Studies of the Functioning and Effectiveness of

Treatment Alternatives to Street Crime (TASC) Programs

Final Report

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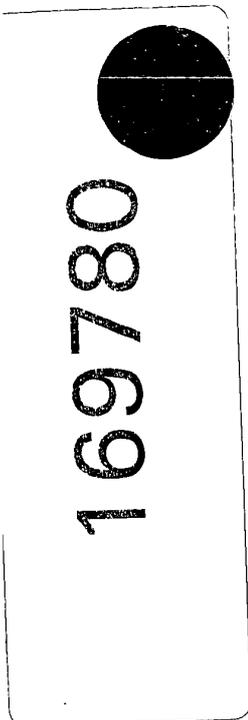
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Executive Summary

For over two decades, Treatment Alternatives to Street Crime (TASC) programs of offender management have served as a broker between criminal justice agencies and community-based social services. By identifying drug-using offenders, assessing their service needs on an individualized basis, placing them in drug treatment, and monitoring their progress, TASC programs have sought to break the link between drug use and crime and to reduce public costs arising from repeated criminal justice involvement and incarceration of drug users. Funded by the National Institute on Drug Abuse, this evaluation of seven diverse TASC programs provided a comprehensive description of the historical context in which TASC programs have evolved and the processes by which TASC programs perform this bridging function. The seven programs were Birmingham, Alabama; Canton, Ohio; Chicago, Illinois; Orlando, Florida; Portland, Oregon; Miami, Florida; and Pittsburgh, Pennsylvania. Moreover, the evaluation, using a rigorous research design, examined outcomes across a number of behavioral domains at five TASC programs (all except Miami and Pittsburgh). (Resources were sufficient for an outcome evaluation at only five sites.) The outcome evaluation was experimental at two sites, Canton and Portland, with random assignment of offenders to TASC or a control group receiving an alternative treatment. A quasi-experimental design was employed at the other three outcome study sites; we enrolled a TASC offender sample and a non-TASC sample of offenders, screened into the comparison group if they met TASC eligibility criteria.

Process Study

The TASC program model includes a number of features that research and clinical experience have found to be important for drug treatment to be effective, and it is possibly the only type of program that combines all of these features: (1) coordination of criminal justice and treatment, (2) use of legal sanctions as incentives to enter and remain in treatment, (3) matching of offenders to appropriate treatment services, and (4) monitoring of offenders with drug testing and keeping criminal justice officials apprised of offenders' performance.

When TASC began in the early 1970s, the primary illicit drug problem was heroin, treatment programs were expanding, social services were relatively well funded, and AIDS had

yet to emerge. In addition, throughout the 1970s, TASC programs had direct federal funding and policy and programmatic support. The 1980s brought a dramatic shift in the environment within which TASC operated. Federal funding for TASC disappeared, as did many TASC programs, although most were able to obtain local funding. Other developments also changed the ecology of TASC programs. Crack cocaine replaced heroin as the nation's primary illicit drug problem; the availability of social services declined as federal, state, and local funding was pared back in the face of budget deficits and increased emphasis on strict criminal-justice sanctions; AIDS placed increasing pressure on an already strained medical and social service system; and, in many areas, high unemployment rates and the disappearance of traditional blue-collar jobs made it difficult for TASC clients to find jobs. These changes persisted into the 1990s and have made it more difficult for TASC to bring about significant behavioral change in a large number of clients. In this respect, TASC faces the same problems as other intervention programs for offenders, but in a number of ways--its long experience, its well-conceived model, its linkages with the local service system--TASC is in a better position than many other programs to operate successfully within an eroding public service ecology.

Outcome Study

We measured TASC program outcomes in four domains: treatment services received, drug use, criminal recidivism, and HIV risk behavior. We also examined the cost-effectiveness of TASC programs within the six-month timeframe of data collection. TASC outcomes at any site depended partly on the point of intervention, client population, program maturity, and evaluation design. Accordingly, in data interpretation, we believed the sensible approach was to look for patterns in findings across sites, rather than to read findings from each site in isolation. When patterns emerged, we read them as evidence regarding the effectiveness of the TASC model overall--as implemented at different points of intervention, with different client populations, and by programs at different stages in their development.

Our goal was to recruit offender samples that were representative of the population of offenders referred to TASC at each site. The available data indicated that this goal was reached. A total of 2,014 offenders agreed to participate in the outcome study and completed the intake interview. Over 80% of them were relocated six months later and completed the follow-up

interview. Analyses of drug use, crime, and HIV risk behavior were performed on an "intent to treat" basis. That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the amount or "dose" of treatment services actually received by offenders in either group. As a further step to ensure rigor in the outcome study, we adjusted findings for offender background characteristics (covariates) and included interaction terms where appropriate. Thus, any differences between TASC and control/comparison offenders could be confidently attributed to TASC participation, not to any pre-existing difference in offenders' background.

Service Delivery

To assess the services received by each offender during the six-month period between baseline and follow-up, we included in the follow-up interview a series of questions on whether the offender received treatment or counseling services, including and urinalysis tests, from any provider. If so, the offender was asked to specify the nature of those services. Possible services included: drug detoxification; drug-related medical care; other medical care; urine tests to detect recent drug or alcohol use; drug counseling; legal counseling; parenting instruction; family problem counseling; AIDS prevention counseling; personal problem counseling; school counseling; school placement; job counseling; job training; job placement and other.

In relation to the intervention alternatives to which control/comparison offenders were assigned, TASC programs delivered more treatment services to offenders. These services were usually drug counseling, urinalysis to detect drug use, and/or AIDS education. At four of five sites, the difference in service delivery was statistically significant. At the fifth site, Canton, it was not. However, because we used an experimental design in Canton, the TASC program there was compared to a alternative treatment provider which, while it did not conform to the TASC model of offender management, nevertheless delivered treatment. Thus, the pattern of findings across sites suggests that the TASC model is an effective strategy for improving delivery of treatment services.

Drug Use

Drug outcome measures were based on a series of drug use questions asked of each offender. For each month during the follow-up, offenders were asked whether they used any non-

prescription drugs. For up to four different drug types, the frequency, route of administration, and total purchase cost were asked. Information was tallied for global measures of drug use during the entire follow-up period. A similar set of questions covered each of the six months prior to intake into the study; these comprised the baseline equivalents of the outcome measures, which included: number of drug use days, frequency of drug use (number of times), number of drugs used, and ratio of drug use days to days "at risk" (i.e., days not incarcerated).

On one or more measures of drug use, TASC programs outperformed the alternative interventions at three of five sites. In Chicago, drug use reductions were greater for TASC offenders on all four drug use outcomes: drug use days, frequency of drug use, number of drugs used, and ratio of drug days to days at risk. In Birmingham, drug use reductions were greater for TASC offenders on two outcomes: drug use days and ratio of drug days to days at risk. In Canton, reductions were greater for TASC offenders on number of drugs used. Some of these effects were found in the overall sample of TASC offenders; others were found in subsamples of more "problematic" offenders, i.e., those with high baseline levels of drug use or other characteristics indicating high risk. Because the design was experimental in Canton, the favorable outcomes we found there, while modest, represent strong evidence for effectiveness of TASC. While drug-use differences did not emerge in Orlando and Portland, our overall conclusion, based on findings across sites, is that the TASC model was able to produce greater reductions in drug use than were achieved by alternative interventions--most often, standard probation--in the same community.

Crime

Crime outcome measures were constructed from a series of crime commission items that were asked for each month of the follow-up period (in the same manner as the drug use variables). For each month of the six month follow-up, offenders were asked to indicate the number of times they committed any of 18 crimes (e.g., robbed a place of business; stole a car, truck, or motorcycle; possessed marijuana or hashish). The six-month measures were summed to provide the total number of crimes committed in each of three crime categories: property crime, violent crime, and drug crime. The total number of incarceration days was calculated from the total number of days incarcerated during each month of the follow-up. A similar set of items was asked for each of the

six months prior to intake into the study; these comprised the baseline equivalents of the outcome measures. Finally, as a supplement to self-report crime measures, we used official records to identify offenders with a new arrest or a technical violation during the follow-up period.

Evidence on crimes, arrests, and technical violations was quite mixed. Two TASC programs, Birmingham and Chicago, showed favorable effects on self-reported drug crimes. However, we found no sign that these TASC programs, compared to alternative interventions, led to greater reductions in property crime. (We were unable to examine possible effects on violent crime because the percentage of offenders self-reporting any violent crime was quite low at both intake and follow-up in the TASC and control/comparison groups.)

When we examined new arrests and technical violations, we found no differences at three sites. In Birmingham and Portland, there were signs that TASC offenders were more likely to be arrested or to commit a technical violation during the follow-up period. Studies of intensive supervision programs (ISPs) have found similar effects on arrests and technical violations. This may reflect the fact that ISPs, like TASC, are meant to serve monitoring as well as rehabilitative functions. If offenders are watched more carefully, those who do not conform to requirements of the law are more likely to be detected and consequently arrested or charged with a technical violation than those under less stringent monitoring.

HIV Risk Behavior

We measured TASC effects on two behaviors by which HIV can be transmitted: frequency of unprotected sex and frequency of sex while high. Effects on other sexual risk behaviors and on drug injection behaviors could not be tested because few offenders at any site reported those behaviors at baseline.

TASC reduced the frequency of unprotected sex among Orlando offenders but not at any other site. Favorable TASC effects on the frequency of sex while high on drugs or alcohol emerged at four sites--Birmingham, Chicago, Orlando, and Portland. These effects were seen usually among the most problematic offenders, i.e., those engaged in more risky behavior at baseline.

Cost-effectiveness

Because they received more services, TASC clients had higher total service bills during the six-month follow-up period than their control/comparison counterparts at all sites. This indicates that TASC was successful at increasing service utilization among drug-involved offenders. In Birmingham, Canton, Chicago, and Portland, TASC offenders also generated more criminal justice costs than control/comparison offenders.

Other TASC outcomes, while not quantifiable, must nevertheless be considered in the cost-effectiveness context. In Birmingham, for example, we found 14 fewer days of drug use and 16 fewer drug crimes in the TASC group overall. Moreover, when comparing offenders who had at least one incarceration day during the baseline period, the decline in frequency of sex while high on drugs or alcohol was 54% greater among those assigned to TASC than among those in the comparison group. These effects were achieved at a cost of $16.49 per day over the six-month study period. At other sites, the cost of TASC ranged from $2.27 to $27.13 per day. These amounts represent the *added cost* of TASC. They exclude the cost of probation and other services directed to both TASC and control/comparison offenders. Omitted from this analysis are the downstream costs incurred by offenders in each group and long-term outcomes of treatment. These post-intervention behavioral outcomes and cost savings are likely to be favorable and would therefore improve the cost-effectiveness of TASC.

Discussion and Recommendations

The functions of TASC programs do not include actual provision of treatment. Nevertheless, the value of TASC depends ultimately on whether its existence in a community leads to greater reductions in drug use and other problem behavior than would otherwise have been achieved. Our purpose was to evaluate the gains produced when the TASC bridging (networking) function is added to the local ecology of criminal justice and treatment services.

TASC outcomes across sites were consistently favorable though often modest or confined to high-risk offender subsamples. We believe the consistency of findings represents a strong signal of the effectiveness of the TASC model in different environments, with different client populations, and even when tested in a highly rigorous research design. Moreover, reductions in drug use, crime, and HIV risk behavior, even where modest, represent strong and favorable evidence for

TASC. Recovery from chronic and heavy drug use is an incremental process involving perhaps several cycles of drug use, treatment, abstinence, and relapse. We take a similar view of favorable outcomes found only in subsamples of TASC offenders, rather than in the samples as a whole. It is important to identify offender types for whom an intervention is more, or less, effective. The pattern of findings in this study suggests that the TASC model had favorable effects among offenders whose illegal or risky behavior was more pronounced, as indicated in baseline levels on the outcome measures or other characteristics associated with hard-core offending. This is precisely the type of offender who is most in need of intervention and who represents the greatest recurring cost to the public. Thus, the value of TASC programs might be enhanced, from the point of view of system efficacy, if offenders referred to TASC by criminal justice included a higher proportion of these more problematic offenders.

Findings should be considered within the context of social and economic developments over the past two decades. Federal funding for TASC programs diminished and/or became less stable. Cocaine replaced heroin as the nation's primary illicit drug problem. The availability of drug treatment and other social services declined. All of these developments make it difficult for TASC to bring about significant and enduring change in a large number of offenders. The appearance of consistent TASC effects is, in this context, all the more persuasive.

Chapter 1

Introduction to Evaluation of TASC Programs

A growing body of research indicates that treatment provided to substance-using offenders can reduce substance use and criminal recidivism, whether the offender enters treatment voluntarily or under some form of coercion (Anglin & Hser, 1990a,b; Anglin & Maugh, 1992; Falkin, Wexler, & Lipton, 1992; Leukefeld & Tims, 1992). Research findings that support the effectiveness of drug treatment for offenders within the criminal justice system (CJS) are in line with other research on the effectiveness of correctional rehabilitation programs generally (e.g., Andrews et al., 1990; Gendreau & Ross, 1987; Palmer, 1994).

For over two decades, Treatment Alternatives to Street Crime (TASC) programs have provided a bridge between agencies of the criminal justice system and community-based substance abuse treatment programs to arrange rehabilitative interventions for substance-using offenders. Prior to this evaluation, TASC program outcomes on drug use and crime had not been studied rigorously or comprehensively. This chapter first provides a historical context encompassing the period from the initiation of the TASC model of offender management through subsequent developments to the present. It then describes research-informed and clinically based principles of effective treatment that TASC attempts to ensure. Finally it discusses the evaluation objectives, administration, study design, and implementation.

Context

Ongoing Need for Substance Abuse Treatment for Offenders

The need for treatment for substance-using offenders is amply demonstrated by the large body of research on the relationship between criminal activity and the use of alcohol and other drugs, as well as by the negative impact of substance abuse on other efforts at rehabilitation. Numerous studies have documented the large number of crimes committed by drug-dependent offenders, particularly those who use drugs daily or nearly daily. A consistent finding is that as levels of drug use increase, so does criminal activity; similarly, declines in drug use are accompanied by declines in crime, particularly income-generating crimes (Chaiken, 1986; Chaiken & Chaiken, 1982; Inciardi, 1979; Johnson & Wish, 1986; Nurco, Kinlock, & Hanlon,

1990; Speckart & Anglin, 1986). The likelihood of recidivism following release from incarceration is higher for offenders who are drug dependent than for other offenders (Bureau of Justice Statistics, 1993). Thus, treating the substance abuse problems of offenders is an important element in any overall strategy to reduce drug use and recidivism among the offender population.

Various studies have documented the high levels of drug use among offenders. In 1992, the National Institute of Justice's Drug Use Forecasting (DUF) program, which interviews booked arrestees in 24 cities, found high rates of illicit drug use (determined by urine tests) ranging from 47% to 78% for men and from 44% to 85% for women. In virtually all of the DUF cities, over half of the arrestees tested positive for at least one drug, mainly cocaine (National Institute of Justice, 1993). The 1992 data are on par with prior DUF years extending to 1986 when the program began. Self-report data from prison and jail inmates indicate similarly high levels of pre-incarceration drug use (Beck et al., 1993; Harlow, 1991). Studies of recidivism have shown that one-third of probationers re-arrested within three years after sentencing were arrested for a drug offense (Bureau of Justice Statistics, 1993). Not only do offenders have high rates of drug use, but those who do use drugs have higher rates of felony arrests than do those who have not used drugs recently (Anglin & Speckart, 1988; Dembo, Williams, & Schmeidler, 1993).

Intervention Strategies for Substance-Abusing Offenders

The primary responsibility for controlling drug use in the United States has traditionally been, and continues to be, the criminal justice system (CJS). The trends toward increasing drug use among the general population since the 1960s and through the 1980s induced social policies that have produced unprecedented rates of drug-related arrests, incarceration, and legal supervision. In attempting to counter these trends, the police, the courts, prosecutors, and corrections personnel have been overwhelmed in terms of work load, stretched resources, and limited options. Corrections departments have been especially affected by overcrowded jails and prisons and by high recidivism rates among probationers and parolees.

In response to this increasingly compelling and costly situation, considerable research and policy effort has been directed to determine what the criminal justice system can do to make a

significant reduction in the problems of substance-abusing offenders. Recently, interest has been renewed in a strategy developed in the early 1970s, just before correctional policy generally shifted its focus from rehabilitative efforts for offenders to deterrence through punishment and incarceration. This model, known as Treatment Alternatives to Street Crime (TASC), is an offender-management model linking substance-abusing offenders to appropriate and adequate treatment services in the community.

History of TASC

TASC emerged out of several developments in the 1960s and early 1970s. These are extensively described in Chapter 3. Briefly, the major federal initiative was the creation of the Special Action Office for Drug Abuse Prevention (SAODAP). Funding for TASC came from the Law Enforcement Assistance Administration (LEAA). NIDA provided program direction and other support (Wellisch, Prendergast, & Anglin, 1993). The SAODAP staff who developed the idea of TASC in 1972 were able to draw on a decade of prior efforts to provide treatment to drug-abusing offenders at the federal and state levels. The most extensive of these was the Narcotic Addict Rehabilitation Act (NARA) of 1966, which has been described as the "earliest federal attempt to promote a rational interrelationship between the criminal justice and treatment systems" (Strategy Council on Drug Abuse, 1974, p. 84; on the history of NARA, see Kane, 1973; Lindblad, 1988). Although NARA fell short of expectations, it did establish a precedent for linking criminal justice agencies and community-based drug treatment programs.

Given the example of this prior federal effort, SAODAP took the lead in trying to promote understanding, cooperation, and collaboration between criminal justice and drug treatment, and through direct federal funding expanded the number of community treatment programs tenfold between 1971 and 1973 (Strategy Council on Drug Abuse, 1973). In 1971, SAODAP planners developed the TASC concept as a way to identify, assess, and refer drug-abusing arrestees to local community treatment programs in lieu of prosecution. The LEAA (superseded by the Bureau of Justice Assistance) was charged with implementing the TASC concept, although SAODAP retained control of policy. In August 1972, a TASC pilot project became operational in Wilmington, Delaware. LEAA funded three other programs in 1972, with an additional eight established in 1973 with funding from the National Institute of Mental Health. Further expansion

in the number of programs and favorable results in terms of reduced recidivism for TASC clients led the Strategy Council on Drug Abuse (1976) to recommend that TASC be expanded as rapidly as possible, that no programs be allowed to lapse, and that TASC-like programs be established for federal probationers. Overall, TASC funding was substantial, and federal staffers were able to successfully market the TASC concept to many communities. The number of programs expanded to 73 in 1978 and to 130 in 39 states in 1982, when direct federal funding ended (U.S. General Accounting Office, 1993). Subsequently, established TASC programs had to seek and secure alternate resources of funding. Those unable to do so closed down. Many other programs were successful at obtaining continuation funding (often at a reduced level) from local, usually county, criminal justice agencies. Over time, surviving TASC programs broadened their base of support with state and federal grants and contracts, with service contracts with other local agencies (e.g., county substance abuse delivery agencies), and with other, often temporary, arrangements. While some programs were unable to sustain this effort and closed, new programs were implemented in other regions.

This dynamic process has continued to the present. In 1996 there were an estimated 320 TASC programs in 30 states. These programs were funded by state legislative funds and local funds earmarked for TASC, state legislative initiatives to create intermediate programs for drug-involved offenders, state criminal justice agencies, private foundations, client fees, and combinations of these sources. TASC programs also may be funded through the Bureau of Justice Assistance (BJA) Edward Byrne Memorial State and Local Law Enforcement Assistance Program (Byrne Program) formula grants to states. In addition, some TASC programs are eligible for funding under a component of BJA's Discretionary Grant Program, such as the BJA Correctional Options Program.

Principles of Effective Treatment

Although evaluations of community-based treatment programs for drug-abusing offenders have shown that such programs can effect significant reductions in drug use and criminal behavior, the findings need to be interpreted cautiously, because of weaknesses both in program implementation and in evaluation designs. After a thorough review of 24 published and unpublished studies of treatment programs for substance-abusing offenders, Falkin and Natarajan

(1992) concluded that it was difficult to draw strong conclusions about the effectiveness of these programs because of the methodological and programmatic limitations of the studies. The limited effectiveness of some programs may stem from the fact that offenders with long-term drug problems are not provided with treatment of sufficient strength or intensity to result in significant change in behavior. Moreover, much of the effectiveness of treatment depends on whether the treatment activities are implemented as intended and whether the program is well managed and adequately staffed. Finally, it must be borne in mind that there is no one-time "cure" that frees an individual from the compulsive, problematic use of alcohol or other drugs. Most dependent users appear to cycle through periodic episodes of dependence, treatment, and relapse. The chronic nature of substance abuse (and the behaviors associated with it) suggests that outcomes measured according to all-or-nothing conditions (use/no use, re-arrest/no re-arrest, employed/not employed) are inappropriate to assess the effectiveness of treatment. Instead, outcomes should be measured in terms of relative reductions in addictive and criminal behaviors.

For optimal effectiveness, substance abuse treatment provided within the criminal justice system should adhere to principles that are based on research and clinical practice. The principles discussed below have been identified in research conducted over the past two decades and have significant importance for treatment and recovery among substance-abusing offenders. They are particularly relevant for establishing a set of desirable standards useful in interpreting the results from the TASC outcome evaluation (see also Anglin & Maugh, 1992).

Long Duration of Treatment

The chronic, relapsing nature of alcohol and drug dependence suggests that short-term interventions or treatments are likely to have minimal long-lasting effects on severe drug dependence. In light of the widely held position that drug addicts and alcoholics are never cured but are in a life-long process of recovery, various levels of support and supervision are needed for an extended period of time in order to reduce, if not eliminate, the possibility of relapse.

Length of stay in treatment has been found to be an important factor in producing declines in drug use and criminal behavior across a variety of treatment modalities and settings (Anglin & Hser, 1990a; De Leon, 1991; Hubbard, Marsden, Rachal, et al., 1989; Simpson, Joe, Lehman, & Sells, 1986). Three months are generally thought to be the minimum length of stay

required for any positive outcomes, and 12 to 24 months, or longer, are often required to produce substantial and sustained behavior change. As the severity of the individual's drug problem increases, the minimum stay to produce a positive outcome should be extended. Clients often need considerable time to break through denial about their substance abuse problem and to develop motivation for change; time is also needed for the initiation and reinforcement of successive iterations of desired behavioral change. It is important to emphasize that positive outcomes are not dependent merely on the amount of time that the client spends in treatment; something must happen during that time to address the needs of the client. There is some evidence that client improvement is dependent on the frequency and variety of services that have the effect of retaining clients in treatment and addressing the variety of problems they present (McLellan, Arndt, Metzger, Woody, & O'Brien, 1993). The importance of duration should not be thought of merely within the context of a specific program; a person may need a series of treatment episodes, possibly of different types or different intensities, in order to achieve a consistent pattern of recovery.

Behavioral Leverage

Substance-abusing individuals involved in the criminal justice system need to have both reinforcing and aversive conditions, or incentives, before they are likely to be optimally responsive to treatment services. That is, there must be consequences for both negative and positive behaviors. At the program level, various forms of contingency contracting (which includes both positive and negative reinforcers) are examples of incentives that may be effective in producing behavior change (for behavioral approaches to drug treatment, see Onken, Blaine, & Boren, 1993).

The use of frequent and random testing (for alcohol or other drugs) is a key element in providing close monitoring of clients' progress in treatment. Presentation of test results, because they are objective and can be determined relatively quickly (especially with onsite equipment), helps break through clients' denial and provides information for program staff, probation or parole officers, and judges. For less severe users, just the knowledge that they will be tested helps to discourage use; for more severe users, testing helps program staff adjust the service "mix" to achieve better results (on testing, see Vito, Wilson, & Holmes, 1993; Wish & Gropper,

1990). Whether testing by itself in the absence of formal treatment is effective in reducing drug use and criminal behavior appears to depend upon the stage of the criminal justice system within which it is instituted. For instance, in Washington, DC, offenders on pretrial release have been tested regularly since the early 1980s, and results of the program indicate reduced rates of re-arrest on both drug charges and other charges (Carver, 1993, but see Britt, Gottfredson, & Goldkamp, 1992, for contrary results). Evaluations of intensive supervision probation programs that include drug testing, however, have shown no significant reductions in drug use and re-arrest in the absence of formal provision of drug treatment (Petersilia, Turner, & Deschenes, 1992). The different outcomes may be due to the lower severity of drug problems of the offenders on pretrial release compared with the high-risk offenders who enter intensive supervision.

Repeated Assessment of Clients and Staged Delivery of Needed Services

A comprehensive treatment strategy requires a range of approaches and services to be provided at appropriate levels of intensity to promote recovery from substance abuse. Careful consideration also needs to be given to the assessment and staged delivery of services so that clients receive appropriate services and are not overwhelmed or unprepared to avail themselves of the services but rather are able to make use of them when they are ready. Such a staged approach recognizes the needs of the client but also allows services to be delivered cost effectively.

Once properly assessed by appropriate screening and assessment, the needs of the client can be most effectively addressed by matching those needs with the most suitable services and referring the client to programs or agencies that provide the services. No single treatment has been found to be effective for all or most drug users, but various approaches are available to treat different types of users. Clinically, the question is which type of treatment is appropriate for which type of client and in which settings (McLellan & Alterman, 1991). "Type of client" refers both to the drug or drugs used and to the severity of use, which may range from experimentation to long-term addiction. "Type of treatment" refers to a variety of dimensions, such as residential versus outpatient, pharmacotherapy and nonpharmacotherapy, breadth of services and their frequency and duration, and specific techniques. Other considerations in determining appropriate treatment include gender, ethnicity, age, social support network, language, and level of

psychological and cognitive functioning. The mere presence of specific program elements and characteristics (e.g., services offered, orientation of program, staff attitudes) does not necessarily equate to a program that is appropriate for client assignment. Moreover, matching should not be a one-time event; as the client progresses in treatment, treatment planning should involve additional assessment, evaluation, and referral to new treatment components or the addition of new services as needed. Furthermore, program staff need to be responsive to the unexpected, often acute needs of clients, such as pregnancy, arrest, job loss, death in the family, and other stressful life events.

Continuity of Care

The importance of aftercare in the treatment of substance abuse has been recognized since the 1970s (Brown, 1979), but the number of substance abuse clients who are discharged from a treatment program and continue to receive support in a less intensive form of treatment or during the difficult transition to community reintegration continues to be small. Even with the skills learned in relapse training, once the person leaves a program, additional support is needed in order to maintain gains made in treatment and to reinforce prosocial behaviors and discourage relapse. Such support could include self-help groups, alumni groups, monitoring by the person's counselor or case manager, and other mechanisms for continued formal (e.g., criminal justice supervision) and informal monitoring of the person's recovery. Because relapse is likely, an effective system of continuing care would allow the person to re-enter a treatment program quickly and easily on a voluntary basis. For those still under supervision, mechanisms should be in place (e.g., urine testing, identification of potential relapse triggers) so that the person can be returned to a more structured level of treatment, such as increased urine testing, outpatient treatment, or even residential treatment.

Treatment Integrity

The selection of a treatment model that is theoretically sound, empirically tested, and clearly documented in a manual, even when supplemented by training from the developer of the model, is not sufficient to ensure positive outcomes. To be effective, the model must be implemented and sustained over time by management and treatment staff who have adequate

experience and training, follow treatment protocols closely, participate in ongoing staff development, and continually monitor the expected performance of clients. The survival and success of programs may depend as much on how they are developed, implemented, and managed over time as on their content (Petersilia, 1990). In short, effective treatment programs for substance abuse must have therapeutic or treatment integrity.

Therapeutic integrity may be difficult to maintain in community-based programs. The degree to which integrity can be maintained depends on a variety of factors, including the background and experience of staff, the degree to which management and staff understand and "buy into" the treatment model, the degree to which substance abuse services are integrated with other services provided by the program, the amount of supervision provided to counselors, the degree to which program services and activities are documented, and the degree to which clients receive services offered through referral.

Linkages with Other Services

Substance-abusing offenders nearly always have a variety of problems in addition to their problems with alcohol or drugs and their criminal involvement. These include medical, psychological, and emotional problems, limited education, poor job skills, and lack of housing and transportation. In addition to these, women offenders often have to contend with other problems, including legacies of physical and sexual abuse, need for child care, and need for gynecological and pregnancy care. Growing numbers of offenders need assistance with the physical, emotional, and financial problems associated with being HIV positive or having AIDS. The relationship of substance abuse to these problems is complex and varies from one person to another. For example, treatment clients who use drugs or alcohol as a form of self-medication are likely to have difficulty remaining abstinent during and after treatment if their mental or physical problems are not also dealt with. People who cannot find steady employment because they lack the skills and attitudes needed to find and keep a job will likely have difficulty staying away from drugs. Substance abuse programs represent the opportunity to identify and address problems or situations that have important public health or social implications. It is important to stress that most of these problems, even though they are related to substance abuse, are not necessarily caused by substance abuse, and thus they need to be addressed directly, rather than

assuming that they will disappear once the person enters treatment and begins to recover from drug dependence (McLellan, Luborsky, Woody, O'Brien, & Kron, 1981).

Unfortunately, few substance abuse programs for offenders have the resources or expertise to address the full range of problems that their clients may have. Although the idea of substance abuse programs as "one-stop shopping" centers—where people can have all their needs met—is attractive in principle, the establishment of such centers faces numerous obstacles, which will not be overcome soon. In the meantime, programs that do wish to deal with selected problems of their clients can do so through various methods of linkage and coordination with other programs, agencies, and services.

The Evaluation of TASC Programs

TASC is the oldest and best developed model that incorporates these principles when providing linkage between the CJS and the treatment system (Inciardi & McBride, 1991; Swartz, 1993; Wellisch, Prendergast, & Anglin, 1993). Unlike other intervention programs within criminal justice, it explicitly and formally addresses the drugs-crime link through referral to drug treatment and monitoring of client progress in treatment. Although TASC was originally viewed as a bridge between the CJS and drug treatment, on the assumption that treating drug addiction (then primarily to heroin) would reduce criminal behavior, this bridge metaphor is giving way to that of a network metaphor, as the etiology of drug use and crime has been shown to reside in multiple problems and deficits of drug-using offenders. Increasingly, TASC projects are assessing the multiple needs of their clients and managing the coordination of the treatment or attention to these needs through a variety of programs and agencies. Where once TASC provided a link between criminal justice and drug treatment, it is now being extended (or could be extended) to serve its clients by providing network linkage with a variety of agencies, programs, and services.

Evaluation Objectives

Funded by the National Institute on Drug Abuse (NIDA) in 1991, the evaluation of selected TASC programs was conceived and developed within the context described above. During the study period (1991-1996), the evaluation team worked closely with NIDA, with

governmental and community agencies in the cities where the selected TASC programs are located, and with an evaluation advisory board, in order to coordinate activities, anticipate and solve problems, address relevant issues, and ensure the participation or assistance of key stakeholders.

The primary objectives of the evaluation were as follows.

1. To provide a structured description of the organization, operation, staffing, services, and community support of selected TASC programs.

2. To describe the characteristics of the drug-using offenders referred to TASC programs.

3. To assess the extent to which TASC programs are effective in facilitating treatment and reducing drug use, crime, and HIV risk behavior.

4. To assess the costs of TASC relative to routine criminal justice processing, including the daily costs of TASC supervision, the costs associated with processing the offender's subsequent technical violations and arrests, and the daily costs for time the offender may spend in residential treatment, jail, or prison.

5. To identify barriers that reduce effective coordination of TASC efforts between the local criminal justice system and the drug abuse treatment system and to identify strategies that might be used to overcome these problems and achieve more effective coordination.

6. To disseminate information on TASC programs to aid practitioners in program planning, implementation, and assessment.

Administration

The evaluation team was led by M. Douglas Anglin, Ph.D., of the UCLA Drug Abuse Research Center. Also participating were Michael Prendergast, Ph.D., at UCLA; Joan Petersilia, Ph.D., and Susan Turner, Ph.D., of the RAND Corporation; and Douglas Longshore, Ph.D., at both UCLA and RAND. Under a subcontract to UCLA, RAND supervised fieldwork at all sites and participated in all aspects of research design and analysis. James Inciardi, Ph.D., University of Delaware, and Duane McBride, Ph.D., Andrews University, led the process study and participated in all aspects of research design and analysis.

An advisory board was convened to oversee the design, data collection, analysis, and preparation of the final report. The advisory board included Matt Cassidy, EAC/TASC in New

York; Richard Dembo, Department of Criminal Justice at the University of South Florida; John Gregrich, Office of National Drug Control Policy; William Harris, North Carolina Alcohol and Drug Abuse Services; George Heckmann, DCCCA Center in Lawrence, Kansas; Jane Kennedy, Drug Free Systems in Seattle; Timothy J. Merlin, Comprehensive Substance Abuse Services of Western Pennsylvania; Al Schuman, American Probation and Parole Association; Dwayne Simpson, Institute of Behavioral Research at Texas Christian University; and Beth Weinman, Federal Bureau of Prisons. Serving as National TASC's liaison to the advisory board were Ken Robertson and Bob May.

NIDA project monitors were Ro Nemeth-Coslett, Arnold Mills, and Gary Palsgrove. Branch chiefs were Barry Brown, Richard Needle, and Frank Tims.

Site Selection

At the time the study was initiated, more than 125 TASC programs operated in 25 states. While all TASC programs are a bridge between treatment and criminal justice, they differ widely in terms of the local treatment and criminal justice climate in which they operate, the targeted clientele, and particular program activities. Given the diversity in TASC programs nationwide, a critical task in the early part of the evaluation was to determine both the criteria for selection and the actual process of selecting the sites.

In the selection of study sites, potential programs were assessed for the degree to which they met the Ten Critical Program Elements and Performance Standards (Bureau of Justice Assistance, 1992); see Appendix A. Programs had to include a fair number of high-risk offenders (e.g., injection drug users, crack users, prostitutes) in the client pool. We sought programs that were diverse on other dimensions as well, such as geography, time since program inception, gender, and ethnicity. A sufficient client flow was necessary to provide the required number of subjects during the planned fieldwork period. The program's ability to negotiate successfully with local officials to ensure their cooperation with evaluation activities was also a condition of study inclusion.

Basic demographic data on the population of the program areas were gleaned from the Bureau of the Census. Information on AIDS was obtained from the Centers for Disease Control surveillance reports. Sites that corresponded to Standard Metropolitan Statistical Areas

(SMSAs) reported data to Drug Abuse Warning Network (DAWN) or were part of the Drug Use Forecasting (DUF) Program, both of which provided contextual information on levels of drug use and some AIDS risk behaviors. Information on the TASC management environment was available from the Bureau of Justice Assistance and the National Consortium of TASC Programs. Other relevant information was obtained through a mail survey and telephone follow-ups.

We conducted a preliminary analysis of TASC programs for which profiles were available in the *TASC Resource Catalog* (BJA, 1989). The programs were first screened for a minimum number of clients likely to be served (at least 400 over the 18 months of intake projected for the evaluation) to ensure a sufficient number of subjects. Programs were then categorized into the five TASC regions (Northeast, Southeast, Midwest, Southwest, and West) and by offender type (juvenile or adult). We also determined which programs met the minimum requirements of the TASC Ten Critical Elements.

Two major limitations of this approach were that it included only the TASC programs for which profiles were available and that some of the data on which selection was based were not recent. However, since only 24 programs were large enough to meet our client-flow requirements it is likely that only a few of the programs without profiles, even over a period of 18 months, would have qualified in the initial screen.

