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SURVEILLANCE AND TREATMENT ON PROBATION

STOP IN LEXINGTON: AN EVALUATION

A Special Report

by

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I. PURPOSE AND INTRODUCTION

Purpose of STOP Program

The STOP (Surveillance and Treatment on Probation) Program involves random urine testing and intensive treatment delivered to probationers who have a history of drug abuse and, in many cases, a history of criminal justice system involvement.

The purposes of the STOP Program are:

* to reduce drug abuse among probationers through close supervision, random urine testing, and by provision of a phased treatment program; and

* to reduce criminality among probationers by reducing drug use and abuse.

There are several important observations about STOP that should be noted at the very beginning of this report. These are not meant as excuses. Instead, they reflect a "reality" that must be dealt with openly and honestly.

1. STOP is a "pilot" program. The concepts and rationale on which it is founded are sound. However, moving from concepts to full-fledged implementation can uncover factors that may be significant, but unanticipated.

2. STOP involves a collaborative effort between the Courts, the Probation system, the Commonwealth Attorney's office, and the Comprehensive Care Center. Whenever multiagency efforts are initiated, the process of developing and perfecting interagency linkages usually takes longer than anticipated. This is inevitable, but is resolved through constructive dialogue.

3. The clients in this program are adults and, for the most part, have multiple problems (i.e., criminal involvement, drug abuse, and various other problems such as unemployment, low education, disorganized and mis-managed family and marital situations, and problems with regard to psychological or psychiatric functioning). It is difficult to treat effectively even one of these problems. When multiple problems are manifest in the same person, any positive changes constitute a victory.

4. Attempting to reduce criminality and patterns of drug abuse is extremely difficult among persons for whom both have become part of a lifestyle.

Evaluation Report: An Orientation

This report involves an empirical assessment or evaluation of the STOP Program as it has operated in Lexington from June 1988 to March 1989. The data were obtained directly from records kept at the offices of the STOP Program. Ms. Shipp and other staff members at STOP were very supportive and facilitated all requests for data and for clarification. They were very open in their discussions of STOP and objective in their appraisals of the strengths and potential weaknesses of this pilot project.

Data on arrests contained in this report were provided by Captain Potts of the Lexington-Fayette Urban County Police Department. Captain Potts searched police computer records for arrests and charges listed for clients of the STOP Program. He did so promptly and without any request for supplementary information beyond name and social security number.

This report will be divided into a number of sections beginning with a review of the existing literature concerning the connection between drug abuse and crime and the impact of various forms of supervision on that relationship and extending through to specific considerations for improving the STOP program.

II. REVIEW OF EXISTING LITERATURE

Drug Abusing Criminals Have Changed

The connection between drug abuse and crime is complex and complicated. At some point in the not too distant past, the meaning of the terms "drug abuser" and "addict" were clearly understood: IV use of heroin. In those days, heroin addicts were a relatively homogenous group. Heroin was the drug of choice and used almost exclusively. While "heroin addicts" might also use other drugs such as alcohol, marijuana or hashish, and narcotic analgesics, their commitment was to heroin. The crime they engaged in was primarily dealing drugs and income generating property crime. They were predictable, at least to some extent.

In recent years, some of the more salient characteristics of drug abusers or "addicts" have changed. Virtually all are "multiple" drug abusers (Clayton, 1986; Skinner et al., 1989) and, for most heroin users, the drug is used simultaneously with cocaine in what is called a "speedball" with alcohol and marijuana usually providing a counteracting sedating effect for the "high." The primary drug of choice among "addicts" today is cocaine, whether in its powder or its crack form. The prototypical "addict" is a multiple drug abuser whose primary criminal involvement includes dealing and income generating property crime, but also includes violent crimes (see Gropper, 1985; Johnson et al., 1985). This applies to juvenile as well as to adult offenders (see Dembo et al., 1988; Rivers, 1989).

Goldstein (1981) has identified three types of explanatory factors for the crime-drug-violence nexus. The first is pharmacological, suggesting that the interaction of the drug on the brain and decision making leads to aggressive behavior, particularly when the situation is stressful. Another set of roots for drug related violence is systemic; that is, violence is an integral part of the drug distribution system. It is used by dealers to control against being ripped off by those who work for them. The third part of the drug-crime-violence model is economic-compulsive; the notion that drug abusers will commit violent crimes if they need to in order to obtain money with which to buy drugs.

Drug Abuse and Crime are Strongly Correlated

Chaiken and Chaiken (1982) conducted a three-state study of over 2,200 inmates. Using criminal histories, they created a typology of offenders. Although "violent predators" constituted only a small percentage of the offenders, they accounted for an inordinate amount of the criminal acts perpetrated by these offenders. The 10% of violent predators who had the highest robbery rates committed over 135 robberies a year. The 10% with the highest burglary rates committed over 500 burglaries a year. The 10% with the highest drug dealing rates made over 4,000 drug deals a year. In describing the violent predators, Chaiken and Chaiken (1982) emphasized the following:

> The violent predators also have characteristic histories
> of drug use. Most of them begin using several types of
> "hard" drugs, and using them heavily as juveniles...
> certain types of drug use are even more characteristic of
> the violent predators than heroin addiction. Although they
> are more likely than other offenders to have high quantity,
> high cost heroin addictions, their more distinctive
> characteristic is multiple drug use.

Johnson et al. (1985) studied the economic behavior of 201 street level heroin addicts in East and Central Harlem. The sample was divided into three groups: daily heroin users (31%); regular heroin users (39%); and irregular users (30%). The Johnson et al. sample committed twice as many crimes on average as the addicts included in the Ball and Nurco sample from Baltimore (1983), the overwhelming majority of which were part of the drug distribution system.

Inciardi (1979) studied 573 narcotics addicts in Miami during the 1978-81 period. These were not incarcerated offenders or clients in treatment programs. They were street level heroin addicts. All were heavily involved with multiple drugs, using an average of 5 different drugs on a regular basis. In addition to the heroin, most were also using sedatives, cocaine, alcohol, and marijuana. These 573 addicts had committed a total of 215,000 crimes during the previous year, an average of 375 per person. Some 38% of these crimes were drug sales. However, these subjects were also responsible for almost 6,000 robberies and assaults, almost 6,700 burglaries, almost 900 stolen vehicles, and more than 46,000 instances of larceny and fraud. The amount of criminal diversity exhibited by these addicts is substantial.

Ball and Nurco (1981) have been following and interviewing the same
group of 243 heroin addicts from Baltimore for close to two decades
now. When these addicts were using heroin daily, they averaged
committing crimes 248 days a year. During periods of abstinence from
daily heroin use, regardless of the reason, the average number of
crime days dropped to 41 per year. As noted above, these were the
so-called prototypical addicts. Some 38% of the crimes they committed
were property theft, 27% were drug sales, and 26% involved illegal
gambling, pimping, and fencing stolen property (Nurco et al. 1985).

Perhaps the most salient finding from this study was that criminality
was reduced 75% when these addicts were "in treatment." The longer the
stay in treatment, the greater the effects on criminal involvement.

Arrestees and Drug Abuse

Since 1971, arrestees in the District of Columbia have been subject to
drug testing. In the early years, the results were not kept in a way
that allowed for systematic monitoring of drug patterns. However, since
1984, the District's Pretrial Services Agency has had the responsibility
for collecting information for judicial officers who make decisions
regarding pretrial release. In addition to information on the
arrestee's family, employment history, and prior criminal record, the
defendants submit a urine specimen for testing. The results of the test
cannot be used as evidence, but are used in determining conditions of
release.

