offender diversion has probably reduced court overcrowding, he does not see a net cost-benefit advantage because "...the drug problem itself has only been diverted to a neo-health care system from a formal criminal justice system" (p. 491).

This report makes comparisons between TASC and non-TASC drug treatment clients for pretreatment and intreatment behaviors. Posttreatment comparisons are not made because followup data are not available yet. These comparisons provide the basis to understand the impact of TASC. However, before beginning these comparisons, the TOPS design and methodology are described.

III. METHODOLOGY OF THE INTREATMENT STUDY

We begin this description of the general methodology of the Intreatment Study by briefly considering the evaluation of TASC within the overall design of the TOPS research program. The selection of TOPS communities, programs and clients for the two years of the Intreatment Study is discussed next and is followed by a description of the intreatment interviews and the data collection and processing system. Finally, the general approach to the TOPS data analysis is noted highlighting the analysis of TASC data. More complete information about the technical issues and details of the TOPS methodology are reported by Hubbard, Rachal, Cavanaugh, Kirkpatrick and Richardson (1982).

A. TOPS Prospective Cohort Research Design

The complexities of studying the behavior of clients in natural settings pose many design, analysis and interpretation problems. The evaluation of TASC in the TOPS research program is principally a descriptive assessment of client behavior which employs a survey design for the data collection. More formally, TOPS uses a longitudinal, prospective cohort research design. Detailed background information for each client was collected retrospectively at intake for the year before entry into treatment. Intreatment interviewing took place at one month, three months and quarterly thereafter for as long as two years if the client remained in treatment. Followup interviews are being conducted with samples of clients 3, 12 and 24 months after treatment. A longitudinal methodology will be followed for two calendar year entry cohorts, 1979-1980.

The use of a longitudinal, prospective cohort design has two major advantages over other feasible designs. First, it permits the use of measurements made at one time to predict behaviors at a later time. Second, the cohort design can provide an assessment of the impact of other factors like events occurring over time that might change the nature of treatment, the characteristics and behaviors of clients entering treatment, and the community environments that may affect program operations and client behaviors.

While TOPS is viewed principally as a descriptive study, the prospective cohort research design encompasses many of the principal strengths of both evaluation and developmental research. For example, the major methodological issues of quasi-experimental designs concerning internal and external validity (Campbell and Stanley, 1963; Cook and Campbell, 1979) are addressed by the

TOPS design, while key concepts in developmental or natural history studies like age of the individual being studied, and the cohort or contemporaries of an individual, and the time of measurement are considered (Schaie, 1965).

B. Selection of Communities, Programs and Clients

The 1979 Intreatment Study population consisted of all treatment clients who applied for treatment or were admitted to one of the selected treatment programs in six communities. Clients contacted by the TASC programs in four of the communities constitute a separate but overlapping population. In two cities a separate data collection was conducted at the TASC agencies. All clients coming to the selected treatment programs or TASC agencies were asked to participate in TOPS. Major emphasis was placed on a reasonable, manageable number of selected programs in order to tightly control the study, to minimize nonresponse, and to maximize quality control. The treatment programs considered for selection in each site included the major drug treatment modalities of detoxification, outpatient methadone, residential and outpatient drug free.

1. Communities

Communities were selected by region in order to provide a geographical distribution of the programs and treatment systems studied. Community selection included consideration of the stability of the treatment system, the environment in which the program functioned, and the presence and stage of development of the TASC agency. The goal was to select communities that reflected the problems of and approaches used in large scale treatment systems in major metropolitan areas as well as centralized systems in smaller cities. Based on considerations of the technical, administrative and logistical advantages and disadvantages of working in each city, the final sample for the 1979 Intreatment Study included the cities of Chicago, Illinois; Des Moines, Iowa; New Orleans, Louisiana; New York, New York; Phoenix, Arizona; and Portland, Oregon.

Based on the initial results of the Intreatment Study, a decision was made to expand the number of cities and programs for the 1980 admission cohort. Efforts were made to maximize the number of outpatient drug free programs and provide a large sample of non-opiate, multiple drug-abusing clients with the additional programs and cities. Based on the SMSA data from CODAP, programs in the two cities that best met these criteria, Miami, Florida and San Francisco, California were added in January, 1980.

2. TASC Agencies

When the TOPS data collection was initiated, there were TASC agencies in five of the original six cities selected for TOPS: Chicago, Des Moines, New Orleans, Portland and Phoenix. Each was in a different stage of development. The Chicago and Des Moines agencies were funded by state and local agencies. The Portland and Phoenix agencies were funded by the Law Enforcement Assistance Administration (LEAA) through 1980. Full state and local funding was not obtained by the New Orleans agency, and it was terminated in 1979 shortly after the beginning of the TOPS data collection. No data from New Orleans are included in this report. In 1980 the state and county funded Miami TASC agency was added to the TOPS data collection.

Each of the TASC agencies had a somewhat different approach and orientation to diversion and treatment referral, thus giving a diversity of approaches to criminal justice referral in TOPS. The approach and orientation were generally dependent on the agency's relationships with the criminal justice and treatment systems. As a result, some agencies accepted only post-trial referrals while others contacted pre-trial clients. Because the comparative evaluation of different TASC programs is not the goal of this report, it is not necessary to control for interprogram differences. In this report TASC-referred clients are compared to clients who were not referred to drug treatment by TASC. This comparison will permit some estimation of the effects of being referred to drug treatment by a TASC program.

3. Treatment Programs

The treatment programs selected in each site included those (1) that represented major modalities, (2) that were established, functioning programs, (3) that reflected particular typologies of treatment, and (4) received a large number of referrals from TASC agencies. In each site at least five treatment programs were considered in detail prior to selecting appropriate programs for the Intreatment Study.

While it is clear that the programs especially selected for TOPS do not constitute a statistically representative sample, they do reflect a variety of approaches to treatment. There are four basic drug treatment modalities/environments included in the TOPS Intreatment Study: detoxification, outpatient methadone, residential and outpatient drug free. Efforts were made to select treatment programs that reflected typical approaches to major modalities of treatment as well as variations in those approaches. Thirty-four different

definable drug treatment programs were involved over the two years of the Intreatment Study. These included three outpatient detoxification units, ten outpatient methadone programs, ten outpatient drug free facilities and eleven residential programs. Some of the intake interviews for clients referred to treatment in TOPS programs through four TASC agencies were conducted at the agencies although most were done at the programs.

Each modality/environment conforms to the definition established by NIDA (National Institute on Drug Abuse, 1981).

- Drug detoxification --A period of planned withdrawal from drug dependence supported by use of prescribed medication. Withdrawal without medication is "drug free."

In the TOPS Intreatment Study the major type of detoxification program has been ambulatory detoxification from heroin.

- Outpatient Methadone--modality in which the client is prescribed compensating medication (usually methadone) to achieve stabilization. Detoxification from maintenance or slow withdrawal is included in this category.

Those classified as maintenance programs in the TOPS Intreatment Study are all outpatient programs although several residential programs prescribe methadone for some clients.

- Residential treatment unit--Client residence in a drug abuse treatment unit other than a prison or hospital. Halfway houses and therapeutic communities are included in this category.

Included in the residential modality was a variety of programs such as traditional therapeutic communities, minimum security residences and halfway houses.

- Outpatient drug free--Client residence outside the treatment unit and no prescription of a chemical agent or medication as a primary part of drug treatment though temporary short-term medication such as minor tranquilizers are sometimes used. Client attendance at the unit according to a predetermined schedule for a program that emphasized counseling and supportive services.

The TOPS outpatient drug free programs have included a wide range of approaches. No independent daycare programs have been included in the TOPS Intreatment Study though one residential program provides daycare for clients in the

re-entry stage. In this report we include only the outpatient drug free and residential modalities because, as shown by the distribution of TASC clients among the modality/environments in table III.1, these treatment modalities/environments received the highest proportion of TASC referrals. Other treatment approaches, like detoxification and outpatient methadone, received few TASC referrals. The orientation of criminal justice systems toward relatively lengthy treatment involvement and independence from all drugs may limit referral to these modalities.

Table III.1 Criminal Justice Involvement of Clients Within Major Drug Treatment Modalities/Environments

Criminal Justice Involvement	Drug Treatment Modality/Environment					
	Not Assigned to a TOPS Program	Outpatient Detoxification	Outpatient Methadone	Outpatient Drug Free	Residential	Total
TASC	42.4% (438)*	0.6% (6)	3.2% (33)	36.2% (374)	17.7% (183)	100.0% (1034)
Non-TASC Criminal Justice	0.0	6.0 (118)	21.7 (424)	27.6 (540)	44.7 (876)	100.0 (1958)
No Legal Involvement	0.0	14.9 (705)	46.5 (2203)	23.3 (1105)	15.4 (730)	100.0 (4743)
Total	5.7 (438)	10.7 (829)	34.4 (2660)	26.1 (2019)	23.1 (1789)	100.0 (7735)

*These clients were interviewed in a TASC agency but did not enter a drug treatment program participating in TOPS.

4. Clients

The Intreatment Study employed a census rather than a sample of clients in each participating program and TASC agency. Since a census covers all members in a given population, it eliminates sampling error, facilitates greater quality control, and permits the observation of the total scope of the variety of behavior occurring in a single treatment program. Including all clients in each program allowed the study resources to be focused more directly and economically.

An attempt was made to interview all drug abusers when they were identified as eligible for treatment referral by TASC or when they first physically contacted a treatment program to gain admission. Differences among treatment programs in defining admission and discharge from treatment were common. General consistent definitions of TOPS eligibility and termination criteria were developed and are discussed in the following paragraphs.

Individuals were defined as eligible for the TOPS Intreatment Study if:

- They physically visited a treatment program (clinic) seeking admission or were identified as eligible for TASC, and
- Appeared eligible for the drug treatment program and
- Initiated the program intake process and
- Had not previously participated in the TOPS Study in any program and
- Had not previously refused to participate in TOPS in any program and
- Had not previously been contacted by a program researcher (PR) in any program about participating in TOPS.

Individuals were excluded from the TOPS Intreatment Study if they:

- Were clearly not eligible for the drug treatment program or
- Had previously refused an intake interview in any program or
- Had previously been contacted about TOPS by a program researcher (PR) in any program to which they applied but were not interviewed or
- Had previously participated in TOPS and met TOPS discharge criteria or
- Had previously participated in TOPS in any program and discontinued intreatment interviews for any reason.

Individuals clearly not eligible for a drug treatment program were, of course, not interviewed for the TOPS Intreatment Study. For example, alcoholics with no other drug problem, individuals with overriding psychiatric problems, and those not meeting any program eligibility criteria such as age or drug history were excluded. Other individuals excluded under the above rules were not interviewed to prevent inclusion of the same individual in the study more than once.

In the Intreatment Study, interviews were scheduled for up to two years with all clients who were admitted to TOPS programs and who completed an intake interview until they met one of the following TOPS termination criteria: (a) a client refused or missed two consecutive intreatment interviews, (b) a

client refused further participation in TOPS, (c) a client died or was permanently not capable of participating in TOPS, or (d) a client met TOPS discharge criteria. Three criteria defined a TOPS discharge: (a) a CODAP discharge and no readmission to the program within 15 days after discharge, or (b) no physical contact with program for 30 days prior to scheduled intreatment interview date, or (c) TASC clients who were not assigned or who did not report to a TOPS program.

C. Intreatment Study Data Collection

The longitudinal design of TOPS makes each intreatment and followup interview critical both technically and operationally. The benefits and disadvantages of the intreatment interview schedule used in the Intreatment Study and alternative data collection points were carefully examined in the pretest.

1. Schedule of Interviews

The major technical concerns in determining the frequency of interviews include the analytic and conceptual problems of (1) identifying key points in the treatment process, (2) identifying points where major changes in behavior occur, (3) plotting trends in behavior, and (4) establishing boundaries of time periods by chronological dates or key events. The operational concerns included (1) scheduling of intreatment interviews, (2) considering the respondent's ability to recall behaviors accurately, (3) assessing the effects of repeated testing and respondent burden and (4) determining timely notification of treatment termination.

To determine the best points for interviews, both empirical and impressionistic data were examined. Four key periods in a client's experience with treatment were identified: (1) the period prior to a commitment to enter a treatment program, (2) the period between commitment to enter treatment and the actual beginning of a treatment plan, (3) the period when initial treatment services are received, and (4) the period after treatment has been completed. Interviews were designed to assess behaviors over these time periods as accurately as possible.

Based on both technical and operational considerations, the Intreatment Study includes interviews:

- at initial contact with a program
- one month after treatment admission
- every three months after treatment admission up to 24 months

In the Followup Study attempts are made to interview samples of clients after termination from treatment. When a client terminates treatment he or she then becomes eligible for the followup investigation. One schedule of followup interviews includes one and two year posttreatment followup interviews with a sample of 1,300 clients admitted to TOPS treatment programs in 1979. The second involves three month and one year posttreatment followup interviews with a sample of 3,000 clients admitted to TOPS treatment programs in 1980.

All TASC clients who entered TOPS residential and outpatient drug free programs are included in the followup. In addition, special samples of TASC clients not assigned to TOPS intreatment programs (35 from Chicago in 1979, 50 from Chicago in 1980 and 50 from Miami in 1980) were also included in the followup study to provide comparison groups.

2. Interview Instruments

The Intreatment Study used two basic instruments -- one for the intake interview and one for the intreatment interview. In each interview, locator information including present address, mailing address, phone numbers, and names of close friends was collected to facilitate followup.

Clients first were interviewed when they applied for admission to a TOPS program or when they were identified as eligible for referral by TASC. In this interview they were asked to provide information about their background including their education, training, current living arrangements and their contact with the treatment program. They were then asked to report on their use of alcohol and drugs during the past three months and the 12 months prior to contacting the TOPS program and describe their treatment histories. Next they were questioned about their involvement in illegal activities over these 12 months, including types of offenses, arrests and convictions. (Clients completed a self-report form not seen by the interviewer for the sensitive questions on frequency of committing illegal acts.) This was followed with items about respondents' past and present employment activities. The interview concluded with questions relating to income and expenditures over the past three months and past year.

Following intake, the intreatment interviews took place one month, three months, and quarterly thereafter for up to two years as long as the client remained in treatment. Since a major goal of the intreatment interviews is to trace changes over time for TOPS clients, the intreatment interviews

generally followed the format described above for the intake interview, but the focus is on behavior occurring during a specific three month time period based on the client's CODAP admission date. In addition, information about the status of the client in the treatment program during this time was gathered.

Because much of the data collected in the intake and intreatment interviews are sensitive and confidential, special safeguards have been taken. For example, researchers cannot be held in contempt of court for refusing to reveal information in any civil or criminal proceeding. Self-admitted criminal 5activity reports were sent directly to the research center precluding even the inadvertent exposure of this material to program staff.

3. Data Collection and Data Management

The client data at the programs were collected by RTI staff or treatment program staff members who were hired specifically to implement TOPS. Data for TASC clients in Des Moines, Phoenix and Portland were collected at the drug treatment programs because all treatment programs in these cities participated in TOPS. In Chicago and Miami, program researchers were assigned to the TASC agency and interviewed clients as they were identified as eligible for TASC referral. The intreatment interviews for TASC clients assigned to TOPS treatment programs were conducted by the PRs based at the programs. Selection criteria for the PRs were developed as part of the TOPS pretest. The PRs hired were trained and their technical performances monitored and evaluated by field supervisors. Quarterly visits to each program and a monthly PR performance evaluation were used to ensure the quality of data collected.

The data processing system developed during the pretest was implemented in the Intreatment Study. The major components of the system include data receipt, manual edit, direct data entry, data transmission, machine edit and data base construction. A control system monitored the flow of each interview and client record through the data processing system. Quality control checks have been routinely made within each component of the system.

4. Reliability and Validity

Reliability and validity are crucial concerns to the study of clients' behavior during drug treatment. Procedures for testing both reliability and validity have been employed in the TOPS Intreatment Study. The integrity of the data was first insured, however, by subjecting information from interview instruments to standard checks for data quality. Out-of-range

codes, consistency codes, and instrument skip patterns were checked. The reasonableness of the item values was machine checked and edited to detect coding or data entry errors.

The internal consistency or reliability of the responses was checked where possible. Such consistency checks were made by comparing the answers to repeated items (e.g., checking the logic of certain responses given other responses), cross-checking common factor items, and making judgments about the face validity of responses (e.g., an addict's claim to have sustained a $1,000 a day habit for a year or more does not have face validity).

For TOPS the empirical validity of the data collected in each intreatment interview wave has been checked in two ways. First, a series of external information checks are being made. For example, selected information given by a sample of the respondents may be checked through a variety of outside sources such as phone books and police, employment, and treatment records. Second, in programs where urinalyses are conducted, drug use as detected from urinalysis records can be compared to self-reports of drug use.

No single method or criterion appears adequate to establish the reliability and/or validity of self-reports. Thus, combinations of procedures are employed to determine if the measures accomplish the stated purpose. The TOPS methodology report (Hubbard et al., 1982) and other special reports and papers examine the issues of reliability and validity in greater detail.

D. Data Analysis Approach

To accomplish the general purpose and goals of TOPS and the evaluation of outcomes for TASC clients, it is essential to examine the TOPS data systematically. Ultimately, multivariate analysis will be used to analyze and present the data. However, a necessary first step is to describe the characteristics and behaviors of cohorts of drug abusers before, during and after treatment. Then, attempts can be made to understand differences in behaviors among clients who have different backgrounds, who receive different types of treatment services, and who face different community environments.

The data collected as part of the TOPS Intreatment and Followup studies, while quite extensive, nonetheless have limitations. Early developmental history, physiological, and psychological/psychiatric data elements which may be important to a complete understanding of client behaviors are not included. For the most part, interviews with clients focus on the social, economic and other behaviors before, during, and after treatment. When merged with parallel

data on life history (activities in the time just before entering treatment), an extensive data set is created. Given the large amount of longitudinal, behavioral data collected, a conceptual framework is necessary to provide directions to the inquiries and to generate hypotheses that can be examined with the data set.