From those programs that qualified as strong examples of the TASC model and that served large and varied types of clients, five were asked to participate in the outcome evaluation (two additional TASC programs, Miami and Pittsburgh, were selected to participate in the process study) and all agreed. Outcome evaluation sites included four adult programs, of which one served pretrial offenders and three served offenders on probation, and one juvenile program. A randomized design was practical in only two of the adult programs; comparison groups were constructed in the other two adult programs and in the juvenile program. Table 1.1 shows the programs selected and the type of design.

Table 1.1: Evaluation Sites

Outcome and process study sites	Point of intervention	Client population	Outcome evaluation design
Birmingham, Alabama	Probation	Adult	Quasi-experimental
Canton, Ohio	Probation	Adult	Experimental
Chicago, Illinois	Probation	Adult	Quasi-experimental
Orlando, Florida	Probation	Juvenile	Quasi-experimental
Portland, Oregon	Probation	Adult	Experimental
Additional process study sites			
Miami, Florida	Various	Adult	Not Applicable
Pittsburgh, Pennsylvania	Parole	Adult	Not Applicable

Process Study

The evaluation included a process study of seven programs. The purposes of this study were: (1) to provide historical documentation of what took place; (2) to provide thorough descriptions that can inform staff and other interested parties about whether a program met its stated goals; and (3) to assist in interpreting the results of the outcome evaluation and to help answer the question of "what worked?" (Grizzle & Witte, 1980). While the intent of the seven-site process study was to comprehensively address these areas, differences across sites in data availability and other information precluded a standardized approach. Findings of the process study appear in Chapter 3.

To meet the three purposes, we specified nine topics for investigation. These nine topics provided a reasonably standardized structure to govern the kind of information to be sought at each site. Thus, for each program, the process study included review and description of most or all of the following elements.

1. *Mission/objectives of the TASC program, including a description of changes from the initiation of the program to the present.* Our process study began with a documentation of how the program articulates its mission and how that mission has changed since inception and original implementation. Mission statements are a crucial part of understanding the

history, trends, and current direction of the program. In addition, these types of statements also provide parameters against which actual operations can be measured.

2.   *Organizational structure.* We focused on the administrative structure of the TASC programs and how the structure formally relates to the local criminal justice and treatment systems. The structure of a TASC program has major implications for its ability to meet its primary objectives of identifying drug-using offenders, referring them to appropriate treatment, and monitoring their progress.

3.   *The formal commitments and guarantees between TASC and the local criminal justice and treatment systems.* Assessing the effectiveness of the TASC program involves understanding the structural agreements and guarantees under which it operates in its liaison role between criminal justice and treatment. These agreements deal with client eligibility, requirements for reporting to the criminal justice system, and the relationship between treatment progress/completion and criminal justice outcome. They provide the basic operational parameters within which the TASC program proceeds on a daily basis.

4.   *The assessment, referral, and monitoring practices of the TASC program.* This aspect of the process study included documenting the formal and informal decision-making processes used in assessing the clients' drug treatment and other service needs and in selecting an appropriate program to meet those needs. We reviewed all instruments used for assessment, referral, and monitoring. When formal instruments did not exist, procedures that the program actually used were documented.

5.   *The level of support from the judiciary and other elements of the criminal justice system and from the local treatment system.* The effort involved documentation of the general criminal justice and treatment support milieu in which TASC operates. This activity described the degree of awareness these components have of TASC, the degree to which they see it as mutually beneficial to or exploitive of their interests, and how they see TASC fitting into their overall concerns.

6.   *Problems that the TASC program has encountered in screening and referring its clients, the sources of those problems, and how they were overcome.* One of the most significant challenges that any TASC program has to meet is the issue of assessment and referral. The question of when in the criminal justice process it is best to identify, assess, and

refer is crucial for developing an effective liaison with the justice system and the treatment system in order to produce favorable outcomes for the client. This element of the process study addressed problems that the TASC program has had in screening and referral and the steps taken (if any) to solve the problems.

7. *A historical and current budget analysis of the TASC program to disclose funding issues.* This analysis included trends in funding sources, stability of funding, and funding threats. Since its origins as a federal program under the auspices of the Law Enforcement Assistance Administration through its current multifaceted funding structure, TASC has faced the major challenge of securing a stable access to funds. It was very important to document the ways in which each program has obtained some stable level of funding.

8. *Perceptions of TASC program staff and local criminal justice and treatment systems personnel regarding TASC's success in assessment and referral.* This activity focused on agency personnel's evaluation of TASC as an effective liaison between the criminal justice system and the treatment system. How do those in the criminal justice system view the impact of TASC on general criminal justice processing and outcome, and how do those in the treatment system see TASC as a source of clients in need of services?

9. *An assessment of each study site within the framework of the Ten Critical Elements and Performance Standards.* The Ten Critical Elements are enumerated in Appendix A and further described in Chapter 3. Any variation from these elements was analyzed in terms of why it occurred and its impact on the functioning and effectiveness of the program. The development of the Ten Critical Elements was an important step in the professional evolution of TASC as a concept. For the first time, there was a significant move toward defining TASC as a conceptual term that had a particular meaning. The Ten Critical Elements were used in examining TASC programs selected for inclusion in this project.

This structured approach guided the conduct of the process study. However, full and comprehensive coverage of each of the nine topics was constrained by the availability of historical documents and limited time and other resources available from program staff. Although constrained in these respects, the process evaluation provides the most intensive review of the selected sites conducted to date.

Because a key part of this study involved the implementation of a prospective research

design as well as other complex research tools, the process study plan, in addition to studying the selected TASC sites, also included procedures for conducting a process study of the outcome evaluation itself. As documented in prior research by RAND, there are several conditions that are necessary for successful program evaluation (Petersilia, 1990). The process study documented, where possible, whether these conditions were met. In addition, it is difficult to implement randomized experiments (Petersilia, 1989), and the initial process stages of the evaluation discerned issues relating to implementation of the study design at each site that may have affected outcomes. Thus, the process study represents a significant contribution by providing contextual data to enrich the interpretation of research findings.

Outcome Evaluation

TASC outcomes were assessed in four domains: treatment services received, drug use, criminal recidivism, and HIV risk behavior. The research strategy, offender samples, and analytic methods of the outcome evaluation are described in detail in Chapter 4. Findings appear in Chapters 5 to 9. This section highlights key features of the outcome evaluation.

Program Types and Representativeness

No set of five programs could have been selected to represent all TASC programs in a statistical sense. Our purpose was, instead, to select programs comprising a satisfactory *purposive* sample, i.e., a sample deliberately chosen to provide a suitable range of programs and client populations.

As noted above, programs participating in the outcome evaluation had client populations (adult or juvenile). Juveniles may be more amenable to intervention than adult "hardened criminals." On the other hand, the prognosis may be poor for many juveniles whose drug use and crime are severe enough to warrant intensive intervention. In any event, because many TASC programs serve juvenile offenders, it was important to include at least one such program in the evaluation.

It is also important to note that program maturity varied in the outcome evaluation. Birmingham, Chicago, and Portland had been in operation for several years when asked to participate. The other two programs, Canton and Orlando, had existed for only about one year

before fieldwork began. Compared to programs with an established track record, newer programs may be operating at less than peak efficiency and may not have had enough time to create strong working relationships with other players in the local criminal justice system. On the other hand, the performance of new programs is sometimes enhanced by the energy of staff and a commitment to innovation.

Because findings at any site might depend partly on the client population, program maturity, or other factors, we believed it was important to look for patterns in the findings across sites. Such patterns can be read as evidence regarding the effectiveness of the TASC model overall--as implemented with different client populations, and by programs at different stages in their development.

Evaluation Design

Several aspects of the outcome evaluation design were constant across sites. Offenders at each site were asked to complete the same set of intake interview forms concerning their personal background, criminal and drug use history, treatment history, HIV risk behaviors, and other topics. Six months after their intake interviews, we attempted to relocate all offenders at each site and to complete a follow-up interview in which we updated our information about the same topics and obtained offender self-reports of the treatment services they had received in the interim. Interviewers were trained in the same way, and the same quality-control procedures were applied by evaluation staff, at each site.

One important aspect of the design varied across sites. At our two experimental sites, the alternative interventions were treatment programs which offered services (counseling, urine testing, etc.) appropriate for drug-involved offenders but which did not do so under the TASC offender-management model. Thus, if it was to emerge as more effective, the TASC model had to outperform an alternative intervention by delivering more service units, monitoring offenders more closely, or in some other way separating itself from the nonroutine alternative. This was a stringent criterion for success. On the other hand, because of the scientific rigor achieved with an experimental design, findings indicating a TASC program's success, even if modest, would constitute very persuasive evidence for the value of the TASC model. At our three quasi-experimental sites, the alternative intervention was routine probation. To emerge as more

effective, a TASC program had to outperform "business as usual" probation in the same community. Overall, we expected the intervention received by TASC offenders to be considerably more intensive than the intervention received by offenders on routine probation. Thus, quasi-experimental sites had a less stringent criterion for success but also had the advantage of comparing TASC to an intervention routinely available to most offenders in the same community.

In short, added to the variation in program types, described above, is the variation in evaluation designs employed across sites. Again, we expected that this evaluation would yield informative results if we looked for patterns in the findings across sites. These patterns can be read as evidence regarding the beneficial effect of adding the TASC model of offender management to the various types of intervention otherwise applied to offenders in the same community.

Offender Sample

A total of 2,014 offenders agreed to participate in the outcome evaluation and completed the intake interview, and 83% of them were relocated six months later and completed the follow-up interview. Analyses reported in Chapter 4 show that the sample of TASC offenders at each site was comparable to the overall population of criminal justice clients seen by TASC at the same time. However, despite random assignment of offenders at two of our sites and careful screening of comparison offenders at the other three sites, the TASC and control/comparison groups differed in some respects. Characteristics on which the groups differed at any site were included as covariates in outcome analyses.

Analytic Method

Analyses of drug use, crime, and HIV risk behavior were performed on an "intent to treat" basis. That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the amount or "dose" of treatment services actually received by offenders in either group. This method is conservative. TASC effects might have appeared stronger if we had excluded TASC cases who received no treatment services after referral by TASC and cases whose "dose" of treatment services was less than intended or

optimal. On the other hand, serious bias may be introduced when analyses are restricted to cases who self-select the type and quantity of treatment they receive. The direction of this bias is, moreover, unknown. Cases who self-select for treatment may be more motivated to improve; such cases might have a better prognosis for recovery. Alternatively, cases most likely to get treatment may be those who, in the view of others or themselves, need it most; such cases might have a worse prognosis for recovery.

Discussion

The results of the evaluation of the selected TASC programs need to be considered within the context of social and economic developments over the past two decades. When TASC began in the early 1970s, the primary illicit drug problem was heroin, the number and type of treatment programs were increasing, social services were relatively well funded, and AIDS had yet to emerge. In addition, throughout the 1970s, TASC programs had adequate funding from the Law Enforcement and Assistance Administration (LEAA) and policy and programmatic support from NIDA. These context issues are described in Chapter 3.

The 1980s brought a dramatic shift in the environment within which TASC operated. Federal funding for TASC disappeared with the elimination of LEAA in 1982; many TASC programs disappeared, although most were able to obtain local funding. Although TASC programs became eligible for criminal justice block grant funding under the Justice Assistance Act of 1984, funding levels were considerably lower than during the 1970s. Other developments also changed the ecology of TASC programs. Cocaine replaced heroin as the nation's primary illicit drug problem; the availability of social services declined as federal, state, and local budgets were pared back in the face of budget deficits and shifting policy priorities; AIDS placed increasing pressure on an already strained medical and social service system; in many areas, high unemployment rates and the disappearance of traditional blue-collar jobs made it difficult for TASC clients to find jobs. All of these developments make it difficult for TASC to bring about significant and enduring change in a large number of clients. But in this respect, TASC faced the same problems as all other intervention programs for offenders, and in a number of ways—its long experience, its well-conceived model, its linkages with the local service system—TASC was in a better position than many other programs to operate successfully within a eroding public service ecology.

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Chapter 2

Community-Based Treatment for Drug-Using Offenders

Opportunities for intervening with drug-abusing offenders in nonincarceration settings are available at each step in the criminal justice system, from pre-trial processing through parole. The intervention can range from such minimal service as random drug testing, through more intensive counseling in outpatient settings, to highly intensive residential programs. Ideally, provision is made to offer continuity of care to offenders from higher intensity programs to lower intensity programs in order to reinforce behavioral change. The agency responsible for coordinating treatment services for offenders can be pretrial services agencies, independent agencies such as TASC, probation or parole departments, or judges in the case of drug courts. The treatment itself is generally provided through contracts with community-based treatment organizations.

This chapter is intended to place the evaluation of TASC programs within the context of findings from evaluations of community-based treatment for offenders generally. The chapter begins with a description of the major modalities that are commonly available for treating drug use. It then summarizes findings from evaluations of drug treatment for drug users, regardless of criminal justice status and then, more specifically, of treatment programs for offenders. These include TASC itself, other types of diversion programs, and programs provided to probationers and parolees. The outcomes reported for the studies are generally measures of recidivism and drug use, although some studies do not include both types of outcomes.

Major Treatment Modalities

The major treatment modalities available to address the drug and other problems of substance-abusing offenders are therapeutic communities, outpatient drug free, and methadone maintenance. Although detoxification is sometimes considered a treatment modality, it is more properly regarded as a short-term intervention that helps alleviate withdrawal symptoms in preparation for entrance to one of the main longer-term modalities. Methadone maintenance and one form of detoxification using methadone are oriented exclusively toward the opiate-

dependent client. Therapeutic community programs, on the other hand, are more frequently applied to non-opiate users, even though the approach originally grew out of the experiences of opiate users seeking a drug-free community-based strategy for achieving long-term abstinence. Only the outpatient drug-free programs were developed without specific reference to opiate users (Brown, 1984). Recently, with the increase in cocaine use, clinicians and researchers have developed a number of different types of programs for treating cocaine dependence (Rawson et al., 1991). (A final treatment modality consists of privately funded chemical dependence programs, which are largely hospital based and treat both alcohol and drug dependence [Cook, 1988], but they are not further considered here since payment usually comes from health insurance plans, which offenders seldom have.)

Methadone Maintenance

Methadone maintenance involves the administration of the synthetic opiate methadone to a opiates-dependent individual at stable dosage levels as an oral substitute for heroin or other opiate drugs; once stabilized on methadone, the patient is encouraged to engage in habilitative or rehabilitative counseling and other activities (Dole & Nyswander, 1965). Because methadone is itself addictive, federal and state guidelines require that clients have a documented history of addiction, have previously received some other type of treatment, and have little expectation of being able to function normally without psychopharmacological support. Most programs are in outpatient settings and include explicit rules for behavior, mandatory counseling sessions, and routine urine testing. Treatment goals of specific methadone programs include reduction of or abstinence from use of illicit opiates and other illicit drugs, as well as rehabilitation or improvement in other aspects of social functioning so as to promote a return to productive community living. Of the three treatment modalities, methadone maintenance is the one to which offenders are least likely to be referred for treatment. Nonetheless, in combination with legal supervision, methadone maintenance has been shown to be an effective approach to treating heroin addiction (Anglin & Powers, 1991).

Therapeutic Communities

Therapeutic communities (TC) are drug-free residential facilities in which treatment involves social rehabilitation within a highly structured environment, focusing on development of interpersonal relationships. Examples include the early Synanon program and successors like Daytop Village, Phoenix House, and Gateway House (Biase, 1981; De Leon, 1985). The treatment approach of the TC is that drug dependence is a disorder of the whole person, that is, that the problem is the person, not the drug, and that addiction is a symptom, not the essence of the disorder. Drawing on a philosophy of mutual self-help, the TC process includes encounter group therapy, tutorial learning sessions, behavior modification, remedial and formal education classes, individual counseling, residential job duties, and, in later stages, conventional occupations for live-in/work-out clients (De Leon, 1990-91; Sells, 1974).

This treatment approach is highly demanding, with intense patient involvement in certain aspects of program administration and powerful group pressures to socialize the individual into accepting more adaptive attitudes and specific patterns of productive behavior. In their jobs, groups, meetings, and recreational activities, the residents continually transmit to each other the overt and covert messages and expectations of the community. While some therapeutic communities allow stays as short as 6 months, others believe that the optimal period in residence is at least 15 months. Success is defined as a change to a lifestyle that is abstinent from intoxicants, economically productive, and free from antisocial behavior.

Outpatient Drug-Free

Outpatient drug-free (ODF) treatment includes a wide variety of outpatient programs that do not rely on drug therapies such as methadone to treat drug dependence (Brown, 1984). When they were begun in the 1970s, such programs were designed mainly for youthful non-opiate users. Subsequently however, almost as many opiate addicts entered outpatient drug-free programs as entered methadone programs (Brown, 1984). The primary treatment approach in ODF programs employs outpatient services emphasizing counseling and training in social skills. Outpatient drug-free programs vary widely, ranging from stringent daytime therapeutic communities to relaxed programs of recreational activities. The planned duration is usually several weeks, and referral is made to community agencies for health, mental health,

educational, vocational, legal, housing, financial, family, and other required services. This treatment emphasizes abstinence from all intoxicants, concentrating attention on the specific circumstances that may foster illicit drug use. Many of these programs tend to be of low intensity, consisting of weekly attendance at individual and group counseling sessions and participation in a 12-step group. This is the modality to which most offenders are referred.

Treatment for Cocaine Dependence

With the growing problem of cocaine and crack dependence, clinicians have modified existing treatment programs to address the needs of the cocaine and crack dependence. Therapists have tended to adapt approaches designed for other forms of drug dependence, such as the therapeutic community for opiate addiction and the 28-day inpatient program for alcoholism. Also, because of the recent onset of the cocaine problem, there have been few studies of the short-term effects of these treatments and virtually no long-term follow-up studies. Therapeutic communities have oriented their treatment approach to the drug user, not the drug. They assert that abstinence from all intoxicants is the only acceptable treatment goal. According to De Leon, cocaine-related admissions to therapeutic communities increased from less than 10% in 1980 to about 40% by 1986 (De Leon, 1993).

Outpatient psychotherapeutic techniques vary widely in their approach to treating cocaine users. Some approaches evaluated in small scale studies appear to have been shown to have significant value in assisting recovery (Galanter, 1983; Kertzner, 1987; Millman, 1986; Rounsaville, Gawin, & Kleber, 1985). Although therapeutic gains in other vocational or social areas are considered desirable and important to long-term improvement, they are regarded as secondary to the primary goal of cessation of cocaine use. Some clinicians believe, however, that therapy needs to address issues other than abstinence and that dealing with these underlying issues is essential to good long-term outcome (Schiffer, 1988).

Other Interventions

In addition to direct treatment services, other types of intervention include case management, drug courts, and intensive supervision programs for probationers and parolees. Treatment is often, though not always, part of these intervention packages. Without the use of

complicated and usually impractical research designs (see Palmer, 1994), it is not possible to assess the effects of each component of an intervention package--case management versus drug testing versus counseling versus wrap-around services. Thus, while a study may conclude that intervention clients did better than other clients, it is not possible to say with any certainty which component, or combination of components, of an intervention made the difference.

A further difficulty in evaluating case management and other complex interventions is that outcomes depend on the quantity and quality of the services to which clients are referred.

Effects of Drug Treatment

Considerable evidence has accumulated indicating that drug use, criminal activity, and related behavioral problems are lessened while offenders are in community-based or incarceration-based treatment programs. Recently, evidence for a favorable effect of treatment on HIV risk behavior has also emerged. Research by Ball and his associates has shown that crime rates are significantly lower while offenders are in community-based drug treatment programs than while they are not in treatment (Ball et al., 1981, 1983). Correctional administrators and directors of treatment programs report that drug use and drug dealing (which are rampant in many prisons) decline with the introduction of drug treatment programs. In addition, it has been shown that random urine testing also reduces drug use among probationers, parolees, and prisoners (Carver, 1993; Vigdal & Stadler, 1989; Vito, Wilson, & Keil, 1990). Furthermore, there is some evidence to indicate that probation and parole violations decline with drug monitoring and that infractions of prison rules, as well as violence and threats of violence, are lower among inmates in treatment programs. Thus, a major benefit of drug interventions in the criminal justice system is that they alleviate pressures on the system (e.g., reduce prison overcrowding, enhance security in institutions).

Drug treatment may have a favorable impact on HIV risk behavior associated with drug injection and unprotected sexual intercourse. We have already noted the favorable effect of treatment on drug use, but even among users continue to inject drugs while in treatment, the frequency of injection is lower, and needle sharing is less common, than among users not in treatment (Ball et al., 1988; Flynn et al., 1988, Greenfield et al., 1995; Longshore et al., 1993; Neaigus et al., 1990) The effect of treatment on drug use may also facilitate sexual risk

reduction. A person may have sex with fewer partners if she or he is no longer trying to finance a drug habit through sex work, and the frequency of engaging in sex while high may decline after someone stops or reduces drug use. Treatment clients have reported few sex partners and more condom use than drug users not in treatment (Deren et al., 1995; Flynn et al., Longshore et al., 1994; Martin et al., 1995; Watkins et al., 1992). Shoptaw et al.(1995) found safer sex to be more common among cocaine uses who completed treatment than among those who dropped out.

The main drug treatment modalities have been the subject of a few major longitudinal studies. The two most widely cited multimodality longitudinal studies are the Drug Abuse Reporting Program (DARP) (Simpson & Friend, 1988) and the Treatment Outcome Prospective Study (TOPS) (Hubbard et al., 1989). One of the foremost longitudinal studies of therapeutic communities is the evaluation research of Phoenix House (De Leon, 1984). In addition to these longitudinal studies, there have been numerous evaluations of specific treatment programs. The focus of these studies is on outcomes after treatment, including criminal activity, drug use, and other activities such as school and employment.

One of the most basic findings of the DARP and TOPS research is that methadone maintenance, outpatient drug-free, and residential modalities have favorable effects on drug use and crime (Hubbard et al., 1989; Simpson & Friend, 1988). These modalities are all significantly more effective than no-treatment or detoxification alone. A common finding is that criminal justice referrals stay in treatment longer than clients with no legal involvement. Furthermore, monitoring by criminal justice agencies and the threat of legal consequences for offenders (i.e., revocation and reincarceration) deter relapse to drug use and recidivism during treatment (Stitzer & McCaul, 1987).

One of the key findings with respect to residential programs is that time in treatment is positively related to treatment outcomes. In the TOPS study, it was found that clients who spent over six months in treatment had significantly lower recidivism rates than clients who dropped out earlier (Hubbard et al., 1989). Similarly, research on Phoenix House clients demonstrates that program graduates improve significantly during follow-up (in terms of drug use, criminality, employment, and several measures of psychological adjustment) as compared to dropouts (De Leon, 1984). Studies by De Leon (1988) found that clients who are referred

to TCs by the criminal justice system tend to remain longer in treatment than clients who enter treatment on a voluntary basis.

In a review of studies of the major treatment modalities, Nurco, Hanlon, and Kinlock (1991) concluded that such studies tended to support a number of consistent and important findings: (1) Length of time in any type of drug treatment is positively related to positive treatment outcome. (2) Illicit drug use and criminal behavior decrease during treatment. (3) Drug users with a long history of criminal behavior tend to have poor treatment outcomes. (4) Drug users with severe psychopathology tend to have poor treatment outcomes. (5) Drug users who have greater ties to conventional society tend to have better treatment outcomes.

Finally, it should be noted that the chronic nature of substance addiction or dependence suggests that while treatment can produce significant reductions in drug use and criminal behavior, it is not realistic to expect all offenders who participate in treatment to become completely abstinence or crime free over the short term (Inciardi et al., 1996). The success of programs should not be judged in terms of all-or-nothing criteria (use/no use, re-arrest/no re-arrest, employed/not employed). Instead, success or effectiveness should be measured in terms of relative reductions in drug use and criminal behaviors and relative improvements in socially productive behaviors and attitudes. There is no "cure" for addiction that frees an individual from the compulsive, problematic use of alcohol or other drugs after a single episode of treatment. Many clients cycle through periodic episodes of dependence, treatment, and relapse. Even when they have stopped using drugs, the desire to use remains strong, and relapse can be triggered by a variety of both pleasant and adverse life events (Tims & Leukefeld, 1986). Swartz (1993) has suggested a number of outcomes, beyond relapse or recidivism rates alone, that would more adequately reflect the effects of community programs on treatment participants when measured in relative rather than absolute terms: treatment retention, the intensity or rate of criminal behavior, the intensity or rate of drug use, the length of time before re-arrest, employability, and HIV risk behaviors. Such outcomes provide measures of effectiveness that are both more realistic and more comprehensive than those that assume offenders will completely cease their drug use and criminal activities.

TASC

Although over 40 evaluation of local TASC programs were conducted between 1972 and 1982 (Cook, 1992), most of them as a requirement of federal funding, nearly all of them were apparently process evaluations, which did not include any post-treatment follow-up. As summarized by Inciardi and McBride (1992), the process evaluations of TASC, though limited, indicated that TASC was successful in "(1) identifying populations of drug-involved offenders in great need of treatment; (2) assessing the nature and extent of their drug use patterns and specific treatment needs; (3) effectively referring drug-involved offenders to appropriate treatment; (4) serving as a linkage between the criminal justice and treatment systems; and (5) providing constructive client identification and monitoring services for the courts, probation, and other segments of the criminal justice system" (p. 52); see also Chapter 3. In evaluations of 22 local TASC programs conducted in the mid-1970s, only 8% of defendants were rearrested for a new offense while in TASC (System Sciences Inc., 1978; Lazar Institute, 1976, both cited in Weinman, 1992). The findings were based on in-treatment data collected from program and other records and did not consider outcomes following discharge (Collins et al., 1982).

Two evaluations of TASC in the late 1980s--one by the National Consortium of TASC Programs (Tyon, 1988), the other by the National Association of State Alcohol and Drug Abuse Directors (1989)--provided further evidence that TASC programs are able to meet their operational goal of serving as a bridge between the criminal justice system and the drug treatment community.

The Tyon study found that in the mid-1980s TASC programs were primarily serving polydrug-using, male felony offenders with extensive arrest histories; 80% of the clients referred to a TASC program were on probation or parole rather than in pretrial status. Most clients screened and referred to TASC has no prior involvement with either alcohol or drug treatment programs. The study found that many TASC programs had developed close relationships with local pretrial, probation, and parole agencies both to identify eligible offenders and refer them to treatment services and to provide monitoring and supervision services. The purpose of the NASADAD study was to determine the usefulness of the TASC Ten Critical Elements (see Appendix A) as an assessment tool for program operation and as a

means for assessing and providing needs for technical assistance. The study found that the Critical Elements model was useful in addressing both of these issues.

With specific reference to TASC outcomes, the early evaluations of TASC programs tended to focus on process issues and did not assess client post-treatment reductions in drug use and criminality and improvements in employment and other productive behaviors (Inciardi et al., 1996). They did not have quasi-experimental or experimental designs using random assignment. In addition, the earlier assessments of TASC were conducted before the beginning of the AIDS epidemic, and thus the effects of TASC on risk behaviors associated with HIV/AIDS (e.g., needle sharing rates, unprotected sex, and engaging in sex while high) have not been well studied. They were also conducted when most drug-involved offenders used heroin, not cocaine, as is the case today. The current evaluation of TASC programs has attempted to overcome these limitations of earlier studies in its use of experimental and quasi-experimental designs, its attention to a variety of post-treatment outcomes, and its examination of the effects of TASC on HIV-related behaviors.

Analyses of data from the Treatment Outcome Prospective Study (TOPS), which was conducted between 1979 and 1981, examined retention and during-treatment outcomes among TASC and non-TASC clients (Collins & Allison, 1983; Hubbard, Collins, Rachal, & Cavanaugh, 1988). TASC clients remained in outpatient drug-free treatment 41 days longer and in residential treatment 52 days longer than those clients not referred by a TASC program. In addition, TASC clients improved at least as much as non-TASC clients with respect to drug use, criminal behavior, depressive symptoms, and full-time employment during treatment. For instance, for TASC-referred clients in outpatient treatment programs, weekly or daily use of the primary problem drug declined by 81% from the year before treatment to the first 3 to 6 months of treatment (from 65.1% to 12.5%); for other criminal justice clients, the decline was 74% (from 54.8% to 14.3%). Predatory illegal acts declined by 96% (from 63.2% to 2.3%) for the TASC group and by 71% for the non-TASC group (from 40.0% to 11.5%).

Recently, a number of evaluations of TASC programs have been competed, although the reports of the results remain unpublished. The Education and Assistance Corporation's Brooklyn TASC predicate felon program provides screens, assesses, and refers to treatment defendants who have had at least one felony conviction within the previous ten years and are

currently being prosecuted on another felony charge (Education and Assistance Corporation, 1995). Of the 173 predicate felons placed in treatment in 1992, 71% remained in treatment for at least 24 months. Only 9% of program graduates had been rearrested up to 29 months after completing the program. This rearrest rate for TASC defendants compared favorably with rates from another New York State program for drug-abusing offenders (25%) and from the general inmate population in New York State correctional facilities (28%).

In Texas, the Treatment Alternatives to Incarceration Program (TAIP), which was modeled after TASC, coordinates substance abuse treatment for offenders between the criminal justice system and treatment providers. An outcome evaluation conducted by the Criminal Justice Policy Council (1995) compared recidivism rates of two groups: (1) TAIP clients who entered outpatient treatment and remained at least three months, and (2) TAIP referrals who either failed to enter treatment or who were in treatment for less than three months. Over 18-month assessment period, 7% of the offenders who received three or more months of treatment were incarcerated, compared with 28% of offenders who did not enter treatment or who had less than three months of treatment.

Other Diversion Programs: Drug Courts

Various TASC-like programs have been established in a number of jurisdictions; one of these is the Treatment Alternatives Program (TAP) in Wisconsin. The main difference between TAP and most TASC programs is that TAP provides treatment for alcohol or other drug abuse, in addition to case management and drug testing. Van Stelle, Mauser, and Moberg (1994) reported on recidivism among TAP clients over an 18-month period, comparing completers with non-completers. (Recidivism included arrests for operating a vehicle while intoxicated and operating a vehicle after license revocation, in addition to the typical criminal charges.) Those who completed TAP were significantly less likely to be rearrested than those who did not complete TAP (43% vs. 74%); the figures for reconviction rates were similar to the rearrest rates (42% vs. 70%). Time to rearrest was also longer for completers than for noncompleters.

The most popular diversion programs that have emerged in recent years are drug courts, in which judges rather than probation or parole departments have the central role.

Beginning with the Dade County (Miami) drug court, set up in 1989, over 30 other jurisdictions have established a drug court to provide treatment to offenders, and up to 100 additional jurisdictions are in various stages of implementing a local drug court. Drug courts originated as programs that diverted drug-abusing offenders with a nonviolent criminal charge to treatment before they entered a plea; offenders who successfully completed treatment would have the charges dropped. As drug courts have developed around the country, various other models have developed, including programs in which the defendant enters a guilty plea, which is dismissed upon completion of treatment, and others in which treatment becomes a condition of probation following conviction. Funding for drug courts in the amount of $29 million a year was included in the 1994 federal Crime Bill, although the amount that will be appropriated by the current Congress remains in doubt. Whatever the outcome of budget decisions at the federal level, drug courts have become an established treatment intervention option in many communities (Cooper, 1995; Inciardi et al., 1996; Prendergast & Maugh, 1995).

To date, independent published evaluations of the effectiveness of drug courts are few, although the outcomes of some evaluations are promising. Reports from the drug courts have reported that the programs reduce the amount of time spent by defendants in jail and sharply reduce recidivism. They also appear to have reduced criminal justice manpower needs and saved money for the jurisdictions in which they operate. For instance, in the Oakland drug court, which began operation in 1991, over a two-year period clients in the "speedy diversion" program had 46% fewer arrests than a comparison group of clients in the traditional diversion program (Tauber, 1993). The Dade County drug court reported that 11% of those who graduated from the program were rearrested in the year after graduation, compared a typical rearrest rate of 60% (Finn & Newlyn, 1993). According to a recent report from the Drug Court Resource Center (Cooper, 1995), reported reductions in recidivism (rearrest) rates were 33% over an 18-month period in Miami, 38% over a 48-month period in Oakland, and 72% over a 12-month period in Portland. The District of Columbia drug court is being evaluated in a random assignment design; preliminary results for drug use indicate that participants who completed six months of treatment in one of the program's two treatment models (graduated sanctions and enhanced treatment) had 85%-90% drug negative urine tests, whereas only 67%

of those who were in the control condition (which involved periodic status hearings but no treatment) had negative tests at the end of six months (Cooper, 1995).

Probation

A number of evaluations of various types of intensive supervision or treatment for drug-abusing offenders under community supervision have been carried out. RAND evaluated 14 intensive probation programs based on an experimental design with random assignment to regular probation as the control group (Petersilia & Turner, 1990a, 1990b). The results suggest that when compared to routine probationers, ISP participants, with few exceptions, had similar rates of technical violations and arrests. Importantly, the data from three California programs suggested that the degree of participation in rehabilitative programs, including drug treatment, was negatively correlated with criminal justice recidivism. Greater participation in counseling (primarily for drug problems), employment, restitution, and community service was associated with lower levels of recidivism (both technical violations and new arrests).

The same group of RAND researchers also conducted a randomized study of clients in seven intensive supervision programs (ISP) that specifically targeted serious drug offenders, on probation or parole, who were at high risk of recidivating (Petersilia, Turner, & Deschenes, 1992). The components of the ISPs varied, but they included a greater emphasis than did routine probation or parole on surveillance, drug testing, and treatment. Various measures of recidivism (based on official records) during the 12-month follow-up were the primary dependent variables of the study. The results showed that ISP involved significantly more face-to-face contacts, telephone and collateral contacts, law enforcement checks, and drug tests than did the routine probation programs. Few significant differences, however, were found between the ISP and control groups in recidivism measures. Since recidivism was measured only by official records, it may be that while the criminal behavior of ISP offenders was lower than that of the controls, they had a higher likelihood of being detected because of the more intensive monitoring provided by ISP. Also, although the ISP programs did involve referral to drug treatment, most of the programs utilized were outpatient programs that provided only a couple of hours a week on average, mainly for group counseling. Residential treatment,

which is often necessary for offenders with severe drug problems, was seldom available. Thus, the study was more an evaluation of the impact of increased supervision than of drug treatment. In a supplementary analysis of data from ISP programs in California and Texas, the RAND researchers found that those offenders who participated in rehabilitation-oriented activities (counseling, employment, community service, and/or restitution) had reductions in recidivism on the order of 10%-20% compared with offenders who did not participate in these activities (Petersilia & Turner, 1993).

The Intensive Drug Program (IDP) in Clackamas County, Oregon, combines electronic monitoring with treatment services, self-help group meetings, and drug and alcohol testing for adult offenders with substance abuse problems. In an evaluation of the program (Jolin & Stipak, 1992) using official records, rearrest rates of the IDP clients were compared with clients from two other community corrections programs: an electronic monitoring program and a residential work release program, neither of which included drug treatment. When all study clients in each of the programs were considered, the IDP clients had higher rearrest rates and higher average number of rearrests than the other two groups, but the difference disappeared when analysis focused only on clients who completed each program. For instance, 47% of all clients in the IDP were rearrested, compared with 32% of the electronic monitoring group and 33% of the work release group; for program completers, the percentages were 32%, 30%, and 30%, respectively. Drug use could only be determined for the IDP clients. The percentage of IDP using drugs dropped from 95% at program entry to 32% at termination; the percentage using alcohol dropped from 46% to 20% (the definition of "use" was not specified).