The average age of arrestees in the District of Columbia in 1986 was
30 and, among all arrestees in that year, 84% were male and 86% were
black (Carver, 1986). They were considerably less educated than
non-arrestees from the same birth cohorts. Although the percent
testing positive for opiates remained at about 20% from March of 1984
to late 1987, cocaine use increased from 15% to almost 60% in those 4
years. The most recent data indicate that seven out of every 10
arrestees have some drugs in their body at the time of arrest, half
test positive for cocaine, and four out of 10 have recently used PCP.
Some 45% of 1987 arrestees tested positive for more than one drug.

The Drug Use Forecasting system is operated by the National Institute
of Justice in 21 cities across the United States. Voluntary and
anonymous urine specimens and interviews are obtained from samples of
200 to 250 new male and 50 to 100 new female arrestees every 3 months.
There is an undersampling of arrestees charged with drug offenses.
The results for the 4th quarter of 1988 indicate the magnitude of the
problem of drug abuse within the criminal offender population.

* More than one-half of male arrestees tested positive for drugs.

* 82% of male arrestees in Philadelphia tested positive for any drug, 75% for cocaine.

* At least 45% of arrestees charged with violent crimes or income generating crimes tested positive for a drug.

* Between 13% and 46% of male and female arrestees reported having ever injected drugs, including cocaine, amphetamines, and heroin.

* In most cities, two to four times more drug users were detected by urinalysis than by self-reports.

These results (NIJ, 1989) strongly suggest that a substantial proportion of those arrested for crime in our largest cities, regardless of region, were under the influence of drugs at the time they were arrested.

Drug Abuse and Correctional Status

In 1987, over 3.4 million people were under some type of correctional supervision, either in local jails or state and federal prisons, or on probation or parole. These figures reflect an increase of 6.8% since 1986, and 40% since 1983.

Over 75% of these offenders were being supervised in the community--64.7% on probation, and 10.5% on parole. Although all forms of correctional supervision have risen steadily throughout the 1980s, the increase in the probation population has been the most dramatic (Bureau of Justice Statistics, 1988).

As the number of people convicted of criminal offenses has risen, probation has served as the primary means of punishment and rehabilitation. But how well equipped are conventional probation departments to handle this growth in probationers?

From its mid-nineteenth century origins, probation was designed for offenders convicted of crimes of a less serious nature. John Augustus, the father of probation, described the typical probationer as: an offender who should be a minor misdemeanant; should be repentant; should have a background, past behavior, and future influences indicating an amenability to change; and, should agree to the conditions of his/her release (Gray, 1986).

More recently, a 1980 U.S. Court of Appeals described the purpose of probation as providing "...a period of grace in order to aid the rehabilitation of a penitent offender and to take advantage of an opportunity for reformation which actual service of the suspended sentence might make less probable" (U.S. vs Torres-Flores). Although over a century apart, each of these definitions reinforce the notion that the primary goal of probation is to rehabilitate repentant offenders.

However, recent research indicates that probation is failing to achieve its goal of rehabilitating offenders. In a widely disseminated study on the state of current probation programs, Petersilia et al. (1985) followed 1,672 California felons placed on probation. At the end of the 40 month study, 65% of the probationers had been rearrested, 51% were reconvicted, and 34% were reincarcerated. In addition, 75% of the charges filed against the probationers involved violent crimes. This study strongly suggests that not only is probation failing to rehabilitate offenders, but that probationers are likely to commit additional crimes while being supervised in the community. Based on these findings, Petersilia and her colleagues conclude that felons on probation constitute a serious threat to communities.

However, they also note that the probation system is not entirely to blame for these dismal results. As prisons become more overcrowded, probation is becoming the sentence of choice for a majority of offenders. Originally designed for criminals convicted of less serious crimes, over one-third of today's adult probation population consists of individuals convicted of felonies (Gray, 1986). Plagued by diminishing resources and increased caseloads, probation departments are often inadequately equipped to deal with the "new" probationer.

In response to the poor success rates of traditional probation programs and the public outcry for increased security from offenders living in the community, Intensive Supervision Probation (ISP) has emerged as an alternative form of punishment. ISPs focus less on rehabilitation and more on community protection, and are proposed for or in operation in at least 36 states. Although no consensus exists concerning the purpose and goals of these programs, some commonalities are evident. ISPs place greater emphasis on controlling the probationer (e.g. increased supervision and contacts, curfews, surveillance), and on strict enforcement of rules and conditions of probation. In addition, most ISPs include some form of retribution or punishment. Some ISPs also defray the costs of the program by having the offender make regular financial contributions. While employment services, counseling, and other rehabilitation efforts are sometimes provided, these services are secondary to the control and punishment aspects of ISPs (Burkhart, 1986).

Since the use of illicit drugs is prohibited as a condition of probation, random urine testing is being used by some ISPs to monitor drug use. Research by Wish et al. (1987) suggests that urinalysis is "the most effective method" of detecting drug use among probationers. Wish and his associates studied offenders in an ISP in Brooklyn, New York. This particular ISP did not employ urinalysis to detect illicit substance use. However, the subjects participating in Wish's research were asked to submit to urine testing and were assured that the results would be confidential and would not be reported to their probation officers. Of the participants in the study, 25% admitted to recent use of illicit drugs. The offenders' probation officers were asked to estimate the percentage of probationers who had used an illegal drug in the past month. The officers estimated that 23% of the probationers had used a drug in the preceding month, a percentage similar to the number of offenders who admitted drug use. The subjects were then tested by urinalysis. In contrast to the self-reports and the probation officers' estimates, 68% tested positive for at least one illicit drug.

Wish et al. (1987) conclude that urinalysis provides the best indication of current use among offenders on probation. As a component of ISP programs, urine testing and the sanctions which accompany positive test results, present a deterrent from drug use. By reducing the use of illegal drugs, the likelihood of continued criminal behavior is also diminished.

While comprehensive evaluations of the effectiveness of ISPs are forthcoming, preliminary research suggests favorable results. Analysis of a New Jersey ISP reports that 70% of probationers were drug-free and out of trouble in the community during the 18 months they participated in the program. Although about one-third of the offenders were expelled from the program during the 18 months, only 10% were revoked because of a new arrest. The remainder were expelled because of technical violations such as positive urinalysis results or failure to comply with curfew restrictions (Pearson and Bibel, 1986).

The Intensive Probation Supervision (IPS) in Georgia has reported similar encouraging results. A preliminary evaluation of this program found that of the over 2,300 probationers followed, 16% were terminated from the program for technical violations or new crimes. Furthermore, of those probationers convicted of new crimes, only 0.8% were convicted of crimes classified as violent and personal (Erwin, 1986).

In their evaluation of felons granted probation in California, Petersilia et al. (1985) reported that these offenders constituted a serious threat to public safety. Petersilia and her associates recommended that alternatives, such as ISPs, be implemented for offenders released into the community. Preliminary research suggests that ISP programs, such as those in New Jersey and Georgia, are enjoying some measure of success in supervising offenders in the community who, otherwise, may have been incarcerated as part of their sentence. Although more extensive evaluations of these programs are still needed, the early results are promising.

III.   STOP IN LEXINGTON

The Surveillance and Treatment on Probation (STOP) program was
established in Lexington, Kentucky, in June, 1988. Designed for
offenders with established patterns of substance abuse and
criminality, STOP is a court ordered condition of the offender's
probation. Combined with the offender's general probation, STOP
provides the type of supervision found in most ISPs.

The primary goals of STOP are to (1) REDUCE DRUG ABUSE and (2) REDUCE
CRIMINAL ACTIVITY among probationers with histories of substance abuse
and criminal behavior.