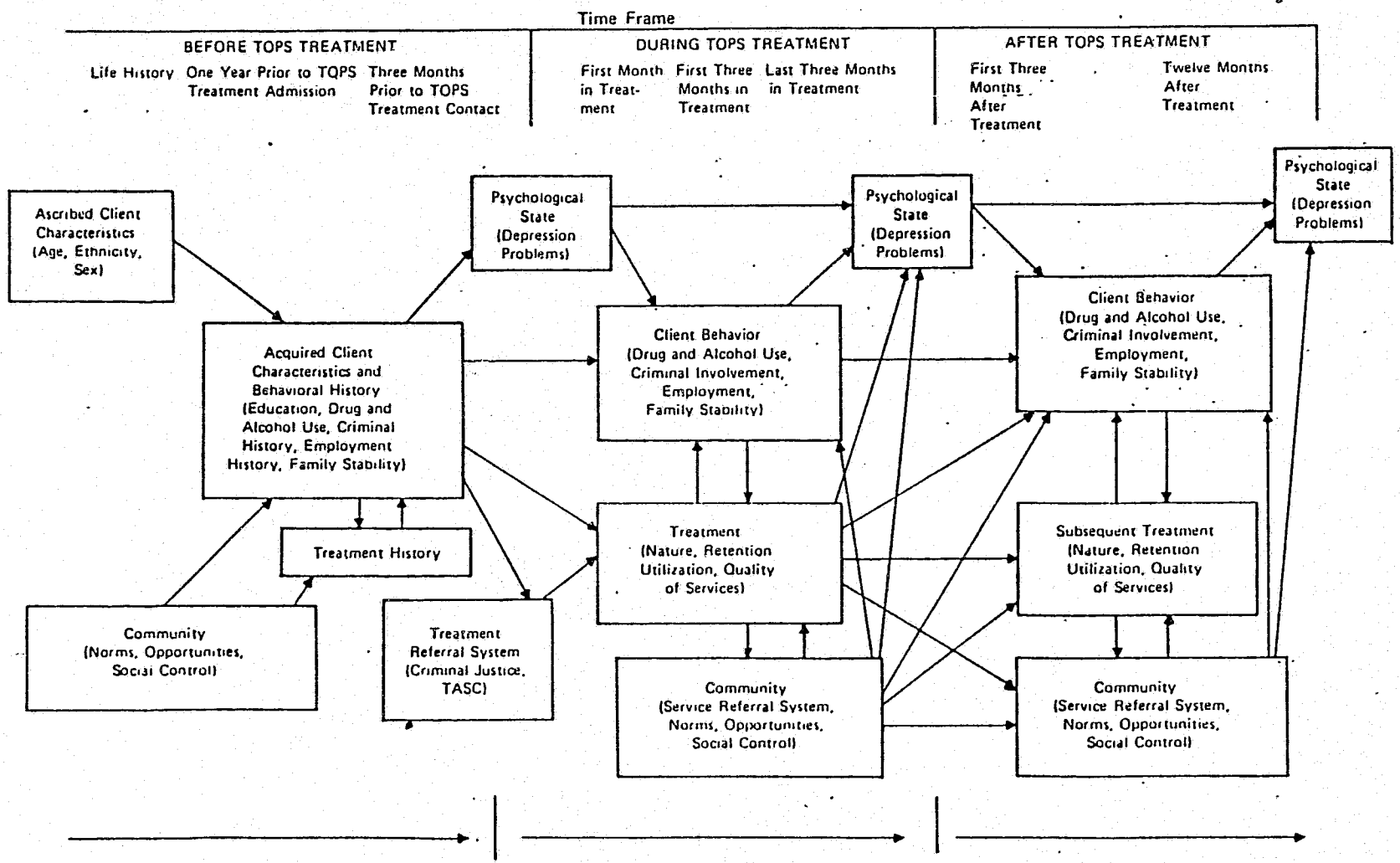
To better organize the data analysis, general as well as heuristic models are used to indicate the general classes of variables to be included in the analyses and the temporal relationships to be examined. Four major types of variables are investigated in TOPS: client ascribed or acquired characteristics, client psychological state and behavior, treatment program services, and community characteristics and services. The major analyses focus on client behavior in various time periods. The design of the Intreatment and Followup Study interviews includes the periods of (1) lifetime, one year and three months prior to treatment, (2) one month and every three months after entering treatment, and (3) approximately 3, 12 and 24 months after leaving treatment.

One general model of the major categories of variables and the time periods in the overall TOPS design is presented in exhibit III.1. This model illustrates the time periods for which particular types of variables will be available. The arrows indicate the assumed temporal and causal direction of the relationships. In many cases, such as the relationship between treatment and community variables, each variable could affect the other. In other cases, especially at the client level of analysis, the direction of the relationship could only be one way. For example, the community characteristics may influence the individual client, but it would be unlikely that the client would influence the community characteristics.

To accomplish the data analyses systematically and efficiently, reliance is placed heavily on analyses within and among the variable categories outlined in the general model presented in exhibit III.1. In these analyses, an attempt is being made to use existing theory and research on treatment outcomes to generate hypotheses to be tested in the analyses and to suggest covariates that must be controlled. Specifically, the principle analyses are organized around four major outcome variables: drug use, indicators of depression, employment, and criminality. Then the association of each class of variable (i.e., ascribed client characteristics, acquired client characteristics, treatment received, community impact and prior client behavior) with each

Exhibit III.1

General Model of Relationships Among Client Behavior, Drug Treatment and Community Variables



outcome is examined. Following this within-class analysis, the variables that explain the highest proportion of the variance can be combined into a cross-class multivariate analysis to develop a more general descriptive model of behavior that indicates the many individual and environmental factors that may influence behavior. Special attention is always directed toward describing factors in treatment and client characteristics that suggest client and program matches that maximize socially approved behaviors during and after treatment. Thus, emphasis throughout is placed on (1) developing and revising models that describe the behavior of clients during and after treatment and (2) generating and examining questions about the association of various individual variables and/or classes of variables with the behavior of clients during and after treatment.

E. Presentation of Data

The client oriented data collected in the TOPS research program are designed to provide information to augment the study of TASC program design and functioning reported by System Sciences (1978). Whereas the System Sciences effort concentrated on a TASC "process" analysis, the TASC component of TOPS provides client treatment outcomes information. In general, this report is designed to describe the TASC clients and document what happens to these clients while they are in treatment programs. The Followup Study will provide information on what happens to the TASC clients after they leave treatment.

TOPS includes information on another interesting group - those admitted to treatment who are involved with the criminal justice system but not through TASC. An important drug treatment issue is the effect of referral source or referral motivation on treatment outcome and, more specifically, the relevance of legal threat to treatment entry and outcome (Harford, Ungerer, and Kinsella, 1976; McLellan and Druley, 1977). The individual who comes to drug treatment with a legal status, whether formally referred through a TASC program or not, may still perceive a legal threat that will affect treatment retention and outcomes.

The following paragraphs describe (1) how the various criminal justice system involvement groups were defined, (2) how the descriptive data on each group are presented, and (3) how the characteristics and behaviors of the two groups can be compared.

1. Definition of Criminal Justice System Involvement Groups

In order to distinguish clients with various types of involvement with the criminal justice system, items on (1) TASC supervision, (2) current legal status, and (3) source of referral were included in the intreatment questionnaires. The responses to these items were examined to develop the following three definitions:

TASC	Clients who reported being under TASC supervision at admission to a treatment program or clients who were identified as eligible for TASC referral and were interviewed at a TASC agency.
Non-TASC Criminal Justice	Clients who did not report being under TASC supervision and were not interviewed at a TASC agency but (1) reported a current legal status of probation, parole, on bail, in jail or prison or (2) identified their principal source of referral as an agent of the criminal justice system such as an attorney, judge, probation or parole officer.
No Legal Involvement	Clients who were not included in the TASC or non-TASC criminal justice group because they (1) did not report being under TASC supervision and (2) were not interviewed at a TASC agency and (3) did not report having a current legal status and (4) did not identify an agent of the criminal justice system as their principal source of referral.

Each of these groups has unique characteristics that warrant discussion. Furthermore, the three groups can be used as comparison groups to assess the impact of TASC and non-TASC criminal jusice system involvement in retention and during treatment outcomes and in future comparisons of posttreatment outcomes. These two uses of the groups and the presentation of the data are discussed in the following paragraphs.

2. Description and Comparison of Criminal Justice System Involvement Groups

In chapter IV descriptive data for all three groups are presented. In the last three columns of each table the characteristics of the various criminal justice system groups can be compared. As shown in table III.1, four treatment modalities/environments are represented in the TOPS data: outpatient detoxification, outpatient methadone, outpatient drug free, and residential. Because, as in the past, neither outpatient detoxification nor outpatient methadone received a large number of referrals from TASC programs (McGlothlin, 1979), only the outpatient drug free and residential modalities are separately displayed in the analyses of this report. The apparent reluctance of criminal justice decisionmakers to refer clients to detoxification and methadone maintenance programs is likely a function of their preference for longer term and drug-free treatment.

In TOPS, the outpatient drug free modality received the highest proportion of TASC referrals (63 percent). The residential treatment modality has the highest proportion of clients involved in the criminal justice system.

This unequal distribution of clients in the various modalities/environments among the criminal justice system involvement groups should be carefully considered in comparing the groups. For example, a higher proportion of methadone clients stay in treatment and those that stay tend to stay longer. Almost half of the nonlegal involvement group is methadone clients; less than one in seven clients involved with the criminal justice system is in a methadone clinic. Furthermore, TOPS clients who enter the different treatment modalities differ systematically from each other on the basis of other characteristics as well. Thus, the comparison of clients across the legal involvement dimension within each modality is more meaningful than the comparison of clients across modalities. Nonetheless, in the 18 descriptive tables included in this report, data are provided for "all TOPS clients" not because the comparison of all clients with those in a particular modality is itself analytically meaningful, but because the comparison allows the reader to get a sense of how a particular result compares to the result for the entire TOPS sample.

To provide the basis for a meaningful contrast of the legal involvement modalities groups, a subset of programs which had an equal opportunity to admit all three groups of clients was selected from total set of TOPS programs. Six outpatient drug free and seven residential programs in the cities with

TASC agencies were included in this subset. In each of the tables in chapter IV, data from these programs are displayed separately.

Tests of statistical significance were conducted in some analyses to examine differences across the legal involvement dimension within treatment modality to test specific hypotheses. The report does not make extensive use of tests or statistical significance, because the very large sample sizes guarantee small differences will be statistically significant even though such differences may not necessarily be substantively meaningful. Where tests of statistical significance are used, explicit mention of the findings are made. Such differences were examined using a chi-square analysis that followed the general linear model approach to non-metric data (Grizzle, Starmer, and Koch, 1969). The .05 level for significance is used here. The significance test results ought to be interpreted cautiously because the data do not meet the chi-square criterion of independent random samples.

In chapter V the analyses focus on retention and drug treatment outcomes. Again, in order to avoid bias due to the unequal distribution of the criminal justice system involvement groups among modalities, the analyses focus on outpatient drug free and residential programs.

IV. DESCRIPTIVE DATA FOR TASC, NON-TASC CRIMINAL JUSTICE, AND NO LEGAL INVOLVEMENT TOPS CLIENTS

A. Rationale for Descriptive Format of Tables

In the tables that follow, the characteristics of TASC clients are compared to other TOPS clients. These other clients are classified as either having been involved in some way with the legal system or as having no legal involvement at treatment intake. Though not referred to treatment by a TASC program, some individuals are on probation or parole or awaiting adjudication when they enter drug treatment. Their legal involvement suggests they should be considered a separate category in analysis. An important drug treatment issue is the effect of referral source or referral motivation on treatment outcome, and more specifically, the relevance of legal threat to treatment entry and outcome (Harford et al., 1976; McLellan and Druley, 1977). The individual who comes to drug treatment with a legal status, whether formally referred through a TASC program or not, may perceive a legal threat that will affect treatment retention and outcomes.

The interpretation of observed differences between legal involvement groups or between modalities will often not be possible based on the tabular data presented in this chapter. As will be shown in table IV.1, there are often substantial sex, age, and ethnicity differences between legal involvement categories and modalities. Sex, age, and ethnicity are also known from past research to be systematically related to many of the variables that constitute the descriptive basis for the tables we present in this chapter. Before the descriptive tabular data can be interpreted confidently, relationships need to be controlled for the effect of known covariates. This control is not attempted in this chapter because our purpose is descriptive. Control for covariation is exercised in the retention analyses of chapter V, and such control will also be an important aspect of later TOPS reports that deal with issues analytically.

The tables that follow compare TASC clients with clients who were legally involved at treatment intake but not referred to treatment through TASC, and clients who were not legally involved with the criminal justice system in any way at treatment intake. The tables include a maximum of 7,795 clients who entered treatment during the calendar years of 1979 and 1980. Four hundred and ninety-eight (6.4 percent) of the 7,795 clients entering drug treatment

Table IV.1 Demographic Characteristics by TASC/Criminal Justice System Involvement*

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Sex										
Male	82.6	75.2	53.7	90.0	78.7	63.0	85.5	79.8	66.1	72.3
Female	17.4	24.8	46.3	10.0	21.3	37.0	14.5	20.2	33.9	27.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Race/Ethnicity										
White	74.1	79.5	90.4	60.0	61.5	47.0	58.6	59.1	49.4	53.1
Black	10.6	8.9	4.8	35.0	29.5	47.3	31.8	29.0	35.0	33.1
Hispanic	13.4	9.9	2.6	3.8	7.7	5.2	8.3	10.8	14.6	12.8
Other	1.9	1.7	2.2	1.2	1.3	0.5	1.3	1.1	1.0	1.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1	100.0	100.0
Age at Admission										
Under 18	1.3	10.3	9.3	3.1	5.0	11.3	4.6	7.4	4.9	5.5
18-20	16.5	15.6	12.2	23.8	12.8	11.5	17.7	10.9	5.4	8.5
21-25	41.4	33.4	29.1	37.5	34.9	27.2	34.2	29.6	22.8	26.1
26-30	24.6	26.1	27.4	21.2	29.9	23.7	25.3	28.0	32.7	30.4
31-44	14.0	12.3	17.4	12.5	16.1	19.7	16.0	21.5	28.7	25.2
Over 44	2.2	2.3	4.6	1.9	1.3	6.6	2.2	2.6	5.5	4.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Education										
Grade School or Less	7.8	7.0	6.1	11.9	8.4	11.0	9.6	10.1	9.2	9.5
Some High School	27.1	32.5	29.4	38.8	39.5	47.6	41.1	38.9	41.0	40.4
High School Degree	39.2	36.0	27.6	31.2	30.3	21.3	29.4	29.7	26.8	27.9
More Than High School	25.9	24.5	36.9	18.1	21.8	20.1	19.9	21.3	23.0	22.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n=	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7794)

*This table and the 17 additional tables of this chapter follow the same format. As indicated in chapter III, the vast majority of TASC clients enter either the outpatient drug free or residential treatment modalities so these two modalities are displayed separately. The data in the outpatient drug free and residential columns come from those six cities that have TASC programs (see III.B.2). The last four table columns include clients in all four TOPS modalities in all TOPS cities to allow the reader to make comparisons between the outpatient drug free and residential modalities to all four modalities combined.

did not eventually enter a TOPS program. These clients were referred to treatment by TASC and are thus included in the descriptive analyses that follow. Because they did not enter a TOPS program, no intreatment data are available for them, and they are not included in the retention and intreatment outcome analyses of chapter V. A sample of these clients was included in the followup phase of TOPS and will be included in later reports.

B. Demographic Characteristics

Table IV.1 displays the demographic characteristics of TASC and non-TASC clients for the outpatient drug free and residential treatment modalities and for all TOPS clients. These data were gathered at the intake interview; data for the two treatment modalities are derived only from those TOPS sample cities where TASC programs were operating -- Chicago, Des Moines, Miami, Phoenix, and Portland. Data for "all TOPS clients" in the last four table columns include data for all sampled cities and for outpatient detoxification and methadone maintenance programs as well as for the outpatient drug free and residential treatment modalities. All tables in this report follow this same format.

Overall, 72 percent of TOPS clients is male. Males are disproportionately classified as TASC (86 percent) or non-TASC criminal justice clients (80 percent). The disproportionate legal involvement of males is expected since males are much more likely to be arrested than females (Federal Bureau of Investigation, 1981).

Overall, the race/ethnicity distribution among the TOPS clients is 53 percent white, 33 percent black, 13 percent Hispanic, and 1 percent other. Table IV.1 shows that whites are overrepresented in the outpatient drug free modality. Whites are also overrepresented in the legal involvement categories among all TOPS clients and in the residential modality. Blacks and Hispanics are disproportionately unlikely to be legally involved at treatment intake.

In the total TOPS sample, 6 percent are under age 18, 9 percent are between ages 18 and 20, 26 percent are between ages 21 and 25, 30 percent are between ages 26 and 30, 25 percent are between ages 31 and 44, and 4 percent are over age 44. Younger clients are overrepresented in the outpatient drug free modality and are disproportionately classified as legally involved. Similar findings apply for the residential modality. More young clients enter this treatment modality and more are classified as TASC referrals or as otherwise involved with the criminal justice system than would be expected from the

total distributions for TOPS clients. Alternatively, older TOPS clients tend to enter the outpatient detoxification and methadone maintenance treatment modalities and to be free of legal involvement at the time of treatment intake.

Ten percent of all TOPS clients had eight or fewer years of formal education; 40 percent had some high school training, and an additional 28 percent graduated; 22 percent went beyond high school. In general outpatient drug free clients have more formal education and residential clients have about as much education as the average TOPS client. In the outpatient drug free modality, approximately equal percentages of clients complete high school or go beyond high school in all three legal involvement categories. The same is true in the residential modality although fewer of these clients have at least a high school diploma.

C. Marital Status and Dependents

Marital status and numbers of dependents are reported in table IV.2 Seventeen percent of all TOPS clients were married at the time of treatment intake; 23 percent were separated or divorced; 46 percent had never been married. This last percentage is partially explained by the age distribution of TOPS clients; as indicated above, 41 percent were 25 years of age or less at the time of admission. The residential clients were less likely than the outpatient drug free clients to be legally married or to have ever been married.