The DIRECT program operated by the Adult Probation Department in Pima County, Arizona, provides intensive probation, drug education and treatment, drug testing, and services needed by drug users diverted from prison to probation (Levy & Meyer, 1990). As probationers show improved behavior, the level of supervision is lessened. A comparison of urinalysis results of probationers enrolled in the DIRECT program with those of probationers on regular caseloads over a six-month period showed lower drug positive rates for the former group (5.6% versus 9.2%).

Parole

A few studies of the effectiveness of parole programs for drug-abusing offenders are available. The California Civil Addict Program (CAP), established by the California legislature in 1961, consisted of an inpatient phase followed by a supervised community aftercare phase lasting up to 7 years. Participants could be returned for further inpatient stays if there was evidence of relapse (as determined by positive urine tests) or other behaviors that violated the conditions of supervision; they could also receive early release from supervision for avoidance of drug use and criminal activity. CAP included a variety of leverage points for influencing behavior: short dry-out periods under custody, quick return to the community, urine testing, and sanctions for violations. An evaluation of CAP conducted in 1974-75 (McGlothlin, Anglin, & Wilson, 1977) found that CAP produced significant reductions in drug use and related criminal behavior among the studied sample. Over the seven years of their commitment, addicts who participated in CAP reduced their narcotics use by 22%, compared with only 7% for a matched group of nonparticipants. The CAP group also reduced its criminal behavior by 19%, while the comparison group showed only a 7% reduction.

In Kentucky, a private treatment program (Kentucky Substance Abuse Program) provides drug treatment services to substance-abusing probationers and parolees as a supplement to regular correctional supervision (Vito, 1989). Treatment consists of counseling, drug testing, educational services, and job placement. In the first year of KSAP's operation, the clients who were referred by probation and parole officers had more severe substance abuse problems and a higher risk of recidivating than other clients on probation or parole. At a six-month follow-up, none of the KSAP graduates had been convicted of a new felony. A subsequent comparison of graduates and dropouts from the program over a 6 to 20 month period found that the graduates were significantly less likely to return to prison than the dropouts; 9.7% of the graduates were reincarcerated, compared with 36.% of the dropouts. It should be noted that those who graduated from the programs were those who, at entrance, had the most severe drug problems and the highest risk of recidivism.

The Drug Aftercare (DAC) program developed in the Northern District of California provides a variety of interventions and services for federal probationers and parolees, including treatment planning, random and scheduled drug tests, 12-step meetings, and

counseling (Chavaria, 1992). Indication of improvement resulted in less frequent drug tests, while negative drug tests or three missed appointments resulted in increased sanctions, including notification of the court and the Parole Commission. The effectiveness of DAC in reducing drug use among DAC clients was evaluated by comparing drug test results from 1984, when the program was first implemented, with those from 1990. In 1984, between 18% and 21% of the scheduled drug tests were positive; by 1990, the percentage of random tests was only 6.6%.

In Baltimore, a social support services program for newly released male and female parolees with substance abuse problems includes counseling, client advocacy, case management, and weekly urine monitoring within the context of a multiple systems approach to rehabilitating drug abusers (Nurco, Hanlon, Bateman, & Kinlock, 1995). The goal of the program is to reduce relapse and recidivism. In an evaluation of the program, the treatment group was compared to two comparison groups: the first comparison group received weekly urine monitoring but no social support services, the second received the infrequent, random urine testing of routine parole supervision. Preliminary results of 188 subjects who were followed for at least 6 months examined "negative changes" in parole status, meaning parole violation, arrest warrant, arrest, parole revocation, and/or reincarceration. Although the social support intervention did result in a 15% greater reduction in negative change in parole status than did routine parole supervision, treatment group assignment was not a significant predictor of outcome in a multiple regression analysis. The results of the analysis indicated younger age and greater number of times incarcerated were significantly associated with negative change in parole status.

Conclusion

Regarding the studies summarized above, it is difficult to compare results across studies because of differences in populations, definitions of outcome measures, follow-up lengths, and analysis techniques. Conclusions about the magnitude of effect of community-based treatment for offenders on various outcomes require standardizing effect sizes using meta-analytic techniques. Although a number of meta-analysis studies have examined various types of criminal justice interventions for adults and juveniles (e.g., Andrews et al., 1990;

Garrett, 1985; Whitehead & Lab, 1989), none has included interventions for substance abuse. This lack will soon be remedied when the results of a meta-analysis of correctional treatment (including substance abuse treatment), being conducted by Douglas Lipton at National Demonstration and Research Institutes, Inc., begin to appear. With due acknowledgment of the absence of drug treatment studies from meta-analyses of criminal justice interventions, it can be noted that the various meta-analyses that have been conducted have found that, averaging across all studies, recidivism rates of treatment groups are 10-12% lower than those of comparison groups. Looking only at studies in which the treatment group had lower rates than the comparison group, the recidivism rates of treatment groups average 17-22% lower than those of comparison groups (see Palmer, 1994).

Although evaluations of community-based treatment programs for drug-abusing offenders have shown that such programs can effect significant reductions in drug use and criminal behavior, as even the brief summaries of program evaluations discussed above suggest, the findings need to be interpreted cautiously because of weaknesses in study designs. This observation was confirmed in a critical review of 24 four published and unpublished studies of treatment programs for substance-abusing offenders by Falkin and Natarajan (1993). They concluded that it was difficult to draw strong conclusions about the effectiveness of these programs because of methodological and programmatic limitations of the studies. Many evaluations do not use experimental designs with random assignment, often have too few subjects to be able to detect small effect sizes, may rely on self-report data only, and tend to have short follow-up periods. As for programmatic limitations, one of the main reasons for the limited effectiveness of some programs may stem from the fact that offenders with long-term drug problems are not provided with treatment of sufficient strength or intensity to result in significant change in behavior. Finally, the findings of criminal justice interventions for offenders need to be interpreted in the light of the nature of drug dependence, which makes relative improvements in drug use, crime, and other behaviors more realistic criteria for effectiveness than all-or-nothing outcomes. Despite these limitations in the research on community-based treatment for offenders, results from studies conducted with a variety of types of drug-using offenders, in varied criminal settings, and in different treatment and

service modalities suggest that treatment services, where adequately implemented, can be effective in reducing drug use and associated crime.

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Chapter 3

Context and Processes of TASC Programs

TASC is possibly the best example of federal efforts to establish and promote formal coordination between criminal justice and drug treatment within local jurisdictions. Under TASC auspices, drug-using offenders who might progressively become more involved with the criminal justice system are offered the opportunity to enter community-based treatment. TASC identifies, assesses, and refers drug-using offenders to appropriate community treatment services as an alternative or supplement to existing criminal justice system sanctions and procedures. After referring the offender to treatment, TASC monitors his or her progress and compliance, especially drug use (through urine testing). Dropping out of treatment or other noncompliance is treated by the courts as a violation of the conditions of release (Inciardi & McBride, 1991; Weinman, 1990). In some locales, the agency providing TASC services is also the provider of treatment services, but the two types of services are functionally distinct.

Because TASC is a collaboration between criminal justice and drug treatment, it is important to look at some of the specific events that led to the program's development, acceptance, and subsequent modification. This chapter begins with a brief background of treatment for drug-using offenders, the sociopolitical influences that affected the evolution of national policy on treatment for drug-using offenders, and the basic theoretical underpinnings that guided the establishment of TASC and continue to influence its functioning. The second section of the chapter examines current TASC structure and operations in relation to target populations, points of intervention, and services offered. We conclude with a discussion of the future of TASC in light of the challenges it must deal with in the social structure, in the way it is organized, and in the face of drug courts, which are emerging as an alternative model for intervention with drug-using offenders. Embedded in each section are findings from our process study at seven TASC programs. Procedures of the process study are described in Appendix B.

Historical Background of the TASC Program

A Historical Note on the Development of National Policy on Drug-Using Offenders

National policy on drug use and the involvement of the criminal justice system in the

provision of drug abuse treatment has varied dramatically over the decades. For most of the history of the United States, the involvement of the criminal justice system in the provision of drug treatment was nonexistent. During the nineteenth century a wide variety of drugs were mixed with alcohol or other solvents and sold as magical elixirs in what came to be called the patent medicine industry (Inciardi, 1992). There were basically no legal restrictions on the distribution and use of opium, cocaine, barbiturates, or other drugs. As David Musto (1973) noted, "Opiates and cocaine became popular--if unrecognized--items in the everyday life of Americans" (p. 3).

This *laissez faire* national policy changed as the result of early 20th-century social reform movements, which identified the safety and health risks of the substances often included in the patent medicines and which perceived the use of alcohol, opiates, and other drugs as destructive to the social fabric (Young, 1967). One of the first manifestations of the reform movement was the passage of the Pure Food and Drug Act in 1906 (P.L. 59-384, 34 Statute 768). This Act required the listing of the ingredients in readily available over-the-counter drugs. As a grass roots response to the national reform movement, many states began severely limiting the distribution of drugs. The culmination of the social reform directed at opiate use was the passage of the Harrison Narcotics Act in 1914 (P.L. 63-223, 38 Statute 768). While this Act ostensibly was a tax act, it effectively made the manufacture, distribution, and use of these drugs a criminal offense.

One of the results of the enforcement of the Harrison Act was the arrest and incarceration of drug users (King, 1974). As a way of managing this phenomenon, the federal government combined incarceration and coerced treatment. Although government involvement in the incarceration of drug addicts and coerced treatment was frequently challenged, the Supreme Court tended to support government policy. In 1921, the Supreme Court ruled in *Whipple v. Martinson* that within the framework of governmental responsibility for the public health and welfare, states have a legitimate interest in regulating and forbidding the use of dangerous habit-forming drugs. The *United States v. Behrman* decision by the Supreme Court handed down in 1922 indicated that the federal government's arrest and incarceration and sometimes forced treatment of drug addicts are acceptable and that it is constitutional for the federal government to forbid physicians to prescribe certain drugs. In addition to favorable Supreme Court decisions,

government policy during the 1920s was supported by vocal anti-narcotic media that constantly focused on the horrific, violent, civilization-destroying results of marijuana and opiate use (Anslinger & Tompkins, 1953; Hobson, 1928; *New York Times*, July 6, 1927).

Very shortly after the passage of the Harrison Act and its subsequent enforcement, federal and state prisons often found themselves having to provide treatment services to drug addicts. The medical literature of the time contains clinical articles describing the problem and providing prison physicians with the latest information on the provision of medical treatment for primarily opiate addiction (see Nellans & Massee, 1928). In reaction to the relatively large numbers of addicts who were being arrested and incarcerated in prisons throughout the United States, Congress enacted in 1929 a law authorizing the establishment of what came to be called narcotics farms/hospitals. It was thought that the concentration of drug addicts in specialized facilities would help unclog the courts and prisons and would better provide for the unique medical care needed by addicts. Two facilities were established: one in Lexington, Kentucky, in 1935 and the other in Fort Worth, Texas, in 1938. These institutions provided clinical treatment for voluntary admissions and federal prisoners. While it appears that most of those treated at these two institutions were classified as volunteer patients, many of these individuals were under considerable legal pressure to self-admit to the treatment programs (O'Donnell, 1969). These two facilities exemplified the national policy of using federal law and judicial sentencing to require drug-using offenders to receive treatment at a federal program (for a history of these facilities, see Maddux, 1978).

The Beginning of Civil Commitment and Criminal Justice Diversion for Drug Users

Civil Commitment

Federal interest in the two national narcotics hospitals began to wane by the 1960s. There was considerable discouragement about the apparent effectiveness of the drug treatment provided at them and the expense of maintaining large, central, secure hospitals with all of their attendant clinical, auxiliary, and research costs. The next development in national policy on drug treatment for offenders focused on a more regionally distributed process of civil commitment and criminal justice diversion. The new direction emerged from a combination of events, including the drug epidemic of the late 1960s, a key Supreme Court decision in 1962, the application of

social theory in dealing with drug users, and the specific drug policies of the Kennedy and Johnson administrations.

Robinson v. California, decided by the U.S. Supreme Court in 1962, concluded that it is unconstitutional for the state to use criminal law to punish drug addicts for the mere status of being addicts. However, the high court also held that state civil law and consequent judicial decisions could require compulsory drug treatment with unspecified periods of confinement and use penal sanctions to enforce compulsory treatment. This ruling appeared to reinvigorate national and state level policy discussions about the role of civil commitment and the role of treatment as an alternative to incarceration for drug-using offenders. California established its civil commitment program in 1961. New York and Massachusetts established civil commitment programs within the next two years (Gostin, 1991). Under President Kennedy, the federal government also advocated civil commitment for drug addicts as an alternative to criminal prosecution (President's Advisory Commission on Narcotic and Drug Abuse, 1963). The culmination of this federal initiative was the passage of the Narcotic Addict Rehabilitation Act (NARA) (Public Law 89-793) in 1966. There were four Titles to this act that broadened and systematized national policy on coercive treatment (for an overview of compulsory treatment under the NARA Act, see Maddux, 1988).

Criminal Justice Diversion

Just after the passage of the NARA Act, President Lyndon Johnson organized a President's Commission on Law Enforcement and Administration of Justice (see *The Challenge of Crime in a Free Society*, 1968). The commission criticized the traditional system of legal punishments in the United States. The report concluded that prison served primarily as a socialization process that ultimately encouraged young offenders to become repeat offenders and generally resulted, because of labeling, in blocking opportunities for legitimate social roles (President's Commission, 1968, pp. 191-194, 392-394). The report recommended that if crime were to be reduced in American society, it was necessary to develop methods of handling offenders that were less expensive and more effective than prison. The commission concluded that particularly for younger, nonviolent, drug-using offenders, community-based treatment and corrections were preferable to incarceration and formal labeling and would better meet the goals

of protecting the community, dealing with the problems of offenders and the communities they came from, and would do so at a lesser cost (President's Commission, 1968, pp. 397-422, 488-523).

For years, researchers and clinicians had recognized that there was a statistical overlap between drug use and crime (McBride & McCoy, 1993) and that one of the main reasons that drug addicts committed crimes was to obtain money to purchase drugs (Stephens & McBride, 1976). Criminologists were also reminding society that the basis of the application of criminal law was that there was an intention to commit a criminal act (McHugh, 1970). The requirement of intentionality, combined with the fact that addicts often committed crimes to support their addiction, was used to argue that criminal law was particularly inapplicable to drug addicts. It was argued that the only way to reduce the criminality of drug users was to provide treatment, not prison.

Several factors affected the development of the diversion approach. The first concerned treatment. During the heroin epidemic of the late 1960s and early 1970s, both civil and criminal justice treatment for drug abuse evolved haphazardly and fell far short of satisfying the need and demand for treatment. In some communities, there was involvement of the health and medical professions, mainly in the form of free clinics, such as the Haight-Ashbury Free Clinic in San Francisco. In addition, as an outgrowth of the counterculture movements, a number of self-help groups composed of current and former addicts were established on the model of the Synanon program. Also, during the late 1960s, pharmacotherapy, chiefly the synthetic opiate methadone, came into use for purposes of detoxification or maintenance of heroin addicts. Despite the appearance of such programs, drug treatment, both in the community and in criminal justice settings, generally lacked comprehensive and integrated services. Furthermore, in-custody treatment proved to be very costly and inadequate to deal with the large number of drug users who were being processed through the criminal justice system.

Second, the late 1960s and early 1970s was a period during which the public became concerned over the association between drugs and crime (Epstein, 1977; Goldberg, 1980). Responding to the heroin epidemic of the late 1960s, a rise in deaths due to overdose, increasing crime rates, and reports of drug use and addiction among soldiers in Vietnam and veterans at home, the Nixon Administration instituted a massive program to restrict the supply of drugs available on

the streets, to provide swifter, surer, and stricter law enforcement, and to fund community-based treatment for heroin addicts. In 1972, under an Executive Order, President Nixon established the Special Action Office for Drug Abuse Prevention (SAODAP), which was charged with the responsibility of mobilizing efforts in rehabilitation, prevention, and research, and coordinating all drug treatment activities, both from the civil and criminal justice systems.

SAODAP staff recognized the need to improve treatment availability and referral for drug users who had come to the attention of the criminal justice system (CJS). The problem stemmed from a number of factors, including a dearth of treatment slots available in the community, suspicion and antagonism between drug treatment and criminal justice personnel, lack of information within the CJS about the types and availability of drug treatment, and unclear criteria for referral on the part of law enforcement, judicial, and prosecutorial decision makers.

It was within this context that programs to divert drug-using offenders from the criminal justice system into treatment emerged. Diversion programs focused on a presumed need for social or mental health services that dealt with the underlying causes of crime. It was expected that diversion programs, by treating the underlying causes of criminal behavior in a manner generally more efficient than prison, would be a cost-effective means of meeting human needs and reducing crime as well as reducing the work load of the court system (McBride & Dalton, 1977; McBride, 1978). In 1975, the American Bar Association reported that there were over 120 diversion programs operating in the United States (American Bar Association, 1975).

The Origins of the Treatment Alternatives to Street Crime Program

SAODAP took the lead in trying to promote understanding, cooperation, and collaboration between criminal justice and drug treatment, and through direct federal funding expanded the number of community treatment programs tenfold between 1971 and 1973 (Strategy Council on Drug Abuse, 1973). In 1971, SAODAP planners developed a major national diversion program to identify, assess, and refer drug-using arrestees to local community treatment programs in lieu of prosecution. The Law Enforcement and Assistance Administration (LEAA) was charged with implementing the program, known as Treatment Alternatives to Street Crime (TASC), although SAODAP retained control of policy. In August 1972, a TASC pilot project became operational in Wilmington, Delaware. LEAA funded three other programs in 1972, with an additional eight being

established in 1973 with funding from the National Institute of Mental Health. Further expansion in the number of programs and favorable results in terms of reduced recidivism for TASC clients led the White House Strategy Council on Drug Abuse (1976) to recommend in 1976 that TASC be expanded as rapidly as possible, that no programs be allowed to lapse, and that TASC-like programs be established for federal probationers.[1]

NIDA, SAODAP's successor agency, and LEAA negotiated an interagency agreement whereby 10 percent of all new federal treatment funding would be specifically reserved for criminal justice system referrals. Although the agreement applied nationwide, both agencies used this requirement (when needed) to pressure reluctant local treatment agencies to make slots available for TASC clients. Subsequently, in 1976, NIDA funded an additional 7,000 community-based drug treatment slots of various types, and estimates at the time put the number of publicly funded programs at upwards of 1,250 (Strategy Council on Drug Abuse, 1976). These community-based treatment programs provided a major network for TASC and other CJS referrals of offenders into treatment. Overall, TASC funding was substantial, and federal staffers were able to successfully market the TASC concept to many communities. The number of programs expanded to 73 in 1978 and to 130 in 39 states in 1982, when direct federal funding ended (Cook, Weinman, et al., 1988; General Accounting Office, 1993).

Particularly because of the focus on avoiding labeling and negative learning in prison, TASC initially was envisioned as a pretrial diversion program for young, primarily heroin-using offenders early in their criminal behavior. The assumption was that the best point of intervention was at initiation of heroin use but before felony conviction resulted in incarceration. It was further believed that judges, prosecutors, defense attorneys, and the defendants would accept the diversion program as a better solution to the underlying problems. Diversion in general received considerable support from the legislative and judicial branch of government. This was evidenced in legislation enabling diversion and widespread acceptance of diversion by prosecutors and defense attorneys. In 1976, the American Bar Association argued for and accepted the due process constitutionality of criminal justice diversion (Perlman & Jaszi, 1976). A series of Supreme Court decisions in the early 1970s also supported the constitutionality of diversion/TASC procedures. These included the *Marshall v. United States* decision of 1974 that it is constitutional for TASC-type programs to serve only offenders with limited criminal

histories[2] and the *Morrissey v. Brewer* decision of 1972 that sorted out the relationship between treatment termination, which is a clinical decision, and probation, which requires a due process procedure within the probation department.[3] As Landis (1981) has documented, state statutes allowing for diversion were generally recognized at all levels as constitutional. Confidentiality of treatment records is protected by the Federal Drug Abuse Office and Treatment Act of 1972. These and other laws and regulations made it possible for criminal justice diversion to function constitutionally within the criminal justice system (Weissman, 1978).

The Original TASC Mission: The Views of the Founders

Five of the seven TASC programs that participated in this study began in the early 1970s. These are Birmingham, Alabama; Chicago, Illinois; Portland, Oregon; Miami, Florida; and Pittsburgh, Pennsylvania. In four cases, the original founders have remained the administrative leaders of their respective organizations.[4] Interviews with these founders provide important insights into the socio-cultural and political context of the origins of TASC and the underlying motivations that played a primary role in program initiation and that continue to sustain the mission and function of the programs (see Appendix B).

The Drug Revolution and Its Consequences

An important part of understanding the beginning of TASC was the nationwide drug epidemic. While academic historians may debate the nature or even existence of the epidemic, its reality was apparent to human and social service providers in the local communities that initiated TASC. Local data and experience strongly indicated to these founders that there was a significant increase in the use of all types of drugs in their local communities. By the early 1970s, these individuals believed that there was a rapid local spread of narcotics and other drug use throughout their communities. With this increase in use, it was also apparent to those who initiated TASC programs that the consequences were devastating to poor and ethnic communities.

Social Activism and Service Need

To a very significant extent, TASC programs were initiated by individuals who were involved in the social activism of the late 1960s and early 1970s. They tended to hold the views already expressed about the theoretical underpinnings of the development of TASC. That is, they were likely to see drug-using populations predominately as victims of the social structure, who were in significant need of basic human and drug treatment services and who were not having their needs met by the existing social structure or service delivery system. Further, there was considerable acceptance of the labeling perspective that criminal justice processing (labeling) exacerbated the consequence of drug addiction without doing anything to alleviate it.

The Drugs-Crime Connection: Failure to Address the Needs of the Drug-Using Offender

A plethora of empirical data and experience clearly indicated that a large proportion of those arrested in local communities were drug users. The founders of TASC programs strongly indicated that they believed that it was the drug-using offender who was particularly ignored, not served, and not really wanted by the developing community treatment system. It was the observation of these individuals that the drug user with frequent arrests and involvement with the criminal justice system was likely to be the heaviest drug user and to have the least educational, occupational, or general social skills (McBride, 1978). Drug-using offenders were probably the most intransigent part of the drug-using population and were not particularly desired by treatment programs concerned with good outcome statistics and reports. In addition, it was thought that the criminal justice system was generally unaware of the drug problems of those arrested or the relationship between drug use and criminal behavior. Consistently, from the founders' perspective, drug-using offenders were the population most in need of an advocate in the criminal justice system, in the treatment system, and in general society. This was the population in which successful treatment would result in the best societal outcome.

A Strong Sense of Personal Calling to the Cause

Perhaps the most impressive attribute about the founders of these TASC programs, as revealed in interviews, was the profound sense of calling and commitment that they felt to addressing the needs of a very difficult population that no one else was willing to serve. There

was a strong feeling that dealing with the needs of this population was the key to any effective national drug treatment policy. To a significant extent, this strong sense of calling and mission continues to motivate TASC administrators today. It is notable that five of the seven original TASC programs studied, continue to be led, after two decades, by their founders. In addition, three of these individuals played crucial leadership roles in the most recent developments of TASC (to be discussed latter), and they have served as presidents of the consortium known as National TASC.

Overall, it should be recognized that the founding of TASC programs took place near the end of a peak time of federal social activism and in many ways represents an institutional application of particular social science theories regarding the development and cessation of deviant subcultures. Those in local communities who applied for TASC funds from LEAA largely accepted the basic premises of the federal initiators and saw themselves as playing perhaps the most significant role in a rapidly emerging national drug policy focused on community-based treatment for drug-using offenders.

Evolution of the TASC Model

While the criminal justice system generally accepted the validity and utility of diversion, the original TASC focus on young offenders early in their criminal career had some pragmatic difficulties. These early offenders often thought that they would have a better chance of doing less time if they went through the regular court system than if they agreed to spend a year or so in a drug treatment facility as a part of a diversion program. In addition, heroin-using offenders often had such extensive criminal histories that judges and prosecutors were reluctant to allow pretrial diversion. Young first offenders tended to be marijuana users, and treatment resources in the early 1970s were focused on heroin users. Because of these problems, TASC programs moved toward a model of flexibility in regards to the point of intervention in the criminal justice process and to the type of client they would serve. By 1977, TASC program clients were found to be equally divided between pre-trial diversion and post-trial sentences (System Sciences, 1979). Other changes in the original TASC model also occurred. Late in 1973, post-trial intervention was introduced, and soon after, the TASC program was expanded to admit non-opiate drug abusers. In addition, mass urine screening became optional rather than mandatory

when screening interviews were found to be as effective as urinalysis in identifying drug users. Later still, program admission criteria were expanded to include juveniles and persons dependent upon alcohol.

Funding and Technical Assistance

The early TASC programs received funding from both LEAA and the National Institute of Mental Health (NIMH). NIMH funded not only community-based outpatient treatment, but also the criminal justice component, which included staff support for intake, diagnosis, program liaison, report preparation, and case disposition before referral to community-based treatment. LEAA also funded both criminal justice components and treatment components of TASC. Because in some cases NIMH and LEAA were funding the same program, one of SAODAP's first tasks was to establish a more appropriate division of responsibility between the two agencies with respect to TASC. SAODAP decided that LEAA would fund the criminal justice components, and NIMH would fund the treatment components. While this division of funding worked in most cases, some services, such as vocational rehabilitation, did not fall neatly into either agency's area of responsibility. Such cases were individually negotiated, and some reallocation of funds was made with the concurrence of the agency directors. Allowing for such exceptions, SAODAP established a clearer division of responsibility between the two agencies so that the distribution of funds could be more efficiently managed.

The early development of TASC also benefited from technical assistance by NIDA and LEAA. LEAA funded a variety of technical assistance efforts in support of TASC programs and other linkages between corrections and drug treatment. Two LEAA programs in particular were directed toward improving linkages: the Standards Implementation Program (SIP), a set of guidelines to identify and screen drug-using offenders in jails and prisons; and the Treatment and Rehabilitation for Addicted Prisoners (TRAP) program, in which prisoners with a history of drug use received treatment while incarcerated and while on parole. LEAA also sponsored an annual nationwide TASC conference that attracted criminal justice and treatment practitioners from TASC and non-TASC projects. In addition, LEAA published a quarterly newsletter that was distributed to TASC projects and a monograph on the TASC model to assist local jurisdictions in establishing their own TASC projects (Law Enforcement Assistance Administration, 1978). Finally, LEAA

established a National TASC Training Center in conjunction with the Cincinnati TASC project to train TASC and non-TASC criminal justice and treatment staff in screening, referral, tracking, and other skills needed to provide effective intervention.

Early Evaluations of TASC

The early evaluations of TASC programs across the United States were fairly positive, although they focused on operations and processes of programs rather than client outcomes following discharge. Researchers found that TASC was able to screen and identify large numbers of drug abusers in the criminal justice system (Toborg et al., 1976). Further, TASC was able to develop an effective linkage with the criminal justice system, increase ethnic diversity in treatment, and increase the proportion of those in drug treatment who were criminal justice offenders (Collins et al., 1982). There was also evidence that TASC programs increased treatment retention. The Treatment Outcome Prospective Study (TOPS) found that TASC clients in treatment were more likely to remain in treatment than non-TASC clients, and length of stay in treatment was found to be related to a more positive treatment outcome (Hubbard et al., 1988). Research by System Sciences (1979) found that the cost to identify, assess, refer, and monitor TASC clients, plus the cost of treatment, was no more than $7,000 per client per year for the most expensive type of treatment, residential care. This was considerably cheaper than any form of incarceration.

In summary, by the late 1970s, when about 40 TASC programs were in operation, there was some consensus that TASC programs had been shown to be successful in gaining a legal and political acceptance and that they were cost effective in identifying, screening, and referring clients to treatment and retaining drug-using offenders in treatment. But the evaluations conducted in the 1970s were process evaluations that focused on the operations of the programs; they did not include experimental designs with random assignment to determine short- or long-term outcomes of clients.

Evaluations of Civil Commitment for Drug Users

McGlothlin and his colleagues (1977) and Anglin (1988) have provided extensive data on the effectiveness of the California Civil Addict Program. Both researchers reported that while

the comparison and civil commitment treatment groups were equivalent in levels of criminal behavior and drug use prior to the initiation of the civil commitment program, the civil commitment group in a follow-up study covering more than ten years had committed fewer crimes, spent less time incarcerated, and were less likely to use drugs (McGlothlin et al., 1977; Anglin, 1988). As Anglin noted, "Civil commitment and other legally coercive measures are useful and provide strategies to get people into a treatment program when they will not enter voluntarily" (Anglin, 1988, p. 31).

The civil commitment program in New York had very different results (for a description of the program, see Meiselas, 1971). The civil commitment experience in New York did not support the effectiveness of civil commitment and was generally judged to have been a failure. Inciardi (1988) has argued that the New York program was not well designed, had a poorly trained staff, considerably underestimated the size of the task and the size of the staff required, and was bureaucratically mismanaged (see also Winick, 1988). The program had quietly died by the early 1970s.

The Decline of Federal Support for TASC Programs and Other Intervention Models

Many observers have concluded that drug use was epidemic in the United States from the late 1960s through the 1970s. This was evidenced by ever-increasing rates of drug overdose, treatment admissions, and epidemiological surveys. Perhaps this is most reliably indicated by the annual high school senior survey. These data show that on an annual basis the proportion of high school seniors who had used illegal drugs in the past year had increased from 45 percent in 1975, when the survey was initiated, to 54.2 percent in 1979. The majority of the class of 1975 did not disapprove of experimental marijuana use, and only about one-third of that class thought that marijuana use in private should be illegal (Johnston et al., 1993). By the end of the 1970s, the optimism about treatment effectiveness from earlier in that decade had largely disappeared. American society appeared to be in a disturbing social revolution, evidenced by the smoking of marijuana among adolescents being more common than the smoking of tobacco; thus the press was more likely to report on negative experiences with the civil commitment in New York rather than on the positive California experience.

Most discouraging was a review article by Martinson (1974) that analyzed a wide variety of research reports on the effectiveness of treatment for criminal justice offenders including drug-using offenders. He concluded that there was very little direct evidence that treatment had any measurable effect on the drug-using behavior or recidivism of offenders. While in many ways the Martinson report did not say anything different from what was being said by smaller-scale studies, Martinson's review received widespread coverage in the national and professional media and over the next few years had considerable impact on corrections or treatment policy. (Martinson [1979] later retreated from his extreme position that treatment does not work, but the public and policymakers were much more likely to remember his early position.)

In addition to the discouraging research data on the effectiveness of treatment in general, some researchers and clinicians asserted that for treatment to be effective clients had to see their need for treatment. It was argued that treatment would only work if clients had experienced severe consequences of drug addiction and from that negative experience had voluntarily concluded that they wanted and were ready for treatment. From this perspective, treatment simply could not work if there was external legal pressure for treatment participation. Coercive programs (such as TASC) were seen as violating very basic understandings about the therapeutic process. Stephens (1987) has argued that coerced treatment is not based on solid clinical theory, may be a violation of civil rights, and simply has not worked. To this day, there remains considerable public skepticism about the constitutional, clinical, and pragmatic validity of the coercive treatment that was inherent in the early models of TASC.

Zero Tolerance as National Policy

By the late 1970s the public mood had clearly changed. In the early 1970s the burgeoning use of drugs resulted in a social response emphasizing education, prevention, and treatment (including diversion from the criminal justice system into treatment). In spite of all the efforts at treatment, however, drug use continued to go up during the 1970s, along with the perception of the relationship between drug use and crime. There appeared to be a consensus that criminal justice diversion programs such as TASC and civil commitment programs did not provide the quick expected results, despite favorable support from research studies on TASC and civil commitment noted above. Not only did the crime rate continue to rise, which called into

question LEAA's effectiveness as an agency devoted to crime reduction, but the agency came under scrutiny for its management practices. The major criticisms of the agency included mismanagement of its grant programs, inefficiency in its operations, inconsistent objectives, and lack of standards and criteria for evaluating program effectiveness. The budgets for LEAA gradually diminished in the late 1970s.

Shortly after New York shut down its civil commitment program, the state initiated some of the toughest anti-drug laws in the country. New York and other legislatures, rather than continuing to support the criminal justice diversion legislation they had passed just a few years before, passed laws requiring mandatory minimum sentences for convicted drug offenders. Generally these laws were held to be constitutional (Williams, 1977). This type of legislation severely reduced the possibility of diversion from the criminal justice system into TASC-type programs. By the end of the 1970s, civil commitment programs and TASC-type programs had largely ceased, including the large and apparently successful civil commitment program in California (Gostin, 1991). Under the influence of the Reagan administration's New Federalism policy, which aimed to reduce federal involvement in providing direct services to local communities, funding for LEAA was completely withdrawn in April 1982. At this time all federal funding was withdrawn from the 130 TASC programs throughout the United States as the country entered an era of "just say no" and severe minimum penalties for drug offenses.

Probably the clearest example of this still current national mood is reflected in the recent case of *Harmelin v. Michigan*. Michigan has a law requiring life imprisonment for the possession of large quantities of drugs. Mr. Harmelin was convicted of the possession of 650 grams of cocaine and, under the mandatory sentencing statutes of the state of Michigan, was sentenced to life imprisonment without the possibility of parole. Mr. Harmelin appealed his conviction on the grounds that the mandatory sentencing was cruel and unusual, a violation of the Eighth Amendment. The Supreme Court upheld his conviction and indicated that mandatory minimum sentencing laws do not violate the Eighth Amendment and that his sentence was not disproportionate to the severity of his crime (drug dealing) (*Harmelin v. Michigan*, 1991; for an excellent critical review of this decision, see Hackney, 1992).

Survival of TASC Programs During the 1980s

Following the withdrawal of federal support, over 100 TASC programs were able to survive with state and local funding. One of the important questions in the development of TASC involves the mechanisms used by local TASC programs to survive during the era of federal disengagement for direct human or drug treatment services. Most of the programs in our study (all of them except the two relatively new programs in Orlando, Florida and Canton, Ohio) survived this era. Those interviewed indicated that survival mainly occurred as the result of a number of structural and procedural strategies.

Rapid Integration into the Local Structure and Culture

The TASC program directors who survived indicated that they very early recognized that federal funding was limited and was in fact scheduled to be phased out and replaced by local funding. They immediately worked on integration with the local criminal justice and drug treatment systems or other parts of the human service system. They appeared to do this by, first, developing local boards with key and powerful local treatment providers and criminal justice officials as members. Second, they made major efforts to communicate their mission and to integrate their mission and function within existing criminal justice and human service systems. This experience is clearly illustrated by the Portland, Oregon TASC program. This program very quickly understood that even though federal funds provided for its initiation, future survival depended on local integration. Working within the context of a commitment to meeting the service needs of drug-using offenders, the Portland TASC program worked with the local sheriff and judges to discover what they perceived as their problems and how TASC could help them address those problems. To ensure that local community perspectives were included, Portland (and other programs studied) developed an advisory group that included representatives from the criminal justice system and treatment services. The Birmingham TASC program met the challenge of local system integration in similar ways but also integrated itself into the Department of Psychology at the University of Alabama at Birmingham. This appears to have led the local criminal justice system and the judiciary to perceive that the TASC program was professionally competent and generally integrated with mental health services. These system

integration activities seemed to have played a major role in local community perceptions and the continued survival of the TASC programs included in this study.