The two main components of STOP are (1) MANDATORY RANDOM URINALYSIS
and (2) INVOLVEMENT IN TREATMENT programs conducted under the
supervision of the Bluegrass Comprehensive Care Center.

Structured Addiction Program: Treatment Components

The treatment program includes education sessions and group therapy
intended to modify probationers' thinking, attitudes, and behavior.
Given the well-established relationship between drug abuse and crime,
the STOP program attempts to reduce criminal activity by reducing drug
use and abuse. Violations of the conditions of probation, including
urinalysis results indicating illicit drug use, are promptly reported
to the court for further action.

The treatment component of STOP is call the Structured Addiction
Program (SAP). Designed to treat probationers with chemical
dependency problems, SAP combines cognitive treatment approaches with
the disease model of addiction. SAP is broken-down into four phases,
with movement between phases determined by the offender's attitude and
behavior change, as well as a specified number of clean urine samples.
SAP uses the group setting for therapy and educational sessions.

SAP: Phase One, Orientation

The initial phase of SAP involves orientation. During this phase,
STOP is presented as a means of successfully surviving probation.
Offenders are encouraged to express their feelings about being on
probation. In addition, focus is placed on fostering an alliance
between probationers and STOP counselors. Another important aspect of
the Orientation Phase is developing a treatment contract between the
probationer, STOP staff members, and other probationers. The
consequences of violating STOP rules and regulations are clearly
defined. Questions the offenders may have are addressed. The
Orientation Phase is designed to last approximately 2 months, during
which probationers are tested for illicit drug use about 20 times.

SAP: Phase Two, Commitment

The second stage of SAP is the Commitment Phase. This phase is aimed
at developing capable selfhood and constructive abstinence on the
part of the probationers. The Commitment Phase relies heavily on
educating offenders on the following topics:

* learning about drugs and the nature of addictive disease;
* reformulating attitudes and behaviors;
* working toward more responsible conduct;
* identifying, acknowledging, and expressing feelings;
* becoming more healthy physically, emotionally, and mentally;
* increasing awareness of thinking patterns;
* working toward the goal of honesty in work settings;
* developing healthier relationships; and,
* coping more effectively with stress.

The Commitment Phase generally lasts about 4 months and probationers
are required to drop approximately 36 random urine specimens.

SAP: Phase Three, Maintenance

The Maintenance Phase is the third component of SAP. During this
stage, probationers are encouraged to take the knowledge and skills
learned in the Commitment Phase and put them into practice. The
probationers are involved in a support group based on twelve-step
programs such as Alcoholics Anonymous and Narcotics Anonymous.
Approximately 10 random urine specimens are collected during the
Maintenance Phase, which is designed to last about 2 months.

SAP: Phase Four, Aftercare

The final stage of SAP is the Aftercare Phase. Support group counseling
is available, but not mandatory, during the Aftercare Phase. This
phase continues until the end of probation and random urine specimens
are collected periodically for the duration of probation.

IV.   STOP PROGRAM LEXINGTON: CHARACTERISTICS OF CLIENTS

Demographic Characteristics

The STOP clients were first examined with regard to several selected demographic characteristics (e.g., sex, race, age, marital status). These data are shown directly below in Table 1. Although whites are in the majority (66%), the blacks are disproportionate to their overall percentage of the population in Lexington-Fayette County. The males constitute 77% of the STOP clients. Among both blacks and whites, the average age of the females is slightly higher than for the males. In a two-way analysis of variance with age as the dependent variable and sex and race as the independent variables, there was a significant main effect for sex. In other words, there are statistically significant differences in age among STOP clients by sex (i.e., the females are older than the males).

Another demographic variable that generally indicates the presence of "social support" for constructive behavior and perhaps insulation from "negative" behavior is marriage. The data in Table 2 show the distribution of the STOP clients with regard to marital status by sex and race.

About 1 in 5 of the STOP clients is currently married with the percentages by race and by sex very similar. The group with the highest percentage married is white females (24%) compared to white males (18%). This difference is not statistically significant.

Days at Risk

A key concept in the evaluation of any intervention program is "days at risk," measured in this study as the length of time since entry into STOP to the cut off point for data collection. The greater the number of days at risk the greater the opportunities for both drug use and abuse and criminality, the two major foci of the treatment intervention delivered in the STOP program.

Analysis of variance with risk days as the dependent variable and race and sex as independent variables reveals no statistically significant differences. However, as the data in Table 3 show, whites have been in STOP on average about 20 days longer than blacks, and most of this is accounted for by white males who have been in the program for an average of 164 days.

TABLE 1. NUMBER, PERCENT, AND AVERAGE AGE OF STOP CLIENTS BY
         RACE, SEX, AND RACE AND SEX

	NUMBER	PERCENT	AVERAGE AGE
TOTAL	176		28.33
RACE			
Black	59	34%	27.56
White	117	66%	28.72
SEX			
Males	136	77%	27.69
Females	40	23%	30.50
RACE AND SEX			
Black Males	48	81%	27.15
Black Females	11	19%	29.36
White Males	88	75%	27.99
White Females	29	25%	30.93

TABLE 2. NUMBER AND PERCENT OF STOP CLIENTS BY MARITAL STATUS BY
RACE, SEX, AND RACE AND SEX

	TOTAL NUMBER	MARRIED NUMBER	PERCENT
TOTAL	176	34	19%
RACE			
Black	59	11	19%
White	117	23	20%
SEX			
Males	136	25	18%
Females	40	9	22%
RACE AND SEX			
Black Males	48	9	19%
Black Females	11	2	18%
White Males	88	16	18%
White Females	29	7	24%

TABLE 3.   NUMBER AND AVERAGE NUMBER OF DAYS AT RISK FOR DRUG ABUSE
AND CRIMINALITY AMONG STOP CLIENTS BY RACE, SEX, AND
RACE AND SEX

	TOTAL NUMBER	AVERAGE NUMBER OF DAYS AT RISK
TOTAL	176	151.64
RACE		
Black	59	138.48
White	117	158.27
SEX		
Males	136	154.73
Females	40	141.12
RACE AND SEX		
Black Males	48	137.38
Black Females	11	143.27
White Males	88	164.19
White Females	29	140.31

Total Number of Days at Risk, Total Sample 26,288

Probation Officers and STOP Counselors

The probation officers for the STOP clients clearly play an important role in the eventual success of the STOP program. They are the "only" persons who can apply "formal" sanctions against the clients for violations of the conditions of probation.

The STOP clients were assigned to a total of 23 probation officers. They primarily represented adult and state probation units, although there was one juvenile probation officer involved. Six of the probation officers were responsible for a total of 106 of the STOP clients, an average of 18 per officer (range from 14 to 31) while the remaining 70 clients were spread out across 17 officers, for an average of 4.12 clients per officer.

One of the places where communication is most important is between those providing treatment in the STOP program and those legally responsible for the clien⁺ , in the STOP program, the probation officers. To limit the number of probation officers with clients in the STOP program, it might be efficient for communication purposes if there were specialized case loads for STOP clients. For example, instead of 23 probation officers having STOP clients, assignment of all such clients to just six probation officers would have served the same purpose, with perhaps better results.

In order to facilitate delivery of treatment and establishment of rapport and trust, the STOP counselors prefer not to be linked too closely in the minds of their clients to the probation department. This is understandable. It reduces the perceived need by clients to attempt to manipulate and run games on the STOP counselors.

Although the STOP counselors play an important role with the STOP clients, they DO NOT HAVE "formal" sanctioning authority. They do have the responsibility to deliver treatment, collect the urine samples, and report results to the court through the probation officer.