Among all TOPS clients, legal involvement is related to marital status. Among no legal involvement clients, somewhat higher percentages are legally married, and lower percentages are classified as never married. Among all TOPS clients the TASC and non-TASC legally involved clients appear very similar to each other in marital status. About the same percentages of these two TOPS client categories are legally married, although the TASC clients are more likely than the non-TASC criminal justice clients to have never been married.

These marital status findings for all TOPS clients on the legal involvement dimension do not hold within treatment modalities. TASC referred clients are most likely of the three categories to report being married at the time of intake into outpatient drug free programs. TASC clients are least likely of the three categories to report being married at the time of entry into residential programs. In the residential modality, TASC clients are more likely than the other two legal involvement categories to report they were never married, but in the outpatient drug free modality there is not a substantial difference among the legal involvement categories in the percentages who report never being married.

Table IV.2 Marital Status and Number of Dependents at Intake by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Marital Status										
Legally Married	22.4	18.2	17.5	7.5	11.1	12.4	15.0	15.3	18.2	17.0
Separated	7.5	8.2	9.2	7.5	10.5	14.3	7.5	9.8	12.6	11.2
Divorced	13.7	14.9	17.7	12.0	19.5	13.6	10.7	13.5	11.8	12.1
Widowed	0.6	1.7	1.7	2.5	1.5	1.4	0.9	1.3	1.9	1.6
Never Married	47.4	49.7	45.0	63.5	52.5	53.4	55.7	50.5	41.4	45.7
Living As Married	8.4	7.3	8.9	7.0	4.9	4.9	10.2	9.6	14.1	12.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n=	(321)	(302)	(605)	(159)	(476)	(427)	(1064)	(1973)	(4754)	(7791)
Number of Dependents										
None	56.9	63.0	66.3	76.2	71.2	65.1	56.0	65.7	57.5	59.4
One	15.0	15.2	15.9	10.0	12.0	11.7	17.5	13.7	16.2	15.8
Two	14.4	13.2	10.9	8.8	8.0	11.2	12.9	10.6	12.8	12.2
Three	9.7	5.6	4.1	2.5	4.4	6.6	8.3	5.6	7.9	7.4
Four or More	4.0	3.0	2.8	2.5	4.4	5.4	5.3	4.4	5.6	5.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n=	(320)	(302)	(605)	(160)	(476)	(427)	(1063)	(1973)	(4752)	(7788)

Among all TOPS clients 59 percent have no dependents; 75 percent have either none or one dependent; 13 percent of all TOPS clients have three or more dependents (table IV.2). Looking at the combined none and one dependent categories within the two modalities and among all TOPS clients, there is no systematic pattern on the legal involvement dimension. Equal percentages of TASC and no legal involvement clients have none or one dependent among all TOPS clients. In the outpatient drug free modality TASC clients are more likely to have dependents; 28 percent have two or more. In the residential modality the TASC clients are least likely to have multiple dependents. Only 14 percent of the residential TASC clients have two or more dependents and, in general, residential clients are less likely to have dependents than the outpatient drug free clients.

D. Alcohol Use and Problems

Table IV.3 provides data for the frequency of alcohol use for outpatient drug free, residential and all TOPS clients for the immediate 12 month pretreatment period. Seventeen percent of the TOPS clients reported they did not use alcohol in the year before entering treatment; 57 percent of all TOPS clients used alcohol at least weekly; 23 percent used alcohol at least daily. Residential modality clients are more likely than outpatient drug free clients to report they did not drink at all, but the residential clients are also more likely to report using alcohol at least daily.

Within the outpatient drug free and residential modalities, the legal involvement dimension does not appear to explain much variation in alcohol use in the year before intake. There is very little difference in the percentages of TOPS clients who report being alcohol abstainers within the outpatient drug free modality. In the residential modality the TASC clients are least likely to be abstainers. Looking at those who drink daily or more frequently, legal involvement does not show a consistent pattern. Within the outpatient drug free and residential modalities, TASC clients are most likely of the three legal involvement categories to be daily drinkers. Among all TOPS clients, equal percentages of the legal involvement categories report they drank at least daily in the year before intake.

Table IV.4 describes how data for drinking frequency and drinking quantity are combined to classify the drinking of respondents as infrequent, light, moderate, or heavy. These four classifications and the abstainer category are

Table IV.3. Self-reported Alcohol Use in Year Before Intake by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Alcohol Use Frequency										
Did Not Drink	8.3	7.8	7.4	13.1	17.4	17.6	14.0	16.6	18.3	17.3
Less Than Weekly	26.0	26.7	33.8	22.2	21.0	22.4	21.9	23.9	27.5	25.8
Weekly	8.3	13.6	11.3	5.9	7.3	7.3	9.2	9.8	8.2	8.8
2-6 Times Per Week	33.7	33.4	28.2	29.4	29.1	25.4	32.2	27.7	23.3	25.6
Daily	16.1	10.1	8.5	15.0	10.0	12.0	13.0	10.7	9.5	10.3
More Than Daily	7.6	8.4	10.8	14.4	15.2	15.3	9.7	11.3	13.2	12.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n=	(315)	(296)	(585)	(153)	(453)	(398)	(1019)	(1891)	(4590)	(7500)

used in table IV.5 to classify TOPS clients' drinking across all beverages. The alcohol quantity-frequency categories apply to alcohol use during the three months prior to treatment.

Table IV.4: Drinking Levels Assigned to Self-reported Quantity-Frequency Consumption Categories

	Typical Quantity (ounces absolute alcohol)*		
Typical Frequency	≤.50	.51-2.00	>2.00
< Once per month	Infrequent	Infrequent	Infrequent
About once per month	Light	Light	Moderate
2-3 times per month	Light	Moderate	Moderate
Weekly or more	Moderate	Moderate	Heavy

*The alcohol content of beer was assumed to be 4 percent; of wine 12 percent; and of liquor 43 percent.

The question of alcohol use among TOPS clients is important for a number of reasons. Alcohol is used occasionally by at least two-thirds of the TOPS clients and is used daily by almost a quarter of clients. For some, alcohol is the primary drug problem and for many alcohol is part of their polydrug use patterns. It is also important to know to what extent illegal drug use might be replaced by increased alcohol use after entering drug treatment. Alcohol consumption is associated with violent crime (Collins, 1981), so any increase in alcohol use could result in an increased risk of violence. We examine the alcohol use question only briefly in this report, but it is an issue that needs indepth study in any comprehensive evaluation of TASC programs and in the evaluation of the impact of drug treatment on subsequent criminal behavior.

1. Quantity-Frequency of Alcohol Consumption

Table IV.5 displays alcohol quantity-frequency consumption categories for TASC and non-TASC clients and for all TOPS clients for the three months before intake. Among all TOPS clients 28 percent are classified as abstainers and 35 percent are classified as heavy drinkers. The percent of abstainers

Table IV.5 Drinking Levels Across Beverage Types (Beer, Wine, Liquor)* in the Three Months Before Intake by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Drinking Levels (All Beverages)										
Abstainer	14.0	18.3	13.0	47.1	35.3	25.9	31.9	28.3	26.5	27.7
Infrequent	6.9	6.0	9.4	9.4	6.9	5.6	6.0	6.0	7.2	6.7
Light	4.4	4.0	5.5	1.3	2.9	4.0	3.3	4.0	4.0	3.9
Moderate	35.2	36.7	39.5	12.6	16.2	19.5	25.7	25.4	27.7	26.8
Heavy	39.6	35.0	32.6	29.6	38.7	45.0	33.1	36.3	34.6	34.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n=	(321)	(300)	(602)	(159)	(476)	(425)	(1058)	(1969)	(4736)	(7763)

*A respondent is categorized by the highest value across the three beverage types (e.g., a heavy beer drinker who drinks wine and liquor moderately is characterized as a heavy drinker).

ranges from 27-32 percent across the legal involvement categories for all TOPS clients and the percent of heavy drinkers ranges from 33-36 percent for the legal involvement categories among all TOPS clients. Thus, for all TOPS clients there is not much variation in abstainer or heavy drinking rates across the legal involvement categories.

Residential clients are more likely than outpatient drug free clients to be abstainers in all legal involvement categories. However, residential clients are also more likely to be classified as heavy drinkers although this difference does not hold for residential TASC clients. The outpatient drug free TASC clients are more likely to be heavy drinkers than are the residential TASC clients. There is not a consistent alcohol use pattern across the legal involvement categories within the two modalities. In the outpatient drug free modality, TASC clients are most likely of the three legal categories to be classified as heavy drinkers. In the residential modality the no legal involvement clients are most likely to be classified as heavy drinkers.

The interpretation of table IV.5 should consider the effects of known alcohol use covariates like age and sex. Because this report is primarily descriptive, such an analysis is not conducted here. As mentioned earlier, the existence of uncontrolled covariation is a recurrent issue in this report and is relevant to variables like alcohol use, drug use, and criminal behavior. Consideration of this covariate issue is beyond the scope of this report but will be the subject of analysis in later TOPS reports.

2. Alcohol Treatment and Problems

Table IV.6 provides information about alcohol problems and alcohol treatment needs of TOPS clients at the time they enter drug treatment programs. The first section of table IV.6 displays data on the need for alcohol treatment at the time of intake. Among all TOPS clients, about 15 percent say they need treatment for an alcohol problem; 6 percent reported that their primary treatment need was for alcohol abuse and an additional 9 percent said treatment for alcohol abuse was a secondary need. Seventy-nine percent of all TOPS clients reported they had no problem with alcohol. Residential clients are more likely to report they have a primary or secondary need for treatment for an alcohol problem than outpatient drug free clients. There is not a consistent relationship between legal involvement and perceived alcohol treatment need. Among all TOPS clients, legally involved clients indicate more need for alcohol treatment; this is not true for TASC clients in the residential modality. In

Table IV.6. Need for Alcohol Treatment and Types of Alcohol-related Problems in the Year Before Treatment by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Need for Alcohol Treatment										
Primary Problem	12.0	8.0	6.6	11.4	10.0	10.9	6.8	8.0	5.4	6.3
Secondary Problem	7.2	8.0	10.4	12.7	20.6	21.1	12.1	10.6	8.0	9.2
A Lesser Problem	3.8	3.5	2.7	2.5	5.6	5.7	5.3	6.0	4.8	5.2
No Problem	77.0	80.5	80.3	73.4	63.8	62.3	75.8	75.4	81.8	79.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(291)	(287)	(594)	(158)	(475)	(422)	(1026)	(1943)	(4696)	(7665)
Types of Alcohol-related Problems										
Medical	9.3	6.0	13.6	11.9	17.2	19.7	8.4	10.9	11.1	10.7
Psychological	15.3	13.9	21.3	16.3	19.5	25.5	11.5	14.7	13.7	13.7
Family	20.9	24.5	26.8	29.4	30.1	33.0	17.8	21.9	16.7	18.2
Legal	24.0	30.1	12.2	30.6	28.0	14.8	18.5	21.7	7.6	12.6
Job/Education	10.3	12.6	15.4	14.4	20.1	22.5	9.4	12.8	9.3	10.2
Financial	15.0	15.2	17.9	19.4	20.3	19.7	12.7	14.6	11.9	12.7
	----------	----------	----------	----------	MULTIPLE RESPONSE	----------	----------	----------	----------	----------
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)

the outpatient drug free modality a slightly higher percentage of TASC clients perceive themselves as having alcohol treatment needs than the other two client categories. The relationship of legal involvement and alcohol treatment need differs by modality.

Examination of the alcohol related problems reported by clients entering TOPS drug treatment programs indicates that, overall, "family" problems are the most common. Not surprisingly, overall and within modality, the TASC and non-TASC criminal justice clients are more likely than no legal involvement clients to report having legal problems related to alcohol. In fact, the non-TASC criminal justice clients are more likely than the TASC clients to report alcohol-related legal problems overall and in the outpatient drug free modality. Clearly a substantial proportion of TOPS clients has alcohol-related legal problems.

E. Weekly or More Use of Various Drugs

Table IV.7 shows the percentages of clients in the outpatient drug free and residential modalities and in the TOPS sample overall who used various drug types at least weekly in the year before treatment intake. Large majorities of clients in each modality and in all legal involvement categories report using alcohol and marihuana weekly. TASC clients are more likely than the other two legal involvement categories to report using alcohol and marihuana, although the differences in weekly alcohol use between TASC and non-TASC criminal justice clients in the two modalities is not substantial. More clients in the residential treatment modality report using heroin and most other drugs weekly or more often than do clients in the outpatient drug free modality. It is clear from the results of table IV.7 that there is a considerable variety of regular drug use. Twenty-eight percent of all clients use cocaine weekly; 23 percent use minor tranquilizers nonmedically at least weekly; 22 percent use narcotics other than heroin; and 17 percent use amphetamines. Lower but still significant percentages of clients report regular nonmedical use of hallucinogens, methadone, barbiturates, and sedatives.

There is no consistent pattern discernible across the legal involvement categories in the reports of weekly or more frequent drug use. In several drug use categories, a higher percentage of no legal involvement clients report weekly or greater use than clients who are legally involved. In the residential modality and among all TOPS clients, weekly or more heroin use is not associated with legal involvement. More regular heroin users in these

Table IV.7. Client Reports at Intake of Weekly or More Frequent Alcohol or Nonmedical Drug Use in the Year Before Treatment by TASC/Criminal Justice System Involvement

Drug Used Weekly or More Frequently	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Alcohol	66.0	64.9	60.0	65.0	63.4	62.1	64.7	60.0	54.8	57.5
Marihuana	69.8	65.9	67.4	71.9	66.3	64.6	68.8	64.0	60.2	62.3
Inhalants	0.6	2.0	2.1	2.5	3.1	1.2	1.1	1.6	0.9	1.1
Hallucinogens*	8.7	4.0	4.3	10.6	11.3	10.8	9.6	6.7	3.5	5.1
(Phencyclidine - PCP)	3.7	2.3	1.2	6.3	9.6	6.8	7.2	5.1	1.9	3.4
Cocaine	14.6	11.6	14.7	23.1	29.3	28.6	23.8	24.7	29.9	27.8
Heroin	9.7	7.6	8.1	33.8	29.3	33.0	27.2	32.5	49.7	42.3
Methadone	0.6	1.3	1.5	3.8	4.2	4.4	3.0	5.7	13.7	10.2
Other Narcotics	15.3	17.5	22.8	30.6	29.5	29.3	22.6	24.3	20.8	21.9
Minor Tranquilizers*	11.2	13.2	26.4	28.1	26.6	30.7	21.3	21.9	23.2	22.6
(Librium/Valium)	9.7	10.9	22.5	24.4	21.5	22.7	20.0	18.7	19.5	19.4
Major Tranquilizers	1.2	2.0	3.5	5.0	4.8	3.0	2.4	2.6	2.0	2.2
Barbiturates	6.5	7.0	10.6	16.3	16.7	14.5	11.1	9.7	7.8	8.8
Sedatives	10.6	8.6	12.9	19.4	16.5	20.6	13.6	10.4	8.6	9.7
Amphetamines*	18.4	19.5	28.6	27.5	23.4	25.1	18.7	21.8	15.1	17.3
(Preludin)	4.4	3.6	3.0	7.5	7.1	6.6	7.5	7.7	4.9	5.9
	MULTIPLE RESPONSE									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)

*The rows for hallucinogens, minor tranquilizers and amphetamines include data for PCP, Librium/Valium, and Preludin, respectively. Data for these three specific drugs also appear in separate rows.

categories are classified as being not legally involved than are classified as TASC or non-TASC criminal justice clients. This is somewhat contrary to expectations but may be partially explained by the age distribution of heroin users. Heroin users tend to be older and increased age is also usually associated with decreased criminal activity. This relationship will be explored in more detail in a later report.

F. Client Reports of Primary Drug Problem in the Three Months Before Intake

Overall, table IV.8 shows that heroin use is the most frequently reported primary drug problem in the three months before treatment; 39 percent of all clients report that heroin was their primary drug problem during this period. The next most frequent report, based on the entire TOPS sample, is no primary drug problem; 14 percent of all clients report no specific drug caused them a serious problem in the three months before treatment. These client self reports require additional analysis before an interpretation is offered and a separate discussion is provided below.

The data in table IV.8 describing the primary drug problems of outpatient drug free and residential modality clients point up some important differences. Outpatient drug free clients are more likely to report no primary drug problem than are residential clients. Residential clients are much more likely to report that heroin is their primary drug problem. Overall about one-third of the residential clients compared to about one-tenth of the outpatient drug free clients report that heroin was their primary problem in the three months prior to treatment.

Comparison of the primary drug problems of TOPS clients on the legal involvement dimension is difficult to summarize. For example, there are no substantial or consistent differences between TASC, non-TASC, and no legal involvement clients in either the outpatient drug free or residential modalities in the percentages who report heroin as their primary drug problem. On the other hand, there are substantial differences on the legal involvement dimension for those in both the outpatient drug free and residential modalities who report no primary drug problem. In sum, the patterns of reported primary drug problem are variable on the legal involvement dimension depending on modality and drug type, but percentage differences tend to be in the one to three percent range. Most TOPS clients report serious drug abuse patterns, and the percentages of clients who report regular heroin use are high.