Identification of Populations and Service Needs

It was apparent from interviewing the surviving TASC directors that during this era considerable effort went into identifying drug-using offender populations and services that the local community had identified as being needed and where no one else had taken the service initiative. Survival seemed strongly related to successful analysis of service need, community concern, and the willingness of the local community (or state) to allocate funds to meet the needs that no other program had addressed. The drug-crime connection continued to be apparent in the public mind, and there was not a stampede of human service programs desiring to serve the drug-using offender. In interviews, local law enforcement officials and judges expressed three basic issues concerning drug-using offenders. First of all, they were very concerned with the protection of the local community. Second, they expressed a concern about the need for quality assessment and effective drug treatment services. Third, they expressed a strong need for drug monitoring to ensure that the target population was reducing or ceasing drug use. The TASC programs in this study clearly understood these concerns. The Chicago TASC program illustrates this process. Chicago TASC program leaders indicated that their provision of comprehensive assessments, managing program referrals based on those assessments, and their development of a NIDA-certified toxicology laboratory played a significant role in the acceptance and support of the TASC program. Essentially, judges were pleased to have professionals assess the existence of drug problems in offenders at risk for such problems, make decisions about the most appropriate treatment, and provide urinalysis results documenting reductions in drug use. Probation officers in our study sites specifically mentioned that TASC served as an addition to their efforts to monitor compliance to judicial orders. Figuring out these system needs and how they could be met, while at the same time maintaining the initial commitment to serving the needs of drug-using offenders, was a key element of the survival of all the TASC study sites.

Advocacy and Obtaining New Funding Sources

As has been noted, the TASC programs that survived the 1980s were ones that integrated with local systems and found a needed service niche that no one else was willing or able to meet. In addition, perhaps the primary key to survival was the ability of these TASC directors to obtain state and local funding for their organizations and functions. Based on their system integration and identification of local community needs, TASC programs were often able to convince state legislators, county commissioners, and heads of human service bureaucracies to create structural niches for TASC and to provide funds to address the drug treatment needs of drug-using offenders and thereby reduce the criminal behavior of drug users in the community. The Chicago TASC program illustrates this. Chicago TASC was able to get specific legislation enacted basically allowing for and funding their basic services including identification, assessment, and monitoring.

Even the successful TASC programs noted that they had considerable difficulty surviving and carrying out their basic mission and function during this era. However, local system integration did enable some TASC programs to survive and placed them in an excellent position to take advantage of a renewed interest in treatment for drug-using offenders, to redevelop their own TASC organizations, and to provide models and personal leadership in a national renewal of TASC.

A Return to Balance

It soon became evident during the 1980s that the tilt toward zero tolerance of drug use and mandatory minimum sentencing was simply unworkable as national policy. There was a large amount of evidence that the courts and prisons had become overwhelmed with drug users during this decade (Weisheit, 1990). It was increasingly recognized that diversion or probation to treatment in a TASC-type program could not be eliminated from national drug policy.

Researchers and clinicians began to increase the public perception of the complexity and often relative intransigence of drug dependence. Rather than expecting quick and immediate rehabilitation and recovery, policymakers and the public began to accept simple reductions in drug-using and criminal behavior as evidence of positive treatment effect. Two major follow-up studies reported on during the 1980s of drug treatment programs across the United States may

have played a role in national policy changes. Using a before-after design, both of these studies (Simpson et al., 1986; Hubbard et al., 1989) found that the number of months in any type of drug treatment was related to less drug use and less criminal behavior. While these studies did not address the question of which type of treatment was most effective, they were widely cited as providing support for the general effectiveness of drug treatment, and they played a major role in the reinvigoration of drug use treatment for criminal justice offenders (see also Chapter 2). Drawing on the findings of these and other studies, the Institute of Medicine concluded that there was strong evidence not only that treatment worked but that it worked particularly for those under some type of criminal justice pressure (Gerstein & Harwood, 1990). Further support for the effectiveness of coerced treatment using civil commitment was provided by presentations and publications on the findings from the evaluation of the California Civil Addict Program (Anglin & Hser, 1991).

Revival of Federal Involvement in TASC

The cessation of federal funds to TASC programs devastated many local TASC programs and left all of them in a precarious financial position. Yet many were able to find sufficient local funds to continue some type of existence over the next few years. By the mid 1980s, there was again at least the beginning of another federal policy shift. The Justice Assistance Act of 1984 revived policy and potential fiscal support for TASC. In the Act, TASC and similar types of programs became eligible for support under the block grant program. The block grant program encouraged local and state governments to support programs that were seen as able to reduce drug-related crime. TASC was listed as one of the eleven programs certified by the Bureau of Justice Assistance (BJA) that were eligible to receive federal block grant funds (Bureau of Justice Assistance, 1988a).

An Assessment of the Functioning of TASC at Federal Reinvolvement

To obtain a description of the operational functioning of TASC programs as federal funding was being reinitiated through the block grants, BJA sponsored a research project undertaken by Linda Tyon (1988), who had developed one of the initial TASC programs in Portland, Oregon, in the early 1970s. She surveyed 95 TASC programs in 17 states. She

received responses from 60 programs in 14 states. Tyon found that during the period of federal disengagement from funding during the early 1980s, TASC programs primarily served polydrug-using male offenders with extensive arrest histories. About half had not completed high school and did not have GEDs. Importantly, she found that while the majority of the drug-using offenders screened by TASC were non-white, only about one-third of those served were from non-white ethnic groups.

Tyon also documented the shift in point of intervention that had been noted in the late 1970s. As noted previously TASC, at its inception, was designed to intervene at the pre-trial process. In the mid 1980s, Tyon found that about 80 percent of referred clients were on probation or parole. These data indicated that TASC had significantly shifted its point of intervention in the criminal justice system from pre-trial to probation. This does not seem to have been done on the basis of any rethinking of the purpose or meaning of TASC but rather because probation alternatives were much sought after in the overburdened criminal justice system. It is also important to note that most clients being served by TASC were not young first offenders. Although the original TASC model had envisioned first or early offenders as the primary target, by the mid 1980s career non-violent offender seemed to be the primary target for TASC. Again, this shift does not seem to have been the result of a rethinking of the basis for TASC but rather the result of the type of client that the criminal justice system was most willing to provide to TASC. Another major finding from the Tyon study was the fact that about two-thirds of the drug-using offenders screened were being referred to and entering treatment for the first time.

Overall, the Tyon study documented a number of crucial trends in the development of TASC. TASC intervened primarily at probation and served polydrug users with extensive arrest and drug-using histories who were entering treatment for the first time. Generally, while most of the TASC programs were structured as not-for-profit community organizations, they seemed to serve primarily as adjuncts to the probation department by conducting essential pre-sentence assessments and additional monitoring. These changes in the functioning of TASC seemed to have occurred on the very pragmatic basis of survival; that was the niche where funding was available for TASC services. The Tyon report played a crucial part in rethinking TASC's role in the criminal justice system. Based on what Tyon found and the original purpose of TASC, BJA,

working with a variety of criminal justice experts, sought to redefine and provide leadership for a revitalization of the national TASC program.

BJA Leadership in TASC Revitalization: Developing the Critical Elements

In addition to providing a funding mechanism for TASC, BJA also provided national policy leadership in defining TASC and in developing standard criteria to evaluate TASC operations. To accomplish this goal, BJA entered into a cooperative agreement with the National Association of State Alcohol and Drug Abuse Directors (NASADAD) to develop TASC parameters, elements, and standards of performance. The result of this agreement was the development of what came to be called the "Ten Critical Elements" that defined a TASC program. The Bureau of Justice Assistance and NASADAD believed that these elements were a necessary component of a quality program. The Critical Elements served to unite the TASC programs within a conceptual and organizational framework intended to promote a common terminology, allow replication of intervention models, and provide stability of material and human resources--or, in TASC terms, *orthodoxy, transferability,* and *permanency* (Bureau of Justice Assistance, 1988a).

The first five Elements focus on organizational structure and the last five focus on the actual operation of TASC. The organizational elements were stipulated by NASADAD and BJA to be:

(1)   a broad base of support within the justice system with a protocol for continued and effective communication;

(2)   a broad base of support within the treatment system with a protocol for continued and effective communication;

(3)   an independent TASC unit with a designated administrator;

(4)   policies and procedures for required staff training; and

(5)   a data collection system to be used in program management and evaluation.

Overall, these organizational elements were designed to create a structure that was independent of both the treatment and the criminal justice system but that had formal supportive relationships with and agreed-upon protocols for working with both. It was believed that such an independent structure would best serve the interests of drug-using offenders and the two involved

systems. It was believed that if TASC followed this structure, it would be in the best position to be an objective assessor of treatment need, to select the best program to meet the identified needs, and to have the agreed upon support of both criminal justice and treatment.

The operational elements are:

(6)   a number of agreed-upon offender eligibility criteria;

(7)   identification of eligible offenders by procedures that stress early criminal justice and treatment intervention;

(8)   documented procedures for assessment and referral;

(9)   documented policies and procedures for random urinalysis and other physical tests; and

(10)   offender monitoring procedures that include criteria for success/failure, required frequency of contact, schedule of reporting, and notification of termination to the justice system.

The operational elements describe the flow of TASC activities. One of the most crucial aspects of TASC activities that had to be negotiated with the local justice and treatment systems involved the criteria for inclusion and exclusion. Both judges and treatment program officials had to agree on which types of charges and which types of criminal and drug use histories would be acceptable for TASC. These elements also involve some type of objective or at least formally developed screening, assessment, and referral procedure that is public and defensible. Perhaps the most important elements focus on monitoring and definitions of success. A key concern of judges about any diversion or special probation program is the level of control and monitoring. Judges tended to want feedback on the offender's progress. TASC decided that urine monitoring for drug use, Element 9, was an important aspect of its operation. It provided an objective laboratory indication of compliance with the conditions of diversion or probation. The last element was crucial in requiring the development of protocols that define treatment plans and required participation and that specify the information that would be provided judges or other parts of the criminal justice system. In addition, as this element indicates, it was crucial for TASC to differentiate between treatment program consequences and criminal justice decision making. Treatment progress or termination may inform the criminal justice decision making but does not determine it.

Taken together, these elements played a significant role in creating the organizational and operational parameters that programs calling themselves TASC were expected to follow. The Bureau of Justice Assistance and NASADAD strongly believe that these elements were crucial for a successful program that could obtain community support and cooperation. During 1988 and 1989, a series of five monographs were published to offer detailed assistance for communities that wish to develop and implement a TASC program (Bureau of Justice Assistance, 1988a; 1988b; 1988c; 1988d; 1989).

Following the development and widespread acceptance of these TASC manuals, BJA and NASADAD sponsored a study undertaken by NASADAD to assess whether close adherence to the Critical Elements improved the operation of TASC programs (NASADAD, 1989). The NASADAD study found that programs that had all of the Critical Elements in place were likely to be operating smoothly and that they had few gaps in program linkages or in assessment, referral, and monitoring activities. In addition, the study concluded that the Critical Elements were a useful tool for assessing the functioning of TASC programs and were an excellent technical assistance tool to develop further the structure and function of local TASC programs.

The Current Dimensions of TASC Operations, Services, and Structure

Within the last few years, TASC has established itself as the major national program designed to identify and screen drug-using offenders in the criminal justice system and to provide appropriate referral and monitoring for the criminal justice system. TASC utilizes judicial, probation, or parole department authority to place drug-using offenders into treatment as a requirement of diversion, sentencing, probation, or parole. In addition, the consortium of TASC programs known as National TASC has established a national organization administered by a professional staff. National TASC also sponsors an annual conference on drugs and crime that features major national speakers from the clinical and research communities and from government agencies. TASC programs appear to be viewed by federal policymakers as one of the major national programs designed to reduce the criminal behavior of drug users through the provision of treatment.

Although National TASC exists and there are agreed-upon critical elements (standards) for what constitutes a TASC program, there are also significant forces that make it difficult to

implement those elements. For example, although TASC qualifies for block grant funding, but there is no federal mandate requiring block funds be used for TASC, and, while the Justice Assistance Act of 1984 played a significant role in establishing the legitimacy of TASC, these programs still had to use local and state political processes to obtain funding and often had to adapt themselves in purpose, structure, and operation to fit successfully into local environments. Today, there are several variations in the dimensions of TASC operations and service delivery. These dimensions will be described in terms of target population, point of intervention in the criminal justice system, services provided, and current organizational issues.

TASC Target Populations

At the origin of TASC, the target population was young, first offenders who had not yet been formally processed by the adult criminal justice system. It has already been noted that this population did not seem to be particularly responsive to the opportunity to participate in TASC. Young first offenders were generally given considerable leniency by the criminal justice system. Interviews with program administrators indicated that TASC quickly needed to find a population that would be more responsive to a TASC-type program, that the judiciary would deem relatively safe to divert or probate to treatment, and that the treatment programs would see as amenable to treatment.

In discussions with TASC administrators, judges, and probation officers, it appears that TASC clients are generally nonviolent offenders with a few previous nonviolent convictions, are well into their 20s, and consist of a high proportion of ethnic-group members and high school dropouts with minimal employment histories and minimal job skills. TASC clients are not seen as a dangerous, violent, hard-core crack- or heroin-using population at extremely high risk for HIV infection. Rather, the population is somewhere between those whose drug use and criminal behavior are relatively light and who get suspended sentences or simple probation and those whose length of criminal record or violent behavior would more likely result in incarceration.

A recent paper by Rivers and his colleagues (1994) illustrates this issue. These researchers compared drug-using offenders arrested in Miami with those referred to treatment, finding that those referred were the less serious offenders who were less likely to be drug injectors. Essentially, it appears that the criminal justice system provides to TASC the drug-

using offender who is both in need of services and is relatively safe in the eyes of the court to release to the community in a diversion or probation program that requires drug treatment.

While the past and current TASC populations have been nonviolent offenders, there is some evidence this may be changing. For example, the TASC program in Chicago has initiated a program for violent offenders. Given the rate of violent crime and the overcrowded jails and prisons, there may continue to be an expansion of what constitutes the TASC target population. That expansion appears to be primarily in the hands of the judiciary. There also appears to be a fairly strong commitment on the part of TASC to maintain its traditional target population focus. TASC continues to view its primary target population as those in high need of drug treatment services but who have not generally been reached by treatment programs. They continue to see themselves as advocates for those who have great need and who meet significant barriers in obtaining treatment services.

The Point of Intervention

The theoretical basis for the point of TASC intervention originally emphasized diversion prior to any formal criminal justice processing. Like the problems with focusing on young first offenders as the target population, this point of intervention also had some practical difficulties. First, many offenders eligible for diversion decided to take their chances with an increasingly overwhelmed system, perhaps figuring that they could beat it or at least receive less supervision than if they went to a drug treatment diversion program. Second, many communities were reluctant to accept diversion for the type of population TASC targeted.

Diversion

Within the last decade, the point of intervention for TASC programs has broadened considerably. It ranges from diversion before trial, probation after conviction, services to those incarcerated, and services for those prisoners transitioning into the community and those about to be paroled. The rationale for diversion continues to be the desire to avoid formal processing of drug-involved offenders and, increasingly, to reduce the load on the courts by diverting less dangerous drug-using offenders into treatment. The assumption is that a basic cause of criminal behavior is the arrestee's drug use, and the expectation is that successful treatment will

significantly reduce drug use and the associated crime and therefore the need to proceed with a costly trial. In intervening at this point, TASC programs maintain a continuity with their original beliefs about the best point of intervention. Diversion continues to be an important point of intervention for the Chicago, Canton, and Birmingham TASC programs.

Probation

The most common point of intervention used by the TASC programs in this study is probation. The literature suggests that this is the primary point of intervention in TASC programs generally (Inciardi & McBride, 1991). This point of intervention appears to have evolved because of the type of client that TASC targeted (drug-using offenders willing to enter treatment) and the unwillingness of judges and communities to divert this population or at least large segments of it. In interviews with judges, probation was seen as the most appropriate point of intervention for TASC and similar types of programs. For judges and other administrators in criminal justice and probation systems, TASC was a reasonable part of the conditions of probation and was easily integrated into the philosophy, structure, and operation of probation. That is, it is an established practice to require probationers to meet a variety of conditions, including participating in some sort of mental health counseling. Thus, the addition of drug treatment was easily incorporated. In addition, the TASC Critical Elements specify that TASC operations involve monitoring of treatment progress and reporting on that progress to probation and/or judges. In its operational procedures, therefore, TASC staff function very much like a probation officer. Judges, criminal justice system administrators, and probation officers viewed TASC as an extension of probation. Probation officers readily indicated that TASC case managers made their jobs easier because they provided the necessary reporting data that they (the probation officers) required for their records and for their reports to the judge. The judges appeared to view TASC and the individual case managers as additional client monitors, who provide another level of watchers and therefore additional community protection; they particularly liked the urine monitoring provided by TASC. For all of these reasons, the primary point of TASC intervention became, and remains, probation. That point of contact appears to be the most acceptable to the criminal justice system and is the point at which TASC and the criminal justice system are most easily linked.

Incarceration

A large proportion of drug-using offenders are not diverted prior to trial and are not probated to TASC after conviction (Rivers et al., 1994). Rather, they go to jail or prison. Additionally, some degree of drug use occurs in prison (*New York Times*, July 1992, p. 22; November 17, 1993, p. A13). Thus, there may be a strong need for identifying, assessing, and providing drug treatment for incarcerated prisoners. While TASC is overwhelmingly a community-based program, some TASC programs are involved in identifying and assessing treatment needs among county jail prisoners and providing appropriate services (direct treatment service provision by TASC will be discussed later). For example, the Miami TASC program has a long history of working in the Dade County jail. Because of the strong community-based focus of TASC, this point of intervention may never be a major part of the national TASC model. However, TASC skills at identification and assessment could be a valuable adjunct to the increasing interest in the provision of treatment services in state prisons, and this area could be part of an expansion of TASC (for a discussion of the expansion of drug treatment services in prisons, see Wexler, 1994).

Transitional Services and Parole

It is likely that large proportions of crack and drug-injecting offenders end up in prison and are able to maintain some level of drug use in prison or are vulnerable to relapse to drug use once released from prison. One of the less frequently occurring points of intervention for TASC has been as a part of transitional services or as a part of the parole process and requirements. As part of transitional services, the TASC program in Portland, Oregon, has been doing assessment of drug and alcohol abuse history and service need. The program provides some level of drug abuse education and prevention and upon release refers those in need to relevant community services. The TASC program in Pittsburgh has always seen parolees as its primary target population and parole as the primary point of intervention. TASC assesses the drug use history and treatment needs of prisoners coming up for parole consideration and, if needed, provides community treatment services once parole has been granted or refers parolees to other drug treatment facilities in the community to which they are paroled. Participation in TASC becomes one condition of parole. Both of these TASC programs have successfully linked the drug

treatment needs of those to be released or paroled from prison with appropriate local services. In addition, these programs have also gained provider acceptance to establish a high priority for the treatment needs of parolees/released prisoners, both from treatment personnel and community programs. The essential reason for intervention at this point is that continued, increased, or reinitiated drug use plays a major role in the commission of new crimes. In order to reduce the likelihood of recidivism, TASC programs that intervene at this point argue that the assessment of drug treatment needs and the provision of services for those needs are essential (on the benefits of a TASC-parole partnership, see Weinman, 1992).

Points of Intervention: An Example

The Miami TASC program was initiated in 1973 and, like the rest of the nation's TASC programs, lost its federal funding about eight years later. The Miami TASC program was incorporated as a part of county services and currently has a budget of about 2 million dollars and a staff of about 130. In Miami, a person becomes a TASC client in one of three ways.

Assessment and referral services in the criminal justice system. The process of becoming a TASC client can begin at pre-trial (at the arraignment), the pre-sentence investigation, or probation. Offenders are sent by a criminal justice agency to TASC, where they are further assessed and placed in county or private outpatient or residential treatment.

Referral from a county court judge. This generally involves a direct sentence of the judge rather than probation. The disposition is a referral to TASC, and the case is closed. This type of referral averages 300 assessments per month, with 70 percent going to outpatient treatment and the others to urinalysis monitoring.

TASC court evaluation services. Typically, a judge would sign an "Order to Evaluate," and the clerk would send TASC a copy. Five TASC evaluation counselors are assigned to approximately six judges each. The order goes to the TASC Court Evaluation Unit and then to the case manager for the specific judge. Generally, the individuals to be evaluated are in custody and are between arraignment and trial. Sometimes at arraignment the public defender or prosecutor asks for a TASC evaluation (usually it is the public defender), or a family member requests help. If public defenders want a TASC evaluation, they must still get a judge's order. TASC performs the assessment and sends a report back to the judge for consideration in the

decision making. The assessment appears to remain in the offender's file in the system throughout the rest of the processing. TASC can be asked by the judge to intervene at any subsequent point of the process in diversion, in direct sentencing, or as a condition of probation. The TASC program administration in Miami noted that the judges often thought that the TASC staff was an extension of their office and occasionally had to be reminded of its organizational structure as a separate agency.

This example illustrates the variety of roles that TASC plays today in terms of whom it deals with in the criminal justice and treatment systems and the variety of points of intervention. To a significant extent, the point of intervention relates to where the local judiciary, probation, or parole wants TASC to intervene.

Services Provided

The TASC Critical Elements indicate that the basic TASC services should be identification of drug-using offenders qualified for TASC, assessment of their service needs, referral to appropriate treatment services, monitoring of treatment progress, and use of sanctions to ensure compliance with treatment and TASC requirements, and termination from TASC or further referral if necessary.

Identification of Drug Users

The seven TASC programs participating in the process study had historically worked with the judiciary, the probation department, or other parts of the criminal justice or social service systems to develop appropriate quick sorting procedures to indicate who may be eligible for TASC. The procedures may include a few brief questions asking about drug use and current or past drug charges, or narrative information from a diversion or pre-sentence investigation report. All or any of this type of information may be used to indicate a needed full assessment. There does not appear to be a standard form to record this information. Rather, TASC programs have developed a working relationship with the criminal justice system to develop some type of routine procedure to indicate a possible TASC client. In some programs, such as the Orlando Juvenile TASC, nearly every case brought before the court is screened. Mostly, though, TASC

depends on other parts of the criminal justice system for some level of initial screening prior to full assessment.

Assessment

The assessment of the treatment service needs of drug-using offenders has recently been made the subject of a major Substance Abuse and Mental Health Services Administration (SAMHSA) monograph (Inciardi, 1994). That monograph notes that appropriate treatment for drug-using offenders requires a thorough assessment of the type and extent of drug abuse problems and the type of services needed. The monograph further argues that assessment must have breadth. It should include not only drug use but other background, sociodemographic, and behavioral variables. Further, there should be some movement toward collecting this information in a standard manner. While it may be important to allow variation to meet local program uniqueness, it is also crucial to have standard elements that allow comparisons across programs. Traditionally, assessment has been one of the major services offered by TASC. Basically, as is indicated in the Critical Elements, the assessment examines the arrestee's drug use history and current patterns as well as other relevant variables and use that information to make an appropriate referral to a drug treatment program that could best meet the range of needs identified in the assessment. In practice, the exact form of that assessment varies considerably. Assessments can range from a closed-ended questionnaire used by licensed alcohol, mental health, and drug abuse treatment programs in the state (such as is the case in Miami) to an open-ended clinical impression (as is used by Chicago TASC). There does appear to be a movement toward a more closed-ended type of assessment that at least includes: drug use history and current use patterns, sociodemographic and economic characteristics, criminal justice history, care-giving responsibilities and living arrangements, other human/health service needs, and special issues such as religion, disabilities, and gender/ethnic-based service needs.

Referral

A basic purpose of the assessment is to allow for an appropriate referral to a treatment program best able to meet the client's service needs. While that is the generally agreed-upon ideal, practical realities intervene. Most communities do not have a complete range of treatment

services, and some treatment programs will not accept TASC clients, either because of the lack of reimbursement or their own definition of their target population. To a large extent, referral patterns in the TASC study sites have evolved over time to meet local conditions. TASC program administrators have developed working and referral relationships with programs that generally provide services to the TASC target population. The limited range of programs, the very limited treatment resources, and the limits on the number of TASC cases a program may accept hinder the application of assessment conclusions so that appropriate services may not be fully realized. In addition, most of the TASC programs in the study have developed considerable waiting lists during the course of the project. For example, the Chicago TASC program has a waiting list of over six months for residential treatment. Access to appropriate services remains a major problem for the short-term effectiveness of TASC. In addition to referral to drug treatment, TASC case managers are also involved, to some extent, in referral to other needed services based on the assessment. Because of their case loads and limited resources, TASC case managers do not generally act as case ombudspersons, but they do attempt to link the client as far as possible with other needed services in the community.

Monitoring

At all study sites, monitoring involved the collection and analysis of urine to determine drug-using behavior and the monitoring of treatment attendance, participation, and progress. The monitoring function is one of the most labor intensive of all TASC activities and occupies a large proportion of staff time. The Orlando juvenile TASC program appears to be a special case. While the organizational structure required systematic monitoring, interviews with a judge and an examination of records indicated that monitoring was minimal. Interviews and document reviews at the other study sites indicated that monitoring is a primary function at these sites. Interviews at these sites also indicated that a key to the continued cooperation of all parts of the criminal justice system is the monitoring function of TASC. When judges, probation administrators, and probation officers were asked to indicate positive elements of TASC programs, they consistently noted TASC monitoring as reflected in urinalysis and treatment progress reports. Judges believed that these reports gave them a sense of improved control over the offender and provided for additional community safety. Probation officers believed that

these reports supplemented or replaced their own reports. The monitoring function provided support for TASC even if the judge or probation officer was skeptical about treatment effectiveness. Those skeptical of treatment supported TASC because the monitoring reports provided a closer scrutiny of the offender and made their jobs easier.

Sanctions

Monitoring has little meaning if case management does not provide sanctions for failure to comply with the conditions of diversion, probation, or parole. These conditions likely include remaining drug-free, remaining in treatment, and showing satisfactory progress. Sanctions typically involve a meeting between the TASC case manager and the client to review the problem. The client is often warned about a possible return to the criminal justice system. If the problem continues, the client is generally referred to another, usually more intensive (often residential) treatment program. If drug use continues and satisfactory progress is not made, the TASC case manager can, and at times does, report these facts to the judge, probation officer, or other appropriate person in the criminal justice system. However, there are several powerful barriers to the use of the sanctions described. First, the most intensive treatment programs often have the longest waiting lists and the fewest openings for new clients. Thus, TASC often has a very limited ability to immediately transfer the client to a more intensive program. Second, jails and prisons are generally extremely overcrowded. In most of the study sites, the jails are under a federal judge's supervision for overcrowding. In Canton, Ohio, they have developed an interesting and unique solution to the problem of overcrowding. If convicted for an offense that results in a local jail sentence, an offender is given a time to report to the jail sometime in the next five years or so. As a result of these problems, it is difficult for TASC to apply real sanctions to problems of treatment compliance. Sanctions are primarily in the form of the persuasive skill of the TASC case manager, backed up by similar skills on the part of a probation officer and a judge.

Organizational Challenges

The TASC Critical Elements suggest that TASC operates best when it is structurally independent of both the criminal justice system and the drug treatment system because such an

arrangement allows for a greater degree of program objectivity in assessments and referrals in the best interests of the client. From this perspective, TASC programs are organized as independent entities that have formal relationships with criminal justice and treatment agencies to screen, assess, refer, and monitor drug-using offenders. Many TASC programs are organized to be consistent with these guidelines. That is, they are independent entities with their own articles of incorporation and their own Board of Directors (or, if they are a part of a public agency, their own advisory board). Most of the study sites were organized in this manner. While there is a strong tendency in TASC programs to have some level of independent organization, there is significant variance in actuality on whether the agency providing TASC services should also provide treatment services.

Provision of treatment is not consistent with the TASC Critical Elements. However, TASC programs that do offer treatment (particularly the Portland and Pittsburgh programs) argue that it is necessary for the following reasons. First, drug treatment programs are often not very interested in serving TASC clients. TASC clients tend to among the poorest clients with the most service needs. Thus, it generally costs treatment programs more to treat TASC clients than clients from other referral sources; moreover, TASC clients have fewer resources to pay for their services. Consistently, TASC programs in the study that offered direct treatment services began offering services to drug-using offenders when they were unable to place assessed clients in any local treatment program or the documented, needed services were not available in the community. From this perspective, treatment services were offered to fill a needed niche in the spectrum of drug treatment services in the community. Second, some TASC programs felt the need to have better control over the treatment process. To a significant extent, TASC is evaluated in terms of treatment outcome. Yet, according to the Critical Elements, TASC should not offer direct treatment services. TASC programs that offer direct services appear to believe that it is very difficult to ensure appropriate, effective treatment services if they do not offer them. Their commitment to serving the drug-using offender compelled them to meet that population's needs when no other local agency was as willing to do so as effectively.

While there are clear and reasonable arguments for TASC offering direct treatment services, discussions with programs who held to the Critical Elements and other administrators in the criminal justice and treatment systems indicated that there were some negative aspects to

direct service provision. First, TASC programs offering direct treatment services may not be viewed as objective brokers of drug treatment need assessment and appropriate referral for all drug-using offenders in the community. There appeared to be a tendency on the part of criminal justice and other treatment program administrators to view TASC programs that offered treatment services as just one part of a local competitive service system. That is, these types of TASC programs were not seen as different than any other treatment program. They were just seen as offering specific types of services to a particular type of target population that other local programs also might claim to serve. Second, because of the resource needs of the treatment component of TASC, there is potentially a problem of a conflict between the assessed needs of the drug-using offender and the need of the treatment component for clients. Generally, TASC programs that offer treatment services can not offer the complete range of therapeutic services. Rather, there is a particular emphasis. The range of needs of drug-using offenders is likely much greater than the TASC program can serve. Ideally, an individual with assessed needs that the TASC program could not serve would be referred out to another program. However, there appears to be some local skepticism by other agencies that this occurs universally.

While there are reasonable arguments on both sides of the issue of direct treatment service provision, the majority of TASC programs have consistently favored TASC as a non-treatment service provider. The desire is for TASC to be viewed as the objective, neutral party, committed only to the best assessment and referral services for the drug-using offender without a vested interest in providing.

The Future of TASC

In its nationally revised form, TASC is confronting the limitations of its structure, continuing to evolve its role under changing local conditions, and trying to determine its effectiveness. In this process, it is important to recognize a number of elements about the environment in which TASC works that affect its ability to achieve its goal.

The Power of Background Variables and Limited Resources

As many researchers have documented, while there is certainly evidence that treatment has positive effects on drug use and other behavior, the effects tend to be incremental and take a

relatively long time to achieve. Childhood developmental experiences, family background, educational level, and other individual characteristics have proved to be powerful influences on treatment progress and outcome. Given severe budget constraints, it is difficult to obtain the funds necessary to address the many and diverse needs clients bring to treatment. Thus, even if TASC offers the best possible assessment, referral to the most appropriate treatment program, and excellent monitoring services, the identified background variables can be very powerful in explaining treatment outcome. It may not be realistic to expect TASC assessment, referral, and monitoring to effect a dramatic change on an individual who has used crack for the last ten years, who left high school after the ninth grade, and whose primary source of income has always been illegal activities.

Social System Variables

The etiology of drug abuse is complex and is closely intertwined with psychological, social, economic, and cultural experiences. While treatment can reasonably be expected to deal with some of these variables, it is nearly impossible for treatment to change the local economic conditions that could provide viable opportunities for recovering addicts, to alter the sociocultural milieu to which the recovering addict will return, or to banish institutional and cultural racism. These types of variables are serious limitations on the effectiveness of any service program.

Operational Structural Variables

Critical structural variables primarily focus on the role of TASC as it relates to the criminal and treatment systems. If TASC functions within the parameters of the Critical Elements, it does not usually provide treatment services. It therefore has no ability to ensure that its assessment of treatment needs and other service needs is being met. TASC thus loses power over that which ultimately determines its effectiveness. It cannot, generally, ensure that compliance will occur after its assessment. Although there is a powerful argument for TASC being a non-service organization, it may be important for TASC to pay more attention to the quality of treatment and other services delivered.

To a significant extent, many of the largest programs, and most of the programs in this study, are still led by their founders. In addition, almost all of the national TASC leaders come from this founding generation. At some point, TASC will have to do some type of intergenerational transfer of vision, sense of mission, and operation to a new generation of administrators who were not a part of the early years of TASC. This transition has been experienced by many other social movements that eventually turned into organizational entities. Many of the younger administrators at TASC programs show considerable commitment to TASC, but programs have also experienced turnover as professional staff leave to earn higher salaries by providing services to perhaps less difficult populations. The successful institutionalization of TASC will require a successful transition to the next generation of TASC leaders and administrators.

Perhaps the most immediate crucial aspect of TASC's operational dilemma is the relationship between TASC and the criminal justice system. Judges and the system in general appear to support TASC because they view TASC as an extension of their offices by providing additional monitoring (urinalysis) or staff that help them deal with their own overloaded work schedules and responsibilities. However, judges recognize that TASC generally does not organizationally report to them. This often has resulted in considerable frustration on the part of judges in dealing with the extraordinary number of drug-using offenders who come before them. With TASC, they have to work through some type of standard protocol for contact and receiving reports. They cannot easily direct the staff. From this perspective, TASC may be regarded as a third party, just another layer between the judge and the services the judge perceives the offender as requiring. These perspectives played a major role in the drug courts movement. How TASC will interact and integrate with the these courts will be crucial to the continued effectiveness and existence of TASC.

The drug court, as a national philosophy and program, has spread from the largest cities such as Chicago and Miami to smaller communities such as Berrien County, Michigan. It involves the judiciary as the direct administrators of assessment, referral, and monitoring. It provides a much more directive role for the judge than do current arrangements with TASC. Some TASC programs, such as the Chicago program, are currently integrated into drug courts.

The judge essentially delegates or assigns TASC assessment, referral, and monitoring responsibilities. But, in this role, TASC reports directly to the judge.

As evidenced by the presentations and conversations at the first Drug Court Convention in Miami, Florida, in December of 1993, there is considerable national judicial interest in drug courts. Judges appear to see drug courts as a potentially effective means of dealing with their extreme frustration over the number of drug-involved cases coming before them and the apparent limited effectiveness of other means of intervention. A recent relatively positive evaluation of the Miami drug court by Goldkamp and Weiland (1993) provided further support for the expansion of drug courts. In addition, Attorney General Janet Reno was very involved in establishing the first drug court in the nation (in Miami, Florida), and she has continued to lend her support to this national movement. Funding for expansion of drug courts is planned as a part of the 1994 Crime Bill.

Conclusion

TASC is the oldest and best developed model of linkage between the CJS and the treatment system. According to National TASC, by early 1996 there were 320 programs in 30 states and 1 territory. Most funding for TASC programs comes from state or local governments. Unlike other programs within criminal justice, TASC explicitly and formally addresses the drugs-crime link through referral to drug treatment and monitoring of client progress in treatment. The TASC program model includes a number of features that research and clinical experience have found to be important for drug treatment to be effective, and it is possibly the only type of program that combines: (1) coordination of criminal justice and treatment, (2) use of legal sanctions as incentives to enter and remain in treatment, (3) matching of offenders to appropriate treatment services, and (4) monitoring of offenders with drug testing and keeping criminal justice officials of the offender's performance (General Accounting Office, 1993).

Although TASC was originally viewed as a bridge between the criminal justice system and drug treatment, on the assumption that treating drug addiction (primarily to heroin) would reduce criminal behavior, this bridge metaphor is becoming less appropriate as TASC programs broaden their service functions. As the etiology of drug use and crime has been shown to reside in multiple problems and deficits of drug-using offenders requiring services in multiple agencies,

a better metaphor to characterize TASC may be that of a network (Swartz, 1993). Increasingly, TASC programs are assessing the multiple needs of their clients and managing the coordination of the treatment or attention to these needs through a variety of programs and agencies. Where once TASC provided a link between criminal justice and drug treatment, it is now being extended (or could be extended) to serve its clients by providing network linkage with a variety of agencies, programs, and services through various forms of case management (Cook, 1992).