One of the difficulties in evaluating STOP is that the data are not organized by STOP counselors. We do not know which counselor delivered which services. Exposure to treatment is an important concept and is most effectively operationalized when each unit of service delivered is quantified.

Phase in STOP and Status on Probation

Phase in STOP

As noted above, there are several phases in STOP. For purposes of this presentation, these have been organized into three categories:

    0 = Terminated from STOP because of change in probation status
    1 = listed in Phase 1 of STOP but could be inactive in STOP
        because of probation status
    2 = listed in either Phase 2 or Phase 3 of STOP

At the time of this analysis, 34 or 13.6% of the clients in STOP were classified as terminated. Of these, the largest majority, 23 or 67.6%, had been terminated because their probation had been revoked. A total of 100 or 57.1% of the clients were counted as being in Phase 1 of STOP; a large majority of whom were "active." However, 18 of the 100 clients in Phase 1 were classified as "absconded" and 11 were classified as "incarcerated." These 29 clients listed in STOP as being in Phase 1 but listed as "absconded/incarcerated" by probation constitute 29% of those in Phase 1. There were 42 clients, 24% of the total who are classified in STOP as Phase 2 or 3. These are the clients who seem to be making "significant progress" in the treatment phase of the program. Given the fact that the clients in STOP are "high risk" for recidivism to crime and drug abuse, 24% is a simple, yet very important index of the success of STOP.

Status on Probation

Expectations for "success" in any kind of intervention, especially innovative ones, are usually higher than studied judgment would dictate. This is because we tend to focus our hopes on the intervention without tempering that hope with the reality of the persons who will receive the intervention. The STOP program deals with "high risk" individuals. This can be seen very clearly in the data shown in Table 4. Slightly over 1 in 5 of STOP clients are first offenders, almost 6 out of 10 are repeat offenders. A total of 15% of the STOP clients involved in this evaluation would not indicate to the STOP personnel their legal status.

There are no statistically significant differences in legal status by sex, by race, or by sex and race.

TABLE 4. NUMBER AND PERCENT OF STOP CLIENTS BY LEGAL STATUS AS
OFFENDER BY RACE, SEX, AND RACE AND SEX

	TOTAL NUMBER	LEGAL STATUS AS OFFENDER					
		FIRST		REPEAT		UNKNOWN	
TOTAL	176	46	26%	103	59%	27	15%
RACE							
Black	59	13	22%	36	61%	10	17%
White	117	33	28%	67	57%	17	14%
SEX							
Males	136	32	24%	83	61%	21	15%
Females	40	14	35%	20	50%	6	15%
RACE AND SEX							
Black Males	48	10	21%	30	62%	8	17%
Black Females	11	3	27%	6	54%	2	18%
White Males	88	22	25%	53	60%	13	15%
White Females	29	11	38%	14	48%	4	14%

Note: Those classified above as "unknown," refused to tell the
STOP office their legal status.

The clients in STOP, being probationers, were classified into categories reflecting their probation status. The number and percentage of clients in each probation status are listed below.

1. **Active Probation Status**.......................111 (63.1%)

2. **Reclassified into Positive Probation Status**... 8 (4.5%)

      a. Dismissed......................... 4
      b. Released.......................... 1
      c. Transferred....................... 2
      d. Placed in treatment............... 1

3. **Reclassified into Negative Probation Status**...57 (32.4%)

      a. Absconded......................... 21
      b. Revoked........................... 23
      c. Incarcerated...................... 13

TOTAL...176 (100.0%)

There are some problems in the joint classification by STOP and probation. Some of these problems occur because of a time lag in transferring of data between the two entities. For example, 18 of the 21 persons classed as "absconded" are listed by STOP as being in Phase 1 of treatment. On the surface, this seems impossible. However, there is a sense within STOP staff that they must be seen by the clients as totally separate from the police and probation. Therefore, it is possible for a client to have absconded as far as the probation office is concerned, but still be actively involved in the STOP treatment program. Bureaucratically, this may seem dysfunctional. However, the very fact that 18 probationers who have failed to keep contact with probation continue to receive treatment in the STOP program signifies "success." These may be people who are trying to exercise positive control over their drug abuse.

It is also significant that 11 of the 13 persons who are currently incarcerated are classified by STOP as being in Phase 1 of treatment. They are taken from the jail to receive treatment, then returned to the jail. In a sense, this is an interesting example of outpatient treatment for an in-jail population.

It is also interesting that 1 of the 23 clients who has received the ultimate sanction from the probation office, revocation of probation, is still listed as being in Phase 1 of treatment according to STOP records. This may very well be a positive reflection on the attractiveness and perceived utility of the treatment being delivered by the STOP counselors.

A Combined Measure of Success

The two classifications, the one by STOP indicating phase or stage of treatment and the one by probation status, were cross-tabulated to create a single, ordinal level variable of "success."

HIGH SUCCESS.................................... 49   (28%)

      Phase 2 - 3................................. 42
      Dismissed................................... 4
      Transferred................................. 2
      Released.................................... 1

Note: Of the 4 in the dismissed category, all were dismissed from
        STOP because of legal maneuvers. They were classified as
        "high success" because they had 100% clean urines. The STOP
        program considers them incompletes and in need of further
        treatment. The 2 persons in the transferred category moved out
        of state with STOP and the judge's permission. One of these
        had 26 of 27 urines clean while the other had 13 of 13 clean.
        The one person in the "released" category had no dirty urines
        and had completed the conditions of his probation.

MODERATE SUCCESS................................ 69   (39%)

      Active in Phase 1.......................... 69

SOME SUCCESS................................... 31   (18%)

      Active but absconded....................... 18
      Active but incarcerated.................... 11
      Active but revoked......................... 1
      Active but remanded to treatment.......... 1

Note: A decision was made to classify these persons as having
        some success. They had negative statuses with regard to
        probation but were still classed as active in the STOP
        treatment.

MINIMAL SUCCESS................................ 27   (15%)

      Absconded.................................. 3
      Incarcerated and not active in STOP........ 2
      Probation revoked.......................... 22

Note: These are people who have been terminated from STOP
        because of the reasons listed directly above. There
        is no indication of treatment impact.

V. RANDOM URINE TESTING: MEASURES OF IMPACT

The principal purpose of random urine testing is deterrence. The hypothesis is that probationers will be less likely to use illicit drugs if they fear almost certain detection and swift application of sanctions for violating the conditions of probation. The "random" aspect of the process is thought to serve as a deterrent because the probationer cannot predict WHEN he or she will be tested. Therefore, rationality should dictate abstinence from drugs that will be detected by the urine test. The "urine testing" aspect of the process should serve as a deterrent because the technology has high reliability and validity. The initial screening test is sensitive and specific for the illicit drugs of most concern. The probationers know that if they are "positive" on the initial screen, it will be tested using a very reliable confirmatory test.

Initial urine screens were examined by a radio immunoassay test (trade name EMIT) for the metabolites of the following drugs and used the designated cut off levels (nanograms per milliliter).

* cannabinoids................................... 10 ng/ml
* cocaine.......................................100 ng/ml
* cocaine metabolites..........................200 ng/ml
* opiates......................................300 ng/ml
* barbiturates.................................300 ng/ml
* benzodiazepines..............................300 ng/ml
* phencyclidine................................ 75 ng/ml
* propoxythene.................................300 ng/ml
* amphetamines.................................250 ng/ml
* methadone....................................300 ng/ml
* methaqualone.................................300 ng/ml

The GC/MS (gas chromatography/mass spectrometry) test is used for confirmatory purposes.