Table IV.8. Client Self-reports of Primary Drug Problem in the Three Months Before Intake by TASC/Criminal Justice System Involvement

Primary Drug Problem	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Alcohol	2.5	9.1	4.6	10.1	6.2	7.7	4.5	6.3	4.1	4.7
Marihuana	16.9	19.9	19.8	10.8	6.6	8.2	12.1	8.4	6.0	7.4
Inhalants	0.0	1.0	0.7	0.6	0.4	1.0	0.2	0.3	0.2	0.3
Hallucinogens*	4.1	1.7	2.7	1.3	3.8	3.8	3.7	2.5	1.0	1.7
PCP	0.0	0.0	0.2	0.6	1.7	2.6	2.6	0.7	0.3	0.7
Cocaine	8.3	6.7	9.9	8.2	7.7	7.2	9.5	5.6	4.3	5.3
Heroin	9.2	5.7	5.5	24.1	24.3	32.7	23.7	29.1	46.5	39.0
Methadone	0.0	0.0	0.2	1.9	0.9	1.2	1.0	1.7	5.1	3.7
Other Narcotics	9.9	9.4	15.7	10.1	10.4	8.7	10.3	10.6	11.1	10.9
Minor Tranquilizers*	2.9	3.7	8.1	1.9	3.2	2.4	2.1	2.0	2.1	2.1
Librium/Valium	0.3	0.3	0.5	0.0	0.6	0.0	0.5	0.3	0.2	0.3
Major Tranquilizers	0.0	0.0	0.5	0.0	0.4	0.5	0.1	0.2	0.2	0.2
Barbiturates	1.6	0.7	2.7	5.1	3.0	1.2	2.4	1.3	1.0	1.2
Sedatives	6.7	5.1	6.1	5.7	6.6	8.7	5.1	3.5	2.3	3.0
Amphetamines*	6.7	5.7	12.5	4.4	5.5	5.8	4.9	6.3	3.5	4.4
Preludin	0.0	0.0	0.2	0.0	0.4	0.2	0.5	0.5	0.3	0.4
Other	0.0	0.0	0.7	0.0	1.7	3.1	0.1	0.6	0.6	0.5
No Problem**	30.9	31.0	9.4	15.2	16.6	5.0	16.7	20.1	11.2	14.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(314)	(297)	(586)	(158)	(470)	(416)	(1047)	(1942)	(4696)	(7685)

*The rows for hallucinogens, minor tranquilizers, and amphetamines exclude the data for PCP, Librium/Valium, and Preludin, respectively. Data for each of these specific drugs appear in the rows following the rows for the general drug type.

**For this category in both the outpatient drug free and residential modalities, there are statistically significant differences beyond the .001 level between the legally involved (TASC and non-TASC criminal justice clients) and not legally involved clients. See text for discussion

Table IV.9 provides data on heroin use patterns. As discussed earlier, the residential clients are more likely than the outpatient drug free clients to report regular heroin use. Between 53 and 55 percent of residential clients report having used heroin daily for at least 30 consecutive days. Although most differences across the legal involvement dimension are not substantial, TASC referred clients are least likely to report daily usage among the residential clients. This pattern is reversed among the outpatient drug free clients. While overall the outpatient drug free clients have a comparatively low daily heroin use rate, TASC clients are most likely to report daily use of heroin for at least 30 consecutive days.

1. Clients Reporting No Primary Drug Problem

Some of the "no primary drug problem" group may be polydrug users who have a multiple drug problem rather than a primary problem with a single drug. Comparison of "no primary problem" clients with other TOPS clients in data not presented in this report, however, shows that the "no problem" group generally reports less drug usage, making polydrug usage an unlikely sole explanation of the high percentages reporting no primary drug problem.

The distribution of no primary problem clients across the legal involvement dimension suggests another set of explanatory factors. Table IV.8 shows that 31 percent of TASC and non-TASC criminal justice clients in the outpatient drug free modality report no primary drug problem. Only 9 percent of the no legal involvement clients in this modality report no primary drug problem. Although the overall percentage of clients who report no primary drug problem is lower in the residential modality than in the outpatient drug free modality, the distribution across the legal involvement dimension is the same in both modalities. In the residential modality 15 and 17 percent, respectively, of the TASC and non-TASC criminal justice clients report no primary drug problem; only 5 percent of the no legal involvement residential clients report not having a primary drug problem. In both outpatient drug free and residential modalities, there are no statistically significant differences between TASC and non-TASC criminal justice clients. There are statistically significant differences beyond the .001 level in both modalities between the two legally involved categories and the clients who are not legally involved.

2. Explanations for Reports of No Primary Drug Problem

There are at least two possible reasons why the two categories of legally involved TOPS clients are disproportionately likely to report no

Table IV.9. Client Reports of Heroin Use by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
History of Heroin Use										
Never Used	46.6	53.4	58.0	23.4	24.7	31.7	33.6	28.6	21.1	24.7
Used but Not Regularly	11.6	14.1	16.5	15.2	15.3	7.6	10.8	11.9	5.4	7.8
Used Regularly (Not Daily)	5.6	3.7	5.0	8.9	4.8	5.7	6.2	4.0	2.9	3.6
Used Daily (30 or More Consecutive Days)	36.2	28.8	20.5	52.5	55.1	55.0	49.4	55.5	70.6	63.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(320)	(298)	(605)	(158)	(477)	(420)	(1057)	(1963)	(4710)	(7730)

primary drug problem. First, many legally involved clients had a lower risk of developing serious drug problems because they were in restricted environments like jails, prisons or hospitals for varying periods of time in the months before entering TOPS programs. The TOPS data confirm that the TASC and non-TASC criminal justice clients are much more likely to be in such restricted environments (tables IV.10 and IV.11). Table IV.10 shows that much higher percentages of TOPS clients who were not legally involved were at risk for the entire 12 months before entering treatment; this is true both within and across modalities. Sixty-one percent of all TOPS clients who were not legally involved at treatment intake were at risk for the entire 12 months preceding treatment. Only 15 and 21 percent, respectively, of the TASC and non-TASC criminal justice clients were at risk for the entire year before treatment. Within the outpatient drug free modality, 64 percent of the not legally involved clients were at risk for the entire year before treatment; 17 and 28 percent, respectively, of the outpatient drug free TASC and non-TASC criminal justice clients were at risk for the whole year. Within the residential modality 45 percent of the no legal involvement clients were at risk for the entire year preceding treatment intake; only 4 and 11 percent, respectively, of the TASC and non-TASC criminal justice residential clients were at risk for the entire year prior to treatment. These data support an interpretation that part of the explanation of why substantial percentages of TOPS clients report no primary drug problem in the three months before intake is because many of these clients were not free in the community for all or part of this period.

The data on incarceration in the second part of table IV.11 also support this interpretation. The data in that table show that high percentages of TASC and non-TASC criminal justice clients were incarcerated in the three months before treatment. Seventy-three and 51 percent of all TASC and non-TASC criminal justice clients, respectively, report being incarcerated in the three months before treatment; only 10 percent of the no legal involvement clients report this. The same relationship holds within the outpatient drug free and residential modalities. The legally involved TOPS clients (who are most likely to report no primary drug problems in the three months before intake) are also most likely to report being incarcerated in the three months before treatment. There is a strong suggestion in these data that the comparatively high reports of no primary drug problem in the three months before treatment intake are partially explained by the clients' living in restricted environments.

Table IV.10 Time at Risk in the Year Before Treatment by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Months Fully At Risk in Year Before Treatment										
12 months	16.9	27.6	63.6	4.4	11.3	44.7	15.4	20.9	61.3	45.1
11 to 12 months	57.6	44.1	27.1	20.3	32.4	32.8	38.0	35.5	25.8	29.9
9 to 11 months	8.4	8.1	5.8	23.4	20.9	11.6	16.6	16.6	7.1	10.7
6 to 9 months	4.2	6.4	2.0	26.0	16.3	6.7	16.1	11.4	3.1	6.9
3 to 6 months	4.2	5.0	1.0	19.6	10.9	2.6	8.3	8.0	1.7	4.2
0 to 3 months	8.7	8.8	0.5	6.3	8.2	1.6	5.6	7.6	1.0	3.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(309)	(297)	(605)	(158)	(441)	(421)	(1042)	(1892)	(4717)	(7651)

Table IV.11 Client Reports at Intake of Legal Status and Prior Jail or Prison Incarceration by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice -	No Legal Involvement	Total Sample
Legal Status										
No legal status	9.1	6.0	100.0	5.1	2.5	100.0	7.1	4.7	100.0	63.1
Probation	20.3	57.8	0.0	57.0	48.8	0.0	31.7	46.2	0.0	16.1
Parole	8.1	13.2	0.0	5.7	8.8	0.0	4.9	16.2	0.0	4.8
On bail	51.3	12.0	0.0	6.3	17.2	0.0	27.1	16.6	0.0	7.9
In jail	5.9	3.7	0.0	23.4	19.7	0.0	26.0	13.0	0.0	6.8
Other	5.3	7.3	0.0	2.5	3.0	0.0	3.2	3.3	0.0	1.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(320)	(301)	(602)	(158)	(476)	(404)	(1060)	(1970)	(4732)	(7762)
Prior Jail or Prison Incarceration										
Never	5.0	13.9	53.5	1.3	4.4	25.7	4.9	6.7	29.6	20.2
Not in Past Year	8.7	15.5	29.7	4.4	13.1	37.9	7.1	18.0	46.5	33.6
Year But Not 3 Months Before Treatment	13.1	25.3	10.0	15.2	20.0	21.5	14.7	24.0	14.2	16.8
Three Months Before Treatment	73.2	45.3	7.0	79.1	62.5	14.9	73.3	51.3	9.7	29.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(321)	(296)	(572)	(158)	(475)	(404)	(1051)	(1951)	(4535)	(7537)

A second possible explanation for the relatively high reports of no primary drug problem among TASC and non-TASC criminal justice clients is found in the motivation for entering drug treatment. Individuals under actual or threatened criminal justice sanction may be more willing to enter drug treatment programs. These individuals, however, may be reacting more to that threat than to a drug abuse problem and may thus be more likely to report no primary drug problem during TOPS interviews. For individuals who are not subject to legal coercion, the motivation for entering treatment may be more simply self-recognized drug abuse problems. Such individuals would presumably be more likely to report a primary drug problem.

Data in table IV.12 for the source of treatment referral also confirm that the TASC and non-TASC criminal justice clients are more likely to report a criminal justice or legal referral. (Other aspects of referral source are discussed in section I.) Among all TOPS clients and within each treatment modality, no client without a legal involvement reported a legal referral to treatment. Among the TASC clients overall and within modality, very high percentages of clients report a legal referral source. The non-TASC criminal justice clients also commonly report a legal referral to treatment; this referral source is the most common of any referral type and is reported by 43 percent of the non-TASC criminal justice clients.

In short, the relatively high percentage of clients who report no primary drug problems at the time of admission to a TOPS treatment program appears related to two factors. First, the clients who report no primary drug problem at admission had limited access to drugs because of living in restricted environments. Second, legal coercion or a desire to avoid legal sanction, rather than concerns about their drug abuse problems, may motivate some to enter treatment.

G. Number and Type of Drug Problems

Overall, four of every five TOPS clients report at least one drug-related problem in the year preceding treatment. Table IV.13 shows that among all TOPS clients, roughly equal percentages (16 and 20 percent) of the legal involvement categories report having no drug related problem in the year before treatment. Alternatively, 68 percent of all TOPS clients report two or more drug problems; this percentage is roughly equal across the legal involvement categories.

The reports of number of drug problems by modality and legal involvement in table IV.13 show that outpatient drug free clients in the legally involved

Table IV.12 Principal Source of Referral to TOPS Treatment by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Source of Referral										
Self-referral	3.8	18.2	36.1	8.1	18.0	29.5	10.5	23.6	39.9	31.8
Family/friends	0.9	7.0	30.0	4.4	14.6	27.6	5.6	16.7	33.4	25.3
Medical	0.3	5.0	13.2	1.3	4.8	9.8	0.7	3.4	6.1	4.7
Community agency	2.2	8.9	15.4	8.7	15.3	31.1	5.1	11.9	17.9	14.7
Criminal justice or legal	92.2	58.9	0.0	77.5	46.7	0.0	77.6	43.2	0.0	21.6
School	0.3	1.0	0.7	0.0	0.0	0.2	0.2	0.5	1.3	0.9
Employer	0.0	0.0	2.6	0.0	0.0	1.4	0.0	0.3	0.6	0.4
Other	0.3	1.0	2.0	0.0	0.6	0.2	0.3	0.4	0.8	0.6
	100.0	100.0	100.0	100.0	100.0	99.8	100.0	100.0	100.0	100.0
n =	(320)	(302)	(604)	(160)	(478)	(427)	(1062)	(1974)	(4745)	(7781)

Table IV.13. Number and Type of Drug-related Problems in the Year Before Treatment by TASC/Criminal Justice Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Number of Drug-related Problems										
None	23.1	27.6	11.1	13.8	18.9	14.4	16.2	20.2	18.0	18.3
One	19.0	11.0	10.1	15.0	7.1	8.5	13.7	11.7	14.3	13.6
Two	18.7	14.7	15.4	10.6	10.5	15.5	14.8	13.4	17.3	16.0
Three	11.5	13.7	20.4	13.1	13.6	18.6	15.3	15.6	19.6	18.0
Four	11.2	14.3	21.5	12.5	17.0	19.5	14.5	14.7	16.3	15.6
Five	13.1	11.7	16.5	18.1	15.9	15.5	15.6	13.9	10.6	12.1
Six	3.4	7.0	5.0	16.9	17.0	8.0	9.9	10.5	3.8	6.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(321)	(300)	(604)	(160)	(477)	(425)	(1062)	(1967)	(4732)	(7761)
Types of Drug-related Problems										
Medical	22.4	31.8	48.8	41.9	40.6	44.5	32.7	35.7	37.5	36.4
Psychological	35.5	41.4	38.8	51.3	51.3	58.5	39.7	43.4	49.2	46.4
Family	44.2	52.3	67.9	60.6	68.0	68.9	55.8	56.0	53.1	54.2
Legal	62.9	44.7	15.0	68.1	62.1	27.4	69.4	51.7	16.3	32.5
Job/Education	18.4	29.1	43.8	39.4	44.1	45.7	33.5	35.1	32.0	33.0
Financial	38.3	38.1	52.7	56.3	52.1	52.7	52.9	53.4	60.0	57.4
	MULTIPLE RESPONSE									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)

categories report fewer drug-related problems than comparable residential clients. Forty-two percent of the TASC clients in outpatient drug free programs report one or no drug-related problem; 29 percent of TASC clients in the residential modality report one or no drug related problem. Thirty-nine percent of non-TASC criminal justice clients in outpatient drug free programs report one or no drug-related problem; only 26 percent of such clients in the residential modality report one or no drug-related problem. Outpatient drug free clients who have no legal involvement at admission report more drug-related problems than such clients in the residential modality and more than TOPS clients generally.

The second part of table IV.13 indicates the types of drug-related problems TOPS clients had during the year before entering treatment. More than half of all TOPS clients report family and financial problems as a result of their drug use; almost half report psychological problems related to their drug use. Approximately one-third report medical, job or educational, and legal problems. With the exception of the legal problem and, to a lesser extent, the psychological problem categories, there are only minor variations across the legal involvement dimension in the percentage of all TOPS clients who report problems. As would be expected, there is substantial variation in the legal problem category. Overall, 69 percent of the TASC clients report legal problems as a result of their drug use; 52 percent of the non-TASC criminal justice clients report such problems. Only 16 percent of the TOPS clients who are classified as not legally involved at the time of treatment intake report having legal problems as a result of their drug use in the year preceding treatment. This systematic variation in client reports of problems on the legal involvement dimension also holds within the outpatient drug free and residential modalities.

There are also observable differences in types of drug-related problems experienced for clients in the residential and outpatient drug free modalities. In general, the residential clients are more likely to report drug-related problems than are the outpatient drug free clients; and within the two modalities, no legal involvement clients are more likely to report medical, psychological, family, job and financial problems related to their drug use than are the TASC and non-TASC criminal justice clients. These patterns suggest the motivation for entering treatment differs for legally and not legally involved clients.

H. Prior Drug Treatment

Table IV.14 provides three kinds of information about the previous drug treatment experience of TOPS clients. The first section of table IV.14 shows that among all TOPS clients 60 percent had some previous drug treatment experience; 36 percent of the TOPS sample had been in drug treatment during the year prior to the current admission, and 25 percent had a drug treatment admission in the three months before the current admission. The no legal involvement clients are more likely than either the TASC or non-TASC criminal justice clients to have been in treatment at any time or in the recent past.

Residential clients are more likely to have been in drug treatment than are outpatient drug free clients both in the distant and recent past. Comparison of the past treatment percentages for the legal involvement categories on the basis of ever versus never being in drug treatment shows that there are statistically significant differences between the legally involved and not legally involved clients in the outpatient drug free modality. Within the residential modality there are not statistically significant differences between the legally involved and not legally involved categories. Legally involved outpatient drug free clients are significantly more likely to have previously been in drug treatment.

The data in the second section of table IV.14 confirm the findings in the first section. Approximately six of ten TOPS clients have had at least one previous drug treatment admission; residential clients are more likely than outpatient drug free clients to have been previously treated for drug problems. Comparison of the clients across the legal involvement dimension for the three or more previous drug treatment admissions category indicates no statistically significant differences. Although the non-TASC criminal justice clients in each modality are most likely to have been in drug treatment three or more times, the differences between legal involvement groups in the category are not statistically significant. Thus, the evidence in the first two sections of table IV.14 is ambiguous when TASC, non-TASC, and no legal involvement clients are compared on the basis of previous drug treatment experience.

The third section of table IV.14 shows the type of prior drug treatment admissions. The highest percentages found for previous treatment type both across and within modalities are in the "multiple" treatment type category. If individuals were previously in treatment, they are most likely to have been in multiple treatment types. The next most common forms of previous drug

Table IV.14 Prior Drug Treatment by TASC/Criminal Justice System Involvement

Episodes of Prior Drug Treatment	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Incidence of Prior Treatment										
Ever treated*	36.1	40.7	34.4	54.4	58.8	54.3	45.4	57.9	63.6	59.7
Treated in year before admission	12.8	17.9	17.9	28.8	32.8	29.3	19.2	32.3	40.5	35.5
Treated in 3 months before admission	8.1	8.3	7.9	15.6	21.5	20.6	11.0	21.0	29.2	24.6
	MULTIPLE RESPONSE									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)
Number of Prior Admissions										
None*	71.6	62.6	70.5	50.0	45.1	49.5	60.2	44.9	37.0	42.7
One	12.3	15.3	11.6	18.5	18.1	17.6	14.9	16.1	15.2	14.9
Two	4.2	7.1	6.1	10.3	11.4	11.3	8.6	10.5	11.0	10.7
Three or more	11.9	14.9	11.8	21.2	25.3	21.6	16.3	28.5	36.8	31.6
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(285)	(281)	(560)	(146)	(430)	(398)	(952)	(1818)	(4525)	(7295)
Type of Prior Treatment										
No drug treatment*	71.6	62.6	70.4	50.0	45.1	49.0	60.1	44.7	38.0	42.5
Detoxification only	4.9	2.1	4.1	4.1	3.0	2.8	4.0	5.8	11.6	9.2
Maintenance only	0.7	2.1	0.7	8.9	9.5	6.3	8.3	8.5	10.3	9.6
Residential only	4.2	8.2	1.6	9.6	10.2	14.0	6.2	6.7	3.6	4.7
Outpatient drug free only	2.4	6.0	5.0	3.4	4.7	5.3	3.1	3.2	1.9	2.4
Other only	3.2	2.8	4.1	2.1	0.9	1.7	1.8	1.8	1.2	1.5
Multiple	13.0	16.0	14.1	21.9	26.5	20.9	16.5	29.2	33.4	30.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(285)	(281)	(561)	(146)	(430)	(398)	(952)	(1820)	(4532)	(7304)

*There are differences between the first and the second and third parts of the table in the percentage estimates of clients ever treated. This difference results because the variables were created from two different questions in the interview schedule. Clients were not fully consistent in their responses to the similar questions. Furthermore, two variables (number of prior admissions and type of prior treatment) were created from a set of six questions which reduced the number of client responses with nonmissing values and affected percentage values by reducing both numerator and denominator.

treatment among the residential clients are maintenance (only) and residential (only). As would be expected from the findings for previous treatment in the first two sections of table IV.14, the residential clients are more likely to have been in most treatment types than are the outpatient drug free clients.