The ability of TASC in the 1990s to fulfill its objectives needs to be considered within the context of social and economic developments over the past two decades. When TASC began in the early 1970s, the primary illicit drug problem was heroin, treatment programs were expanding, social services were relatively well funded, and AIDS had yet to emerge. In addition, throughout the 1970s, TASC programs had adequate funding from LEAA and policy and programmatic support from NIDA. The 1980s brought a dramatic shift in the environment within which TASC operated. Federal funding for TASC disappeared with the elimination of LEAA in 1982; many TASC programs disappeared, but most were able to obtain local funding. Although TASC programs became eligible for criminal justice block grant funding under the Justice Assistance Act of 1984, funding levels were lower than during the 1970s.

Other developments also changed the ecology of TASC programs. Cocaine replaced heroin as the nation's primary illicit drug problem; the availability of social services declined as federal, state, and local budgets were pared back in the face of budget deficits and increased emphasis on strict criminal justice sanctions; AIDS placed increasing pressure on an already strained medical and social service system; and, in many areas, high unemployment rates and the disappearance of traditional blue-collar jobs made it difficult for TASC clients to find jobs. All of this has made it difficult for TASC to bring about the significant levels of behavioral change expected by the public in a large number of clients. In this respect, TASC faces the same problems as other intervention programs for offenders. But in a number of ways--its long experience, its well-conceived model, its linkages with the local service system--TASC may be in a better position than other types of offender treatment programs to operate successfully within an eroding public service ecology.

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Notes

1. In addition to the sources listed in the text, some of the background on TASC in the 1970s comes from an interview with Carl Hampton, who worked on TASC while at the National Institute on Drug Abuse in the 1970s. He also provided a number of documents from the Special Action Office for Drug Abuse Prevention and NIDA related to TASC (see Wellisch, Prendergast, & Anglin, 1993).

2. While this case did not directly deal with TASC, it did deal with the constitutionality of the NARA Act exclusion of addicts with two prior convictions. The Supreme Court concluded that it was constitutional and reasonable to offer rehabilitation only to those addicts most likely to benefit. The Act and the Constitution did not require that all addicts be offered treatment. Thus, this decision supported the constitutionality of the TASC focus on drug using offenders with minimal previous offenses.

3. This decision did not directly address TASC. The decision addressed the need for due process in probation revocation. The implication of the decision was that a termination from treatment did not automatically result in probation revocation. The decision supported the separation of the treatment termination from any consequent probation revocation. Thus, TASC and treatment programs used by TASC could act on the basis of clinical expertise without having to incorporate probation revocation considerations as a part of their deliberations.

4. The administrators of these four programs are as follows: Richard Assarian, Pittsburgh, Pennsylvania; Foster Cook, Birmingham, Alabama; Melody Heaps, Chicago, Illinois; and Linda Tyon, Portland, Oregon.

Chapter 4

Introduction to the Outcome Evaluation

The outcome evaluation proceeded in parallel to the process evaluation and measured TASC program effects in four domains: treatment services received, drug use, criminal recidivism, and HIV risk behavior. Findings for each domain appear in Chapters 5 to 8 respectively. This chapter provides an overview of the research strategy, a description of offenders sampled at each site, and an explanation of analytic methods on which findings in each domain were based.

Research Strategy

To understand the research context fully, it is important to review four aspects of the research strategy: site selection, evaluation design, the timing of intake and follow-up interviews, and data collection procedures.

Site Selection

Evaluation funding was sufficient to support field work at five TASC programs. In the site selection process, one goal was to ensure that different types of programs and client populations were covered. (As explained in Chapter 1, site selection was also driven by practical concerns such as client flow and willingness of program directors to participate in the evaluation.) The five programs we selected can be distinguished on two characteristics potentially relevant to outcomes. These characteristics are:

o   program maturity--new or established; and

o   client population--juvenile or adult.

Evaluation findings are often contingent to some degree on program maturity. Compared to programs with an established track record, newer programs may be operating at less than peak efficiency and may not have had enough time to create strong working relationships with other players in the local criminal justice system. On the other hand, the performance of new programs is sometimes enhanced by the energy of staff and a commitment to innovation. Three programs in the

evaluation -- Birmingham, Chicago, and Portland -- had been in operation for almost 20 years. The other two programs, Canton and Orlando, had existed for only about one year before fieldwork began.

In addition, the client population is an important consideration in interpreting findings. Juveniles may be more amenable to intervention than adult "hardened criminals." However, the prognosis may be poor for many juveniles whose drug use and crime are severe enough to warrant intensive intervention. In any event, because many TASC programs serve juvenile offenders, it was important to include at least one such program in the evaluation. Orlando served as our juvenile offender site. The other four programs -- Birmingham, Canton, Chicago, and Portland --served adult offenders.

Outcomes observed at these five programs may not be typical of TASC program outcomes in general because, as described in Chapter 3, TASC programs vary widely in client population, program maturity, and other characteristics. In fact, no set of five programs could have been selected to be representative of all TASC programs in a statistical sense. We believe, however, that these programs comprise a satisfactory *purposive* sample (i.e., a sample deliberately chosen to provide a suitable range of programs and client populations) and that findings across sites can be read as evidence regarding the effectiveness of the TASC model as implemented by programs at different levels of maturity and with different client populations.

Evaluation Design

Another goal of site selection was to maximize the rigor of the evaluation. At each potential site, we discussed the feasibility of a design in which offenders could be assigned randomly to an experimental group (TASC) or to a control group. Such a design is unusual in multi-site program evaluation because considerable resources are needed to maintain random assignment and because, if services in the experimental condition are known or believed to be more effective, it is unethical to deny such services to any client who would otherwise receive them. On the other hand, findings from a well-done experimental study are generally more persuasive than non-experimental findings, and random assignment is defensible if the number of clients eligible for a program clearly exceeds the program's capacity.

At two sites, Canton and Portland, the program directors and local criminal-justice representatives agreed to an experimental design in which the control group would be assigned to an

alternative intervention available for drug-using offenders in the local community. During the fieldwork period, we randomly assigned enough eligible offenders to TASC to keep each TASC program filled to capacity. Other offenders were assigned to the alternative. At the other three sites, where an experimental design was not possible, we used a quasi-experimental design in which the intervention received by the comparison group was routine probation.

The difference between experimental and quasi-experimental designs must be kept in mind when findings are interpreted. At our two experimental sites, the alternative interventions were treatment programs which offered services (e.g., counseling, urine testing) appropriate for drug-involved offenders but which did not do so under the TASC service delivery model. Thus, if it was to emerge as more effective, the TASC model had to outperform an alternative nonroutine intervention by delivering more service units, monitoring offenders more closely, or in some other way separating itself from the nonroutine alternative. This was a stringent criterion for success (Palmer, 1992). On the other hand, because of the scientific rigor achieved with an experimental design, findings indicating a TASC program's success, even if modest, would constitute very persuasive evidence for the value of the TASC model.

At our three quasi-experimental sites, the alternative intervention was routine probation. To emerge as more effective, a TASC program had to outperform "business as usual" probation in the same community. "Business as usual" presumably varied, depending on the offender and on stipulated conditions of probation. It might have been minimal supervision by a probation officer but could have included close monitoring and service referrals. Overall, however, we expected the intervention received by TASC offenders to be considerably more intensive than the intervention received by offenders on routine probation (findings on service delivery confirmed this expectation; see Chapter 5). This was a less stringent criterion for success but had the advantage of comparing TASC to the intervention routinely available to most offenders in the same community.

Timing of Interviews

The evaluation contract mandated a follow-up period of six months for each offender. During this period we were to measure services received by the offender as well as any drug use, crime, and HIV risk behavior. A crucial task at each site was determining when to open this six-month "window" (i.e., when to enroll offenders and complete intake interviews) so that the information we obtained at

follow-up would be of maximum value. This was a simple matter at sites where offenders were first seen by TASC, screened, assessed, and placed in services within a few days. But, at some sites, the supply of services in the local treatment system was well below demand, and offenders might wait several days or weeks before being placed in treatment. If we had opened the six-month window too early, follow-up interviews might have occurred before many offenders received their full complement of *treatment services*. On the other hand, the longer we waited before enrolling offenders, the less we would learn about the *TASC services* they received; some and perhaps many of the functions served by TASC (screening, intake, assessment) could have taken place before study intake. (At some sites, the treatment provider was the agency also responsible for TASC services. But it was still possible to differentiate TASC functions served by that agency and treatment services provided by it.) Finally, if we had waited too long, the pool of offenders available to be enrolled in the study would have dwindled to those still in contact with TASC while awaiting services. Such offenders might have been atypical of offenders sent to TASC overall. We decided to select a six-month window that would give us the most complete record of *treatment services* received by offenders at each site. This was our priority because treatment services were crucial as an indicator of TASC outcomes. However, the six-month window differed across sites.

In Birmingham, recruitment of TASC offenders occurred after they had been assessed by TASC, sentenced to probation with TASC as a condition, and made their first contact with their case manager. Comparison group offenders were recruited from the adjacent community of Bessemer. Within a few weeks of being sentenced to probation, Bessemer probationers were referred by their probation officers to study staff for screening into the study. The screening tool paralleled the TASC eligibility screening instrument used in Birmingham. When comparison/control offenders met the screening criteria, they were asked to volunteer for the study.

An experimental design was followed in Canton. All offenders referred to the TASC program were potential subjects for the study. Fieldwork staff interviewed potential subjects and indicated that part of study participation would be an agreement to be randomly assigned to TASC or another program, which was operated by QUEST Recovery Services. (The main difference between TASC and the QUEST alternative was that TASC had expedited assessment and case management.) Offenders who agreed to random assignment were recruited into the study.

A quasi-experimental design was followed in Chicago. The experimental group was recruited from offenders court-ordered to TASC after assessment and sentence but before the delivery of treatment services. The actual point of recruitment by study staff was at a weekly orientation session, which was the first stop for offenders court-ordered to TASC. Comparison offenders were recruited from offenders sentenced to probation who had not been referred to TASC. Recruitment occurred outside the sentencing courtroom by study staff who screened probationers using a form based on TASC eligibility and acceptability criteria.

Similar to Chicago, Orlando followed a quasi-experimental design. TASC offenders were recruited from youth who were court-ordered to TASC after an assessment by TASC but before the delivery of treatment services. Comparison offenders were recruited from recently sentenced youth who were not referred or ordered to TASC. Comparison youth were screened by study staff using TASC eligibility criteria.

In Portland an experimental design was used. Unlike other programs in which TASC was ordered as a condition of probation by a judge, probationers were most frequently referred to TASC in Portland by their probation officers at some point during their probation sentence. We recruited probationers referred to TASC at the weekly TASC orientation session. This session occurred before formal assessment by TASC (unlike the other sites). Study staff requested offender participation and indicated that participation meant possible assignment to TASC or one of three other community intervention programs. Offenders who agreed to the random assignment procedure were recruited into the study.

At any site, treatment services reported may not have been the same as actual services received because we may have missed treatment services received before or after the six-month window and because offenders may have erred in recall. But we think we captured the bulk of treatment services because data collection windows were carefully tailored to each site. Moreover, even, if services were undercounted, the bias probably gave us a more conservative test of TASC (a true count of all services would probably have widened the difference between TASC and control/comparison groups). Thus, any difference favoring TASC would be persuasive evidence for its effectiveness at service delivery.

Data Collection Procedures

This study made use of four types of data: offender self-reports obtained in intake and follow-up interviews, results of urinalysis tests performed on urine specimens voluntarily supplied by offenders at each interview, treatment and criminal justice records, and service cost data obtained from treatment providers and criminal justice agencies.

The intake interview, conducted as soon as possible after recruitment into the study, gathered self-report data on offender demographics (e.g., age, marital status, employment); drug use and crime on a monthly basis during the six months preceding intake; HIV risk behavior in the most recent 30 days and summed across the full six-month baseline period; and offender attitudes and perceptions regarding crime, drug abuse treatment, and HIV risk. Six months after intake, we conducted a follow-up interview in which self-reported drug use and crime during the intervening period were recorded and selected attitudinal and perceptual measures updated. Additional information was obtained on the nature of treatment services received, their frequency, duration, and perceived value to the offender. Interviews followed a format used successfully in prior studies by NIDA, UCLA, and RAND. Interview forms are described in Table 4.1.

Urine tests were used to check on the truthfulness of offenders' self-reported recent use of cocaine, opiates, marijuana, amphetamines, barbiturates, and five other drugs less commonly used. Urine tests can detect use of these drugs within the past two to seven days. A test was considered positive if use of any drug was indicated by an enzyme immunoassay (EMIT) screener and confirmed by gas chromotography. Testing by these methods has been shown to be highly accurate. All testing followed standard confidentiality and chain-of-custody protocols.

The recall period for self-reported drug use was six months. Thus, urine tests cannot be used to calculate exact rates of misreporting. But any self-report of nonuse over a six-month period was disconfirmable by urine test and thus provided a lower-bound estimate of misreporting overall. Also, we sought to minimize misreporting by notifying offenders, at the outset of each interview, that we would collect a urine specimen if they were willing to provide it. Thus they knew in advance that their self-reports would be checked. Most all offenders provided a specimen (85% at intake and 84% at follow-up).

Official records data provided a useful alternative to some of the self-report data. If official records are reasonably reliable and complete, findings based on such records may be less subject to bias arising from attrition (offenders lost to follow-up) or offender misreporting.

Cost information was obtained from each site using a small survey. Each TASC site was mailed a one-page form on which to indicate TASC enrollment costs, medical screens, and urinalysis tests. We also asked sites to provide the average costs for treatment in different modalities -- inpatient/residential, outpatient, detox, etc. The form also requested costs associated with criminal justice processing in the jurisdiction -- costs for probation, jail, and prison. If the TASC site was unable to provide the criminal justice costs, we contacted the local probation staff and obtained the required information.

Not all programs were able to provide daily or unit costs for TASC services. In some sites, because of accounting procedures, we were able to obtain estimates only for the costs of the total TASC program per offender. In these cases, we estimated costs based on other available information (as described in Chapter 9).

Offender Sample

This section describes, for each site, the sample size and follow-up rate, representativeness of the sample, and comparability of the TASC and control/comparison groups.

Sample Size and Follow-up

Our goal was to enroll 2,000 offenders in the study (200 offenders in TASC and 200 in the control/comparison group at each of the five sites). During fieldwork it gradually became apparent that the desired number of offenders per site would be easier to achieve at some sites than at others. In particular, the number of offenders entering the Canton TASC program each month was lower than the number we expected on the basis of our review of pre-fieldwork data. We compensated by oversampling at other sites where the flow of offenders was more than sufficient. As shown in Table 4.2, we met our goal by recruiting 2,014 offenders. To compensate for the shortage of cases in Canton, we oversampled in Birmingham, Chicago, and Orlando.

Table 4.1: Interview Forms

1.   *Risk Behavior Assessment Questionnaire.* The Risk Behavior Assessment (RBA)and a Risk Behavior Follow-up Assessment (RBFA) are each a 20-30 minute personal interview with the respondent. The interview covers demographic data, lifetime and past 30 days drug use, drug treatment experience, HIV-related risk behavior, health history, HIV testing and contact with AIDS prevention programs/services, arrests, work, and income. These instruments were developed by NIDA's Community Research Branch for use in the agency's cooperative-agreement community outreach programs.

2.   *UCLA HIV/AIDS Assessment Instruments.* More detailed data on HIV/AIDS-related variables were collected through three interviewer-administered forms: AIDS Knowledge and Attitudes, Drug-Related Risk Behavior, and Sex-Related Risk Behavior. Question on risk behavior covered a six-month recall period.

3.   *RAND Official Record Background Instrument.* The RAND Official Record Background Assessment instrument gathers offender background information from official record files (generally probation/parole files, including pre-sentence reports). The form records demographic information, drug use history and treatment, prior criminal record, current offense information, and a risk/need assessment.

4.   *RAND 6-Month Official Record Review.* The RAND 6-Month Official Record Review (RAND 6 MO) is used 6 months after subject assignment to collect information from official probation/parole files to determine the number and type of contacts made by program staff, participation in counseling and drug treatment, technical violations and arrests, and employment and education/vocational training in which the offender has participated during the 6 months following program assignment. This form identifies services and referrals performed by TASC as well as offender participation in treatment and other programs.

5.   *Risk Behavior Follow-up Assessment Questionnaire.* This instrument is currently used for cooperative-agreement studies on AIDS education and prevention programs. The measures in the RBFA are similar to those in the RBA.

6.   *UCLA Natural History Interview.* The UCLA Natural History Interview (NHI) is a comprehensive self-report interview that retrospectively measures drug use, criminal activity, employment, income, and other behaviors five years prior to intervention to the time of the 6-month follow-up interview. This interview provides in-depth information on the drug use, legal, and treatment careers of subjects. It also provides data permitting assessment of time-related changes on multiple outcome measures. UCLA adapted the form for a study of the California Civil Addict Program (Anglin & McGlothlin, 1984) from an interview schedule originally developed by Nurco and Shaffer (1982).

In longitudinal studies there is inevitably a degree of attrition between intake and follow-up. Some cases who complete the intake interview will decline to be interviewed at follow-up or persist in missing appointments for their follow-up interviews. Other cases simply cannot be found. Our follow-up rates (see Table 4.2) ranged from a low of 69% in Canton to a maximum of 90% in Orlando. Across sites the overall follow-up rate was 83%. This very satisfactory rate was achieved by allocating considerable fieldwork resources to follow-up (including out-of-town visits to correctional institutions where offenders were being held or cities to which they had moved) and of course to the diligence of fieldwork staff.

Interpretation of findings for any site would have been compromised if follow-up rates had differed between the TASC group and the control/comparison group. However, follow-up rates were similar between groups at each site; see Table 4.3. In analyses not summarized here, we examined follow-up rates in relation to a range of offender characteristics, such as gender, age, drug use patterns, and criminal history. We also checked for interaction between offender characteristics and group assignment (For example, was the follow-up rate different at any site for men assigned to TASC compared to men assigned to the control/comparison group?) There was no evidence that follow-up rates varied in any way that might complicate the interpretation of findings.

Table 4.2: Sample Sizes and Follow-up Rates

	Birmingham	Canton	Chicago	Orlando	Portland	Total
TASC offenders	258	107	285	252	212	1,114
Control/comparison offenders	213	85	202	219	181	900
Total	471	192	487	471	393	2,014
Follow-up rate	85%	69%	81%	90%	84%	83%

Table 4.3: Follow-up Rates by Group

	Birmingham	Canton	Chicago	Orlando	Portland
TASC offenders	84%	68%	82%	87%	86%
Control/comparison offenders	85	71	80	92	83

Sample Representativeness

The procedure for recruiting TASC offenders at each site was meant to provide a representative sample of all offenders sent to TASC by the criminal justice system locally. To verify that recruited offenders were similar to the overall TASC offender population, we obtained as much information as possible on offenders who comprised the TASC population at each site during our fieldwork period. We then compared them to the offender sample we recruited at the same site.

Information on client characteristics was sufficient from two of the study sites. In Chicago, the study sample resembled the larger TASC population in terms of gender, age, sex, and ethnicity, although the study sample had slightly fewer African Americans (72 vs. 80 percent) and slightly more Puerto Ricans (14 vs. 2 percent). The percentage never married was the same, although the percentage of men living with their families was somewhat less in the study sample (60 vs. 66 percent). Similar percentages were receiving public assistance. Prior treatment history of study and overall TASC offenders were similar: approximately 60 percent had no prior drug treatment episodes; the primary drugs of abuse were heroin and cocaine.

In Birmingham, 80 percent of all TASC offenders were male; 50 percent were employed; 62 percent were African American; 38 percent were white; and the average age was early 30s. The TASC study sample was similar: 75 percent were male; 56 percent were employed; 70 percent were African American; 30 percent were white; and the average age was 32.

Group Comparability

Despite random assignment of offenders at two of our sites and careful screening of comparison offenders at the other three sites, there remained the possibility that TASC and control/comparison groups might differ on some offender characteristics. To explore this possibility, we compared the TASC group and the control/comparison group at each site on the basis of: treatment history, criminal history, drug use history, risky sexual behaviors, personal stability, demographic background, and drug use misreporting. Characteristics on which the groups differed at any site were included as covariates in outcome analyses; see below.

Demographic Characteristics

Table 4.4 presents the demographic characteristics of study offenders. Reflecting the nature of the offender population, the majority of offenders -- more than three-quarters -- at each site were male. Only in Chicago were TASC and comparison groups different on gender composition. The ethnic background of offenders differed across sites. In Birmingham and Chicago, the great majority of offenders were African American; in Canton, whites and African Americans were about equally represented. In Portland, the majority of offenders were white. In Orlando, the majority were African Americans; however, more than 10 percent were Hispanic. Across the adult TASC programs, offenders were generally older -- averaging 30 or older. Youth in Orlando averaged 16 years of age. In Birmingham and Chicago, comparison group offenders were significantly younger than TASC offenders. The average educational attainment across sites was less than high-school completion. Employment status varied greatly across sites for adult offenders, from more than half employed in Birmingham to fewer than 20 percent in Chicago.

Prior Drug Use

Table 4.5 shows general measures of drug use -- lifetime and age at first use. Approximately 90 percent of offenders in the adult sites had used marijuana, while approximately 80 percent of the juveniles in Orlando had used marijuana. Cocaine (injected or snorted) and crack had been used by a majority of offenders at all sites except Orlando. Amphetamine use varied widely across sites, with more than half of offenders in Canton and Portland having used the drug.

For those offenders who had used a particular drug, Table 4.5 presents the average age at first use. Alcohol and marijuana use began early. The average age for alcohol initiation was less than 15 at all sites. Marijuana and amphetamine use began in the mid to late teens. Adult offenders began using cocaine and crack in their twenties, partly reflecting the more recent widespread availability of these drugs.

Prior Treatment History

Table 4.6 reveals large percentages involved in prior treatment, although sites differ greatly in the extent of prior treatment. Almost two-thirds of offenders in Portland had prior detoxification

Table 4.4

Demographic Characteristics of TASC Study Offenders

Characteristic	Birmingham		Canton		Chicago		Orlando		Portland	
Sex	TASC	Control	TASC	Control	TASC	Control	TASC	Control	TASC	Control
%Male	75.1	81.4	79.8	75.5	86.7	74.0*	74.1	75.1	76.8	76.7
%Female	24.9	18.6	20.2	24.5	13.3	26.0	25.9	24.9	23.1	23.3
Race										
%Black	69.8	76.4	40.5	54.7	80.7	87.7	47.6	61.7*	31.0	27.9
%White	30.2	23.0	58.2	43.4	12.4	5.2	40.6	22.4	60.1	64.0
%Hispanic	0.0	0.0	1.3	0.0	6.0	7.1	10.8	14.9	3.0	3.5
%Other	0.0	0.6	0.0	1.9	0.9	0.0	0.9	1.0	6.0	4.6
Marital Status										
%Single	50.7	57.8	38.0	41.5	56.6	43.9*	96.2	97.5	44.0	50.0
%Married	18.5	16.8	15.2	18.9	12.9	11.6	1.9	1.0	10.7	11.6
%Divorced	17.6	9.3	10.1	13.2	10.3	9.0	0.0	0.0	16.1	14.5
Average Age	31.8	27.7*	31.6	30.8	31.5	33.2*	16.1	16.0	32.2	31.0
Average highest grade completed	3.7	3.2*	3.4	3.5	3.3	3.4	1.6	1.6	3.7	3.8
% Employed	56.1	56.5	35.4	30.2	14.6	23.1*	13.2	12.9	35.7	41.9

Note: *indicates TASC and control significantly different, p < .05, for education 1 = 8th grade or less, 2 = less than high school diploma, 3 = GED, 4 = high school diploma.

Table 4.5

Prior Drug Use of TASC Study Subjects

Characteristic	Birmingham		Canton		Chicago		Orlando		Portland	
	TASC	Control	TASC	Control	TASC	Control	TASC	Control	TASC	Control
%Ever used alcohol	98.0	97.5	100.0	100.0	94.0	95.5	85.4	79.1	98.8	99.4
%Ever used MJ	89.8	84.5	97.5	92.4	97.4	95.5	81.1	79.6	92.9	91.3
%Ever used cocaine	54.2	37.3*	54.4	54.7	83.3	78.7	9.0	8.5	76.2	68.6
%Ever used crack	61.5	42.2*	76.0	54.7*	76.8	80.6	5.7	4.0	61.9	56.4
%Ever used heroin	10.2	4.3*	15.2	13.2	71.7	70.3	0.9	2.0	36.9	38.4
%Ever used amphetamines	30.7	19.2*	62.0	54.7	15.0	16.1	8.5	3.5*	61.9	62.2
Age 1st used alcohol	14.9	14.6	14.1	14.7	13.7	14.5*	12.4	12.3	13.8	12.9
Age 1st used MJ	16.7	15.6*	15.5	16.1	15.0	15.7	13.3	13.3	14.5	14.3
Age 1st used cocaine	22.6	22.9	22.0	22.1	21.1	21.4	15.3	14.6	21.8	20.3
Age 1st used crack	27.6	24.8*	26.1	25.2	24.7	25.3	15.2	15.1	24.3	23.6
Age 1st used heroin	19.9	19.7	20.2	21.9	21.6	22.6	14.0	13.2	23.1	22.4
Age 1st used amphetamines	18.2	18.9	17.8	18.5	18.5	18.0	14.2	15.1	18.0	19.0

Note: *indicates TASC and control significantly different, p < .05.

Table 4.6

Prior Treatment History of TASC Study Offenders

Characteristic	Birmingham		Canton		Chicago		Orlando		Portland	
	TASC	Control	TASC	Control	TASC	Control	TASC	Control	TASC	Control
%Ever in prior treatment	37.1	24.2*	67.1	45.3*	48.7	43.9	22.2	10.9*	64.3	63.4
For these with prior treatment										
%Ever in outpatient	53.9	28.2*	56.6	50.0	24.8	27.9	33.3	31.8	59.8	62.0
%Ever in residential	68.4	82.0	67.9	66.7	62.8	54.4	84.4	68.2	59.3	54.1
%Ever in jail/prison treatment	10.5	5.1	13.2	16.7	28.6	8.8*	2.2	4.6	13.1	12.8
%Ever told infected with AIDS virus	0.0	0.0	0.0	0.0	0.7	3.7	1.1	0.0	0.8	0.8
%Ever told had AIDS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0

Note: *indicates TASC and control significantly different, p < .05.

or drug treatment. Although the average age of juveniles in Orlando was only 16, more than 20 percent of the TASC offenders had experienced at least one prior treatment episode.

For those with prior treatment, Table 4.6 presents the type of treatment in which offenders had been enrolled. Over half of all adult and juvenile offenders who had been in treatment were in residential treatment programs. Large percentages had also been in outpatient drug free programs. Relatively few had participated in jail or prison treatment programs.

One primary concern for drug-using groups is their risk for HIV infection and AIDS. Study interviewers asked offenders if they had ever been told they have the AIDS virus or had AIDS. Very few offenders reported that they had. Chicago offenders reported the highest rates overall-- 3.7 percent of control offenders and 0.7 of TASC offenders.

Prior Criminal Record

To gather information on the extent of the prior criminal record of offenders, interviewers asked offenders to indicate the number of crimes they had committed during the past six months and whether they had been arrested. Crimes were described in common-sense phrases such as "broke into a house, building, or car in order to take something" (burglary).

Table 4.7 presents the information on these prior record variables. Sites differed with respect to the percentages who reported crimes and arrests during the six months prior to their interviews. Orlando and Chicago offenders more frequently reported crimes and arrests. The lowest percentages committing crimes and being arrested were in Portland. This may reflect the timing for study recruitment. In the other sites, study recruitment occurred closer to the time of sentencing than in Portland and would be more likely to include the offense for which the offender was sentenced.

In terms of average crimes, arrests, and time incarcerated during the prior six months, Table 4.7 shows that the median number of arrests across sites is one. The median number of crimes committed, however, varied greatly across sites, from lows of under 10 crimes in Orlando and Birmingham to over 30 for Chicago TASC and comparison offenders.

Table 4.7

Prior Criminal Records of TASC Study Offenders

Characteristic	Birmingham		Canton		Chicago		Orlando		Portland	
	TASC	Control	TASC	Control	TASC	Control	TASC	Control	TASC	Control
6 MONTHS PRIOR										
%with crimes	33.2	32.9	38.5	62.3*	56.2	69.5*	79.7	80.6	28.9	29.4
%with arrests	26.3	27.9	26.9	32.1	38.6	70.1*	73.1	63.7*	15.1	15.9
Average # crimes	5.5	3.0	35.0	17.0*	35.0	30.0	6.0	6.0	23.0	20.5
Average # arrests	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Average # days incarcerated	1.0	0.0	6.0	3.0	63.0	14.0*	9.0	7.0	30.0	21.0

Note: *indicates TASC and control significantly different, $p < .05$.

Drug Use Misreporting

Finally, to compare drug use misreporting between groups, we examined self-reported rates of drug use (or nonuse) in relation to results from tests of urine specimens voluntarily provided by most offenders. Those who self-reported no use of an illegal drug in the 30 days before intake were counted as misreporters if results from the urinalysis were positive, indicating recent drug use. Following the same procedure, we created additional indicators of misreporting based on counts of urine-positive offenders who self-reported no drug use during the most recent 30 days of the follow-up period, those who self-reported no drug use throughout the six-month baseline period, and those who self-reported no drug use throughout the six-month follow-up period. We view these rates as lower-bound estimates inasmuch as they count only those offenders who denied any drug use during the 30-day or six-month windows. We had no way to determine whether offenders who admitted drug use were underreporting the number of days or occasions on which they took drugs. Nevertheless, the data were useful for detecting any gross differences in misreporting and signaling the possibility that other outcome measures (crime and HIV risk behavior) might have been differentially misreported as well.

Drug use misreporting rates during the two 30-day periods were similar for TASC and control/comparison offenders at each site; see Table 4.8. In addition, we found no differences in drug use misreporting at any site across the six-month follow-up period. Across the six-month baseline period, however, misreporting was higher in the Birmingham TASC group (10.2%) than in the Birmingham comparison group (4.0%). Because this was the only significant difference among 20 comparisons (five sites by four measures), and because misreporting was relatively low in each Birmingham group, we believe the difference probably arose by chance and is, in any case, not likely to affect findings. We nevertheless took the precaution of entering misreporting indicators as covariates in primary outcome analyses (see Chapters 6 to 8).

Summary of Group Comparisons

Our analysis of the background characteristics of the TASC offenders indicates a great deal of prior involvement in both drugs and crime. Although background characteristics varied from site to site, they generally reflect characteristics associated with this type of population -- poor employment, low education, and family instability (as indicated by marital status). Within sites our analysis revealed that the TASC and control/comparison groups were similar on most demographic, drug, and

criminal record variables. However, there were some statistically significant differences between groups, particularly at the quasi-experimental sites. In other words, random assignment at the experimental sites and offender screening at the quasi-experimental sites produced equivalent groups in most respects but, probably by chance, some differences arose. These group differences were controlled for in our final analyses of the impact of TASC on offender behavior.

Table 4.8: Misreporting Rates

	30-day baseline	30-day follow-up	Six-month baseline	Six-month follow-up
Birmingham				
TASC	13.3%	15.3%	10.2%*	8.9%
Comparison	10.3	14.8	4.0	12.1
Canton				
TASC	9.3	6.1	3.2	2.3
Control	6.8	11.3	2.1	5.9
Chicago				
TASC	10.5	18.6	1.5	5.3
Comparison	17.6	19.1	0.8	7.8
Orlando				
TASC	5.7	5.2	3.3	3.0
Comparison	6.1	9.4	2.4	3.2
Portland				
TASC	12.5	9.9	6.0	5.8
Control	16.0	12.4	9.9	5.6

*$p=.01$

Analytic Method

In this section we review the underlying rationale for multivariate analyses of three outcome domains--drug use, crime, and HIV risk behavior. (We omit discussion of the fourth outcome domain, treatment services received, because analyses in that domain did not employ multivariate techniques.) We then describe our analytic procedure and the steps taken to identify and control for background covariates. Finally, we specify operational definitions of predictor variables used in analyses of each outcome domain.

Rationale

Outcome analyses were performed on an "intent to treat" basis. That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the amount or "dose" of treatment services actually received by offenders in either group. As will be seen in Chapter 5, some offenders, both TASC and comparison, reported receiving no treatment services at all (counseling, urine monitoring, AIDS education, etc.) during the follow-up period. This was to be expected in our comparison groups, recruited from the population of offenders not referred to TASC at each site. (Such offenders might have sought drug abuse treatment on their own and might have been referred to treatment by their probation officers or other agents of the criminal justice system. However, most comparison offenders did not seek or receive any treatment.) It was also to be expected that some offenders in the TASC group would receive no drug abuse treatment services. All offenders sent to TASC received *TASC services*. However, in order to receive *treatment services*, offenders had to follow-up on the referrals provided by TASC, and some offenders did not do so.

An "intent to treat" analysis is conservative. TASC effects might appear stronger if we had excluded TASC cases who received no treatment services as a result of the TASC referral and cases whose "dose" of treatment services was less than intended or optimal. On the other hand, serious bias may be introduced when analyses are restricted to cases who self-select the type and quantity of treatment they receive. The direction of this bias is, moreover, unknown. Cases who self-select for treatment may be more motivated to improve; such cases might have a better prognosis for recovery. Alternatively, cases most likely to get treatment may be those who, in the view of others or themselves, need it most; such cases might have a worse prognosis for recovery.

In supplemental analyses restricted to offenders in the TASC group at each site, we determined whether outcomes were more favorable among offenders who received drug abuse treatment services than among those who did not. We also checked for the possibility of an interactive effect between receiving any service and the offender's behavior (drug use, crime, or risk behavior) at baseline. The purpose of these supplementary analyses was descriptive, not evaluative, because we cannot know the degree or direction of possible bias due to self-selection of TASC offenders into treatment services. However, we still wished to see whether receipt of treatment services was associated with better outcomes.

It is also important to note that TASC outcomes, as we have measured them, depend on the efficacy of the local treatment services to which offenders were referred. We did not attempt to measure the quality of treatment services received, nor did we attempt to identify the processes (e.g., cognitive or normative changes) through which effects may have occurred.

Procedure

Primary outcome analyses for drug use, crime, and HIV risk behavior were performed by means of ordinary least squares (OLS) regression. Scores on the outcome measure were transformed when necessary to produce a distribution suitable for regression analysis. In each prediction equation, the outcome measure was regressed on its baseline counterpart, group assignment, the interaction between group assignment and baseline measure, and background covariates. Background covariates were added to each equation by means of the procedure specified below.

The interaction term was retained in final equations only if it was statistically significant and if further analyses confirmed that TASC effects were contingent on the offenders' level of baseline behavior. A significant interaction term meant only that the extent of behavior change was different in one or more subsamples defined by group assignment and baseline behavior. If, for example, behavior change was greater in the high-baseline TASC group, compared to the low-baseline TASC group, the interaction term, though statistically significant, would not mean that TASC offenders outperformed control/comparison offenders. Thus we had to conduct additional analyses whenever interaction terms in the regression equations were significant. These analyses split each site's sample into high- and low-baseline subsamples to see if behavior change was greater among TASC offenders in either subsample. We also entered dummy variables for each group-by-baseline category into regression equations for the sample overall to see whether dummy predictors indicated a favorable effect of TASC.

Supplemental analyses based on dichotomous outcome measures were performed by logistic regression. In each prediction equation, the outcome measure was again regressed on its baseline counterpart, group assignment, the interaction between group assignment and baseline measure, and background covariates. Baseline behavior measures were converted to yes/no measures in these analyses in order to parallel the yes/no outcome measures. Covariates that were measured as continuous variables served as control variables; they were not converted to yes/no measures.