All urine samples are followed from collection to report with a rigorous "chain of custody" procedure.

The data shown in Table 5 reflect the number of urine samples taken from these clients. It is important to note that the average number of urine samples collected from the female clients was somewhat higher than the average number collected from male clients, although not significantly so. The white clients had significantly more urines collected than black clients. This may reflect the relatively younger ages among black clients and greater difficulties of black clients in making progress through the treatment program. The lower average number of urines for those who refused to report their entry legal status to STOP counselors suggests that these may be the most deviant among the STOP clients. They didn't stay long enough to have an adequate number of urine samples collected.

TABLE 5.   URINE SAMPLES TESTED BY DEMOGRAPHICS

Number of Clients....................................176

TOTAL NUMBER OF URINE SAMPLES TESTED................4,544

Average number of urines per client.................25.82

Average number of urines per male client............25.13

Average number of urines per female client..........28.15

Average number of urines per black client...........21.61

Average number of urines per white client...........27.94

Average number of urines, first offender............29.85

Average number of urines, repeat offender...........26.03

Average number of urines, status unknown............18.15

The data shown in Table 6 put into perspective the number of urines testing positive for drugs. Among all of the urines tested for these 176 clients, 537 or 11.8% tested positive for one or more of the illicit drugs. A logical question would be: "Is this lower or higher than would be expected?" The most appropriate answer would be: "It depends on the comparison group." If the existing literature is used as a basis; 11.8% testing positive (urines not individual clients) would probably be seen as relatively low. Without random assignment of clients into the STOP intervention or a no treatment control group, there is no credible scientific way of determining if 11.8% is lower than would be expected. It is safe to assert that the persons assigned to this program would be classified as "high risk" adults in virtually any community.

It is easy to see from the data above that marijuana and cocaine are the two most widely used drugs among these probationers. Of the urines that did test positive, over 55% tested positive for marijuana and over 49% tested positive for cocaine. These percentages are not nearly as high as those obtained in the Drug Use Forecasting data. However, it should be noted that the DUF system is based on arrestees, not persons under legal supervision and also receiving both a regimented treatment program and random urine screens. It is possible that the rates of positive urine specimens for marijuana and cocaine represent successful deterrence. With the data currently available, it is not possible to make that assertion.

Over 2 percent of all the urines tested contained the metabolites of multiple drugs and these 96 urines constituted 17.9% of the positive urines obtained from these clients. The rates for other drugs, primarily benzodiazepines, were relatively low (1.2% of all urines collected and 10.4% of all urines that tested positive).

VI.   RELATIONSHIPS AMONG INDICATORS OF EFFICACY

There are essentially three dependent variables that will be examined in assessing the efficacy of STOP. These variables are:

1. REARRESTS since entering the STOP program;
2. DIRTY URINES, the number of urines that are positive for the presence of metabolites of an illicit drug (e.g., number of urines minus the number that were clean); and
3. PROGRESS, a combined measure of status in the program (e.g., Phase 2-3, Phase 1, Negative Status, and terminated) and probation status (e.g., revoked, incarcerated, etc.).

TABLE 6.   URINE SAMPLES POSITIVE FOR PRESENCE OF DRUGS

Number of Clients..176

TOTAL NUMBER OF URINE SAMPLES TESTED..........................4,544

Total number of urine samples testing positive................ 537

Percent of urine samples testing positive......................11.8%

Total number of urines testing positive for marijuana......... 299

Percent of all urine samples testing positive for marijuana... 6.6%

Percent of positive samples testing positive for marijuana....55.7%

Total number of urines testing positive for cocaine.......... 263

Percent of all urine samples testing positive for cocaine..... 5.8%

Percent of positive samples testing positive for cocaine......49.0%

Total number of urines testing positive for other drugs....... 56

Percent of all urine samples testing positive for other drugs. 1.2%

Percent of positive samples testing positive for other drugs..10.4%

Total number of urines testing positive for multi drugs....... 96

Percent of all urine samples testing positive for multi drugs. 2.1%

Percent of positive samples testing positive for multi drugs..17.9%

Before examining the relationship of these dependent measures to the predictor variables, it is appropriate to examine the relationship among these three indicators to the efficacy of STOP.

Number of Dirty Urines by Rearrests

Table 7 shows the relationship between number of dirty urines and rearrests. It should be noted that the sources of these data were different. The number of dirty urines came directly from the STOP file while the data on rearrests were gathered for each client from police computer files. The relationship is clear and consistent with expectations; the higher the number of dirty urines (i.e., the greater the extent of drug abuse) the greater the likelihood of being rearrested. Among those who had no dirty urines, 78% had not been rearrested since entering STOP. Among those with three or more dirty urines, 66% had been rearrested at least once since entering STOP. The chi-square value indicates that those in the three categories of number of dirty urines were significantly different from each other in terms of rearrests. The values of Pearson's r and Gamma reflect the extent to which these two variables are correlated. The closer the score to 1.0, the stronger the connection (range from .00 to 1.0). These are relatively sizable correlations for such data.

Number of Dirty Urines by Progress

Some degree of overlap or built in correlation is expected between number of dirty urines and progress because the "progress" measure includes both phase in the STOP program and status in the probation system.

The clearest indications of the correlation can be found in the first row of Table 8. Among those with no dirty urines, 47% are in the highest category of progress; more than double the percentage in the highest progress category among those with some dirty urines. By the same token, one can see the relationship by combining the percentages in each column with only some or minimal success in STOP. Among those with no dirty urines, 16% were making little or no real progress; among those with one or two dirty urines some 33% were having difficulty; and among those with three or more dirty urines, almost one-half (49%) were making some or minimum progress.

Differences in progress by status on number of dirty urines this large or larger would be found less than one time in a thousand if the study were conducted a thousand times. There are highly statistically significant differences between those without and those with dirty urines in terms of progress in STOP. These correlations are quite respectable.

TABLE 7.   NUMBER AND PERCENT OF REARRESTS BY NUMBER OF DIRTY URINES
           FOR STOP CLIENTS

	NUMBER OF DIRTY URINES							
REARRESTS	None		1 or Two		Three or More		Total	
None	50	78%	15	40%	24	34%	89	52%
1 or more	14	22%	22	60%	46	66%	82	48%
Total	64		37		70		171	

Chi-square = 28.25; df = 2; p < .001; Pearson's r = .38; Gamma = .58

TABLE 8. NUMBER AND PERCENT OF STOP CLIENTS IN VARIOUS CATEGORIES
          OF PROGRESS BY NUMBER OF DIRTY URINES

| | NUMBER OF DIRTY URINES | | | | | | | |
PROGRESS	None		1 or Two		Three or More		Total	
High	31	47%	7	18%	11	16%	49	28%
Moderate	25	38%	19	49%	25	35%	69	39%
Some	5	8%	4	10%	22	31%	31	18%
Minimum	5	8%	9	23%	13	18%	27	15%
Total	66		39		71		176	

Chi-square = 31.86; df = 6; $p < .001$; Pearson's r = .33; Gamma = .44

Rearrests by Progress

As noted earlier, the sources of data for these two variables are
essentially independent. Among those who have not been rearrested,
1 in 3 or 33% were categorized as making the highest progress
compared to 1 in 5 or 20% of those who had been rearrested one or
more times (Table 9). Even more dramatic are the differences in those
classified as making only some or minimum progress; 12% of those who
have not been rearrested compared to 56% of those with one or more
rearrests.

The differences in progress by rearrest status are statistically
significant and the correlation between these two variables is
relatively sizable.