The variation among clients on the legal involvement dimension in previous drug treatment admission type is mixed. Examination of the TASC, non-TASC criminal justice and no legal involvement categories for previous maintenance and residential treatment modalities provides an example. Variation on the legal involvement dimension within modality is not substantial or consistent among modality type. Systematic patterns of previous drug treatment type by legal involvement are difficult to specify.

I. Referral Source

Table IV.11 describes the client-reported patterns of principal referral source for the current admission to a TOPS treatment program. Earlier we discussed some aspects of the legal referral patterns in connection with the analysis of client reports that they had no primary drug problem in the three months prior to current treatment intake. Table IV.11 shows that among all TOPS clients "self-referral" is the most common referral source; family or friends is the next most frequently reported referral source (25 percent), and legal or criminal justice referral is the third most common referral source (22 percent). Aside from community agency referral, other referral sources are relatively rare.

Among the TASC and non-TASC criminal justice clients, a legal referral is far and away most likely. Among the no legal involvement clients, self and family and friends account for about three-fourths of referrals. Between modalities and ignoring the legal/criminal justice referrals, there are only minor differences except for the community agency category. Community agency referrals to the residential modality are relatively more frequent than such referrals to the outpatient drug free modality.

J. Client Reports of Depression Symptoms and Previous Mental Health Treatment

Table IV.15 shows that 59 percent of all TOPS clients experienced symptoms of depression in the year before entering drug treatment; 38 percent had suicidal thoughts or actually attempted suicide. Two further points emerge from the first part of table IV.15. First, legally involved residential clients are more likely than legally involved outpatient drug free clients to have experienced serious depression symptoms (suicidal thoughts or attempts).

Table IV.15 Client Reports at Intake of Depression Symptoms in the Year Before Treatment and Previous Mental Treatment by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Depression Indicators										
None	51.4	51.5	25.8	43.7	36.1	31.4	50.1	45.3	37.6	41.3
Could not get out of bed	16.9	16.4	13.1	19.4	18.1	17.9	19.8	18.2	21.6	20.5
Suicidal thoughts	25.7	23.1	42.2	25.0	31.1	31.1	22.3	26.8	30.5	28.4
Suicide attempts	6.0	9.0	18.8	11.9	14.7	19.6	7.8	9.7	10.3	9.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(319)	(299)	(604)	(160)	(476)	(424)	(1047)	(1962)	(4714)	(7723)
Mental Health Treatment										
Never treated	79.4	69.3	56.5	73.1	76.3	63.4	80.8	74.9	77.1	77.0
Treated but not in year before admission	13.1	17.1	23.3	13.8	12.1	19.5	11.6	14.2	13.2	13.2
Treated in year but not 3 months before admission	3.4	7.4	7.1	8.1	4.1	5.4	4.1	5.3	3.8	4.2
Treated in 3 months before admission	4.1	6.2	13.1	5.0	7.5	11.6	3.5	5.6	5.9	5.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(320)	(302)	(604)	(160)	(413)	(533)	(1061)	(1968)	(4739)	(7768)

Second, clients who are not legally involved at the time of treatment intake are more likely to have experienced serious depression symptoms than are legally involved clients. This difference between legally involved and not legally involved clients is especially notable in the outpatient drug free modality. Sixty-one percent of outpatient drug free clients who are not legally involved report serious depression symptoms. Although further analysis which controls for sex and other factors is necessary, this latter finding suggests depression may be an important motivating factor for seeking treatment for clients who are not legally involved. Earlier data (table IV.11) showed that legal referral is the dominant source of referral to treatment for legally involved TOPS clients. The disproportionate existence of depression symptoms among clients who are not legally involved plus the disproportionate reports of psychological problems related to drug use reported by this category of clients (see table IV.13) suggest that psychological factors (of which depression may be a major component) may be an important motivation for individuals to seek treatment in the absence of legal threat.

The second part of table IV.15 reports the percentages of TOPS clients who have previously been treated for mental problems. Overall, 77 percent of TOPS clients had never received mental health treatment; 13 percent had been treated, but not in the year before entering a TOPS program; 10 percent of the TOPS sample received mental health treatment in the year before drug treatment intake.

Comparison of the outpatient drug free and residential modality clients indicates that overall the former are more likely than the latter to have been treated for mental health problems. Variation in the percentages of TASC/non-TASC/no legal involvement clients who have received mental health treatment is similar within each of the two treatment modalities. Clients who were not legally involved at the time of treatment intake are more likely to have received previous mental health treatment. This difference is especially notable in the outpatient drug free modality.

K. Time At Risk

When evaluating pretreatment behavior, it is important to consider the client's opportunities for engaging in behaviors. When incarcerated or hospitalized, the risk of involvement in behavior like drug usage is altered. As shown in table IV.9, 45 percent of all TOPS clients reported they were not incarcerated or living in restricted environments for any period during the

year before treatment. The sum of the percentages in the first two cells of the last column of table IV.9 indicates that overall, 74 percent of all TOPS clients were at risk for at least 11 months during the year before entering treatment. On the other hand 7 percent of all TOPS clients were incarcerated or living in restricted environments for at least six months of the year preceding treatment. The data of table IV.9 also show there are differences between the modalities and between the legal involvement categories in the proportion of time clients were at risk in the year before treatment.

Among the outpatient drug free clients, those who are not legally involved are comparatively unlikely to have been incarcerated or in restricted environments for significant periods in the year before treatment. Ninety-one percent was at risk for at least 11 months; and only two percent was at risk for less than six months. Legally involved outpatient drug free clients are more likely to have been incarcerated in the year before treatment than the outpatient drug free clients who were not legally involved at intake.

Residential clients are more likely to have been in restrictive environments during the pretreatment period than the outpatient drug free clients, and the TASC and otherwise legally involved residential clients were more likely than the not legally involved residential clients to have been restricted. Only 25 and 44 percent of the residential TASC and non-TASC criminal justice clients, respectively, had been at risk for 11 or more of the 12 months preceding treatment. Twenty-six and nineteen percent, respectively, of these clients were incarcerated or restricted for at least six months of the year preceding TOPS treatment.

Earlier in this report we discussed the relevance of "at risk" time. It was suggested in section F of this chapter that the reports of "no primary drug problem" in the three months before treatment intake are partly explained by the fact that many of these clients were in environments where drugs were not readily available. The "at risk" variable is also important to the consideration of other indicators of this report. In subsequent subsections of this report the arrest, criminal activity and employment/income characteristics of TOPS clients are discussed. Time at risk is likely to influence these findings. The risk of being arrested or the capacity to work and earn income is partly determined by the exposure of individuals to the possibility of these occurrences. We do not systematically integrate the time at risk variable

into our analyses of these outcomes, but the reader may wish to refer to table IV.9 in the light of the findings for the balance of this report. Later TOPS reports will systematically integrate the time at risk variable and consider its impact on findings.

L. Legal Status and Prior Incarceration

Table IV.10 gives the breakdowns for the legal status of TOPS clients at the time they entered treatment. Sixty-three percent of all clients are not legally involved when they enter a TOPS program. Sixteen percent are on probation and smaller percentages are on parole or bail; 7 percent are currently incarcerated at the time of treatment intake. Many of these incarcerated clients are in residential programs which are probably being used to deal with the dual problems of drug use and transition to the community after incarceration. Reference to the second section of table IV.10 for the percentage of residential clients who were incarcerated in the three months before entering treatment confirms that substantial percentages of these clients were in jail or prison during the immediate pretreatment period. Residential drug treatment programs are a logical transitional option for (former) drug abusers who are being released from jail or prison.

The distribution of legal status characteristics in table IV.10 indicates several additional things: residential clients are more likely to be legally involved at intake than are outpatient drug free clients; legally involved residential clients are disproportionately likely to be incarcerated at intake; and legally involved outpatient drug free clients are disproportionately likely to be on bail at the time of intake; the relations between TASC and non-TASC criminal justice legal status vary by modality; small percentages of TOPS clients who are apparently "legally involved" as indicated by the TASC or non-TASC criminal justice classification report they are <u>not</u> legally involved. This last situation may be explained by circumstances like a TASC referral that takes place after arrest for a charge that is subsequently dismissed prior to the TOPS intake interview. Thus, the reports by some clients who are classified as legally involved that they are not so involved are not necessarily inconsistent.

The data in the second section of table IV.10 show that a very high percentage (80 percent) of TOPS clients have been incarcerated at some time. More than 90 percent of the TASC and non-TASC criminal justice clients have been in jail or prison at some time. Further, as we have indicated above, the

incarcerations of legally involved TOPS clients tend to have been recent. Eighty-eight percent of TASC clients and 75 percent of non-TASC criminal justice clients were incarcerated in the year preceding treatment. As also indicated above, the residential clients are more likely than the outpatient drug free clients to have been previously and recently incarcerated. The prior incarcerations of those classified as not legally involved at intake tend disproportionately to have been more than a year before the current treatment.

M. Self-reported Arrests and Offenses

Table IV.16 displays the percentages of TOPS clients who report being arrested or committing offenses of various types in the 12 months before entering treatment. The first part of the table shows that 57 percent of all TOPS clients report they were not arrested in the year prior to treatment; thus 43 percent of TOPS clients were arrested for at least one offense within these 12 months. TOPS clients appear much more likely to be arrested than a normal population. As Miller (1978) calculates, probably less than 25 percent of the U.S. population will ever have an arrest record.

Arrests for larceny and burglary (8 percent) are the most commonly reported offenses for which arrests are reported. Other income-generating property offenses like stolen property, forgery and robbery also show significant percentages of arrests. A relatively low three percent of TOPS clients report being arrested in the year before treatment for a serious assaultive offense like homicide, rape, or kidnapping; but since crime data in general show violent crime is a relatively rare event, this figure is high in comparison to a normal population. Table IV.16 also shows that residential clients are more likely to report arrests than outpatient drug free clients. This is especially notable when it is remembered that the residential clients were not at risk for as much of the year before treatment as were the outpatient drug free clients (see table IV.9).

Arrests of TASC clients are more frequent than arrests of non-TASC criminal justice clients and much more frequent than arrests of the clients who were not legally involved at intake. Sixteen and 27 percent of all TASC clients were arrested for larceny and burglary, respectively, in the 12 months before treatment.

Within each modality the greater likelihood of arrest for TASC referred clients holds in most offense categories. The typical pattern found is for

Table IV.16 Client Self-reported Arrests and Self-reported Offenses in Year Before Intake by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Reported Arrests										
None	21.8	34.1	82.8	12.5	24.7	61.4	15.9	31.2	74.5	56.5
Sale of Drugs	11.5	3.6	0.2	3.8	5.4	1.2	5.8	5.6	1.0	2.8
Pimping, Prostitution	0.6	1.0	0.3	2.5	3.8	2.6	1.8	3.2	1.3	1.9
Gambling	0.3	0.0	0.0	0.0	0.6	0.5	0.5	0.4	0.8	0.7
Stolen Property	4.4	1.3	0.3	5.0	4.6	0.7	6.9	5.0	1.5	3.1
Forgery, Embezzlement	9.3	3.0	0.8	16.3	9.8	1.6	9.7	8.4	1.4	4.3
Auto Theft	4.4	3.6	0.2	6.9	5.0	1.6	6.1	4.3	0.8	2.4
Larceny/Theft	6.9	9.9	1.8	2.0	16.1	8.2	16.4	12.8	4.3	8.1
Burglary	13.7	9.6	1.0	34.4	16.9	3.3	26.8	12.4	1.7	7.9
Robbery	5.6	2.3	0.3	5.6	5.4	1.6	7.6	5.7	1.3	3.3
Serious Assault	4.0	2.3	0.5	6.3	7.1	2.3	4.5	5.5	1.4	2.9
	---MULTIPLE RESPONSE---									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)
Reported Illegal Activity										
None	34.6	65.2	39.8	17.5	24.1	33.3	24.3	30.8	47.2	39.9
Sale of Drugs	19.6	25.5	26.8	31.9	29.7	26.9	23.7	25.4	17.8	20.5
Pimping, Prostitution	2.2	3.0	4.8	14.4	9.4	11.0	57.3	6.5	5.3	5.6
Gambling	9.0	7.6	8.1	16.3	13.6	14.3	13.0	9.8	10.2	10.5
Stolen Property	6.5	8.6	8.4	23.1	22.0	16.2	16.8	16.0	10.0	12.5
Forgery, Embezzlement	6.5	6.3	6.8	19.4	16.5	8.7	10.7	11.5	5.8	7.9
Auto Theft	5.6	5.3	2.3	10.6	9.4	4.7	82.6	7.2	2.3	4.3
Larceny/Theft	15.0	20.2	18.7	38.1	34.5	27.6	31.5	24.3	16.0	20.2
Burglary	13.7	10.6	7.8	34.4	24.1	12.9	26.4	17.7	6.9	12.3
Robbery	5.6	3.3	2.6	18.1	14.0	9.1	10.4	10.2	5.1	7.1
Serious Assault	0.0	7.6	7.1	16.3	18.4	13.6	11.4	12.8	5.6	8.2
	---MULTIPLE RESPONSE---									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)

TASC clients to report the greatest likelihood of arrest, the non-TASC criminal justice clients to report the next highest likelihood of arrest and the no legal involvement clients to report the lowest arrest likelihood.

It is clear from the data in table IV.16 that TOPS clients who come to treatment through a TASC referral have substantial criminal justice system involvement. Reference to the first row of the table shows that fully 84 percent were arrested in the year before treatment (only 16 percent report no arrests); 87 percent of the residential TASC clients were arrested during this pretreatment year. To the extent that arrests are an accurate reflection of involvement in crime, the TASC clients constitute a significant threat to the community. The non-TASC criminal justice clients are also heavily involved with the criminal justice system and apparently commit a large number of serious crimes.

The validity of the self-reported arrest data was examined by comparing the self-reports of arrest of a sample of TOPS clients with FBI criminal history records of arrest (Hubbard, Collins, Allison, Cavanaugh, and Rachal, 1981). A bias score estimate for four classes of criminal offense was developed. In general, the findings indicate that clients' reports for the one year pretreatment period correspond to official records for over three-fourths of clients, but that for the period beyond 12 months pretreatment, the correspondence between self-reports of arrest and official records of arrest is much lower. In the immediate 12 month pretreatment period, clients tend to report more arrests than their official records indicate. This latter finding is likely due to the incompleteness of official records of arrest.

The second section of table IV.16 shows that, based on the self-reports of TOPS clients about their actual criminal behavior, arrests underestimate criminal activity. Forty-three percent of TOPS clients reported being arrested for an offense of any type in the 12 months prior to treatment; 60 percent admit to being involved in one or more of the 11 offenses that constitute the self-reported criminal activity report of the TOPS intake interview.

Comparison of the disparity between self-reported arrests and self-reported illegal activities indicates that some offenses are more likely to result in arrest than others. For example, 2.8 percent of the full TOPS sample reports being arrested for selling illegal drugs; 21 percent reports engaging in such illegal activity -- an activity/arrest ratio of 7.3 to 1. On the other hand,

3.3 percent report being arrested for robbery while 7.1 percent admit committing robbery - an activity/arrest ratio of 2.2 to 1.

Examination of the self-reported illegal activity data alone suggests some of the same findings as indicated by analysis of arrest data. Residential clients are more criminally active than outpatient drug free clients; and TASC clients, in most offense categories, are most likely of the three legal involvement categories to commit criminal offenses.

In this report we do not deal in detail with the validity of the self reported criminal activity data. These self-reports, perhaps more than the self-reports of arrests, are subject to errors of recall and distortion. The analysis by Hubbard et al. (1981) of self-reports indicates there are some validity problems; for example, nonresponse is higher for the self-reported illegal activity data than for the self-reported arrest data. Our usage of the relatively non-robust self-report data in this report does not require precise estimation. This report simply deals with self-reported illegal activity data as a dichotomous variable: i.e., a client reports no illegal activity of type given or he/she reports one or more incidents of illegal activity of a given type.

N. Employment and Work

Table IV.17 provides data for two aspects of employment. The first section of the table indicates the labor force status of TOPS clients; 35 percent are employed or looking for work and the remaining 65 percent are out of the labor force for a variety of reasons. TASC clients are somewhat more likely than the non-TASC criminal justice and no legal involvement clients to be employed or looking for work. A significant percentage (14 percent) of all TOPS clients are in institutions, disabled, or retired and, consequently, out of the labor force. The percentages of TASC and non-TASC criminal justice clients who are institutionalized, disabled or retired are substantial -- 32 percent and 26 percent, respectively. Based on evidence presented earlier, it seems safe to say that most of these individuals are institutionalized rather than disabled or retired.