Covariates

Because group assignment and/or outcomes were correlated with some background characteristics of offenders (see above), we used these characteristics as covariates in regression analyses. This step served to minimize the chance that findings might reflect some pre-existing difference between the TASC and control/comparison groups. It also reduced the residual, or unexplained, variance in outcome measures. Reducing residual variance enabled us to detect TASC effects in each of these domains with more precision.

We drew up an initial list of potential covariates by identifying background characteristics related to group assignment or outcomes at any site ($r \geq .10$ or $p \leq .10$) and then merging these lists across sites. All potential covariates on this list were allowed to enter the regression equation for each site by backward stepping (the criterion for entering the equation was $p \leq .05$). If a covariate stepped in at any site, we included it among the covariates for all sites, thus standardizing the set of prediction variables across sites.

Terms for the interaction between each covariate and the outcome measure were allowed to enter the equation by forward stepping ($p \leq .01$). The procedure was more stringent for interaction terms than for main effects because interactions are often complex and difficult to interpret. Moreover, because so many potential interactions were being tested, setting the p value at .01 reduced the possibility that interactions detected in the data could have arisen by chance. We did not standardize the set of covariate interaction terms across sites. We included them on a site-specific basis only. Thus, where TASC effects were contingent on a covariate, we sought to characterize the contingency at each individual site without imposing it on the data for all sites. Covariates included in the final equations for each site and outcome measure are reported in Chapters 6 to 8.

Measures

Predictor variables in each primary outcome analysis included group assignment; the offender's behavior (drug use, crime, and HIV risk behavior) at baseline; the interaction between the two if applicable; and covariates. In supplemental analyses we used, as additional predictors, the offender's primary drug and an indicator of whether the offender received any treatment services.

Group Assignment

At each site, TASC offenders were assigned a score of 1 and control/comparison were assigned a score of 0. Thus, a positive sign for this predictor would mean that TASC offenders reported higher levels of drug use, crime, or HIV risk behavior at follow-up. A negative sign would mean that TASC offenders scored lower than control/comparison offenders on these variables.

Baseline Behavior

Measures of drug use, crime, and risk behavior during the six-month baseline recall period paralleled the outcome variables, continuous and dichotomous, cited above. For further information, see Chapters 6 to 8.

Group by Baseline Interaction

To see whether TASC effects were contingent on the offender's baseline behavior, we multiplied the offender's group assignment by the baseline variable of interest.

Covariates

These fell into seven domains: treatment history; criminal history; drug use history; drug, criminal, or HIV risk behavior other than those tested as outcome measures; personal stability; demographic background; and drug use misreporting. (We had no way to verify that offenders who misreported their drug use were more inclined to misreport crime or HIV risk behavior as well. Drug use misreporting nevertheless gave us some degree of control for the possible bias arising from a general tendency to misreport.) Variables in each domain are shown in Table 4.9. Where necessary, we substituted the sample mean by site for missing values on each covariate. In a few cases (see Table 4.9), we truncated the distribution of a covariate to remove extreme outlier values. Cases who were missing values on a baseline measure were excluded from outcome analyses of that measure; thus cases available for each analysis varied somewhat.

Primary Drug

Each offender's primary drug was defined as the drug he/she reportedly used most often during the baseline period. We created dummy variables distinguishing primary users of marijuana, heroin,

Table 4.9: Offender Characteristics Tested as Potential Covariates

Treatment History

Any drug treatment experience

Any residential treatment for drug use

Any outpatient treatment for drug use

Any jail/prison treatment for drug use

Number of weeks in any drug treatment*

Number of weeks in residential treatment for drug use*

Number of weeks in outpatient treatment for drug use*

Number of weeks in jail/prison treatment for drug use*

Criminal History

Any crime in baseline six months

Any arrest in baseline six months

Any violent crime in baseline six months

Number of violent crimes in baseline six months

Any property crime in baseline six months

Number of property crimes in baseline six months

Any drug crime in baseline six months

Number of drug crimes in baseline six months

Any arrest in baseline six months

Any jail/prison in baseline six months

Number of days incarcerated in baseline six months

Age at first arrest

Number of arrests before age 18*

Number of prior arrests

Ever incarcerated

Lifetime days of incarceration

Type of current offense

Table 4.9 (continued)

Drug Use History

Ever used crack cocaine

Polydrug use (number of drugs used)

Number of drug use days in baseline six months

Frequency of drug use in baseline six months

Ratio of drug use days to days at risk (nonincarceration days) in baseline six months

Age at first drug use

Sex Risk Behavior

Frequency of unprotected sex in baseline six months

Number of sex partners in baseline six months

Frequency of sex while high in baseline six months

Sex risk index in baseline six months

Any sex for money or drugs in baseline six months

Any sex with a drug injector in baseline six months

Any condom use in baseline six months

Personal Stability

Employment status

Married

Married or living with primary sex partner

Number of months married

Number of months married or living with primary sex partner

Living at home at baseline

Number of months lived in same place

Demographic Background

Age

Race/ethnicity

Table 4.9 (continued)

Gender

Legal income in most recent baseline month

Any illegal income in baseline six months

Education

Drug Use Misreporting

Misreported no drug use in most recent 30 days (baseline)

Misreported no drug use in past six month (baseline)

Misreported no drug use in most recent 30 days (follow-up)

Misreported no drug use in past six months (follow-up)

*Variables with outlier values recoded.

crack, and other forms of cocaine. (These were the drugs used by nonnegligible portions of our sample.) Across sites, there were 90 drug users for whom a primary drug could not be identified. These were assigned to an "other" dummy category.

Treatment Service

This was a dummy variable, scored 1 if the offender reported receiving any treatment service and scored 0 if the offender reported receiving no treatment service. As indicated in Chapter 5, the treatment services most commonly received were urinalysis testing, drug counseling, and AIDS education.

Conclusion

This chapter has set the stage for outcome study findings by reviewing important aspects of the research strategy, offender samples, and analytic methods. One of the most important aspects of the research strategy is site selection. The five sites participating in the outcome study varied by program maturity and client population (juvenile or adult). They also varied in evaluation design; two were

experimental, while the other three were quasi-experimental. As will be seen in later chapters, these variations need to be taken into account when interpreting findings.

At two sites, Chicago and Birmingham, data available to us indicated that our offender samples were representative of the overall TASC offender population. Data on this point were not sufficient from the other three sites, but recruitment procedures were expressly designed to give fieldwork staff an opportunity to recruit all incoming offenders. We therefore believe the TASC sample at each of these sites was representative of the population.

When we compared the TASC and control/comparison groups, we found them to be alike on most characteristics. Differences were controlled for in the analyses of drug use, crime, and HIV risk behaviors. These analyses, conducted on an "intent to treat" basis, are reported in Chapters 6 to 8.

Chapter 5

Services Received

To assess the services received by each offender during the six-month period between baseline and follow-up, we included in the follow-up interview a series of questions on whether the offender received treatment or counseling services, including any urinalysis tests, from any provider. If so, the offender was asked to specify the nature of those services. Possible services included: drug detoxification; drug-related medical care; other medical care; urine tests to detect recent drug or alcohol use; drug counseling; legal counseling; parenting instruction; family problem counseling; AIDS prevention counseling; personal problem counseling; school counseling; school placement; job counseling; job training; job placement and other.

For each service, the set of follow-up questions included: how much the service was needed; whether the service was part of a formal treatment plan; who referred the subject to the service (i.e., TASC, probation, court, self); where the service was received (e.g., at TASC, jail/prison, probation); the type of provider program (e.g., TASC, self-help, treatment provider); how the service was delivered (e.g., individual, group, family, video or film); the planned and actual duration of the service; the frequency of service (e.g., daily, 2-3 times a week, 4-6 times a week; once a week); length of each session in minutes; how therapeutically helpful offenders felt the service was; and whether offenders were still getting the service at the point of the follow-up interview.

It is important to remember that the time period for the follow-up interview was the "window" of time between the first interview and the follow-up interview six months later. Recruitment at sites occurred at slightly different points relative to initial TASC enrollment (e.g., at Chicago, study recruitment occurred after initial assessment and the first orientation session; in Portland, after orientation but before formal assessment). Thus, the window periods were not directly comparable across sites. Moreover, the service window did not capture all the early services provided by TASC. However, our main concern was documenting the relative differences in *treatment services* (not just TASC case management functions) received by TASC and control/comparison offenders within a site. And for this purpose, the "window" of time we

chose was most informative for our purposes at each site. See Chapter 4 for more details on these issues.

Services Received

Figures 5.1 through 5.5 show the percentage of TASC and control/comparison offenders who received services and the primary types of services received. The percentages are based on all offenders assigned to either TASC or the control/comparison group. In all sites except Canton, TASC offenders were significantly more likely to receive at least one type of service during the six-month follow-up than were comparison/control offenders. In Canton, although the percentage or TASC subjects receiving services was about 10 percent higher than for comparison offenders, the difference was not statistically significant. This is most likely due to the relatively small sample sizes for this site and the fact that the comparison group was assigned to another treatment program -- not to a no-treatment condition.

These figures also show percentages of offenders who received assessments only or who received no services. These two categories represent offenders who either failed to show up to treatment services after assignment to the study, were terminated early, or who "fell through the cracks." We describe potential effects of these two groups on outcomes later in this chapter.

The types of services most frequently received by TASC offenders were urinalysis testing and drug counseling, although a significant percentage of TASC offenders reported receiving AIDS counseling in Chicago (53 percent).

The average number of services reported by subjects generally averaged more than two for TASC offenders, with the exception of Orlando, where the average number of services for TASC offenders was just less than one. These averages were based on all offenders in the TASC sample, including offenders who were referred to TASC (and enrolled in our study at that point) but who may not have remained in contact with TASC long enough to receive any treatment services at all. (Thus, at Orlando where only 34% of the TASC group received treatment services, the overall number of services averaged less than one.)

Figures 5.6 through 5.10 report findings on the types of treatment services received. In these figures, the base for the percentage calculations is those offenders who received at least one service during the follow-up period. The types of services received by TASC and

Figure 5.1

BIRMINGHAM

Control

90% nothing	0% assessment only	10% received services

5% UA tests

5% drug csl

2% AIDS csl

1% personal csl

1% detox

Average # services=0.2

TASC

2% nothing	0% assessment only	98% received services

97% UA tests

48% drug csl

28% AIDS csl

6% personal csl

3% detox

Average # services=2.5

Figure 5.2

CANTON

Control		
34% nothing	6% assessment only	60% received services

	23% UA tests
	55% drug csl
	23% AIDS csl
	11% personal csl
	6% detox

Average # service=1.8

TASC		
27% nothing	2% assessment only	71% received services

	45% UA tests
	65% drug csl
	30% AIDS csl
	17% personal csl
	6% detox

Average # services=2.3

Figure 5.3

CHICAGO

Control

| 69% nothing | 0% assessment only | 30% received services |

| 20% UA tests |
| 28% drug csl |
| 17% AIDS csl |
| 4% personal csl |
| 8% detox |

Average # services=1.9

TASC

| 27% nothing | 0% assessment only | 73% received services |

| 45% UA tests |
| 70% drug csl |
| 53% AIDS csl |
| 17% personal csl |
| 9% detox |

Average # services=2.9

Figure 5.4

ORLANDO

Control
- 74% nothing
- 1% assessment only
  - 6% UA tests
  - 6% drug csl
  - 7% AIDS csl
  - 15% personal csl
  - 4% detox
- 25% received services

Average # services=0.8

TASC
- 57% nothing
- 9% assessment only
  - 10% UA tests
  - 17% drug csl
  - 8% AIDS csl
  - 19% personal csl
  - 5% detox
- 34% received services

Average # services=0.9

Figure 5.5

PORTLAND

Control		
34% nothing	13% assessment only	53% received services
	41% UA tests	
	49% drug csl	
	22% AIDS csl	
	7% personal csl	
	5% detox	

Average # services=1.5

TASC		
23% nothing	6% assessment only	71% received services
	69% UA tests	
	60% drug csl	
	29% AIDS csl	
	7% personal csl	
	2% detox	

Average # services=2.3

Figure 5.6

BIRMINGHAM

Control

90% nothing	0% assessment only	10% received services

(n=17)

117 ave days ⇦	47% UA tests
78 ave days ⇦	53% drug csl
11 ave days ⇦	24% AIDS csl
184 ave days ⇦	6% personal csl
7 ave days ⇦	6% detox

TASC

2% nothing	0% assessment only	98% received services

(n= 191)

131 ave days ⇦	99% UA tests
107 ave days ⇦	49% drug csl
27 ave days ⇦	28% AIDS csl
86 ave days ⇦	6% personal csl
25 ave days ⇦	2% detox

Figure 5.7

CANTON

Control		
34% nothing	6% assessment only	60% received services (n= 32)

102 ave days ⇦	38% UA tests
85 ave days ⇦	91% drug csl
18 ave days ⇦	38% AIDS csl
78 ave days ⇦	19% personal csl
76 ave days ⇦	9% detox

TASC		
27% nothing	2% assessment only	71% received services (n=57)

113 ave days ⇦	67% UA tests
98 ave days ⇦	92% drug csl
7 ave days ⇦	42% AIDS csl
114 ave days ⇦	25% personal csl
72 ave days ⇦	9% detox

Figure 5.8

CHICAGO

Control		
69% nothing	0% assessment only	30% received services (n= 48)

	69% UA tests	83 ave days
	96% drug csl	91 ave days
	58% AIDS csl	75 ave days
	15% personal csl	100 ave days
	27% detox	40 ave days

TASC		
27% nothing	0% assessment only	73% received services (n= 166)

	61% UA tests	115 ave days
	97% drug csl	107 ave days
	73% AIDS csl	94 ave days
	23% personal csl	93 ave days
	13% detox	55 ave days

Figure 5.9

ORLANDO

Control		
74% nothing	1% assessment only	25% received services (n= 50)

99 ave days ⇐ | 24% UA tests

119 ave days ⇐ | 26% drug csl

105 ave days ⇐ | 28% AIDS csl

112 ave days ⇐ | 62% personal csl

111 ave days ⇐ | 16% detox

TASC		
57% nothing	9% assessment only	34% received services (n=75)

105 ave days ⇐ | 28% UA tests

90 ave days ⇐ | 51% drug csl

98 ave days ⇐ | 24% AIDS csl

95 ave days ⇐ | 56% personal csl

104 ave days ⇐ | 13% detox

Figure 5.10

PORTLAND

control/comparison offenders were similar at each site. In addition, the average duration of services, measured as the number of days that elapsed between the onset and conclusion of service, was similar for TASC and control/comparison offenders in many sites. However, in Chicago, TASC offenders were enrolled significantly longer in drug and alcohol tests, and marginally longer in drug counseling, than comparison offenders. In Portland, TASC offenders were enrolled in drug and alcohol tests marginally longer than control offenders.

Retention in Services

Our follow-up time frame was six months, too short to measure full participation in and completion of treatment for all offenders. For this reason, the percent of offenders who had successfully completed treatment by the time of the follow-up would undercount the true effect of TASC on retention. Therefore, we present in Table 5.1 the percent of offenders (among those receiving at least one service during the follow-up) who were still enrolled in the four most frequently attended services at the time of follow-up. In Birmingham, a greater percentage of TASC offenders were still receiving drug and alcohol tests than control/comparison offenders. In Canton, more TASC offenders were still enrolled in drug counseling. In Chicago, more TASC offenders were still enrolled in AIDS prevention counseling. In Orlando and Portland, similar percentages of offenders were still enrolled in the four major types of services received at the end of the follow-up, although, in some cases, control/comparison offenders were slightly more likely to be enrolled in AIDS counseling or personal problem counseling.

Table 5.1 Percent of Offenders Still Enrolled in Treatment Services at Follow-up

	Birmingham		Canton		Chicago		Orlando		Portland	
	TASC	Comparison	TASC	Control	TASC	Comparison	TASC	Comparison	TASC	Control
Drug/alcohol tests	38.2[a]	17.6	35.1	21.9	41.0	39.6	9.3	16.0	31.5	35.9
Drug counseling	20.9	17.6	49.1*	25.0	59.6	56.2	20.0	18.0	30.7	37.2
AIDS counseling	1.0	0.0	5.3	3.1	36.7*	20.8	6.7[a]	18.0	3.9[a]	12.8
Personal problem counseling	3.7	5.9	14.0	9.4	12.0	8.3	24.0	32.0	3.1[a]	9.0

[a] $p \leq .10$
* $p \leq .05$

Why Some Offenders Did Not Receive Services

Figures 5.1 through 5.5 indicated that some TASC offenders did not receive treatment services during the follow-up period. The percentage who received services ranged from a high of 98 percent in Birmingham to a low of 34 percent in Orlando. Why would some TASC offenders not have received services during our window of follow-up? First, we must reiterate that our record of *treatment services* received does not mean that offenders received no *TASC services*. TASC assessments in Chicago, Orlando, Birmingham were performed before the offender is actually ordered to TASC by the court. Because study recruitment took place later, our record of services did not include the TASC assessment at those sites. In addition, in Chicago, Portland, and Birmingham, our recruitment took place after the TASC orientation session in which some services (counseling, AIDS information) were often delivered. These pre-study TASC services were not included in our interview protocol.

Although self-report provides the most direct measure of services received, offender memories may be subject to error. Offenders may simply have forgotten whether they received a particular service or whether it began and ended before our window. Moreover, some TASC offenders may not have reported receiving a service because they terminated or were rejected from TASC before any treatment services began.

We examined offender records to uncover clues as to why offenders did not receive treatment services. Rates of no service appear to result from different circumstances across the sites. Table 5.2 presents the termination status of those offenders who reported receiving no treatment service during follow-up.

Table 5.2 shows that in Birmingham, the three TASC offenders who reported no services had been terminated from the program by the end of the six-month follow-up. In Portland, the vast majority of the 53 TASC offenders who reported receiving no services had never officially entered the TASC program. After their initial TASC orientation session, they had "slipped through the cracks" and not made it to the next TASC contact. In discussion with TASC officials at Portland, they acknowledged that offenders often failed to follow-up past the initial orientation. And, although TASC notified probation officers that an offender had failed to appear, the criminal justice system did not act swiftly to enforce TASC attendance. In this site, it

Table 5.2: Termination Status of TASC Offenders Reporting No Treatment Service

	Birmingham	Canton	Chicago	Orlando	Portland
Number	3	19	62	145	53
Percent never entered	0.0	21.0	3.9	16.9	75.5
Percent terminated	100.0	42.1	45.1	14.7	24.5
Percent still in TASC	0.0	36.8	51.0	68.4	0.0

was up to the probation officer to require the continued attendance of the offender. An additional 25 percent of TASC offenders in Portland were terminated from the program by the time we interviewed them at follow-up.

In Chicago, about half of the TASC offenders who reported receiving no services had been terminated (45 percent) or never attended TASC (four percent). About half who reported receiving no services were still enrolled. The situation in Canton was somewhat similar to that in Chicago. Slightly over 40 percent of TASC clients receiving no services were terminated by the six-month follow-up; about 20 percent had never officially entered the program past initial assessment. In Orlando, the situation is the most striking for the lack of treatment services received. In this site, about 15 percent of those receiving no service had been terminated; however, about 68 percent of those not receiving services were still in TASC. This finding may reflect a transition period in which the TASC contract changed from one agency to another and service delivery was disrupted.

Overall, the findings suggest that a substantial proportion of offenders who reported no services had dropped out of the program or were terminated fairly early. Some offenders who received no services remained officially in the program.

Discussion

In general, TASC offenders were more likely than control/comparison group offenders to receive some kind of service during our follow-up time period. Typical services were for drug and alcohol tests and drug counseling. TASC seems to have made its largest impact in getting

offenders into services and not in the nature or length of services, once services had started (although in some instance TASC offenders appeared to be enrolled in services somewhat longer than control/comparison offenders). Both TASC and control/comparison group offenders most frequently received a rather narrow range of services --- mostly drug and alcohol tests. In fact, the number of different kinds of services received by TASC offenders was rarely above two. These findings may reflect heavy workloads of TASC casemanagers who may not be able to broker a wider range of services for their clients or may reflect the shrinking of available resources in the community for this population.

Other findings on services may seem counterintuitive. Drug and alcohol tests--the backbone of the TASC monitoring function--were not received by all TASC clients. At this point, we do not have a full explanation for these findings. Offenders may not accurately recall being tested, or they may indeed have not been tested. Further analyses exploring corroboration of self-report with official records on service delivery may help clarify this finding.

Finally, our recall period did not enable us to uncover the full range of initial and longer-term services received by the offenders. The short time frame was inherent in the study's design. Longer term follow-up would help uncover whether TASC offenders truly remained in treatment longer than comparison group offenders and would provide a more complete test of the effectiveness of TASC on treatment retention.

Chapter 6

TASC Effects On Drug Use

This chapter discusses the effect of TASC on drug use by study offenders over the six-month follow-up period. As a monitoring and referral program, TASC attempts to reduce drug use through urinalysis testing and placement of offenders in community drug treatment programs. Our analyses included four major indicators of drug use: number of days on which drugs were used during the follow-up; frequency (i.e., number of times) of drug use; number of different drugs used; and the ratio of days drugs were used, relative to the number of days at risk (i.e., days on which the offender was not incarcerated).

Methods

Primary Outcome Measures

Drug outcome measures were based on a series of drug use questions asked of each offender. For each month during the follow-up, offenders were asked whether they used any non-prescription drugs. For up to four different drug types, the frequency, route of administration, and total purchase cost were asked. Information was tallied for global measures of drug use during the entire follow-up period. A similar set of items was asked for each of the six months prior to intake into the study; these comprised the baseline equivalents of the outcome measures. These interview items were taken from the standard set of drug use items used in UCLA's longitudinal studies of drug-using offenders.

Number of Drug Use Days

For the six-month follow-up and six-month baseline period, the total number of days on which the offender used drugs was determined. Drug use days ranged from 0 (no drug days during the six-month period to 180 (every day of the six-month period). In analyses of this variable, the raw (untransformed) value was utilized since the distribution met the criterion of normal distribution.

Frequency of Drug Use

In addition to the number of days during which the offender used drugs, we also gathered the frequency or total number of times drugs were used. This measure is an alternative indicator of the intensity of drug use. The frequency of drug use ranged from 0 to several thousand. Due to the extreme skewness of this variable, the natural log was used to transform data for the regression analyses.

Number of Drugs Used

As indicated, the offender was asked information for up to four drugs used most frequently during the six-month period. This variable ranged from 0 (no drugs used) to four. The raw number of drugs was used in analyses.

Ratio of Drug Use Days to Days at Risk

Not all offenders were "at risk" (on the street) throughout the measurement periods. Some were incarcerated on one or more days. The measures above do not take into account the time that offenders may be at risk for drug use. To account for this, a final measure included the number of days on which drugs were used (measure one above) divided by the total number of nonincarcerated days in the six-month period. The measure ranged from 0 (no drugs used) to 1 (drugs used on every day at risk). An arcsin transformation of the ratio was used in analyses.

Table 6.1 presents distributional information on the four outcome measures for all five sites combined and indicates whether we used raw or transformed variable in analyses.

Table 6.1: Distribution of Drug Use Outcomes

	Range	**Median**	**Mean**	**Transform?**
Number drug use days	0-180	6	34.4	No
Frequency of drug use	0-9000+	6	124.1	Natural log
Number of drugs used	0-4	1.0	0.8	No
Days used/days at risk	0-1	0.1	0.3	Arcsin

Supplemental outcome measure

In supplemental analyses, we examined the percentage of offenders who remained drug free during the follow-up period. This measure was defined as 0 for offenders with no drug use days or 1 for offenders who used drugs one of more days during the follow-up period.

Primary predictors

Group Assignment

TASC offenders at each site were assigned a score of 1. Control/comparison offenders were assigned a score of 0.

Covariates

As indicated in Chapter 4 describing offender background characteristics, some differences were apparent between TASC and control/comparison offenders at some sites. In addition, some predictor variables were related to the drug outcome measures. These characteristics fell into seven domains: treatment history, criminal history, drug use history (other than those used as outcome measures), risky sexual behaviors, personal stability, demographic background and drug use misreporting. Specific variables in each domain are described in Chapter 4. Analyses adjusted for these covariates using a procedure also described in Chapter 4.

Supplemental predictors

Any Treatment Service

For supplemental analyses described below, we created an additional variable measuring receipt of any treatment service during the six-month follow-up period. This dummy variable was scored 1 if the offender reported receiving any treatment service and scored 0 if the offender reported receiving no treatment service. The most commonly received services, as reported in Chapter 5, were urinalysis testing, drug counseling and AIDS education. (Offenders sent to TASC could have received TASC case management services such as assessment or urinalysis testing even if they reported receiving no treatment services.)

Primary drug

An offender's primary drug was defined as the drug he/she reportedly used most often during the baseline period. We created dummy variables distinguishing primary users of marijuana, heroin, crack, and other cocaine. (These were the drugs used by nonnegligible portions of our sample.) Across sites, there were 90 drug users for whom a primary drug could not be identified. These were assigned to an "other" dummy category.

Analyses

Our primary analysis strategy was to compare drug use outcomes using assigned condition, or "intent to treat." That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group, regardless of the "dose" of treatment they actually received. Our rationale for "intent to treat" analyses is explained in Chapter 4.

The model building strategy is also explained in detail in Chapter 4. Briefly, in each prediction equation the outcome measure was first regressed on its baseline counterpart, group assignment, and the interaction between group assignment and baseline measure. The interaction term was retained only if it was statistically significant in at least one site. (As explained in Chapter 4 our strategy, for simplicity and consistency, was to build similar models for each site and each outcome measure.) We used a stepping procedure outlined in Chapter 4 to include covariates related to group assignment or outcome. Because the baseline measure was always included, the variability in the outcome measure represents change in drug use associated with assignment to TASC.

In supplemental analyses on TASC offenders only, we examined the impact of treatment services on drug use outcome. Analyses compared the drug use outcomes for those who received any services versus no services during the follow-up period. In addition, an interaction term between baseline and the any services variable was included. The purpose of these supplemental analyses was descriptive, not evaluative, because we cannot know the degree or direction of possible bias due to self-selection of offenders into treatment services. However, we still wished to see whether the receipt of treatment services was associated with better outcomes. Prediction models included all variables listed above as predictors in primary outcome analyses as well as the

any service variable. Other supplemental analyses examined the relevance of primary drug as a predictor variable and the effect of TASC on outcome measures indicating no drug use.

Findings

Number of Drug Use Days

Table 6.2 reports the effects of TASC on the number of days during the six-month follow-up period. For each site, the unstandardized regression coefficient for group assignment is in row 1. Row 2 presents the regression coefficient for the baseline measure corresponding to the outcome. Row 3 presents the regression coefficient for the baseline by group interaction (where applicable). Adjusted R^2 for the model is presented in row 4, followed by the sample size in row 5.

At four sites, no covariate interacted with group assignment (see Chapter 4 for further explanation of covariate interaction testing). At Birmingham, the decline in drug days was 12.5 days greater among TASC offenders than among comparison offenders. In Orlando, TASC was associated with an increase in the number of drug use days -- an estimated 6.5 more days than that for the comparison group. The significance value for the main effect was p=.07 -- higher than the usual standard for significance The baseline measure of drug days before intake was positively associated with outcome in three sites, Canton, Orlando, and Portland.

At Chicago, the main effect for group was qualified by number of arrests prior to age 18, one of the prior-record covariates. We split the sample (as close as possible given the distribution) in half and reran the main effects model within each subgroup. The reduction in drug use days during follow-up was greater by almost 15 days for TASC offenders who had not been arrested prior to age 18. For those offenders first arrested when younger, the impact of TASC was significantly larger -- an estimated reduction of over 40 drug days during the follow-up period. This is a pattern which we will see in several times in analyses of various outcome measures -- a stronger effect for TASC within more problematic (variously defined) offenders. (Definitions vary because we found interactions between group assignment and several background covariates. Each of them seemed to mark offenders whose prior illegal or risky behavior was more pronounced.)

Appendix C includes final regression equations for primary outcome analyses of drug use days. Equations include all covariates, baseline number of drug use days, and group assignment.

Table 6.2: Number of Drug Use Days

	Birmingham	Canton	Chicago		Orlando	Portland
			No arrest before age 18	One or more arrests before age 18		
Group assignment (1=TASC)	-12.51**	-1.54	-14.98**	-42.63**	6.86[a]	-3.24
Baseline number of drug use days	-.01	.33**	.44**	.39**	.38**	.20*
Group by baseline interaction	NA	NA	NA	NA	NA	NA
Adjusted R^2	.28	.27	.27**	.23**	.36*	.22**
N	365	134	229	163	422	330

[a] $p \leq .10$

* $p \leq .05$

* $p \leq .01$

Note: Findings were adjusted for 18 covariates, not shown, in Chicago. Findings were adjusted for 19 categories, not shown, at the four other sites.

Supplemental analyses revealed that receipt of any treatment service was associated with a decrease in days during which drugs were used in three sites--Chicago, Canton and Portland. In other words, TASC offenders who received services were more successful during follow-up on this outcome measure. Virtually all TASC offenders in Birmingham received treatment services of some kind during the follow-up period. Thus, with no variation in services, the opportunity to examine the relationship between service delivery and outcome did not exist in Birmingham. See Appendix C for the final regression equations.

Other supplemental analyses examined primary drug use. Inclusion of the dummy variables for primary drug did not significantly change the relationship between group assignment and the number of drug use days at any site. See Appendix C.

Frequency of Drug Use

Table 6.3 presents the results from the regression equations predicting the frequency of drug use during follow-up. As indicated earlier, the outcome variable was transformed to the log of the frequency of drug use. Thus the coefficients represent the change in the log of the frequency. In our discussions of the impact of TASC, however, we have back-translated these coefficients to obtain an estimate of the raw TASC impact on the frequency of drug use. TASC was associated with a reduction in frequency of drug use in Chicago (p<.10); the reduction was an estimated 15 times. Further analysis of the interaction term for Canton demonstrated that there was no differences between TASC and control offenders on this measure.

Table 6.3: Log Frequency of Drug Use

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	-.32	.52	-1.31^{a}	.08	-.08
Baseline frequency of drug use	.62**	.58*	-.02	.24	.51*
Group by baseline interaction	-.09	$-.25^{a}$	.00	.10	-.02
Adjusted R^{2}	.34**	.31**	.27**	.38**	.22**
N	365	133	390	422	330

^{a} $p \leq .10$

* $p \leq .05$

**$p \leq .01$

Note: Findings were adjusted for 23 covariates, not shown.

Appendix C includes final regression equations for primary outcome analysis of frequency of drug use. Equations include all covariates as well as the baseline frequency of drug use, group assignment, and the interaction between them.

Supplemental analyses examining the impact of level of services and their relationship to outcome revealed that the level of services received in Chicago (p=.08) and Portland was associated with a reduction in frequency of drug use. Controlling for primary drug did not change the association between group assignment and frequency of drug use. Appendix C contains the regression model results for primary drug and the impact of the level of services on frequency of drug use.

Number of Drugs Used

Table 6.4 presents the findings for the number of drugs used during the follow-up period. Results revealed no main effects for TASC on this variable. However, baseline by group

Table 6.4: Number of Drugs Used

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	.00	.34[a]	-.19	.13	-.11
Baseline number of drugs used	.39*	1.20**	.54**	.55	.30
Group by baseline interaction	-.06	-.43**	-.18[a]	-.19*	.05
Adjusted R^2	.35**	.41**	.22**	.29**	.28**
N	365	133	390	422	329

[a] $p \leq .10$

* $p \leq .05$

** $p \leq .01$

Note: Findings were adjusted for 26 covariates, not shown.

assignment interactions were apparent in two sites, Canton and Chicago. An examination of the interaction terms revealed that Canton TASC offenders with higher risk at baseline used fewer drugs at follow-up, whereas those offenders with low baseline scores were not differentially impacted by TASC assignment. For high risk offenders in Canton, Figure 6.1 shows that adjusted means for numbers of drugs used at baseline were 2.2 for control/comparison offenders and 2.3 for TASC offenders. At follow-up, control/comparison means dropped to an average of 1.8 drugs used, whereas TASC offenders dropped to 1.1. In Chicago this pattern was repeated. At baseline, high-risk TASC offenders reported an average of 2.4 drugs used; comparison/control offenders, 2.3 drugs. At follow-up, high risk TASC offenders dropped to 1.0, while comparison/control offenders dropped to 1.7; see Figure 6.2. In Orlando investigation of the interaction did not confirm a differential impact by TASC.

Appendix C includes final regression equations for primary outcome analyses of number of drugs used. Equations include all covariates as well as number of drugs used at baseline, group assignment, and the interaction of the two.

Supplemental analyses of treatment services revealed a marginal reduction (p=.06) in the number of drugs used by Portland TASC offenders who got services. Inclusions of primary drug dummy variables did not affect the relationship between group assignment and number of drugs used. See Appendix C.

Ratio of Days Used to Days at Risk

As indicated earlier, the ratio measure of days on which drugs were used to days at risk helps to adjust for time during which some offenders were not at risk for drug use (i.e., time incarcerated). Table 6.5 presents the results for this outcome variable.

This table shows that in Birmingham, TASC was associated with a marginal main effect decrease in the ratio of days used. The values in the table represent arscin transformations of the variables; a decrease of .06 arcsin units represents a reduction in the actual ratio of about .05.