Number of Dirty Urines by Sex and Race

The dependent variable here is number of dirty urines. It is produced
for each respondent by subtracting the number of urines that were free
of drugs (i.e., clean) from the total number of urines. In order to
simplify the discussion, the variable dirty urines has been organized
into three categories: no urines dirty; one or two urines dirty, and
three or more urines dirty.

In the data shown in Table 10, statistically significant differences
occur in only one comparison -- that between black and whites with
regard to number of dirty urines. Some 90% of blacks had one or more
dirty urines compared to 49% of whites. When the criterion for
comparison is more stringent (i.e., 3 or more dirty urines), 60% of
blacks compared to 31% of whites had dirty urines. This occurred in
spite of the fact that whites in general had a greater number of days
at risk for being rearrested or showing up with a dirty urine.

Number of Rearrests by Sex and Race

One of the major limitations of the existing data set on STOP clients
available for evaluation was that it did not contain any information
on rearrests. This is one of the key dependent variables in assessing
"success" or "lack of success" for the STOP program. Data on
rearrests were provided by Captain Potts of the Lexington Fayette
Urban County Police Department. We matched the data from STOP with
the rearrest data to form a combined file. The lower time boundary on
rearrests was the date of entry into the STOP program. Data were
collected on charges filed for each arrest. However, in the interest
of clarity, data are presented here solely by number of rearrests
since entry into the STOP program (none versus one or more).

TABLE 9. NUMBER AND PERCENT OF STOP CLIENTS IN VARIOUS CATEGORIES
          OF PROGRESS BY NUMBER OF REARRESTS

| | NUMBER OF REARRESTS | | | |
PROGRESS	None	1 or More	Total	
High	29 33%	16 20%	45	26%
Moderate	49 55%	20 24%	69	40%
Some	7 8%	24 29%	31	18%
Minimum	4 4%	22 27%	26	15%
Total	89	82	171	

Chi-square = 37.50; df = 3; p < .001; Pearson's r = .39; Gamma = .54

Note: Data on rearrests are not available for 5 clients, four of
       whom were classified as "high" on progress; one of whom
       was classified as "minimum" on progress.

TABLE 10. NUMBER AND PERCENT OF DIRTY URINES AMONG STOP CLIENTS BY
RACE, SEX, AND RACE AND SEX

	TOTAL NUMBER	NUMBER OF DIRTY URINES					
		None		One/Two		Three +	
TOTAL	176	66	38%	39	22%	71	40%
RACE							
Black	59	6	10%	18	30%	35	60%
White	117	60	51%	21	18%	36	31%
SEX							
Males	136	47	35%	33	24%	56	41%
Females	40	19	48%	6	15%	15	38%
RACE AND SEX							
Black Males	48	4	8%	16	33%	28	58%
Black Females	11	2	18%	2	18%	7	64%
White Males	88	43	49%	17	19%	28	32%
White Females	29	17	59%	4	14%	8	28%

Each of the separate sections of the data listed in Table 11 were
tested for statistically significant differences; none appeared.
However, it appears that blacks are more likely than whites to be
rearrested and males more likely than females. The male-female
difference appears even when race is controlled. Even so, it is
important to reiterate that none of these differences in rearrests
achieve statistical significance.

Progress by Sex and Race

One of the most important questions about STOP is whether these high
risk clients would be willing to undergo treatment and the regimen and
discipline of reporting on a regular basis to the STOP offices. The
"progress" measure combines active involvement in the treatment
component of STOP with probationary status. The first category of
progress, high, involves being in either Phase 2 or 3 of the treatment
program and clearly indicates positive movement toward being both drug
free and not in trouble with the police or probation. A total of 28%
of all STOP clients were in this category. Another 39% were actively
involved in treatment at STOP and were not in trouble with probation.
This is a clear majority of the clients. However, about one third of
the clients were in the categories of either "some" or "minimum"
progress.

The data in Table 12 show that while there were some differences between
males and females on the measure of progress, these differences were
not statistically significant. However, there were large differences
in progress by race. Blacks were much less likely than whites to be
in either the high or moderate category of progress and much more
likely to be in the some or minimum progress categories. The
correlation (Pearson's r and Gamma, .25 and .43 respectively) between
race and progress was reasonably robust.

The data shown in Table 12 are arranged somewhat differently from
those in the preceding tables. Instead of presenting on progress by
sex controlling on race, the data in Table 12 show progress by race
controlling on sex. The reason for this difference in presentation is
the appearance of what is called "specification." The zero order
relationship between race and progress is reasonably strong (Pearson's
r of .25). However, when this relationship is examined at the first
order level for females, much of its strength is lost (Pearson's r
of .04). The same relationship for males is even stronger (Pearson's r
of .30). Thus, the relationship between race and progress is
"specified" as being strong, especially for males, but not for
females.

TABLE 11. NUMBER AND PERCENT OF REARRESTS AMONG STOP CLIENTS BY
RACE, SEX, AND RACE AND SEX

		NUMBER OF REARRESTS			
	TOTAL NUMBER	None		One or More	
TOTAL	171	89	52%	82	48%
RACE					
Black	57	24	42%	33	59%
White	114	65	57%	49	43%
SEX					
Males	132	63	48%	69	52%
Females	39	26	67%	13	33%
RACE AND SEX					
Black Males	46	17	37%	29	63%
Black Females	11	7	64%	4	36%
White Males	86	46	54%	40	46%
White Females	28	19	68%	9	32%

TABLE 12. NUMBER AND PERCENT OF STOP CLIENTS IN VARIOUS CATEGORIES
OF PROGRESS BY RACE, SEX, AND SEX AND RACE

	TOTAL NUMBER	DEGREE OF PROGRESS IN STOP							
		High		Moderate		Some		Minimum	
TOTAL	176	49	28%	69	39%	31	18%	27	15%
RACE									
Black	59	5	8%	29	49%	13	22%	12	20%
White	117	44	38%	40	34%	18	15%	15	13%

Chi-square = 18.95; df = 3; p < .001; Pearson's r = .25; Gamma = .43

SEX									
Males	136	36	26%	51	38%	27	20%	22	16%
Females	40	13	32%	18	45%	4	10%	5	12%

Chi-square = 2.82; df = 3; NS; Pearson's r = .10; Gamma = .18

SEX AND RACE									
Males--Black	48	3	6%	23	48%	10	21%	12	25%
Males--White	88	33	38%	28	32%	17	19%	10	11%

Chi-square = 19.85; df = 3; p < .001; Pearson's r = .30; Gamma = .48

Females--Black	11	2	18%	6	54%	3	27%	0	0%
Females--White	29	11	38%	12	41%	1	3%	5	17%

Chi-square = 7.69; df = 3; NS; Pearson's r = .04; Gamma = .22

VI.   ZERO ORDER CORRELATION MATRIX
PREDICTOR AND DEPENDENT VARIABLES

The first step in any kind of "predictive" analysis is to create a correlation matrix (i.e., all variables correlated with all other variables of relevance). Pearson's r correlational values are shown in Table 13 because they are a more conservative measure of the degree of association between variables. These r values will be used in the explanatory regression analyses which follow.

As the data in Table 13 show, the correlations between the three major dependent variables are statistically significant.

        Number of Dirty Urines by Rearrests................. .37
        Number of Dirty Urines by Progress.................. .24
        Rearrests by Progress............................... .39

Number of dirty urines is also significantly related to number of days at risk (.17), race (.27), age (-.04), and legal status (.14).

Whether a person has been rearrested is also significantly related to number of days at risk (.53), sex (.16), race (.15), and legal status (.13).

Progress in STOP is significantly related to race (.25) and legal status (.19).