The residential modality clients are much less likely to be employed at intake than the outpatient drug free clients. Forty-two percent of all the outpatient drug free clients were employed and another 16 percent were looking for work. The comparable percentages for all residential clients are 12 percent and 4 percent. Within the outpatient drug free modality, legally

Table IV.17 Labor Force Status at Admission and Weeks of Full-time Work by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Labor Force Status										
Employed	48.6	42.0	37.7	11.9	10.1	15.2	29.0	21.2	26.7	25.6
Looking for Work	19.1	19.7	12.4	3.8	3.9	3.3	11.7	10.1	8.3	9.2
Out of the Labor Force	32.3	38.3	49.9	84.3	86.0	81.5	59.3	68.7	65.0	65.2
(in school or training)	(4.1)	(7.0)	(10.2)	(1.3)	(1.3)	(3.6)	(3.3)	(4.0)	(4.7)	(4.3)
(in institution)	(8.5)	(8.0)	(2.2)	(61.6)	(45.0)	(14.4)	(31.5)	(25.7)	(5.3)	(14.1)
(disabled, retired)	(2.8)	(1.3)	(5.7)	(0.6)	(1.5)	(3.8)	(1.9)	(2.2)	(4.6)	(3.6)
(keeping house)	(7.5)	(8.7)	(12.4)	(2.5)	(3.4)	(7.3)	(7.2)	(7.0)	(11.2)	(9.6)
(other)	(9.4)	(13.3)	(19.5)	(18.2)	(34.7)	(52.4)	(15.4)	(29.8)	(39.2)	(33.6)
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(319)	(300)	(599)	(159)	(464)	(422)	(1048)	(1946)	(4675)	(7669)
Weeks of Full-time (35+ Hours) Work										
None	17.8	23.9	27.0	37.6	38.3	41.5	30.2	37.3	45.0	41.0
1-13	20.6	19.1	19.7	21.0	18.8	16.7	19.9	17.7	12.6	14.9
14-39	30.8	25.2	23.9	28.7	31.3	23.4	28.7	28.1	19.1	22.7
40-51	16.8	19.5	17.8	10.8	8.0	10.8	10.0	9.4	9.7	9.6
52	14.0	12.3	11.6	1.9	3.6	7.6	11.2	7.5	13.6	11.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(315)	(293)	(594)	(157)	(473)	(419)	(1047)	(1935)	(4677)	(7659)

involved clients are more likely to be employed than are clients who are not legally involved. The opposite is the case within the residential modality.

Examination of the percentages of clients who are institutionalized is instructive. The relatively low employment rate within the residential modality is largely explained by the percent of clients who are in an institution and out of the work force. Comparatively low percentages are institutionalized within the outpatient drug free modality. In both the outpatient drug free and residential modalities, the legally involved clients are more likely to have been institutionalized at the time of treatment intake.

The second part of table IV.17 shows that, overall, 59 percent of all TOPS clients worked full time at least one week in the year before intake. As a group the residential clients worked full time at about the same level as the entire sample. The outpatient drug free clients are more likely than TOPS clients generally and residential clients specifically to report working full time. One-quarter to one-third of the outpatient drug free clients report working full time for 40 or more weeks in the year before treatment. This compares to from 12 to 18 percent of residential clients who report full-time work for 40 or more weeks in the year before treatment.

The data for full-time work in table IV.17 also show that in the outpatient drug free modality clients who are <u>not</u> legally involved work less than TASC or non-TASC criminal justice clients. In the residential modality the opposite is the case. Eighteen percent of the no legal involvement residential clients worked full time 40 or more weeks in the year before treatment. Thirteen and 12 percent, respectively, of the TASC and non-TASC criminal justice residential clients worked full time 40 or more weeks in the year prior to treatment. These differences are difficult to interpret without consideration of other factors like age, sex, and time available to engage in full-time work. Further analysis of this issue will be undertaken in a later report.

O. <u>Income Sources</u>

The first section of table IV.18 shows income sources for the TOPS clients. It is clear from this table that many TOPS clients received income from a variety of sources during the year preceding treatment. Sixty-three percent got some income from a job; 53 percent got some income from illegal sources; 32 percent obtained some income from family and friends; 26 percent received

Table IV.18 Sources of Income in Year Before Intake by TASC/Criminal Justice System Involvement

	Outpatient Drug Free			Residential			All TOPS Clients			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	TASC	Non-TASC Criminal Justice	No Legal Involvement	All TASC Clients	Non-TASC Criminal Justice	No Legal Involvement	Total Sample
Source of Income										
Job	85.7	86.4	83.0	66.3	65.9	62.5	72.4	67.4	59.7	63.4
SSI	0.3	0.7	3.3	2.5	1.3	2.8	1.3	3.3	5.3	4.2
Welfare or public assistance	17.4	15.9	26.1	13.8	15.7	25.8	17.5	20.7	30.0	25.9
Social Security	2.5	2.3	5.6	1.3	1.7	3.3	1.7	2.7	2.7	2.5
Unemployment	9.7	9.3	9.9	10.0	8.2	4.9	7.1	8.1	7.2	7.5
Family/Friends	36.1	4.1	42.3	42.5	42.9	32.8	29.1	36.7	30.1	31.7
Illegal	45.5	37.1	37.5	69.4	66.7	58.8	58.1	54.4	51.8	53.3
	MULTIPLE RESPONSE									
n =	(321)	(302)	(605)	(160)	(478)	(427)	(1065)	(1976)	(4754)	(7795)
Primary Source of Income										
None	5.0	5.1	1.2	5.2	6.7	5.3	5.8	8.0	6.3	6.7
Job	65.3	66.4	60.5	33.8	36.9	37.9	48.6	42.4	40.8	42.3
SSI	0.0	0.0	1.5	1.3	0.2	1.7	0.7	1.6	2.7	2.1
Welfare or public assistance	6.3	3.0	8.8	5.2	4.5	11.1	5.8	6.3	12.3	9.9
Social Security	1.3	0.7	3.0	0.6	0.6	1.4	0.8	0.9	1.5	1.2
Unemployment	1.6	0.7	1.7	1.9	1.3	1.0	1.4	1.2	1.3	1.2
Family/Friends	4.4	8.5	8.4	5.8	8.6	6.0	4.5	7.9	5.9	6.3
Illegal	14.2	13.2	13.7	44.8	38.1	34.5	30.8	29.7	27.6	28.6
Other	1.9	2.4	1.2	1.3	3.0	1.0	1.6	2.0	1.6	1.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(317)	(295)	(592)	(154)	(464)	(414)	(1032)	(1917)	(4570)	(7519)
Personal Income										
0 - 1,999	24.3	23.0	19.3	22.1	22.6	20.8	23.7	25.6	19.6	21.7
2,000 - 6,999	34.1	31.9	32.9	31.1	30.8	32.6	33.0	29.1	28.4	29.2
7,000 - 9,999	12.9	16.6	16.6	11.7	9.7	10.4	11.8	11.2	10.9	11.1
10,000 - 19,999	16.4	22.4	22.3	19.5	18.8	20.0	18.0	17.8	20.8	19.7
20,000 or More	12.3	6.1	8.9	15.6	18.1	16.2	13.4	16.3	20.3	18.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(317)	(295)	(592)	(154)	(464)	(414)	(1032)	(1917)	(4570)	(7519)

public assistance. Residential clients are less likely than outpatient drug free clients to have received income from a job and are more likely to have secured some income from illegal sources. Legally involved clients are more likely than not legally involved clients to have secured income from a job. The TASC clients are more likely than the other clients involved to have received income from illegal sources.

Table IV.18 also provides data on the primary income sources of the TOPS clients. For all clients, job and illegal income are the two categories most commonly reported by clients as the primary income source. Forty-two percent of all clients report a job was their primary income source; 29 percent reported illegal sources as their primary source. More clients in the outpatient drug free modality than in the residential modality report jobs as their primary income source; 61 to 66 percent of the outpatient drug free clients, and 34 to 38 percent of the residential clients report jobs as their primary income source. Outpatient drug free clients are far less likely than residential clients to report illegal income sources as their primary income source.

As with the case of full-time weeks worked and income source variables, outpatient drug free clients and residential clients show different patterns on the legal involvement dimension. The outpatient drug free clients who are not legally involved are less likely than the TASC and non-TASC criminal justice clients to report a job as their primary income source.

The final section of table IV.18 shows the personal income of TOPS clients for the year preceding treatment. More than half (51 percent) of all clients had an annual income of less than $7,000. The percentage of individuals with incomes of less than $7,000 is approximately equal (48-58 percent) across modalities and legal involvement categories. At the upper income level, approximately 38 percent of all TOPS clients earned $10,000 or more in the year before treatment. Larger percentages of residential clients than outpatient drug free clients have incomes of $10,000 or more, although there is little variation on the legal involvement dimension within modality at this higher income range.

P. Summary

The preceding tables indicate there are systematic differences between clients in the outpatient drug free and residential modalities. In addition to demographic differences, the residential clients are found to have more problems and more serious problems than the outpatient drug free clients.

Residential clients are more likely: to be heroin abusers; to have more drug problems generally; to have previously been in drug treatment; to report depression symptoms; to have been incarcerated; to report arrests for serious offenses; to report engaging in serious illegal activity; to report less full-time work; and to rely less on jobs for income and more on illegal income sources.

It is more difficult to summarize the apparent effects of the legal involvement dimension. It is clear that TASC clients are more often involved in recent criminal activity. However, on other dimensions the legally involved clients exhibit a lesser level of problem behavior; for example, those without legal involvement in the residential modality are more likely to report regular heroin use and to report that heroin is their primary drug than residential clients in the TASC and non-TASC legal involvement categories. As indicated earlier, it is also clear that interactions between variables are important. Age, sex, race, previous treatment and other factors need to be controlled before confident interpretation of TASC or legal involvement effects are possible. It does seem apparent that TASC programs are achieving their objective of referring appropriate criminally active individuals to drug treatment programs. Later reports will make use of multivariate analyses that will permit more confident inferences.

V. TREATMENT RETENTION AND TREATMENT OUTCOMES BY MODALITY AND TASC/CRIMINAL JUSTICE INVOLVEMENT

In this section selected treatment outcome variables are used to compare retention and the intreatment behavior of TASC clients, non-TASC criminal justice involved clients, and not legally involved TOPS clients. These three TOPS client groups are compared on selected measures for the periods one year before treatment, the first three months in treatment, and the second three months in treatment. Some outcome data for the 12 month intreatment point are also used, but case attrition after a full year in treatment severely reduced the number of clients available for re-interview. Furthermore, at this writing, many in the 1980 TOPS cohort were still in treatment. Selected outcome variables are: retention in treatment, client reports of weekly or greater use of primary drug of abuse, depression symptoms, serious criminal activity,* and full-time work at least 75 percent of the time. Longer retention in treatment, reports of reduced use of primary drug of abuse, fewer depression symptoms, less criminal activity, and increased full-time work are viewed as positive outcomes.

A. Approach

Our analysis of outcomes for TASC clients, other TOPS clients in the criminal justice system, and clients with no legal involvement is limited by two factors: sample attrition and representativeness, and time at risk.

1. Sample Attrition and Representativeness

As was indicated earlier, TOPS clients are interviewed at intake and at subsequent three month intervals.** In the followup phase of TOPS, clients who have left treatment are being interviewed, but those data are not yet available for analysis. Sample attrition as a result of individuals leaving treatment has been significant and has resulted in small cell sizes for some categories. For example, of the 1228 clients in outpatient drug free who were included in the intake analyses, 116 remained in treatment to respond questions

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*Serious criminal activity includes aggravated assault, robbery, sale of illegal drugs, burglary, theft, forgery, embezzlement, and receiving or selling stolen goods.

**Clients who remain in treatment are also interviewed one month after intake, but these data are not used in this report.

about their involvement in illegal activity at the six month intreatment interview - 40 TASC clients, 26 non-TASC criminal justice clients, and 50 no legal involvement clients.

In the analysis of treatment outcomes for primary drug abuse, depression symptoms, illegal activity and full-time employment, we include only those individuals who have remained in treatment for six months. Consistent sets of outpatient drug free clients and residential clients are compared across time. This has the disadvantage of reducing the number of cases available for analysis but is methodologically superior to an approach that compares different sets of individuals over time. For example, if change were compared for those who were interviewed at intake with the reduced number of individuals who were still in treatment and interviewed at subsequent three and six month points, it would be difficult to interpret validly any observed differences. It is unlikely that the clients who remain in treatment six months are representative of all those who entered treatment. Therefore, the intreatment outcome findings presented here apply only to those clients remaining in treatment for at least six months.

2. Time at Risk

There are also differences between clients and modalities in opportunity to engage in behaviors used as treatment outcome measures. Individuals in both the outpatient drug free modality and residential modality commonly reported being in restrictive pretreatment environments such as hospitals, treatment programs, prisons or other institutions where their freedom to come and go was limited or fully restricted (see tables IV.9 and IV.10). Reports of pretreatment drug use, illegal activity and employment for these clients may be affected by lack of opportunity. It is known from table IV.9 that there are systematic differences between client groups in time at risk. The differences, when the time at risk variable is incorporated into analysis, may alter empirical findings. Furthermore, during treatment, residential clients are controlled and monitored and are not "at risk" in the same way that outpatient drug free clients are. The effect of being in such a program is likely to exert a degree of control over behavior that is greater than the behavioral control exercised by nonresidential programs. Although time at risk adjustments are not included in this report, they will be made a part of later reports.

B. Treatment Retention

Treatment retention is viewed as an important indicator of treatment effectiveness. If an individual leaves treatment within a few days, it is unlikely that any permanent change has occurred in the characteristics or conditions that are related to his or her drug problem. Such change is more likely to occur when treatment lasts for a number of weeks or months. Furthermore, because findings from past research show that criminal behavior is reduced while individuals are in treatment (Demaree and Neman, 1976; McGlothlin et al., 1977; Sells and Simpson, 1976), longer retention by itself apparently prevents some criminal behavior. It is also true that the optimum length of treatment varies by treatment modality. For this reason and because clients differ by modality, retention rates will be presented separately for the outpatient drug free and residential modalities. Therefore, in table V.1 the important comparison of the different legal involvement categories within the two treatment modalities is of greater interest.

Among all clients, 7 percent leave treatment almost immediately; about one-quarter remain in treatment from two days to four weeks; more than two-thirds of all clients stay in treatment more than four weeks. Table V.1 shows there is variation across treatment modalities and across TASC/criminal justice involved categories in the length of time TOPS clients stay in treatment. Between 10 and 13 percent of clients who enter outpatient drug free treatment in the five cities which have TASC programs spend one day or less in treatment; only one percent of individuals entering the residential treatment modality drop out in a day or less. TOPS residential clients are likely to remain in treatment longer than clients in outpatient drug free programs. However, for those who leave treatment almost immediately, there is no statistically significant difference between the legal involvement categories in either treatment modality.

The third row of table V.1 shows that TASC clients stay in treatment longer than clients who were legally involved with the criminal justice system outside a TASC program and longer than clients with no legal involvement. This result applies for both the outpatient drug free and residential modalities. The differences between TASC and non-TASC criminal justice clients are not statistically significant beyond the .05 probability level, although when all TOPS clients are combined the difference between TASC and non-TASC criminal

Table V.1 Time Spent in Treatment by TASC/Criminal Justice System Involvement

	Outpatient Drug Free				Residential				All TOPS Clients*			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	Total	TASC	Non-TASC Criminal Justice	No Legal Involvement	Total	TASC	Non-TASC Criminal Justice	No Legal Involvement	Total
Time in Treatment												
One Day or Less	9.6%	13.2%	11.5%	11.5%	1.3%	1.0%	1.4%	1.2%	6.6%	6.8%	7.0%	6.9%
	(31)	(40)	(69)	(140)	(2)	(5)	(6)	(13)	(39)	(133)	(331)	(503)
2 Days to 4 Weeks	20.6	20.9	25.9	23.2	13.2	19.0	26.3	21.0	17.3	22.1	26.3	24.4
	(66)	(63)	(155)	(284)	(21)	(90)	(111)	(222)	(103)	(431)	(1240)	(1774)
More Than 4 Weeks	69.8	65.9	62.5	65.3	85.5	80.0	72.3	77.7	76.1	71.0	66.7	68.6
	(224)	(199)	(374)	(797)	(136)	(379)	(305)	(820)	(453)	(1382)	(3148)	(4983)
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(321)	(302)	(598)	(1221)	(159)	(474)	(422)	(1055)	(595)	(1946)	(4719)	(7260)

*TASC clients who were interviewed but not assigned to a TOPS treatment program are excluded from this analysis.

justice clients is statistically significant beyond the .02 level. The differences between TASC clients and no legal involvement clients are statistically significant beyond the .05 level within each modality and for all TOPS clients. When the two legally involved categories (TASC and non-TASC criminal justice) are combined into a single category and compared to the no legal involvement groups within each modality and for all TOPS clients, all differences are statistically significant. These results suggest that both TASC and criminal justice involvement per se are directly related to drug treatment retention. McGlothlin (1979), McFarlain, Cohen, Yoder, and Guidry (1977) and Aron and Daily (1976) also found that legal pressure is positively related to staying in drug treatment.

Alternatively Harford et al. (1976) found that being on probation or parole did not significantly affect drug program completion or length of retention. They further found that older probationers stayed in treatment for significantly shorter periods than older clients who were not on probation. Thus Harford et al. argue that there is no evidence in their data that legal pressure encourages participation in drug treatment and that it may even inhibit treatment.

C. Regression Analyses of Retention Findings

There are systematic differences in the characteristics of TASC and non-TASC clients. These differences, not the TASC programs or criminal justice involvement, may explain the differential retention findings. In order to address the effects of legal pressure on treatment retention more fully, regression analyses were carried out with the TOPS data.

As a conservative test of the strength of TASC and criminal justice system involvement to predict treatment retention, the regression analyses were designed to first enter a group of known retention covariates into the regressions and then to enter the TASC and non-TASC criminal justice variables. This procedure "adjusts" time in treatment to control for the covariate variables. These variables are: sex, age, race, education, the Lu (1974) index of drug use, number of drug-related problems reported at intake, depression symptoms reported at intake and weeks worked in the 12 months before entering treatment. The TASC variable was defined in a dichotomous (dummy variable) fashion and the non-TASC criminal justice variable was defined in the same way.