We examined the interactions in Canton and Chicago to determine whether results supported the hypothesis of stronger impact of TASC among those at higher baseline risk. Our

Figure 6.1

**EFFECT OF TASC ON NUMBER OF DRUGS USED AT TWO LEVELS OF BASELINE RISK
CANTON**
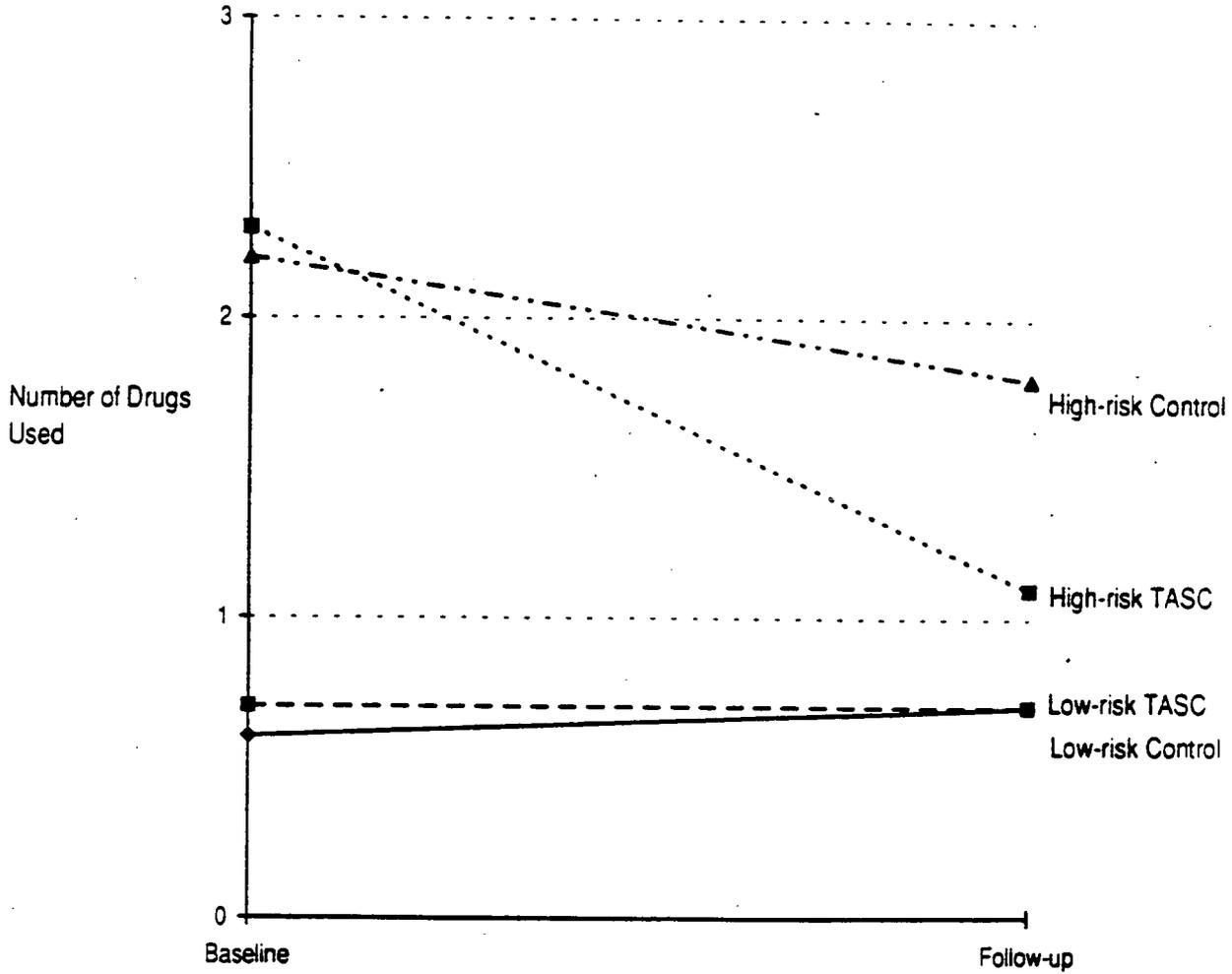
Figure 6.2

**EFFECT OF TASC ON NUMBER OF DRUGS USED AT TWO LEVELS OF BASELINE RISK
CHICAGO**
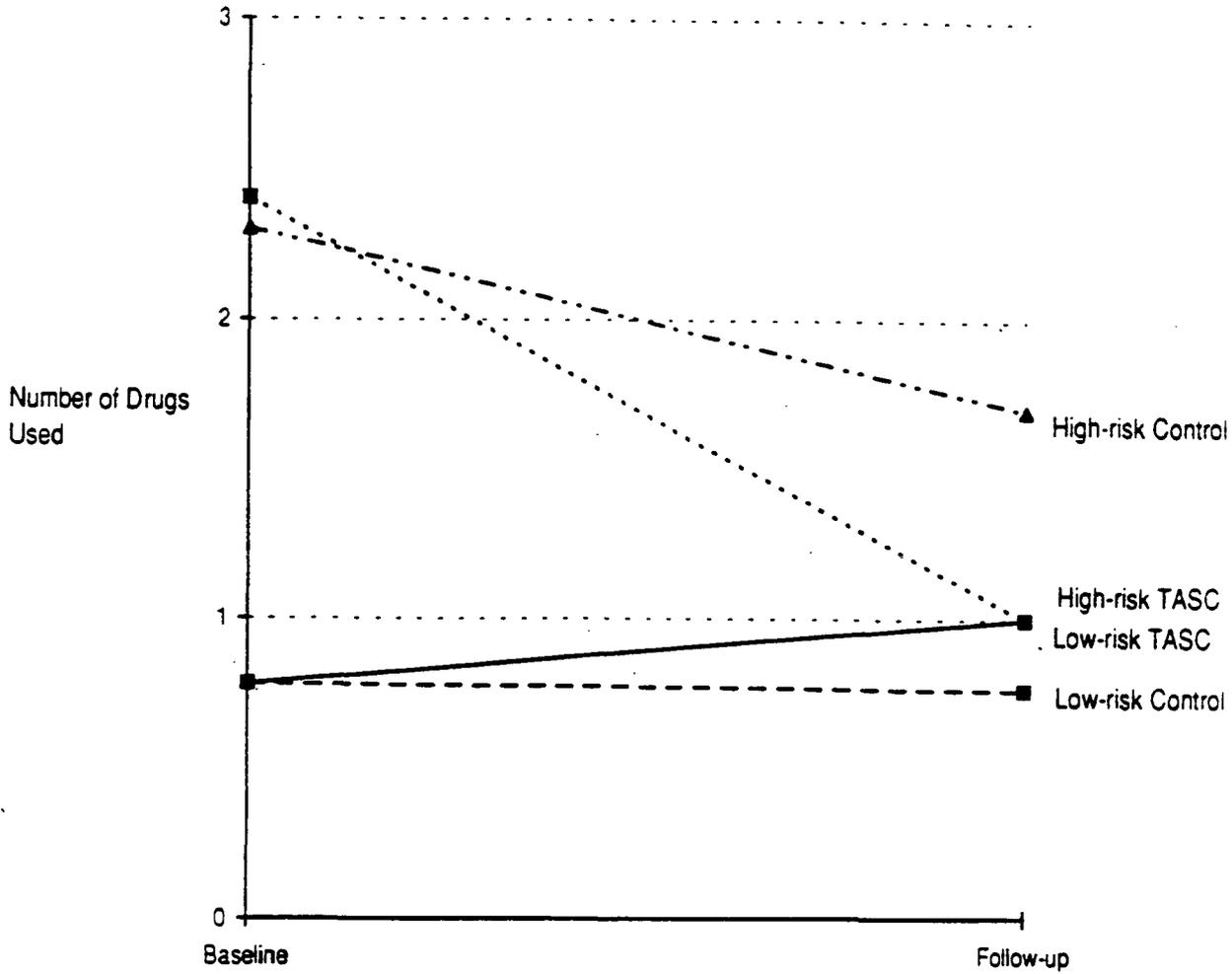
Figure 6.3

EFFECT OF TASC ON RATIO OF DAYS USED TO DAYS AT RISK
AT TWO LEVELS OF BASELINE RISK
CHICAGO
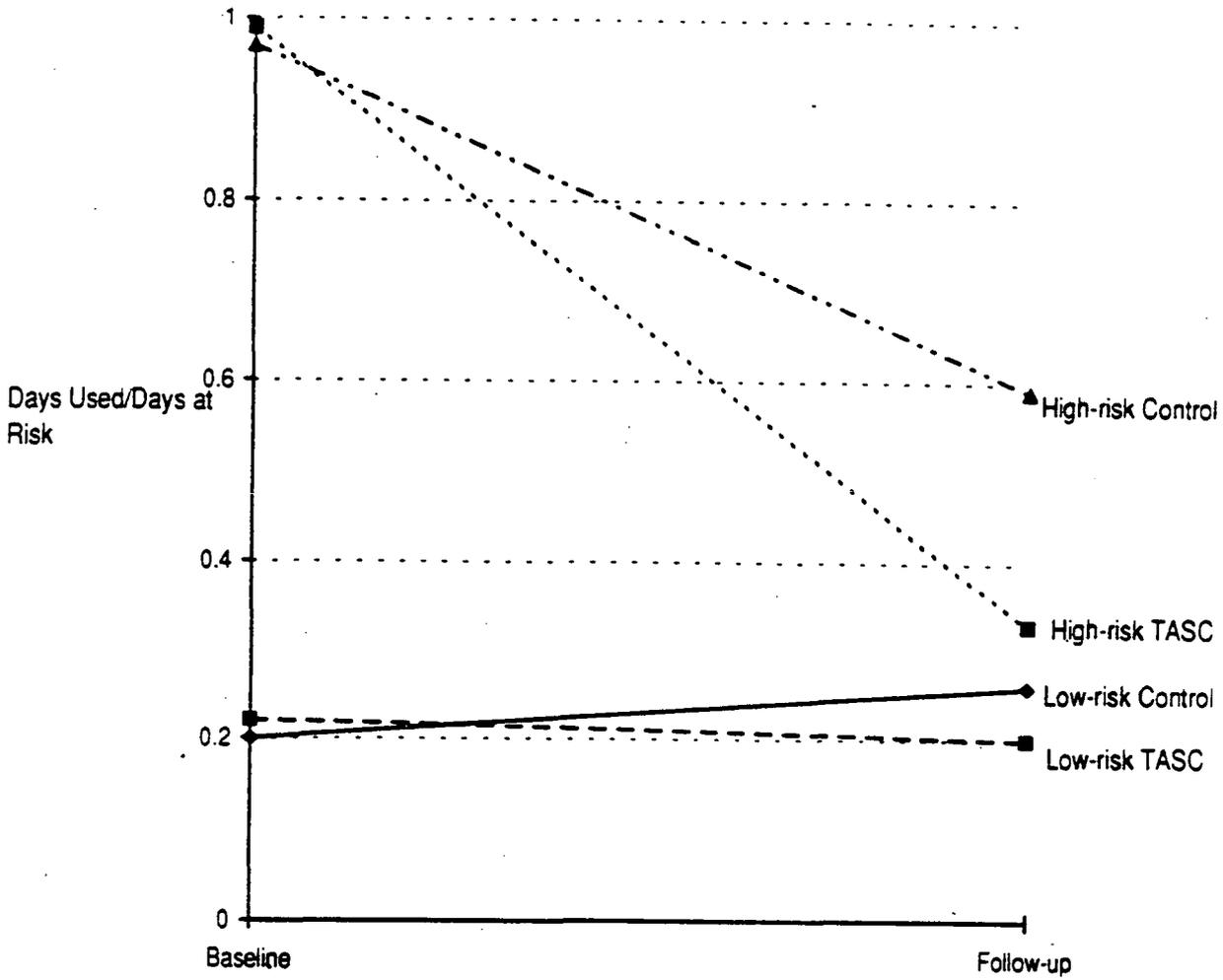
analyses confirmed a differential benefit of TASC in Chicago. If offenders had a higher ratio of days used to days at risk at baseline, they were significantly impacted by TASC; offenders at lower risk were not impacted by TASC. Figure 6.3 shows the findings for Chicago. Final regression equations for these primary outcome analyses are provided in Appendix C.

Table 6.5: Arcsin Ratio of Days of Use to Days at Risk

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	-.06[a]	.09	-.00	.02	-.00
Baseline ratio of days of use to days at risk	.29*	.72**	.56**	.32*	.24
Group by baseline interaction	-.13	-.25[a]	-.23*	.03	-.07
Adjusted R^2	.25**	.28**	.18**	.39**	.22*
N	360	132	380	396	322

[a] $p \leq .10$

* $p \leq .05$

** $p \leq .01$

Note: Findings were adjusted for 18 covariates, not shown.

Analyses examining service delivery among TASC offenders revealed positive association in three sites -- Canton, Chicago, and Portland. In these sites, TASC offenders who received services had lower ratios of drug days to days at risk during the follow-up. Inclusion of dummy variables for primary drug did not change the association between group assignment and ratio of days using to days at risk. See Appendix C.

Any Drug Use During Follow-up

As described earlier, supplemental measures were constructed representing no drug use during the follow-up Results revealed that, in Chicago, TASC was associated with a significantly greater decrease in the percentage of offenders remaining completely drug free during follow-up.

Table 6.6 presents the percent of TASC and control/comparison offenders who remained drug free at follow-up.

Table 6.6: Percent of Offenders Drug Free at Follow-up, By Site and Condition

	Birmingham	Canton	Chicago	Orlando	Portland
TASC group	59.5	33.3	45.0*	32.3	30.7
Control/comparison group	46.6	30.2	14.3	34.6	33.9

*$p \leq .05$ in regression model

Discussion

Overall, our findings show that TASC was associated with decreases in drug use, especially in Chicago and Birmingham. It is noteworthy that the largest impact of TASC appeared in the two sites in which the level of services received by TASC and control/comparison group offenders was the most disparate. Further support for the importance of services received was borne out by our supplemental analyses of the impact of services among TASC offenders. On several measures and in several sites, those TASC offenders who received services (as measured in our interview) performed better than TASC offenders who received no services. We must caution, however, about the generalizability of these latter findings, since offenders may self-select into services.

In several instances, the effectiveness of TASC seemed strongest among higher risk (as variously defined) offenders. For example, Chicago offenders arrested before the age of 18 showed greater reductions in the number of drug use days during the follow-up than those offenders who were first arrested at a later age. This effect was also observed for risk measures based on baseline drug use, suggesting that it might be more cost-effective to target TASC resources toward those offenders whose behavior is most problematic.

Chapter 7

TASC Effects On Crime

This chapter discusses the effect of TASC on crime of study offenders over the six-month follow-up period. Our analyses included four self-report measures of crime: the number of days incarcerated during the follow-up; the number of violent crimes; the number of property crimes; and the number of drug crimes. Additionally, two measures of crime commission were abstracted from official records: whether the offender had any arrest during the follow-up and whether he/she had any technical violation (e.g., violating conditions of probation--not necessary a law violation).

Methods

Primary Outcome Measures

Self-report crime outcome measures were constructed from a series of crime commission items that were asked for each month of the follow-up period (in the same manner as the drug use variables). For each month of the six month follow-up, offenders were asked to indicate the number of times they committed any of 18 crimes (e.g., robbed a place of business; stole a car, truck, or motorcycle; possessed marijuana or hashish). The six-month measures were summed to provide the total number of crimes committed in each of the three crime categories. The total number of incarceration days was calculated from the total number of days incarcerated during each month of the follow-up. A similar set of items was asked for each of the six months prior to intake into the study; these comprised the baseline equivalents of the outcome measures. Crime items were taken from the standard set of drug use items used in UCLA's longitudinal studies of drug-using offenders.

Official record items of arrest and technical violation were gathered from record abstraction of each offender's criminal justice information over the follow-up. In each site, coders abstracted information from probation files (including local and state criminal history records, "rap sheets") on the date, nature, and outcome for any arrest and technical violation that the offender experienced during the follow-up period. The items were taken from standard

record abstraction techniques used by RAND in their studies of intensive supervision as well as other correctional intervention evaluations.

Number of Incarceration Days

For the six-month follow-up and six-month baseline periods, the total number of days during which the offender was incarcerated was determined. Days incarcerated ranged from 0 (no days incarcerated) to 180 (every day). In analyses of this variable, the raw (untransformed) value was utilized since the distribution met the criterion of normal distribution.

Number of Violent Crimes

The total number of violent crimes committed by the offender was calculated during the baseline and follow-up periods. The total number of violent crimes committed by offenders across sites was very low; thus violent crimes were considered unreliable as a major measure of crime commission for the study. Results of analyses on violent crimes appear in Appendix D.

Number of Property Crimes

Similar to violent crimes, the total number of property crimes committed by the offender was determined during the baseline and follow-up periods. The range for property crimes ranged from 0 (no property crime committed) to over 3,000 during the follow-up period. As with the measures of drug crimes, the natural log was used to transform the data for regression analyses.

Number of Drug Crimes

The third major measure of crime was the total number of drug crimes committed by the offender during baseline and follow-up. Drug crimes ranged from 0 (no drug crimes committed) to over 7,000. The natural logs for both the baseline and follow-up numbers of drug crimes were used in analyses.

Table 7.1 presents the distributional information on outcome measures for all five sites combined and indicates whether transformations of the raw variables were used in analyses.

Table 7.1: Distribution of Crime Outcomes

	Range	Median	Mean	Transform?
Number incarceration days	0-180	0	30.0	No
Number of property crimes	0-3360	0	6.4	Natural log
Number of drug crimes	0-7385	0	33.5	Natural log

Arrest or Technical Violation

Probation records were consulted to gauge the impact of TASC on officially recorded crime measures. As a measure of crime commission, officially recorded measures capture only a fraction of all behaviors. However, official records provide a good measure of the burden placed by TASC and comparison-group offenders on the criminal justice system in terms of reprocessing subsequent crimes and violations of the technical conditions of probation. Offenders were assigned a value of 0 if their probation records indicated no arrest during their follow-up period; 1 if one or more arrests were indicated. A similar procedure was used for technical violations. If the offender's record indicated no technical violation, they were assigned 0; if one or more technical violations, 1 was assigned. The raw value was used in regression analyses (logistic regression was used because of the binary nature of both outcomes).

Supplemental Outcome Measures

In supplemental analyses, we examined the percent of offenders who reported committing no crimes in each of the three major categories, as well as no crimes in any. Supplemental variables were: no violent crime committed during the six-month period (yes/no); no property crime committed during the six-month period (yes/no); no drug crime committed during the six-month period; and no violent, property, or drug crime committed during the six-month follow-up.

Primary Predictors

Group Assignment

TASC offenders at each site were assigned a score of 1. Control/comparison offenders were assigned a score of 0.

Covariates

As indicated in Chapter 4 describing offender background characteristics, some differences were apparent between TASC and control/comparison offenders at some sites. In addition, some predictor variables were related to the crime outcome measures. These characteristics fell into seven domains: treatment history, criminal history, drug use history (other than those used as outcome measures), risky sexual behaviors, personal stability, demographic background, and drug use misreporting. Specific variables in each domain are described in Chapter 4. Analyses adjusted for these covariates using a procedure also described in Chapter 4.

Supplemental Predictors

Any Treatment Service

For supplemental analyses described below, we created an additional variable measuring receipt of any treatment service during the six-month follow-up period. This dummy variable was score 1 if the subject reported receiving any treatment service, and scored 0 if the subject reported receiving no treatment service. The most commonly received services, as reported earlier in Chapter 5, were urinalysis testing, drug counseling and AIDS education. (Offenders sent to TASC could have received TASC case management services such as assessment or urinalysis testing even if they reported receiving no treatment services.)

Primary Drug

An offender's primary drug was defined as the drug he/she reportedly used most often during the baseline period. We created dummy variables distinguishing primary users of marijuana, heroin, crack, and other cocaine. (These were the drugs used by nonnegligible

portions of our sample.) Across sites, there were 90 drug users for whom a primary drug could not be identified. These were assigned to an "other" dummy category.

Analyses

Our primary analysis strategy was to compare crime outcomes using assigned condition or "intent to treat." That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the "dose" of treatment they actually received. Our rationale for "intent to treat" analyses is explained in Chapter 4

The model building strategy is also explained in detail in Chapter 4. Briefly, in each prediction equation the outcome measure was first regressed on its baseline counterpart, group assignment, and the interaction between group assignment and baseline measure. The interaction term was retained only if it was statistically significant in at least one site. (As explained in Chapter 4, our strategy, for simplicity and consistency, was to build similar models for each site for each outcome measure.) We used a stepping procedure outlined in Chapter 4 to include covariates related to group assignment or outcome. Because the baseline measure was always included, the variability in the outcome measure represents changes in crime associated with assignment to TASC.

In supplemental analyses on TASC offenders only, we examined the impact of treatment services on crime outcomes. Analyses compared crime outcomes for those who received any versus no services during the follow-up period. In addition, an interaction term between baseline and the any service variable was included. The purpose of these supplemental analyses was descriptive, not evaluative, because we cannot know the degree or direction of possible bias due to self-selection of offenders into treatment services. However, we still wished to see whether the receipt of treatment services was associated with better outcomes. Prediction models included all variables listed above as predictors in primary outcome analyses as well as the any service variable. Other supplemental analyses examined the relevance of primary drug as a predictor variable and the effect of TASC on the outcome measures indicating no crime in each of the three major categories as well as a global measures of no violent, property, or drug crime.

Findings

Number of Incarceration Days

Table 7.2 reports the effects of TASC on the number of days incarcerated during the six-month follow-up. For each outcome, we present the results in a similar format. Unstandardized regression coefficients for group assignment appear in row 1.. Row 2 presents the regression coefficient for the corresponding baseline measure for the outcome. Row 3 presents the regression coefficient for the baseline by group interaction (where applicable). Adjusted R^2 for the model is presented in row 4, followed by sample size in row 5.

Table 7.2: Number of Incarceration Days

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	11.03[a]	4.80	3.79	-5.89	5.47
Baseline number of incarceration days	.12	.45**	.10	.41**	.03
Group by baseline interaction	NA	NA	NA	NA	NA
Adjusted R^2	.11**	.26**	.15**	.25**	.07**
N	359	132	380	396	322

[a] $p \leq .10$

* $p \leq .05$

**$p \leq .01$

Note: Findings were adjusted for 29 covariates, not shown.

Table 7.2 shows that, across sites, incarceration days were not significantly different between TASC offenders and control/comparison offenders at four sites. In Birmingham, TASC offenders had marginally more incarceration days than comparison offenders (p<.10). TASC offenders spent, on average, about 11 more days incarcerated during the follow-up period than comparison/control offenders. Why TASC offenders did not reduce incarceration time as much as the comparison offenders is unclear. In discussions with local TASC staff we were unable to

find any explanation. Perhaps the difference arose from more intensive monitoring of TASC offenders. A higher percentage of TASC offenders received incarceration time as a result of technical violations than did comparison/control offenders. In any event, the difference is only marginally significant and was not part of any pattern across sites. See Appendix D for final regression equations in primary outcome analysis.

Supplemental analyses examined the receipt of services for TASC offenders only. These analyses revealed no association of services with the total number of days incarcerated during the follow-up period. Inclusion of primary drug indicators did not change the relationship between group assignment and the number of incarceration days. Results are shown in Appendix D.

Number of Property Crimes

Table 7.3 presents findings for the number of property crimes committed during the follow-up period.

Table 7.3: Number of Property Crimes

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	.02	-.15	.26[a]	.05	-.04
Baseline number of property crimes	.48**	-.09	.65**	.48**	.77**
Group by baseline interaction	-.21**	.18	-.32**	-.13[a]	-.35**
Adjusted R^2	.24**	.21**	.18**	.14**	.19**
N	365	133	390	422	330

[a]$p \leq .10$

*$p \leq .05$

**$p \leq .01$

Note: Findings were adjusted for 24 covariates, not shown.

Table 7.3 indicates that, across sites, we found no main effects on the numbers of self-reported property crimes except for a marginal difference favoring the comparison group in

Chicago. Baseline interactions appeared in Birmingham, Orlando, Chicago, and Portland. Closer examination of these interactions, however did not reveal greater reductions for TASC offenders (that is, the interaction was not occurring between TASC and control/comparison groups). See Appendix D.

Supplemental analyses examined the association of services with property crimes among TASC offenders only. These analyses revealed that, in Chicago, receipt of services was associated with a reduction in property crimes. Additional analyses examined the relationship of TASC to the ability of offenders to remain free of property crime during the follow-up. No main effects for TASC assignment were significant in any site in these analyses, paralleling for the most part the results in Table 7.3 for the actual number of property crimes committed. Primary drug indicators did not change the findings for group assignment and property crimes. See Appendix D.

Number of Drug Crimes

Table 7.4 presents results for the analyses of the number of drug crimes by offenders during the six-month follow-up.

Analyses of drug crimes were conducted using the natural log of the number of drug crimes committed (to adjust for the skewed distribution). We back translated the log to actual numbers for Birmingham. In this site, TASC offenders committed an estimated 16 fewer drug crimes relative to Birmingham control/comparison offenders. An examination of the interaction of group assignment and baseline for Portland revealed no pattern of larger TASC effects among the higher-risk offenders (in terms of numbers of drug crimes at baseline).

In Chicago, the effect of TASC was qualified by the number of prior convictions. If the offender had three or more prior convictions, TASC was associated with a reduction of 40 drug crimes; if the offender had fewer than three prior convictions, TASC was not associated with reduced numbers of drug crimes. An examination of the baseline by group interaction for those offenders with three or more convictions revealed that those offenders with higher baseline levels of drug crimes were the most impacted by TASC. See Appendix D for final regression equations.

Table 7.4: Number of Drug Crimes

	Birmingham	Canton	Chicago		Orlando	Portland
			Fewer than three prior convictions	Three or more prior convictions		
Group assignment (1=TASC)	-.19[a]	.13	-.16	-1.09**	.15	.13
Baseline number of drug crimes	.35**	.11	-.06	.97**	.26[a]	.60**
Group by baseline interaction	-.10	-.02	.12	-.48**	-.00	-.29*
Adjusted R^2	.16**	.05	.13**	.28**	.27**	.14**
N	365	133	243	146	422	330

[a] $p \leq .10$

* $p \leq .05$

**$p \leq .01$

Note: Chicago findings were adjusted for 22 covariates not shown. Findings for other sites were adjusted for 23 covariates not shown.

Supplemental analyses examined the relationship between TASC and the offender's ability to remain free of drug crime during follow-up. In Chicago and Birmingham, TASC was associated with remaining drug crime free during follow-up paralleling the findings presented in Table 7.4 above. Analysis controlling for primary drug revealed no changes in the relationship between group assignment and number of drug crimes. See Appendix D.

In addition to the drug and property no-crime variables above, analyses were conducted in which the outcome measure was remaining free of any crime (drug, property, and violent) during the follow-up. Results from these analyses showed a favorable but statistically marginal effect for TASC in Birmingham; TASC was not associated with the global measure in any other site.

Any Arrest During Follow-up

Table 7.5 presents results for analyses of the official record indicator of any arrest during the follow-up period. To remain consistent with the model building for self-report measures, we used self-report predictors and covariates in the model building. Instead of R^2 values, -2 log likelihood chi-squares for the overall significance of the prediction model are presented. (This is the standard measure of fit for logistic regression with binary outcomes.) Regression coefficients in the table represent increases in the log odds of having an arrest during the follow-up period. Positive values are associated with increased probability of arrest; negative ones with remaining arrest free.

Table 7.5: Any Arrest

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	-.29	.77	-.32	.11	1.26**
-2 log likelihood	17.33*	7.33	46.36**	48.22	44.30**
N	378	132	477	470	378

[a]$p \leq .10$

*$p \leq .05$

**$p \leq .01$

Note: Findings were adjusted for 10 covariates, not shown.

Table 7.5 shows that TASC was associated with an increased probability of arrest in Portland. In fact, over the course of the six-month follow-up, almost 22 percent of TASC offenders were arrested, compared to 10 percent of comparison/control offenders. In no other site was TASC associated with either an increased or a decreased probability of arrest. See Appendix D for final regression equations.

Any Technical Violation

Technical violations are instances in which offenders fail to abide by the conditions of their probation. In many instances, these violations are not new crimes but instead are behaviors

such as failing to report to a probation officer, testing positive for drugs or alcohol, treatment violation, etc. Analyses were conducted on the probability of technical violation during the six-month follow-up period. Table 7.6 presents the findings from logistic regression models of the probability of technical violation.

Table 7.6: Any technical violation

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	1.23*	-12.99	-.22	.41	.35
-2 log likelihood	35.33**	42.38**	34.34**	18.82[a]	47.64*
N	378	132	477	470	378

[a]$p\leq.10$

*$p\leq.05$

**$p\leq.01$

Note: Findings are adjusted for 9 covariates, not shown.

Table 7.6 shows that in Birmingham, TASC was associated with an increased probability of having a technical violation during the follow-up. In the other sites, TASC was associated with neither an increase or a decrease in the probability of a technical violation. Final regression equations are shown in Appendix D.

Discussion

Our analyses indicate few favorable effects of TASC on the range of crime outcomes we examined. For drug crimes, favorable TASC effects emerged in Birmingham and Chicago. For property crimes alternative interventions were equally effective as TASC. Due to the small numbers of violent crimes committed, we did not examine whether TASC was associated with reductions in violent crime. Finally, examination of officially-recorded recidivism showed two instances in which TASC offenders had higher recidivism rates than comparable offenders.

Self-report and officially-recorded measures of crime will not necessarily lead to the same conclusions. Officially-recorded recidivism reflects not only offender behavior but also

system response. Because TASC offenders were watched more closely than control/comparison offenders, we might see higher officially-recorded rates even if the underlying behavior of TASC offenders is lower than control/comparison offenders. In this context, increased officially-recorded measures may indicate program success.

In addition, our measures of crime may not have been as sensitive as they need to be in order to detect the small differences that criminal justice interventions have generally shown. With sample sizes of approximately 200 each in TASC and control/comparison groups, and control/comparison group percentages of offenders committing property crimes (for example) ranging between approximately 10 and 30 percent, our ability to detect differences on the order of 5 percentage points reduction for TASC offenders is approximately .40. Differences in percentages between TASC and comparison/control groups would need to approach 10 percent before we would be able to reasonably detect significance between TASC and comparison/control offenders.

Chapter 8

TASC Effects on HIV Risk Behavior

Research has shown that HIV risk behaviors are less common among drug users receiving treatment for drug problems than among out-of-treatment users. This suggests that drug treatment may play an important role in containing the spread of HIV. The TASC programs in our study facilitated, as part of their direct services, delivery of drug use counseling and AIDS education to drug-using offenders (see Chapter 5). Thus, aside from its potential effects on drug use and criminal activity, TASC may also have led to reductions in HIV risk behavior. In this chapter we report TASC effects on two behaviors by which HIV can be transmitted: frequency of unprotected sex and frequency of sex while high. Effects on other sexual risk behaviors and on drug injection behaviors could not be tested because few offenders at any site reported those behaviors at baseline.

HIV risk behaviors associated with injection of heroin, cocaine, or other drugs include the use of needles already used by someone else, failure to clean needles with bleach or another disinfectant before injection, and the use of other drug-injection paraphernalia (e.g., cookers, cotton balls, or rinse water) that could be contaminated with HIV. Virus transmission can also occur through unprotected sexual intercourse unless each partner is monogamous and HIV-negative. The degree of transmission risk depends on the number of partners with whom a person has sexual relationships (either concurrently or serially), the frequency of unsafe sex with these partners, and other factors. Both sources of transmission risk, drug use and sexual activity, come into play when people engage in sex while high; risky sex may be more likely when a person is under the influence of drugs or alcohol.

Methods

We examined TASC effects on two risk behaviors: frequency of unprotected sex and frequency of sex while high. Measures of baseline behavior were based on offender self-reports obtained in the intake interview and covering a six-month pre-intervention period. Counterpart measures of the same behavior were based on self-reports obtained in the follow-up interview,

which occurred roughly six months after intake. The recall period for the follow-up interview was the preceding six months.

We had intended to examine TASC effects on risk associated with other sex risk behaviors as well as injection drug use. However, across sites, injection drug use was reported by 6.4% of the sample. Similarly low percentages reported engaging in sex for money or drugs (5.6%) or sex with partners who use drugs by injection (2.9%). Thus we were unable to assess possible TASC effects on these behaviors. We had also intended to examine TASC effects on the number of sex partners with whom the person had unprotected intercourse. However, this is essentially the same variable as frequency of unprotected sex; the correlation between follow-up measures of the number of unprotected sex partners and the frequency of unprotected sex was very high, exceeding .80 at each site.

Effects of participating in TASC depend in large part on the efficacy of treatment programs to which offenders were referred and on AIDS education or other treatment services received as a result of TASC participation. We did not consider the quality of treatment or of AIDS education received, nor did we attempt to identify the processes (e.g., cognitive or normative changes) through which TASC effects may have occurred. Instead, in keeping with the primary purpose and logic of the evaluation, we compared risk behavior change between TASC groups and control/comparison groups on an "intent to treat" basis.

Primary Outcome Measures

Frequency of Unprotected Sex

At baseline and follow-up we asked how often the offender engaged in sex without a condom during the past six months. (This question was taken from the Texas Christian University AIDS Risk Assessment.) Answers could range from 0 (never) to 8 (four or more times per day). We created measures for each of two recall periods: six months prior to the intake interview (the baseline measure) and six months prior to the follow-up interview (the follow-up measure). Abstinent offenders received a score of zero. Table 8.1 reports the mean, median, and other properties of this measure for the entire study sample.

Table 8.1: Distribution of Risk Behaviors

	Range	Median	Mean	Transform?
Frequency of unprotected sex	0-8	2	2.59	No
Frequency of sex while high	0-8	0	1.05	No

Frequency of Sex While High

We also asked how often the offender engaged in sex while "you or your partner were high on drugs or alcohol" during the past six months. (This question was also taken from the Texas Christian University AIDS Risk Assessment.) Thus, while the question did not focus specifically on the offender's own drug/alcohol use, it did indicate how often people were in a position to engage in risky sex attributable to the influence of drug/alcohol use by themselves or their partners. Answers could range from 0 (never) to 8 (four or more times per day). We created measures for each of two recall periods: six months prior to the intake interview (the baseline measure) and six months prior to the follow-up interview (the follow-up measure). Cases reporting no sex or no drug/alcohol use received a score of zero. Table 8.1 also reports the mean, median, and other properties of this measure.

Supplemental Outcome Measures

Offenders might have incurred some behavioral risk even if primary outcome measures indicate significant risk reductions. In supplemental analyses we examined the percentage of TASC and control/comparison offenders who reported engaging in no risk behavior during the follow-up period. We view these analyses as supplemental, not primary, for two reasons. First, yes/no measures of risk behavior are less sensitive indicators of change. Second, no-risk is unrealistic as an evaluation criterion. Interventions cannot be expected to eradicate problem behavior among all participants.

Unprotected Sex

Using the frequency data on unprotected sex, we created a dummy variable scored 0 if the

offender reported no unprotected sex at all during the follow-up period and scored 1 if he/she reported one or more occasions of unprotected sex.

Sex While High

Using the frequency data on sex while high, we created a dummy variable scored 0 if the offender reported no sex while high during follow-up and scored 1 if he/she reported one or more occasions of sex while high.

Primary Predictors

Group Assignment

TASC offenders at each site were assigned a score of 1. Control/comparison offenders were assigned a score of 0.

Baseline Behaviors

As noted above, data on risk behavior in the six months prior to intake were used to create, for each outcome measure, its baseline "counterpart." Baseline behavior measures included frequency of unprotected sex, frequency of sex while high, any unprotected sex, and any sex while high.

Covariates

TASC and control/comparison offenders differed on some background characteristics at some of the sites. Also, some offender background characteristics were related to the risk behaviors we employed as outcome measures. These characteristics fell into seven domains: treatment history, criminal history, drug use history, risky sexual behaviors (other than those tested as outcome measures), personal stability, demographic background, and drug use misreporting. Specific covariates included in each domain are described in Chapter 4. Analyses adjusted for these characteristics (covariates) by a procedure also described in Chapter 4.

Supplemental Predictors

For supplemental analyses described below, we created additional variables measuring receipt of any treatment service and offender's primary drug.

Any Treatment Service

This was a dummy variable, scored 1 if the offender reported receiving any treatment service and scored 0 if the offender reported receiving no treatment service. As indicated in Chapter 5, the treatment services most commonly received were urinalysis testing, drug counseling, and AIDS education. Note that this variable pertains specifically to *treatment* services. Offenders sent to TASC could have received *TASC case management services* such as assessment or urinalysis testing even if they reported receiving no treatment services.

Primary Drug

An offender's primary drug was defined as the drug he/she reportedly used most often during the baseline period. We created a set of dummy variables distinguishing primary users of marijuana, heroin, crack, and other cocaine. (These were the drugs used by nonnegligible portions of our sample.) Across sites, there were 90 drug users for whom a primary drug could not be identified. These were assigned to an "other" dummy category.

Analyses

Most analyses of risk behavior outcomes were carried out on an "intent to treat" basis. That is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the "dose" of treatment they actually received. Our rationale for "intent to treat" analyses is explained in Chapter 4.

Analyses were performed by means of ordinary least squares (OLS) regression. Inspection of the distribution of scores for each outcome measure confirmed that each was acceptable for OLS regression without a transformation of scores. In each prediction equation, the outcome measure was first regressed on its baseline counterpart, group assignment, and the interaction between group assignment and baseline measure. The interaction term was retained if it was statistically

significant and if further analyses confirmed that TASC effects were contingent on the offenders' level of baseline risk. Final prediction equations included these variables as predictors: the baseline risk-behavior measure, group assignment, the baseline-by-group interaction term if indicated, and relevant covariates (see Chapter 4). Because the baseline measure was always included, variability in the outcome measure represents risk behavior *change* associated with assignment to TASC.