There were some significant intercorrelations among the variables that were not designated as "dependent" (e.g., risk days, sex, race, marital status, age, and legal status). Altogether, there were 15 intercorrelations and 5 were significant.

        Number of risk days by marital status...............-.14
        Number of risk days by age..........................-.12
        Sex by age..-.18
        Marital status by age............................... .19
        Age by legal status................................. .12

TABLE 13. MATRIX OF CORRELATIONS (PEARSON'S r) AMONG RELEVANT VARIABLES

	Dirty Urines	Number of Re-arrests	Progress	Days at Risk	Sex	Race	Marital Status	Age	Legal Status
Number of									
Dirty Urines	1.0000	.3732 .000	.2400 .001	.1679 .013	.0108 .443	.2696 .000	-.0858 .129	-.1372 .035	.1408 .031
Rearrests		1.0000	.3948 .000	.5279 .000	.1591 .019	.1533 .023	-.1004 .096	-.0401 .301	.1311 .044
Progress			1.0000	.0305 .344	.0961 .102	.2522 .000	-.0420 .290	-.1126 .068	.1933 .005
Days at Risk				1.0000	.0708 .175	-.1217 .054	-.1446 .028	-.1240 .050	-.0564 .229
Sex					1.0000	.0629 .203	-.0437 .282	-.1779 .009	.0786 .150
Race						1.0000	-.0063 .467	-.0678 .186	.0811 .142
Marital Status							1.0000	.1910 .006	.0152 .421
Age								1.0000	.1234 .051
Legal Status									1.0000

VII.   REGRESSION ANALYSES

The three dependent variables (i.e., number of dirty urines, rearrests, and "progress") were regressed against the relevant predictor variables included in the data set. Stepwise multiple regression was used in these analyses. This procedure asks which variable accounts for the largest amount of variance in the dependent variable. Then, after that amount of variance is accounted for, the question becomes, which of the remaining variables account for the largest amount of the unexplained variance, and so on. When the remaining variables can not account for a significant amount of explained variance in what remains, the procedure stops.

Regression of Number of Dirty Urines Against Relevant Predictor Variables

Number of dirty urines was regressed against a total of eight predictor variables. A decision was made not to include "progress" in the list of predictor variables because it is partially based on the number of dirty urines delivered by a client.

The data below show that 4 of the 8 variables accounted for significant amounts of the variance in number of dirty urines. The most powerful predictor was rearrest, which accounted for 14% of the variance. This is plausible given the assumption that for some criminality and drug abuse are related because of economic compulsion; crime is committed in order to get money to purchase drugs. The next most significant variable in explaining the number of dirty urines is race. Blacks (coded 1 compared to whites coded 0) in this study are more likely to present dirty urines than whites. The younger clients are more likely than their older counterparts to provide dirty urines. Finally, legal status accounts for a significant amount of the variance explained in number of dirty urines.

Altogether, these four variables account for 28% of the variance in number of dirty urines. There are clearly other variables that need to be taken into consideration; variables that are unmeasured in this data set. Even so, the variance explained is not negligible.

DEPENDENT VARIABLE = NUMBER OF DIRTY URINES

	Beta	Adjusted r square	Value of F	Sign. of F
Rearrest	.32	.14	22.82	.000
Race	.31	.25	21.93	.000
Age	-.18	.27	7.54	.01
Legal Status	.15	.28	4.76	.02

Rearrest (None = 0, 1 or More = 1)
Race (White = 0, Black = 1)
Age (18 and above by single years)
Legal Status (First Offender, Repeat Offender, Unknown)

Sex, Marital Status, and Number of Days at Risk did not enter the
stepwise regression equation because they couldn't account for a
significant increment in variance explained.

Regression of Rearrests
Against Relevant Predictor Variables

Three of the eight predictor variables entered the regression equation
to account for rearrests. These three accounted for 44% of the variance
in rearrests. It should be noted that this figure is affected by the fact
that the dependent variable, rearrests, had only two categories (none and
1 or more). The most powerful predictor was number of days since entering
the STOP program. This kind of exposure variable is often a powerful
predictor because recidivism and relapse are such a prominent part of
the reality of drug abuse and criminality. It is encouraging to see that
progress in STOP is the next most powerful predictor of rearrest. This
reaffirms the hypothesis that length of time in treatment yields lower
rates of criminality and drug abuse. The entry of number of dirty urines
into the equation explaining rearrests confirms the connection between
drug abuse and crime.

DEPENDENT VARIABLE = REARRESTS

	Beta	Adjusted r square	Value of F	Sign. of F
Number of Days at Risk	.48	.27	66.32	.000
Progress	.31	.41	26.29	.000
Number of Dirty Urines	.19	.44	8.90	.003

Number of Days at Risk (number of days since entering STOP)
Progress (1 = High, 2 = Moderate, 3 = Some, 4= Minimum)
Number of Dirty Urines (total number of urines minus those that
                        were clean of illicit drugs)

Sex, Race, Marital Status, and Legal Status, and Age did not enter the
stepwise regression equation because they couldn't account for a
significant increment in variance explained.

Regression of Progress
Against Relevant Predictor Variables

It is interesting that rearrests is the most powerful predictor of
progress in this data set (15% of variance explained). The STOP
program does not have data on the rearrests which have occurred for
their clients on their information system. After rearrests, both
being black and legal status (first offender, repeat offender,
unknown) account for significant increments in variance explained in
progress. Race in this analysis is probably a proxy for a host of
other important but unmeasured variables, such as educational
achievement, employment and unemployment status, and the presence or
lack of social support networks to help an individual work through
problems. As might be expected, a program such as STOP is more
successful with first as opposed to repeat offenders.

DEPENDENT VARIABLE = PROGRESS

	Beta	Adjusted r square	Value of F	Sign. of F
Rearrests	.35	.15	24.73	.000
Race	.18	.18	6.51	.01
Legal Status	.14	.20	4.29	.04

Rearrest (None = 0, 1 or More = 1)
Race (White = 0, Black = 1)
Legal Status   (First Offender, Repeat Offender, Unknown)

Sex, Marital Status, Age, and Marital Status did not enter the
equation. Number of dirty urines and number of days at risk were not
included as a predictor because they reflect elements of making
progress through the STOP program.

VIII.   LIMITATIONS OF EVALUATION OF STOP

1.   Lack of a control group limits generalizability.

The most effective basis for credible generalizations is a rigorously
designed study. In program evaluations, this means experimental and
control groups with random assignment of subjects to both groups. This
did not occur with STOP. Therefore, it is not appropriate to claim that
STOP is "better than" an alternative control strategy or program because
data are not available on a comparable "no treatment control" group.

2. Program is dynamic, evaluation is static.

STOP is a dynamic program, constantly in a state of change. In this evaluation it was necessary to close out the data collection process at a certain point in time. Analysis of data takes a considerable amount of time. Therefore, this evaluation reflects STOP as it was when no more data were added to our computer file. To the extent that the program has changed; in content, process, and clients or types of clients, this evaluation is more an historical than a contemporaneous examination.

3. Lack of data on process of treatment delivery.

What actually occurs at STOP is not reflected in the "variables" included in this evaluation. Whenever any program is evaluated, the primary focus is on "measurable" (translated as quantified) variables. However, the "real" STOP involves what actually goes on within the confines of the facility as STOP counselors interact with STOP clients and as treatment is actually delivered. Such process data are not included in this evaluation. Subsequent evaluations should explicitly include attempts to examine the more dynamic and qualitative aspects of STOP.