Because there is evidence that criminal justice involvement affects both short-term and long-term treatment retention, regression analyses were conducted separately for all 1979-1980 TOPS clients and for only that subset of clients who remained in treatment at least seven days. These analyses were also carried out separately for the outpatient drug free and residential modalities. Treatment retention, the dependent variable, is operationally defined as number of days in treatment.*

Table V.2 reports the regression analyses findings. Reference to the next to last row of the table shows that, in terms of total variation in retention explained by the 10 variables, the amount of variation explained is modest - between 2.9 and 5.6 percent. It is also generally true that findings are not substantially altered when those who drop out of treatment within seven days are removed from the analysis. The direction of relationships of most variables to retention is also generally the same for both the outpatient drug free and residential modalities (with two exceptions), although the strength of the individual variable relationships to retention differs by modality and some of the relationships are not statistically significant. Whites stay in treatment longer than nonwhites but the differences are not statistically significant. In both modalities females stay in treatment longer than males; older clients stay in treatment longer than younger clients in the residential modality; better educated clients stay in treatment longer than those who are less educated; and those who report more drug-related problems stay in treatment longer than those who report fewer drug-related problems.

This last point may at first seem inconsistent with the finding that those who report heavier involvement in drug use, as measured by the Lu index, stay in treatment a shorter time than those who report less serious drug involvement. This inverse relationship between treatment retention and drug usage involvement is consistent for both modalities although the B values are statistically significant in two of the four cases. The Lu index, as indicated by the size of the beta coefficients, is one of the stronger predictors of

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*Some clients from the 1980 cohort that are included in the analysis had not yet left treatment so that length of treatment is underestimated for these clients. Separate retention analyses were conducted using only the 1979 cohort, all of whom have left TOPS treatment. The results of these separate analyses for the 1979 cohort only are very similar to the findings for the combined 1979 and 1980 cohorts.

Table V.2 Regression Findings for Retention of Outpatient Drug Free and Residential TOPS Clients

Variables and Order of Entry	Outpatient Drug Free (All Clients)		Outpatient Drug Free (> 7 Days in Treatment)		Residential (All Clients)		Residential (> 7 Days in Treatment)	
	Unstandardized B[1]	Standardized beta	Unstandardized B[1]	Standardized beta	Unstandardized B[1]	Standardized beta	Unstandardized B[1]	Standardized beta
Sex	19.2**	.08	21.1**	.09	11.1	.04	7.2	.02
Age	0.3	.02	0.2	.01	2.4***	.14	2.1***	.12
Race[2]	-3.5	-.01	2.1	.01	-12.0	-.04	-17.9	-.07
Education	7.5**	.08	6.8*	.07	4.6	.04	3.8	.03
Lu Index[3]	-88.9**	-.10	-63.3	-.07	-61.8	-.06	-102.1*	-.10
Number of Drug-Related Problems[4]	2.5	.04	2.8	.05	6.6**	.10	7.0**	.10
Depression Symptoms[5]	1.2	.01	0.8	.01	-11.9**	-.10	-10.4*	-.09
Weeks of Full-time Work[6]	-1.0	-.02	-0.1	-.02	0.4	.05	0.5*	.07
Non-TASC Criminal Justice[7]	17.7*	.07	17.9	.07	33.2***	.12	31.0**	.11
TASC[8]	35.6***	.14	33.3***	.14	29.4*	.08	23.6	.06
R^2	.037		.029		.055		.054	
N	1194		952		1043		939	

[1] Unstandardized B is an estimate of the predicted change in the dependent variable - days in treatment - for each unit change in the respective independent variables.

[2] Race is a dummy variable: 1 = white, 2 = nonwhite.

[3] The Lu index of drug involvement is a measure of drug use frequency which is weighted by type of drug; see Lu (1974).

[4] The drug-related problem variable is discussed on pages 45 and 48.

[5] The depression variable is discussed on pages 51 and 53

[6] The full-time work variable is discussed on pages 59 and 61.

[7] Non-TASC criminal justice involvement is a dummy variable: 1 = involved with the criminal justice system outside a TASC program at treatment intake, 0 otherwise.

[8] TASC referral is a dummy variable: 1 = referred to treatment by a TASC program, 0 otherwise.

* = F ratio significant < .05
** = F ratio significant < .01
*** = F ratio significant < .001

retention among this group of 10 variables. One could argue that those who are more inclined to acknowledge drug-related problems as they enter drug treatment indicate a greater willingness or desire to receive treatment than those who do not acknowledge drug-related problems and are, thus, more likely to stay in treatment. At the same time those with more serious drug involvement, as indicated by their Lu drug usage scores, may be less willing or able, by virtue of their heavier drug use, to stay in treatment.

Two of the variables in table V.2, depression symptoms and previous work, are related differently to retention in the two modalities. Those who report depression symptoms stay in treatment a longer time than those who do not report depression symptoms in the outpatient drug free modality; in the residential modality those with depression symptoms leave treatment sooner. While depression is differently related to retention by modality, the predictive power of the depression variable for the outpatient drug free modality is weak and not statistically significant. The previous full-time work variable is inversely related to retention in the outpatient drug free modality and directly related to retention in the residential modality. These relationships, however, are also weak and not consistently statistically significant.

Both involvement with the criminal justice system and referral to treatment by TASC are important predictors of retention. Table V.2 shows that in the outpatient drug free modality, TASC referral is a stronger predictor of retention than non-TASC criminal justice involvement, although both variables predict longer retention. For all outpatient drug free clients, after controlling for the other variables in the regression model, non-TASC criminal justice clients stay in treatment 18 days longer than clients not so involved; and after controlling for the other variables in the regression model, TASC clients stay in treatment 33 to 36 days longer than non-TASC clients.

TASC clients and non-TASC criminal justice clients also stay in residential treatment longer than their counterparts in this modality. After controlling for the other variables in the regression model, TASC clients stay in treatment 24 to 29 days longer than non-TASC clients; non-TASC criminal justice clients stay in treatment 31 to 33 days longer than other residential TOPS clients. Based on the magnitude of the unstandardized regression estimates, the effect of TASC on treatment retention is stronger in the outpatient drug free than in the residential modality.

The analysis of retention conducted here does not examine the effects of treatment factors like counseling or other services that may be provided to individuals while they are in treatment. When such TOPS intreatment data become available, the retention question can be addressed further and such analysis can be expected to explain retention more fully. The analysis carried out here has shown that TASC programs and criminal justice system involvement are associated with longer treatment retention. Further analysis utilizing both pretreatment and intreatment variables may discover legal involvement/ treatment process interactions that have implications for retaining individuals in treatment. But, regardless of any later findings, the hopes and expectations that TASC programs are a constructive force in encouraging the involvement of criminal justice clients in drug treatment is supported by the TOPS data for the 1979 and 1980 cohorts.

D. Findings for Other Outcome Measures

Tables V.3 and V.4 display changes during the first six months of treatment for TOPS clients. Table V.3 compares pretreatment and intreatment indicators of primary drug of abuse, depression symptoms, serious illegal activity, and full-time employment for the outpatient drug free clients. Table V.4 makes the same pretreatment/intreatment comparisons for residential modality clients but excludes the employment variable, because clients in the residential treatment modality have limited opportunity to work full time. The cell percentages of tables V.3 and V.4 refer to TOPS clients who responded affirmatively on each of the outcome measures for the three time periods. As indicated, only clients who remained in treatment a least six months are included in the analysis.

For each outcome measure of table V.3, outpatient drug free TASC clients reported improvement during treatment; lower percentages report regular use of their primary drug, fewer report depression symptoms, only a few report engaging in serious crime, and more report working full time most of the time. The non-TASC outpatient drug free criminal justice clients also showed improvement after entering treatment. Primary drug use and depression symptomatology decreased, and fewer reported illegal activity. There was little or no improvement in full-time work during the first six months in treatment for non-TASC criminal justice clients. The not legally involved outpatient drug free client category also shows improvement in each outcome category including some increase in the number of clients working full-time. In the cases of use of

Table V.3 Outpatient Drug Free Clients Who Reported Weekly Use of Their Primary Drug of Abuse, Depression Symptoms, Serious Illegal Activities and Full-time Employment 75 Percent of the Time for Pretreatment and Intreatment Periods*

	TASC				Non-TASC Criminal Justice				No Legal Involvement			
	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work
Year Before Treatment	65.1	44.2	63.2	29.5	54.8	38.7	30.0	25.0	78.4	72.5	34.9	41.2
First Three Months in Treatment	15.0	25.0	4.9	46.5	17.9	6.5	17.2	22.6	29.4	45.1	8.5	52.0
Three to Six Months in Treatment	12.5	16.3	2.3	59.1	14.3	12.9	11.5	28.6	21.6	39.2	8.9	49.0
n =	(41)	(43)	(40)	(43)	(29)	(31)	(26)	(30)	(50)	(50)	(50)	(50)

*Only clients who remain in treatment at least six months are included in this table. See section V.A.1.

Table V.4 Residential Clients Who Reported Weekly Use of Their Primary Drug of Abuse, Depression Symptoms, and Serious Illegal Activities for Pretreatment and Intreatment Periods*

	TASC			Non-TASC Criminal Justice			No Legal Involvement		
	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity
Year Before Treatment	85.4	56.1	78.8	74.6	55.6	70.4	76.1	65.1	59.7
First Three Months in Treatment	0.0	14.6	0.0	1.4	29.1	0.0	0.0	19.5	3.5
Three to Six Months in Treatment	2.4	24.4	5.1	1.4	21.8	1.5	4.6	18.6	4.9
n =	(41)	(41)	(37)	(142)	(141)	(136)	(87)	(86)	(80)

*Only clients who remain in treatment at least six months are included in this table. See section V.A.1.

primary drug and serious illegal activity, the improvement of outpatient drug free TASC clients is more notable than the improvement shown by the other two client categories.

As we suggested earlier, the results of these findings must be cautiously interpreted. The numbers of cases are not large and other factors like time at risk have not yet been integrated into the analysis. However, in spite of these limitations the findings are promising; results indicate improvement in almost every treatment outcome measure.

Findings for regular use of primary drug of abuse, depression symptoms and illegal activity for residential modality clients (table V.4) are very similar to those findings for the outpatient drug free clients. The percentages of clients who report weekly or more frequent drug use, depression symptoms, or serious illegal activity are much lower for the intreatment period than for the pretreatment period. As with the outpatient drug free TASC clients, residential TASC clients improve more notably in the primary drug use and illegal activity categories than do the other two categories. Because of limited opportunity to work full-time, the full-time work variable is not included in the pretreatment/intreatment comparison. Some of the improvement shown in the three outcome variables for residential clients, especially the drug use and illegal activity variables, is likely to be explained by the reduced opportunity to engage in those behaviors given residence in a drug treatment setting where behavior is controlled. However, the results do suggest that the kind of outcomes which are sought by drug treatment programs are being attained.

Data collected during interviews conducted at the 12 month intreatment point are not shown in the treatment outcome tables. A very small percentage of TOPS clients remain in treatment for a year. While these numbers are too small for analysis, they do show the same pattern as the six month intreatment data. Few clients who stay in treatment for at least 12 months use their primary drug, experience depression symptoms, or report serious illegal activity; and the percentage of outpatient drug free clients who work full-time most of the time remains relatively high. The limited 12 month intreatment data do not permit comparison of clients across the legal involvement categories. When TOPS followup data become available, treatment outcomes will be evaluated for all TOPS clients both for intreatment and posttreatment periods.

E. Summary

The findings for treatment retention and for change while in treatment are promising both for drug treatment generally and for the TASC programs specifically. Two-thirds of all TOPS clients remain in treatment at least four weeks, and TASC and criminal justice involvement were found to be related to longer retention in treatment. The outpatient drug free and residential clients show improvement during treatment on most outcome dimensions. TASC referred clients also improve during treatment and in some ways TASC clients do better than the other two categories. TASC clients stay in treatment longer than both non-TASC criminal justice and no legal involvement TOPS clients, and TASC clients improve more than the other client categories on some outcome measures. However, it must be stressed again that these findings are preliminary; further analysis is required before these suggestive findings can be attributed to TOPS and TASC programs.

VI. EXECUTIVE SUMMARY

A. The TASC Concept

The first Treatment Alternatives to Street Crime (TASC) program was created by the Special Action Office for Drug Abuse Prevention (SAODAP) in 1972. Federally funded and locally administered, these programs are intended to become institutionalized under state or local auspices at the expiration of their grant periods. Although there is no single TASC program model, the functions of the TASC programs are to identify drug users who come into contact with the criminal justice system, to refer those who are eligible to appropriate treatment, to monitor clients' progress, and to return violators to the criminal justice system. Early in the history of TASC, some programs were also the providers of some limited services where other treatment facilities were not available.

As originally conceived, TASC was meant to serve a pre-trial criminal justice system diversion function. Many arrested drug abusers are thought to be involved in crime to support their drug habits, and empirical evidence shows that successful treatment of the individual's drug problem will reduce the likelihood or level of further criminal behavior (Ball, Rosen, Flueck, and Nurco, 1980; Burt Associates, 1977; McGlothlin, Anglin and Wilson, 1977; Sells, Demaree, Simpson, Joe, and Gorsuch, 1977; Simpson, Savage, Lloyd and Sells, 1978). Additionally TASC was meant to reduce the criminal justice system case load burden by diverting clients to drug treatment.

1. Previous TASC Evaluations

Previous TASC evaluation efforts have focused on a limited number of programs or on a general overview of the TASC concept. Several across program evaluations of TASC have been carried out. The first evaluation (System Sciences, 1974) included the first five projects funded - Cleveland, Indianapolis, Wilmington, New York and Philadelphia. It found these projects to be generally successful in their goals of identifying drug users among arrestees, referring them to treatment and monitoring clients.

A 1976 evaluation by the Lazar Institute (Toborg, Levin, Milkman, and Center, 1976) covered 22 existing TASC projects. Its findings were based on data from more projects and projects which had existed for relatively long periods of time. This report found that the existing projects effectively identified drug users in the arrestee population, appeared to reduce rearrest

rates, and were generally considered by the criminal justice system to be viable alternative methods of handling drug using criminals. The Lazar Institute report points out, however, that many important questions regarding the most effective selection criteria and treatment mechanisms, and long term treatment effects have not been examined.

A third report on TASC (System Sciences, 1978) found that screening, diagnostic and referral, and monitoring procedures were effective. Based on a definition of success as retention in treatment or successful discharge from treatment, 64 percent of clients were deemed successful. However, no information on behavior after leaving treatment was available. Thus, long term impacts of TASC and changes in client behavior after leaving treatment are unknown.

The studies which have been conducted of individual TASC programs in Denver (Colorado Division of Criminal Justice, 1975), Cleveland (Mackie, 1974), and Philadelphia (Drug Use and Drug Users in an Arrestee Population, 1974) generally provide information on the characteristics of clients entering TASC and the identification procedures employed. Some descriptive information is also available on diagnostic and referral procedures. Cost-benefit analyses are not available for most program reports or studies except on a very general level. No study included gathering the type of followup data after a client left treatment that were collected in TOPS.

Perhaps the most extensive research and data collection efforts that have been conducted were in the TASC program in Dade County, Florida. Specifically, data were collected on (1) a probability sample of all individuals arrested on a felony or major misdemeanor charge in Dade County, (2) all those identified and referred by TASC to the community treatment system, and (3) the treatment process and treatment outcome (including re-arrest) of TASC diverted clients in the community treatment system. Initial analyses of these data have been published and presented on (1) the proportion of arrested population identified as drug users (McBride, 1976), (2) drug-using arrestees not diverted by Miami TASC compared to those diverted (McBride and Dalton, 1976), (3) the impact of diversion on a treatment system (McBride and Bennett, 1978), and (4) the treatment outcomes of TASC clients (McBride and Weppner, 1978). These reports have not provided a comparison of behavior for TASC and non-TASC clients during and after treatment. Schmidt (1979) is skeptical of some aspects of the Miami TASC program effects. While he admits drug offender diversion has

probably reduced court overcrowding, he does not see a net cost-benefit advantage because "...the drug problem itself has only been diverted to a neo-health care system from a formal criminal justice system" (p. 491).

2. Evaluation of TASC Using TOPS Data

The data available from the TOPS research permit a more comprehensive evaluation of the effects of TASC than has been possible in past research. TOPS data permit the tracking of a large number of TASC clients over time. It is also possible to compare the characteristics and treatment outcomes for TASC clients with the characteristics and treatment outcomes for individuals who do not come to drug treatment through a TASC referral. This report represents an important step in the comprehensive evaluation of TASC effects. Because (at the time this report is being written) data are still being collected on TOPS clients who have left treatment, the findings reported here are the initial statement of TASC effects on behavior during treatment. In this report a detailed description of TASC and other TOPS clients is provided, and selected intreatment and retention findings for TASC and non-TASC clients are discussed. Those findings are preceded by a discussion of the TOPS research design and methodology.

B. TOPS Methodology

The basic design for TOPS is a prospective cohort survey study. TOPS tracks a multi-year census of persons identified as eligible for treatment at selected drug treatment programs. This report deals with 1979 and 1980 entry cohorts. Clients are interviewed at the time they contact the programs, periodically while in treatment, and then at specified intervals after their terminations from treatment. The treatment programs and individual clients voluntarily participate in the study. Program researchers, hired and trained specifically for TOPS, are assigned to interview the clients. Demographic and baseline behavioral data are collected at the time the client seeks admission to the treatment program. At months one, three, and quarterly thereafter, for up to two years in treatment, additional indepth assessments of behavior, attitudes, and treatment process are conducted. These assessments are continued in the followup by interviews at three months, one year and two years after termination.

TOPS uses a purposive sample of cities and programs within each city. Eight cities were considered initially for the 1979 data collection to represent particular types of drug abuse problems and approaches to treatment and six

cities were finally selected. Two additional cities were added in 1980. Stable, established programs representing major modalities were selected to permit an assessment of treatment process as it might optimally be conducted. Neither the cities nor the programs represent a national sample. In the TOPS programs, a census of all entering clients is asked to participate in TOPS. Representativeness of the purposive sample of programs and clients can be ascertained by comparing basic TOPS data elements with national CODAP figures. Such a comparison is made in another TOPS report (Bray, Hubbard, Rachal, Cavanaugh, Craddock, Collins, Schlenger, and Allison, 1981).