Further, exposure to the treatment offered at STOP is not explicitly measured. There is a need for quantifying the units of service delivered and received. In addition, it is difficult to evaluate an intervention when no data exist indicating who delivered the intervention to whom.

4. Number of clients is limited.

In any evaluation study, if the number of subjects is relatively small, this constrains the statistical analyses. Further, a small number of subjects generally limits the possible range of values on the variables. For example, it would be preferable to have a full range of values for a variable such as number of dirty urines. However, in order to present the data descriptively, it was necessary to collapse categories to 3 (none, 1 or two, three or more).

5. Length of time evaluation covers.

The ideal research design for an evaluation of an intervention such as STOP would be to follow the clients for at least a year beyond exit from the active phase of treatment and to be able to accurately reconstruct their crime and drug abuse patterns for at least a year prior to their entry into STOP. In this evaluation of the pilot phase of STOP, it was not possible to employ the ideal criterion.

6. Limited amount of data collected.

Within the STOP program itself, data are collected on a relatively small number of variables. These variables are more often than not the easily observable and quantifiable ones. However, there are many other such variables that are not included in the STOP data files and a host of "psychosocial" variables (e.g., attitudes, values, beliefs, etc.) that are not even collected that may have an impact on how well the clients do in the program.

IX. AREAS OF STOP THAT MAY NEED EXAMINATION

1. Symbolic and real distance from probation.

The rationale for keeping STOP totally independent of the police and probation is sound. Clients are much more likely to develop trust and rapport with STOP counselors if they see minimal connection with probation and the police. The decision to not have any arrests occur at or in connection with STOP reflects and facilitates the perception of this independence.

The symbolic value of such distance is invaluable. However, it may be important for closer and more visible collaboration to exist, for symbolic and real purposes. For example, fostering the sense that close communication exists between STOP and probation may have deterrent value. In addition, it has been noted that the STOP clients are distributed among a rather large number of probation officers. Implementation of specialized case loads of STOP clients within probation would facilitate communication between STOP and probation and convey the message to clients that violations will not go unnoticed.

2. Expansion of STOP Data Files

We were able to obtain data on rearrests from the police department; such data were not on the STOP data file. Because arrests are a central element for assessing the impact of the STOP program, absence of these data may indicate a gap in information that could be useful to more effective delivery of the STOP intervention. We were not able to incorporate into the STOP data file information from the Commonwealth Attorney's office concerning the clients. Parallel data from the probation system for these clients would make the STOP data file more robust and useful. Criminal and other event history data covering at least the year prior to entry into STOP is needed to provide a good baseline against which to measure change. Data are also needed on psychosocial variables such as attitudes, beliefs, values, etc. Finally, data are needed which reflect the judges' perceptions of STOP and their judicial responses to violations of conditions of probation in light of STOP.

Simply put, the existing STOP data system is a very good beginning. However, it would be prudent to examine the potential for expanding that data file to include information on other relevant aspects of the clients' lives taken from other systems.

3. Random assignment regimen for urine collection.

The random assignment was for days to report for urine tests. The fact that urines were not collected during the weekends, traditionally the days when drug abuse is most likely to occur, means that some drug use and abuse is being missed. Therefore, one thing that might be considered is a 7 day random collection schedule.

It is possible that "fixed" collection points may be preferable to "random" collections. Random testing may facilitate an attitude of trying to beat the system. If fixed collection points are instituted along with an incentive for providing a clean urine, it is possible such a positive reinforcement pattern may be more effective than a reinforcement pattern emphasizing negative sanctions. At the very least, it might be worth quizzing the STOP clients concerning their perception of the strengths and weaknesses of both approaches.

4. Development of special tracking for higher risk clients.

The concept of "high risk" is overused. In a real sense, all of the STOP clients are at "high risk" for recidivism and relapse. However, over a period of time counselors in correctional and treatment settings develop a "sixth sense" or "intuition" about clients. The STOP program has been in existence long enough for these types of risk factors to have become crystallized. The STOP personnel are thoroughly professional and have surely begun to develop their own model of risk factors. It might be quite beneficial to begin to formalize these risk factors. For example, those clients who refused to divulge to STOP personnel their legal status were much closer to repeat offenders than they were to first offenders vis a vis a number of indicators of dysfunctioning.

Once an agreed upon model of risk factors for success or lack of it has evolved and has been formalized, this model could/should be tested to put some clients on a more intensive supervision track within both STOP and probation.

5. Newer technologies of drug testing.

One of the most rapidly changing areas of the alcohol and drug abuse fields is in drug testing. The testing protocols used by STOP are tried and true. However, the time between collection of a urine sample and receipt of a confirmed positive result separates "detection" from "administration" of sanctions, informal and formal. New technologies for drug testing are around the proverbial corner. One of these involves using saliva either placed in a cup or collected on a popcicle stick.

The secret of deterrence interventions is certainty of detection and swiftness of sanctions. The STOP program is sufficiently experienced with testing methodologies to volunteer as a part of a model project to test these new methodologies.

DOES STOP WORK?

Policy makers and persons directly involved in the criminal justice system are probably less interested in the particulars of the research, the statistics generated by the data, and the caveats that accompany all research reports than they are in the answers to simple questions such as:

Does STOP work?
Does STOP do what it is designed to do?

Unequivocal answers to these questions would be inappropriate. Without a control group and randomization, the "scientific" aspects of this evaluation are limited. However, on the basis of the available data, it is safe to conclude that:

1. Clients in STOP experience a sense of trust and rapport with the counselors and the program since some continue to attend treatment even when their status with probation is tenuous.

2. Drug use is reduced among STOP clients and progress in treatment occurs for relatively large proportions of STOP clients. This is seen most clearly in the number of clients who are in Phase 2 and Phase 3 of the treatment program and the ratio of clean to total urine samples collected.

3. The STOP clients are at "high risk" for recidivism. The percentage of clients who have been rearrested is lower than might be expected given the existing literature on recidivism among persons on conditional release.

The overall goal of STOP is to reduce drug abuse and thus to reduce the probability of criminal involvement within this high risk group of probationers. From the available data, it is safe to conclude that the STOP program meets its goals. STOP affords probationers an opportunity to change self-defeating patterns of behavior and thinking. For the probationer motivated to make these positive changes, STOP provides an environment conducive to progress.

WHERE DO WE GO FROM HERE?

First and most important, it is essential that STOP be continued. There is growing recognition that "demand reduction" programs, particularly those targeted at "high risk" groups, offer the best hope of reducing drug abuse and its associated problems of criminality and other deviant behaviors. STOP is an essential element in the menu of demand reduction programs in Lexington-Fayette County.

Second, it is important to recognize that STOP is an unusual and possibly unique program for dealing with the crime-drug connection among probationers. We need to understand how to intervene effectively with this group. STOP could be a "model" for accomplishing the goal of breaking the crime-drug connection among probationers.

Third, a key element in the STOP program is the Structured Addiction Program (SAP). This evaluation does not deal directly with this treatment package nor its impact on progress and success of STOP clients. It is important to focus on the treatment aspects of STOP and to begin to determine the efficacy of various elements of the treatment regimen.

Fourth, STOP is only one element in a comprehensive approach to reduce the levels of drug abuse and criminality in a high risk group. It is important to identify and examine ways to improve inter-organizational communication and data collection that is "case specific" so that even greater reductions can occur in criminality and drug abuse among probationers.

By reducing drug use and criminality, the STOP program provides probationers with the opportunity to change self-defeating behaviors and become contributing members of the community. As the trend in most ISPs is to focus on controlling the offender and protecting the community, STOP is somewhat unique with its emphasis on rehabilitation as well as control.

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