The programs selected in each site included those (1) representing major modalities, (2) that are established, stable, functioning programs, and (3) that reflect different approaches to treatment. Though the programs specially selected for this study do not constitute a statistically representative sample, they do reflect a broad range of approaches to treatment. The programs were selected to reflect not only typical approaches to major modalities of treatment but also variations in those approaches. In this report we emphasize the outpatient drug free and residential modalities because these treatment approaches/environments are consistent with the TASC concept. Other treatment approaches like detoxification and methadone maintenance are viewed by many as inconsistent with the TASC goals of relatively lengthy treatment involvement and elimination of all drug dependence. This report also relies on data from the six TOPS cities that have TASC programs; cities without TASC programs are not included.

The design for TOPS calls for a census rather than sample of clients in each participating program.* A census permits greater quality control, eliminates sampling error, and permits the observation of the total scope of behaviors occurring in a single treatment program. By including all clients in a program, the study resources can be focused more directly and economically. The following section describes TASC clients and compares them with non-TASC clients.

C. Description of TASC and Non-TASC Clients

Table VI.1 compares TASC clients with non-TASC clients who entered TOPS outpatient drug free or residential drug treatment programs in six cities during 1979 and 1980. TASC clients are not compared with clients who enter

*A sample was drawn in one detoxification program where intakes exceeded 50 a month.

Table VI.1 Characteristics of TASC Clients and of Outpatient Drug Free and Residential Modality Non-TASC Clients*

	All TASC Clients	Non-TASC Outpatient Drug Free and Residential Clients
Status Characteristics		
Male	85.5%	66.1%
White	58.6	70.8
Age ≤ 25	56.5	52.5
High School Graduate	49.3	55.1
Married	15.0	14.8
Dependents	44.0	33.3
Psychoactive Substance Use (Year Before Treatment)		
Daily Alcohol User	9.7	12.6
Weekly or Greater Drug Use		
Marihuana	68.9	66.2
Hallucinogens	9.6	7.6
Barbiturates	11.1	12.5
Sedatives	13.6	14.5
Amphetamines	18.7	24.9
Cocaine	23.8	21.3
Heroin	27.2	19.5
Other Narcotics	22.6	25.2
No Primary Drug Problem Reported	16.7	13.9
Previous Drug Treatment	45.4	46.6
Three or More Drug Related Problems	55.3	60.2
Depression Symptoms	49.9	63.7
Previous Mental Health Treatment	18.2	35.0
At Risk in Community at Least 11 Mos. in Year Before Treatment	53.4	72.6
Legal Status At Intake		
On Bail	27.1	6.5
On Probation or Parole	36.6	27.1
Incarcerated Last Year	88.0	48.4
Arrested Last Year	84.1	45.7
Employed at Treatment Intake	29.0	25.9
Annual Income > $10,000	31.4	33.4
Illegal Primary Income Source	30.8	24.9

*Data for this table are taken from the 1979 and 1980 TOPS cohorts in the six cities with TASC programs. Refer to chapter III of the report for a description of the TOPS sampling design and the cities, programs and modalities included in the report. Because the sample size is very large (a total of 7,795 clients), tests of statistical significance are used in the full report only in a limited way. Very large sample sizes guarantee small differences that, though not substantively meaningful, will be statistically significant.

outpatient detoxification and outpatient methadone maintenance programs because very few clients are referred through TASC programs to treatment in these modalities. Thus, clients referred to drug treatment by TASC programs are compared only to other outpatient drug free and residential modality clients in table VI.1.

The table shows that TASC clients are more likely than clients not referred to treatment by a TASC program to be male, nonwhite, 25 years of age or less and to have dependents. TASC and non-TASC clients report being legally married with about equal frequency. Non-TASC clients are more likely to be high school graduates.

There are also differences between TASC and non-TASC clients in self reported weekly or greater psychoactive substance use for the 12 months before entering drug treatment. Non-TASC clients are more likely than TASC clients to be classified as daily drinkers, but higher proportions of TASC clients report weekly or greater use of marihuana, hallucinogens, cocaine, and heroin. Non-TASC clients are more likely than TASC clients to report weekly or greater use of other narcotics and amphetamines. Barbiturates and sedatives are used weekly with about equal frequency by the two client groups. TASC clients are more likely than non-TASC clients (16.7 percent vs. 13.9 percent) to report they had no primary drug problems in the three months before entering treatment.

TASC and non-TASC clients have previously been in drug treatment with approximately equal frequency, 45-47 percent. A higher percentage of non-TASC clients reported they had three or more drug-related problems when they entered treatment. Non-TASC clients are also more likely than TASC clients to report depression symptoms in the 12 month pretreatment period and to report having previously received mental health treatment.

TASC clients are more likely than non-TASC clients to report that they spent some time in a jail, prison or hospital during the 12 months before entering treatment. Fifty-three percent of TASC clients were at risk outside such environments for at least 11 of the 12 pretreatment months; 73 percent of the non-TASC clients were at risk for 11 months of the 12 pretreatment months. There are also other differences in the legal status of TASC and non-TASC TOPS clients at treatment intake. Higher percentages of TASC clients report being on bail, on probation or parole, to have been incarcerated in the year before treatment, and to have been arrested.

The last three rows of table VI.1 indicate TASC clients are more likely than clients not referred by TASC to report being employed in the 12 months before treatment although clients not referred to TASC are slightly more likely to report incomes in excess of $10,000. Finally, TASC clients are more likely than clients not referred by TASC to report an illegal source as their primary income source. Thirty-one percent of TASC clients report an illegal income source as their primary income source; 25 precent of TASC clients report a primary illegal income source.

D. Differences Between TASC and Non-TASC Clients Across Modalities

Within the outpatient drug free and residential modalities, the relationships between TASC and clients not referred by TASC noted in table VI.1 tend to hold, although there are important differences between clients who enter these two different treatment modalities. Residential clients are more likely than outpatient drug free clients to be male and nonwhite. In general the residential client is more likely to exhibit problem behavior than the outpatient drug free client. Drug use patterns are more serious for residential clients; they use more drugs regularly and are more likely to report regular use of heroin, cocaine, amphetamines, barbiturates, and sedatives. Residential clients are also more likely to have been in drug treatment previously, to have been incarcerated in the year before treatment, to have drug related problems, and to have been arrested, and are less likely than outpatient drug free clients to have been employed in the year before treatment. It is clear from the TOPS data that the outpatient drug free and residential modalities tend to serve different kinds of clients.

E. Retention and Intreatment Outcomes for TASC and Non-TASC Clients

When followup data are collected and analyzed for TOPS clients, the evaluation of drug treatment effects and the comparison of TASC and clients not referred by TASC will be carried out in a comprehensive fashion. In the meantime, TASC and non-TASC clients have been compared on the basis of their retention in treatment and their behavior while in treatment. The results of this comparison are summarized in this section.

The evaluation of TASC reported here must be interpreted cautiously because of sample attrition due to individuals leaving treatment, and because time at risk has not been controlled in the current analysis. In the intreatment outcome analysis reported later in this section, we have chosen to report the across time performance (pretreatment and during the first three and

second three months in treatment) for only the clients who stay in treatment at least six months. In this way the same individuals are compared at the different points in time. This has the advantage of making comparisons more legitimate than if different groups of individuals were compared over time, but it has the disadvantage of reducing sample size. Relatively few clients stay in treatment a full six months. When the followup data become available, the attrition problem will be minimized.

Some TOPS clients were not at risk of engaging in the behaviors that constitute the outcome measures used here for portions of the pretreatment and intreatment experience periods because they were in jails, prisons, or hospitals and did not have the opportunity to use drugs or commit crimes in the same way as clients who were not in restricted environments. This report does not control for the "exposure" factor and, thus, must be cautiously interpreted.

1. Treatment Retention

Treatment retention is an important indicator of treatment effectiveness. If an individual leaves treatment within a few days, it is unlikely that any permanent change has occurred in the characteristics or conditions that are related to his or her drug problem. Such change is more likely to occur when treatment lasts for a number of weeks or months. Furthermore, because findings from past research show that criminal behavior is reduced while individuals are in treatment (Demaree and Neman, 1976; McGlothlin et al., 1977; Sells and Simpson, 1976), longer retention by itself apparently prevents some criminal behavior. It is also true that the optimum length of treatment varies by treatment modality. For this reason, and because clients differ by modality, retention rates were examined separately for the outpatient drug free and residential modalities. In addition, because it is important to the evaluation of TASC to separate the effects of TASC involvement from the effects of being legally involved with the criminal justice system apart from TASC, table VI.2 compares retention for TASC clients, non-TASC criminal justice clients (e.g., on probation or on bail), and clients who were not legally involved at treatment intake.

Table VI.2 shows there is variation across treatment modalities and across TASC/criminal justice involved categories in the length of time TOPS clients stay in treatment. Between 10 and 13 percent of clients who enter outpatient drug free treatment in the five cities which have TASC programs

Table VI.2. Time Spent in Treatment by Outpatient Drug Free and Residential Clients by TASC/Criminal Justice System Involvement

	Outpatient Drug Free				Residential			
	TASC	Non-TASC Criminal Justice	No Legal Involvement	Total	TASC	Non-TASC Criminal Justice	No Legal Involvement	Total
Time in Treatment								
One Day or Less	9.6%	13.2%	11.5%	11.5%	1.3%	1.0%	1.4%	1.2%
	(31)	(40)	(69)	(140)	(2)	(5)	(6)	(13)
2 Days to 4 Weeks	20.6	20.9	25.9	23.2	13.2	19.0	26.3	21.0
	(66)	(63)	(155)	(284)	(21)	(90)	(111)	(222)
More Than 4 Weeks	69.8	65.9	62.5	65.3	85.5	80.0	72.3	77.7
	(224)	(199)	(374)	(797)	(136)	(379)	(305)	(820)
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
n =	(321)	(302)	(598)	(1221)	(159)	(474)	(422)	(1055)

spend one day or less in treatment; only one percent of individuals entering the residential treatment modality drop out in a day or less. TOPS residential clients are likely to remain in treatment longer than clients in outpatient drug free programs. The third row of table VI.2 shows that TASC clients stay in treatment longer than clients who were legally involved with the criminal justice system outside a TASC program and longer than clients with no legal involvement. This result applies for both the outpatient drug free and residential modalities.

Chi-square tests of statistical significance indicate that differences between TASC and non-TASC criminal justice clients are not statistically significant beyond the .05 probability level. When TASC clients are compared with no legal involvement clients, and when TASC and non-TASC criminal justice clients are combined and compared with the no legal involvement clients, the differences are statistically significant beyond the .05 probability level. These significance test results suggest that both TASC involvement and legal involvement per se are significantly related to longer retention in treatment. Other researchers have also found that legal pressure is positively related to staying in drug treatment (Aron and Daily, 1976; McFarlain, Cohen, Yoder and Guidry, 1977; McGlothlin, 1979).

There are systematic differences in the characteristics of TASC clients, the non-TASC criminal justice clients, and those who are not legally involved. These differences, not the TASC programs or criminal justice involvement, may explain the differential retention findings. As a partial test of this possibility, regression analyses were carried out. A relatively conservative test of whether TASC involvement and criminal justice system involvement outside a TASC program were directly related to treatment retention was designed. The two legal involvement variables were entered into separate regression analyses for the outpatient drug free and residential modalities after eight other variables were entered to explain statistical variation that could be attributed to the eight variables. The eight independent variables were: sex, age, race, education, the Lu index of drug use (Lu, 1974), number of drug-related problems reported by clients at intake, depression symptoms reported at intake, and weeks worked in the year before treatment. Regression findings are reported in table V.2.

The regression findings show that in TOPS outpatient drug free programs, after controlling for the eight variables indicated, TASC clients stay in

treatment 33 to 36 days longer than non-TASC clients. The regression analysis also shows that non-TASC criminal justice clients stay in treatment 17 to 18 days longer than other TOPS clients. In TOPS residential programs TASC clients stay in treatment 24 to 29 days longer than non-TASC clients. Residential TOPS clients who were involved with the criminal justice system outside TASC programs stay in treatment 31 to 33 days longer than other residential TOPS clients. Both TASC and criminal justice involvement are thus found to be related to longer retention in drug treatment, even after the effect of eight retention covariates are controlled. These findings are consistent with the belief that legal threat or pressure is effective for keeping criminal justice clients in drug treatment.

2. Intreatment Outcomes

Tables VI.3 and VI.4 display changes during the first six months of treatment for TOPS clients. Table VI.3 compares pretreatment and intreatment indicators of primary drug of abuse, depression symptoms, serious illegal activity, and full time employment for the outpatient drug free clients. Table VI.4 makes the same pretreatment/intreatment comparisons for residential modality clients but excludes the employment variable because clients in the residential treatment modality have limited opportunity to work full-time. The cell percentages of tables VI.3 and VI.4 refer to TOPS clients who responded affirmatively on each of the outcome measures for the three time periods. As indicated above, only clients who remained in treatment at least six months are included in the analysis.

For each outcome measure of table VI.3, outpatient drug free TASC clients reported improvement during treatment; lower percentages report regular use of their primary drug, fewer report depression symptoms, only a few report engaging in serious crime, and more report working full-time most of the time. The non-TASC outpatient drug free criminal justice clients also showed improvement after entering treatment. Primary drug use and depression symptomatology decreased, and fewer reported illegal activity. There was little or no improvement in full-time work during the first six months in treatment for outpatient drug free non-TASC criminal justice clients. The not legally involved outpatient drug free client category also shows improvement in each outcome category including some increase in the number of clients working full-time. In the cases of use of primary drug and serious illegal activity, the improvement of outpatient drug free TASC clients is more marked than the improvement shown by the other two client categories.

Table VI.3 Outpatient Drug Free Clients Who Reported Weekly Use of Their Primary Drug of Abuse, Depression Symptoms, Serious Illegal Activities and Full-time Employment 75 Percent of the Time for Pretreatment and Intreatment Periods*

	TASC				Non-TASC Criminal Justice				No Legal Involvement			
	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	75% Full-time Work
Year Before Treatment	65.1	44.2	63.2	29.5	54.8	38.7	40.0	25.0	78.4	72.5	34.9	41.2
First Three Months in Treatment	15.0	25.0	4.9	46.5	17.9	6.5	17.2	22.6	29.4	45.1	8.5	52.0
Three to Six Months in Treatment	12.5	16.3	2.3	59.1	14.3	12.9	11.5	28.6	21.6	39.2	8.9	49.0
n =	(41)	(43)	(40)	(43)	(29)	(31)	(26)	(30)	(50)	(50)	(50)	(50

*Only clients who remain in treatment at least six months are included in this table. See section V.A.1.

Table VI.4 Residential Clients Who Reported Weekly Use of Their Primary Drug of Abuse, Depression Symptoms, and Serious Illegal Activities for Pretreatment and Intreatment Periods*

	TASC			Non-TASC Criminal Justice			No Legal Involvement		
	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity	Weekly Use of Primary Drug	Depression Symptoms	Serious Illegal Activity
Year Before Treatment	85.4	56.1	78.8	74.6	55.6	70.4	76.1	65.1	59.7
First Three Months in Treatment	0.0	14.6	0.0	1.4	29.1	0.0	0.0	19.5	3.5
Three to Six Months in Treatment	2.4	24.4	5.1	1.4	21.8	1.5	4.6	18.6	4.9
n =	(41)	(41)	(37)	(142)	(141)	(136)	(87)	(86)	(80)

*Only clients who remain in treatment at least six months are included in this table. See section V.A.1.

Findings for regular use of primary drug of abuse, depression symptoms and illegal activity for residential modality clients (table VI.4) are very similar to those findings for the outpatient drug free clients. The percentages of clients who report weekly or more frequent drug use, depression symptoms, or serious illegal activity are much lower for the intreatment period than for the pretreatment period. As with the outpatient drug free TASC clients, residential TASC clients improve more markedly in the primary drug use and illegal activity categories than do the other two categories. Because of limited opportunity to work full-time, the full-time work variable is not included in the pretreatment/intreatment comparison. Some of the improvement shown in the three outcome variables for residential clients, especially the drug use and illegal activity variables, is likely to be explained by the reduced opportunity to engage in those behaviors given residence in a setting where behavior is monitored. However, the results do suggest that the kind of outcomes which are sought by drug treatment programs are being attained. In later TOPS analyses, these issues will be analyzed in greater detail.

F. Summary

The TOPS report for the 1979 and 1980 cohorts shows that clients who are referred to TOPS programs through a TASC program differ systematically from other TOPS clients on a variety of dimensions. TASC-referred clients are more likely to be male, young and nonwhite. There are differences in the pretreatment drug use patterns and in other characteristics of TASC and non-TASC clients. TASC clients are more likely than non-TASC clients to report recent arrest and incarceration, and to report reliance on illegal sources of income. The TOPS data support the interpretation that appropriate drug abusing offenders are being referred to drug treatment programs by TASC. An analysis of treatment retention and intreatment outcomes of TASC and non-TASC clients indicates that TASC clients stay in treatment longer than non-TASC clients and do at least as well as non-TASC clients on the outcome measures of drug use, depression symptoms, illegal activity, and employment while in treatment. The report also shows that criminal justice involvement per se influences outcome; clients who were involved with the criminal justice system stayed in treatment longer than clients not so involved.

G. Future Research Needs

In order that the effects of TASC referral to drug treatment can be evaluated more fully, three factors need to be considered. First, the period

of followup should be extended to at least a year - preferably two years. Two years is a more appropriate length of time over which to observe treatment effects. Types of treatment and types of individuals may exhibit complex short term and long term treatment outcome patterns.

Second, the effects of factors that are known to vary with treatment outcome measures need to be controlled. This has been possible only to a limited extent in this report. When the 1981 TOPS cohort is ready for inclusion in analysis and when the TOPS followup data for clients who left treatment are available, more comprehensive analysis which controls for the effects of treatment outcome covariates will be possible.

Finally, when data which describe components of treatment can be included in analysis, another potential explanation for observed variation can be controlled. Because it is likely that treatment services are related to treatment outcomes, the TOPS data describing treatment will be used to estimate treatment effects in later TOPS reports.

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