In supplemental analyses conducted on TASC offenders only, we determined whether risk behavior outcomes were significantly more favorable for TASC offenders who received treatment services than for those who did not. (In Chapter 5 we explain why some TASC offenders did not receive community treatment services.) The purpose of these supplemental analyses was descriptive, not evaluative, because we cannot know the degree or direction of possible bias due to self-selection of offenders into treatment services. However, we still wished to see whether receipt of treatment services was associated with better outcomes. Prediction equations included all variables listed above as predictors in primary outcome analyses as well as the any-service dummy variable and the interaction between any service and baseline risk behavior.

Other supplemental analyses examined the relevance of primary drug as a predictor variable and the effect of TASC on the no-risk outcome measures (i.e., no unprotected sex and no sex while high).

Findings

Frequency of Unprotected Sex

Table 8.2 reports TASC effects on the frequency of unprotected sex. The baseline measure of this behavior positively predicted frequency of unprotected sex at follow-up, and the coefficients (unstandardized B's) were statistically significant at three sites--Birmingham, Chicago, and Orlando.

After adjusting for each baseline measure and covariates, we found no main effect of TASC on frequency of unprotected sex over the six-month follow-up period at any site. In Orlando, however, the baseline measure and group assignment had an interactive effect on six-month frequency of unprotected sex. The negative sign of the coefficient (B=-.16) for this interaction suggested that favorable change in the frequency of unprotected sex was greatest among TASC

Table 8.2: Frequency of Unprotected Sex

	Birmingham	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	.81	1.27	-.12	.33	.12
Baseline frequency of unprotected sex	.29*	.63*	.46***	.53***	.36*
Group by baseline interaction	-.01	-.29	-.10	-.16*	-.07
Adjusted R^2	.22***	.22***	.16***	.29***	.12***
N	365	134	391	422	330

*$p \leq 0.05$

**$p \leq 0.01$

***$p \leq 0.005$

Note: Findings are adjusted for 19 covariates, not shown.

offenders whose baseline frequency of unprotected sex was high. In further analyses (not shown) we divided the Orlando sample into two subsamples: offenders above the median score, and offenders at or below the median score, on frequency of unprotected sex at baseline. We also created dummy variables marking four subsamples: TASC offenders above and at/below the baseline median, and comparison-group offenders above and at/below the median. Those analyses confirmed that, among offenders whose baseline frequency of unprotected sex was high, those assigned to TASC showed a significantly greater reduction in the frequency of unprotected sex than those assigned to the comparison group. That is, the Orlando TASC program did not lead to reduced risk behavior for all offenders sent there but did have a favorable effect on offenders whose risk behavior was initially high.

Married and/or monogamous cases who engaged in unprotected sex may not been at risk for HIV infection. We accounted for this possibility by including marital status as a covariate in primary outcome analyses. In supplemental analyses, we also tested the effect of TASC on unprotected sex among offenders who were unmarried and offenders who reported having more

than one sex partner at both baseline and follow-up. Findings in these analyses duplicated those in the primary analyses reported above (findings not shown).

Figure 8.1 illustrates the effect of Orlando TASC on frequency of unprotected sex. There was virtually no change among offenders initially at or below the median in their frequency of unprotected sex. Among those initially above the median on this risk behavior, both TASC and comparison offenders reduced their risk behavior, but the change was significantly greater for TASC offenders. The adjusted baseline mean among high-risk comparison group offenders was 4.89, representing eight to twelve occasions of unprotected sex per month. The adjusted follow-up mean for comparison offenders was 3.18, or two to three occasions of unprotected sex per month. The change in mean scores represents a 35% decline in frequency of unprotected sex for offenders in the high-risk comparison group. The adjusted baseline mean among high-risk TASC offenders was 4.82, representing eight to twelve occasions of unprotected sex per month (the same baseline risk level seen in the comparison group). The adjusted follow-up mean for these TASC offenders was 2.05, or two to three occasions of unprotected sex per month. This change in mean scores represents a 57% decline in frequency of unprotected sex for offenders assigned to TASC. Put differently, the decline in frequency of unprotected sex among high-risk Orlando offenders was 62% greater in the TASC group than in the comparison group.

Appendix E reports the final regression equations for primary outcome analyses of frequency of unprotected sex. Equations include all covariates as well as the baseline frequency of unprotected sex, group assignment, and the interaction of the two. We ran supplemental analyses on TASC offenders at each site to determine whether frequency of unprotected sex showed significantly greater reductions for TASC offenders who received treatment services than for those who did not. In Birmingham, the interaction between any service and baseline behavior was significant and negative; Birmingham TASC offenders who were initially high on frequency of unprotected sex showed a greater reduction in this risk behavior if they received treatment services. Neither the any-service variable nor its interaction with baseline behavior was associated with frequency of unprotected sex at follow-up at any other site. Regression results from these supplemental analyses appear in Appendix E.

Figure 8.1

**EFFECT OF TASC ON FREQUENCY OF UNPROTECTED SEX AT TWO LEVELS OF BASELINE RISK -
ORLANDO**
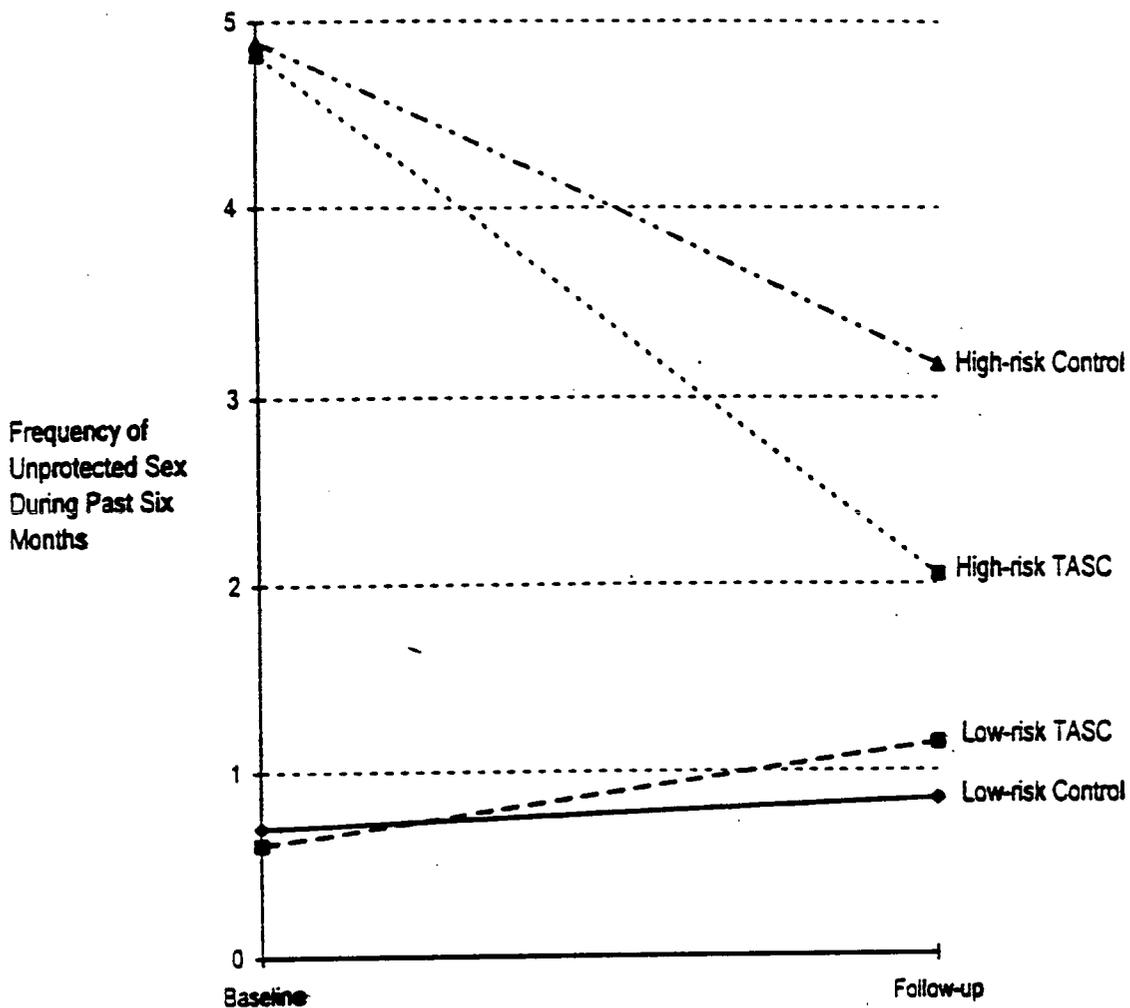
The finding in Birmingham suggests that TASC might have shown a favorable effect in our primary analyses if more TASC offenders had actually received community treatment services. However, it is also possible that offenders who obtained treatment services were more strongly motivated to reduce their drug use and other problematic behavior. If more motivated offenders were also more inclined to self-select into services, the association between any treatment service and reduction in unprotected sex cannot be viewed unambiguously as an effect of TASC participation.

In other supplemental analyses we added dummy variables for primary drug to the prediction equations. None of these variables had a significant relationship to unprotected sex at follow-up or changed findings regarding the relationship between group assignment and unprotected sex (see Appendix E).

A final set of supplemental analyses focused on the yes/no measure of unprotected sex, i.e., the no-risk outcome measure. Group assignment and baseline unprotected sex (also yes/no measure in these analyses) had a significant interactive effect at one site, Canton, where offenders who had engaged in some unprotected sex during the baseline period were more likely to report having engaged in no unprotected sex during the follow-up period if they had been assigned to TASC. In the TASC group, 79% of offenders engaged in unprotected sex during follow-up. In the control group, the corresponding percentage was 92% (see Appendix E).

Frequency of Sex While High

Table 8.3 shows TASC effects on the frequency of sex while high. The baseline frequency of sex while high positively predicted frequency of sex while high during the follow-up period. The unstandardized regression coefficients are statistically significant at all sites except Canton.

After adjusting for the baseline measure and covariates, we found no main effect of TASC on the frequency of sex while high. However, at four of the five sites, we found evidence for interactive effects of TASC in combination with other variables. The coefficient for interaction

Table 8.3: Frequency of Sex While High

	Birmingham (Incarceration=Yes)	Canton	Chicago	Orlando	Portland
Group assignment (1=TASC)	-.84***	.50	-.24	.05	-.23
Baseline frequency of sex while high	.56*	.43	.47***	.64***	.44*
Group by baseline interaction	-.20	-.13	-.21*	-.20*	-.19[a]
Adjusted R^2	.23***	.26***	.0.7***	.31***	.10***
N	188	134	388	422	329

[a] $p \leq 0.10$

*$p \leq 0.05$

**$p \leq 0.01$

***$p \leq 0.005$

Note: Findings for Birmingham are adjusted for 18 covariates, not shown. Findings for other cities are adjusted for 19 covariates, not shown.

between the baseline measure and group assignment was significant at Chicago (B=-.21), Orlando (B=-.20), and Portland (B=-.19). Significance was marginal at Portland, but offenders at that site were randomly assigned either to TASC or to an alternative service provider. We did not have a no-service control group. Because such a design represents a rigorous test of TASC, any detectable separation in outcomes, even if only marginally significant in statistical terms, is persuasive evidence for TASC effects above and beyond effects seen in the alternative-provider group. We sought to confirm the interaction between TASC and baseline frequency of sex while high by comparing the equations for offenders scoring above and at/below the mid-range score of 3 (representing two to three occasions of sex while high per month) and by adding dummy variables for group-by-baseline subsamples. (We split samples at the mid-range score because a median split would have compared a subsample of low-risk offenders to a subsample combining medium- and high-risk offenders. Splitting at the mid-range score produced subsamples of unequal size but more clearly separates offenders by risk level.) Results confirmed the interactions presented in the above

regression equation (findings not shown). Thus, among offenders scoring above the mid-range score on baseline frequency of sex while high, those assigned to TASC at these three sites showed significantly greater declines in frequency of sex while high during the follow-up period.

In Birmingham we did not find this interaction between group assignment and baseline sex while high. But an interaction did occur between group assignment and incarceration. Specifically, TASC had a favorable effect on frequency of sex while high among offenders who reported having been incarcerated for at least one day during the baseline period (B=-.84). TASC apparently had no effect among Birmingham offenders reporting no incarceration during baseline. (In subsample analyses to confirm the nature of this interaction, we excluded 18 offenders for whom baseline incarceration data were missing.)

We conducted further analyses to explore the relevance of incarceration days in Birmingham. Our main concern was that TASC offenders incarcerated during the baseline period might be more likely to have been incarcerated during the follow-up period as well; if so, the observed reduction in sex while high among TASC offenders could be due to their having had less opportunity to engage in sex during the follow-up period. Conversely, if comparison group offenders had more incarceration days during the baseline period than TASC offenders, baseline levels of sex while high might have artificially low for comparison group offenders. We found that sex while high was negatively related to number of incarceration days in both the baseline and the follow-up periods (findings not shown). However, with this new covariate added to the analysis, group assignment remained a significant predictor of sex while high among offenders incarcerated for one or more baseline days. Thus the effect of TASC did not appear to be an artifact of the possible difference in opportunity to engage in sex. When we examined correlates of incarceration among Birmingham offenders, we found that incarcerated offenders had significantly higher means on number of violent crimes during the six-month baseline period, number of property crimes at baseline, number of drug crimes (other than possession) at baseline, and number of drug use days at baseline. Incarcerated offenders also reported a lower age at first drug use and were more likely to report drug dealing at baseline. In short, Birmingham offenders incarcerated during baseline had more extensive criminal and drug use histories.

Because frequency of sex while high may be higher among offenders who used drugs more often, we recognized the possibility that findings at any site might be an artifact of the effect of TASC on drug use (see Chapter 6). In analyses not shown here, we found that the number of drug days during follow-up was positively related to frequency of sex while high during follow-up. However, the interactive effects we reported above did not change. (The Portland TASC effect, marginal above, reached the $p \leq .05$ significance criterion after we adjusted for number of drug days. The p value reported for Birmingham weakened but remained marginally significant.) Thus, the effects of TASC on sex while high is a new finding; it is not merely an echo of TASC effects on drug use.

Figures 8.2 to 8.5 illustrate the interactive effects of four TASC programs on frequency of sex while high. At no site was there any significant change from baseline to follow-up among offenders initially at low risk (at or below the mid-range score) on frequency of sex while high. Among offenders at high risk (above the mid-range score), control/comparison group offenders at Chicago, Orlando, and Portland reduced their risk behavior but not as much as TASC offenders at the same sites.

In Chicago (Figure 8.2), the adjusted baseline mean among high-risk comparison group offenders was 5.08, representing eight to twelve occasions of sex while high per month. The adjusted follow-up mean for these offenders was 2.61, or about two occasions of sex while high per month. The change in mean scores represents a 49% decline in frequency of sex while high for offenders in the Chicago comparison group. The adjusted baseline mean among high-risk TASC offenders in Chicago was 4.87, representing eight to twelve occasions of sex while high per month (the same baseline risk level seen in the comparison group). The adjusted follow-up mean for these TASC offenders was 1.21, or less than once per month. This change in mean scores represents a 75% decline in frequency of sex while high for offenders assigned to TASC. Put differently, the decline in frequency of sex while high among Chicago offenders was 48% greater in the TASC group than in the comparison group.

In Orlando (Figure 8.3), the adjusted baseline mean among high-risk comparison offenders was 4.70, or eight to twelve occasions of sex while high per month. The adjusted follow-up mean for this group was 3.24, or two to three occasions of sex while high per month. This is a 31%

Figure 8.2

EFFECT OF TASC ON FREQUENCY OF SEX WHILE HIGH AT TWO LEVELS OF BASELINE RISK - CHICAGO
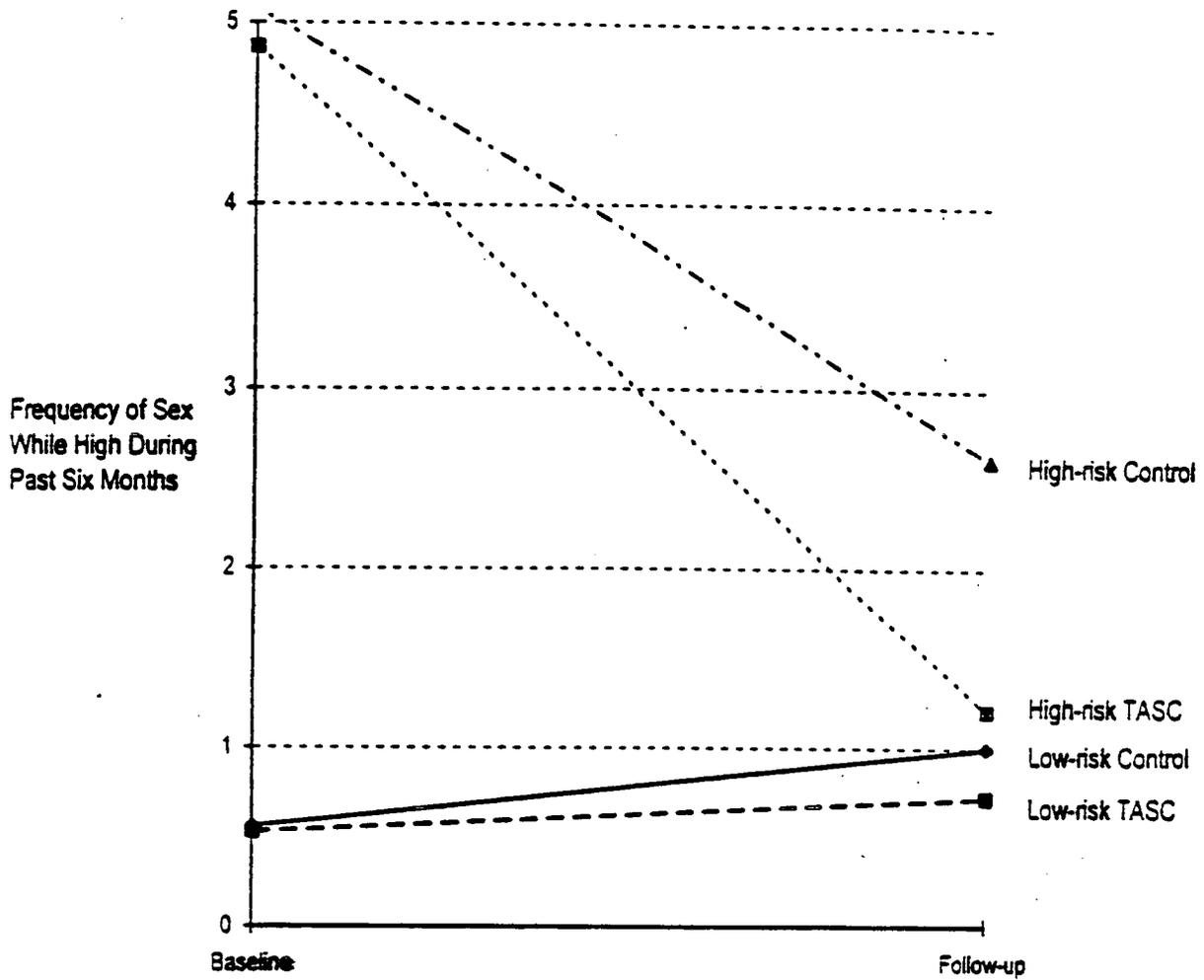
Figure 8.3

EFFECT OF TASC ON FREQUENCY OF SEX WHILE HIGH AT TWO LEVELS OF BASELINE RISK - OrLANDO
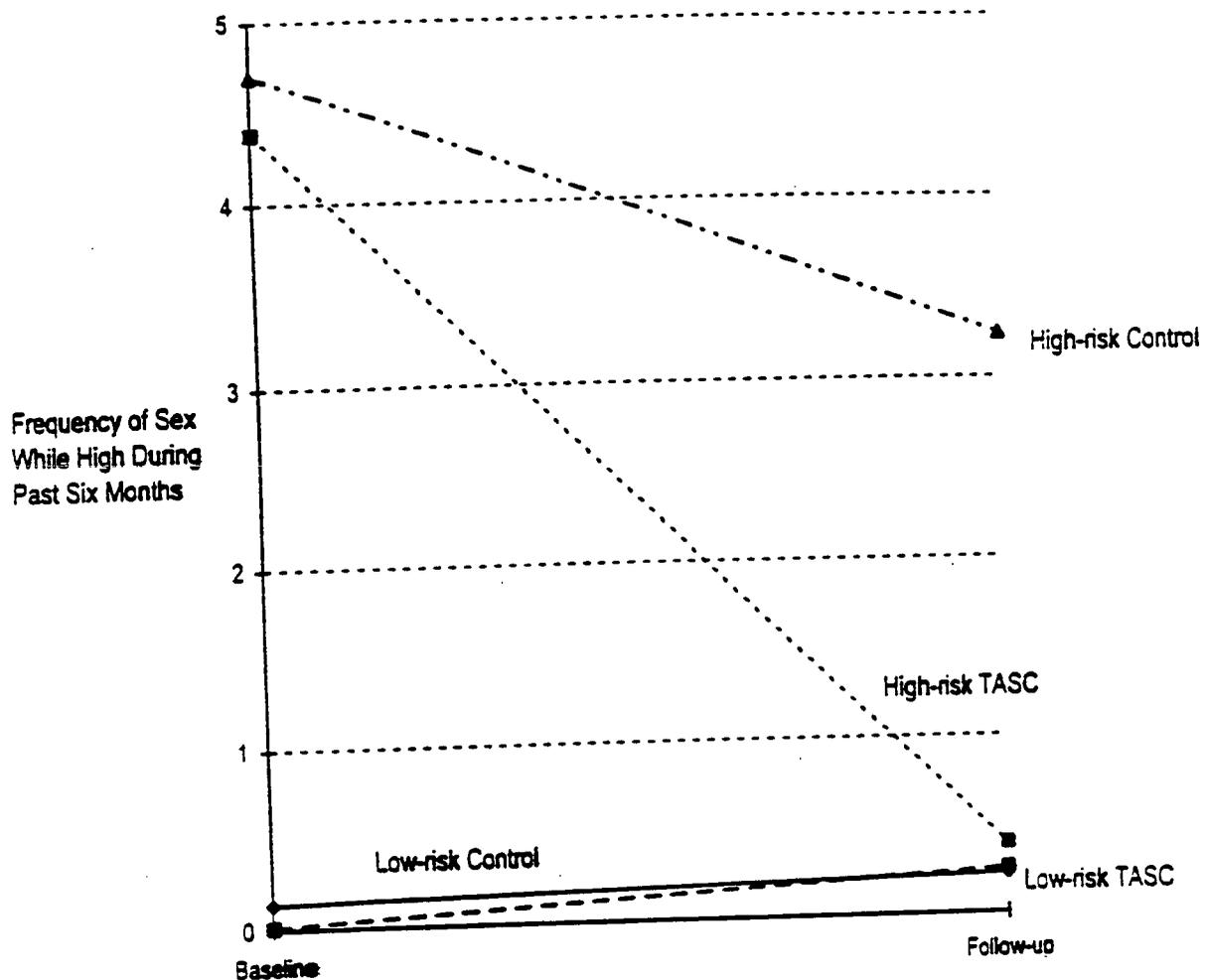
decline in mean scores on frequency of sex while high for offenders in the Orlando comparison group. The adjusted baseline mean among high-risk TASC offenders in Orlando was 4.38, representing about four occasions of sex while high per month. The adjusted follow-up mean for these TASC offenders was 0.39, well under one occasion per month. This change in mean scores represents a 91% decline in frequency of sex while high for offenders assigned to TASC. The decline in frequency of sex while high among Orlando offenders was 173% greater in the TASC group than in the comparison group.

In Portland (Figure 8.4), the adjusted baseline mean among high-risk control offenders was 4.89, or eight to twelve occasions of sex while high per month. The adjusted follow-up mean for this group was 2.13, or about two occasions of sex while high per month. This is a 56% decline in mean scores on frequency of sex while high for high-risk offenders in the Portland control group. The adjusted baseline mean among high-risk TASC offenders at this site was 4.88, representing eight to twelve occasions of sex while high per month. The adjusted follow-up mean for these offenders was 1.75, or about one per month. This change in mean scores represents a 64% decline in frequency of sex while high for offenders assigned to TASC. The decline in frequency of sex while high among Portland offenders was 13% greater in the TASC group than in the control group.

The graph for Birmingham (Figure 8.5) is based on TASC and comparison group offenders (regardless of baseline risk level) who reported having been incarcerated for one or more days at baseline. The adjusted baseline mean among comparison group offenders was 1.05, or less than one occasion of sex while high per month. The adjusted follow-up mean for this group was 1.55, or about one occasion per month. The change in mean scores represents an increase of 48% in this risk behavior. Both the low baseline level of risk (low in relation to other sites) and the increase in risk behavior during the follow-up period presumably reflect the fact that these offenders were incarcerated for at least a portion of the baseline period. The adjusted baseline mean among Birmingham TASC offenders was 1.14, also relatively low, representing less than one occasion of sex while high per month. The adjusted follow-up mean for TASC offenders was 0.53, well under one per month. This change in mean scores represents a 54% decline in frequency of sex while high for offenders assigned to TASC. Thus, even though the baseline risk level for TASC

Figure 8.4

EFFECT OF TASC ON FREQUENCY OF SEX WHILE HIGH AT TWO LEVELS OF BASELINE RISK - PORTLAND
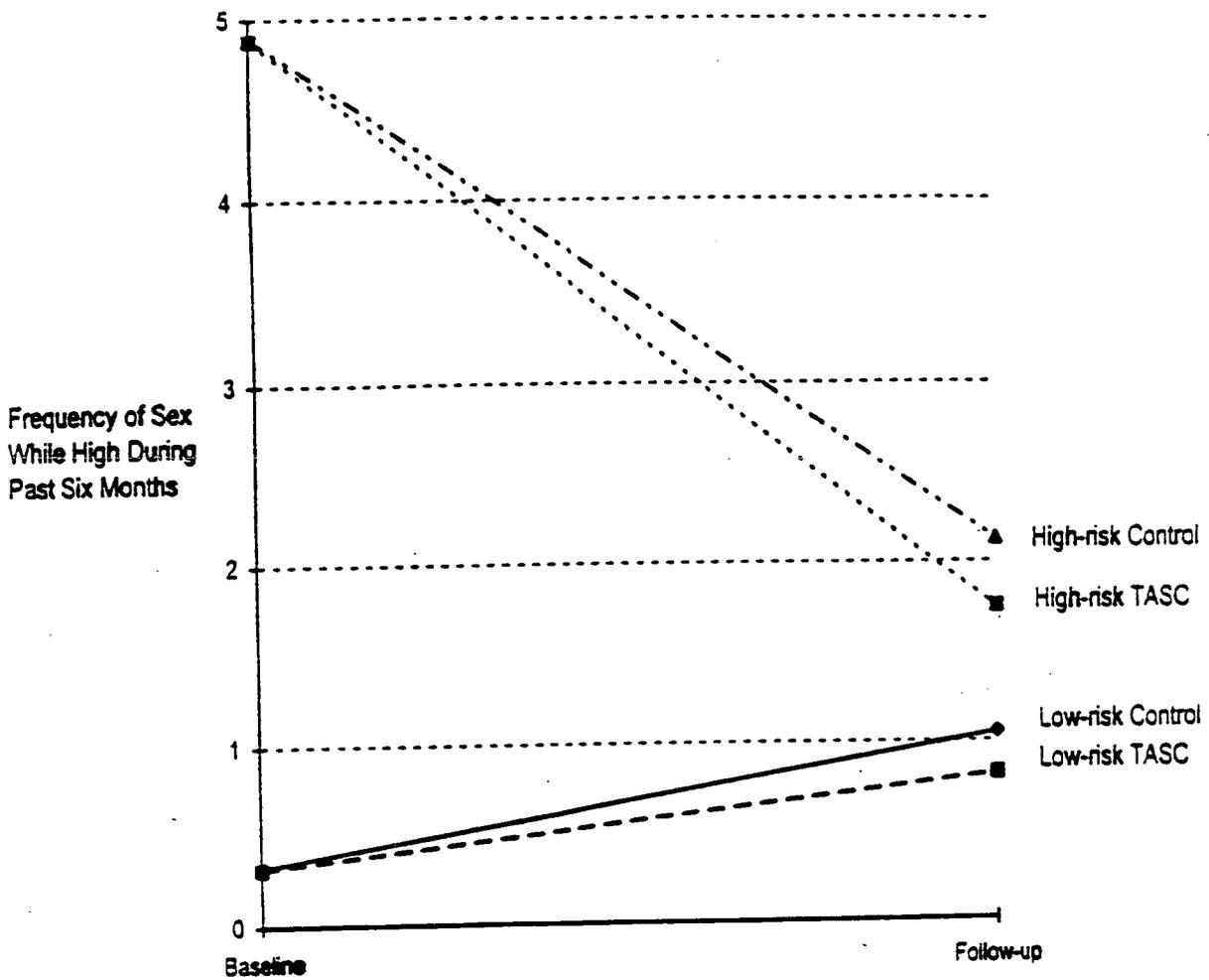
Figure 8.5

EFFECT OF TASC ON FREQUENCY OF SEX WHILE HIGH AT TWO LEVELS OF BASELINE RISK -
BIRMINGHAM
(CASES REPORTING INCARCERATION)
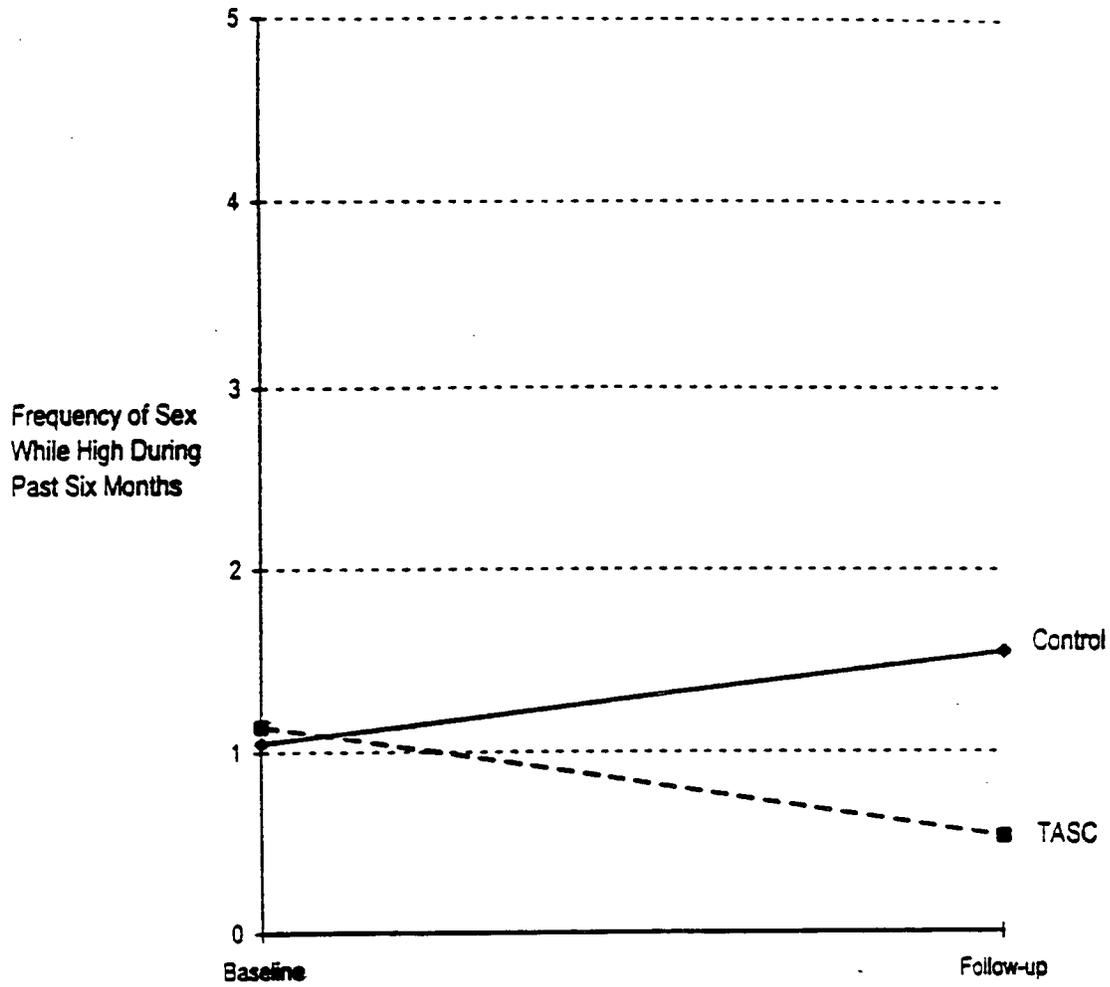
offenders was low, like that for the comparison offenders, their level of risk dropped even lower during follow-up.

Appendix E includes the final regression equations for primary outcome analyses of frequency of sex while high. Equations include all covariates as well as the baseline frequency of unprotected sex, group assignment, and the interaction of the two.

We ran supplemental analyses on TASC offenders to determine whether frequency of sex while high showed significantly greater reductions among TASC offenders who received treatment services than among those who did not. Neither the any-service variable nor its interaction with the baseline behavior measure was associated with frequency of unprotected sex at follow-up at any site. Results from these supplemental analyses appear in Appendix E.

In other supplemental analyses we added dummy variables for primary drug to prediction equations. None of these variables had a significant relationship to sex while high during the follow-up period or changed findings regarding the relationship between group assignment and sex while high. Regression results from these analyses appear in Appendix E.

A final set of supplemental analyses focused on the yes/no measure of sex while high, i.e., the no-risk outcome measure. We found significant and favorable effects of TASC in interaction with offender characteristics at two sites. In Orlando, offenders who had engaged in any sex while high during baseline were more likely to report having engaged in no sex while high during follow-up if they had been assigned to TASC. In the Orlando TASC group, 26% of offenders engaged in sex while high during follow-up. The corresponding percentage for comparison group offenders was 41%. In Birmingham, offenders who had been incarcerated for one or more days during baseline were more likely to report having engaged in no sex while high during follow-up if they were assigned to TASC. Among Birmingham TASC offenders reporting any incarceration, 22% engaged in sex while high during follow-up. The corresponding percentage was 40% among comparison group offenders reporting any incarceration.

Discussion

TASC reduced the frequency of unprotected sex among Orlando offenders initially scoring high on this variable. The effect did not emerge at any other site. However, in supplemental

analyses, we found that Canton offenders who had engaged in sex while high at baseline were more likely to report having eliminated this behavioral risk if assigned to TASC. As noted above, we relied on frequency measures in our primary outcome analyses because such measures are more sensitive and provide an effectiveness criterion that does not require complete elimination of risk behavior. Nevertheless, the supplemental finding in Canton represents favorable evidence for the impact of the TASC program there and for the TASC model overall.

Favorable TASC effects on the frequency of sex while high emerged at multiple sites and were independent of TASC effects on drug use. In Chicago, Orlando, and Portland, TASC reduced sex while high among offenders scoring high on this risk behavior at baseline. In Birmingham, TASC reduced sex while high among offenders incarcerated for one or more days during baseline. Although incarcerated offenders may have had less opportunity to engage in sex, this did not explain the effect of Birmingham TASC on sex while high; the effect persisted even after we adjusted for number of incarceration days. On the yes/no measure of sex while high, favorable effects of TASC in Orlando and Birmingham echoed the effects we saw on frequency of sex while high. We also found a favorable effect on sex while high in Canton. Again these effects depended on offender characteristics, namely, sex while high during baseline (in Orlando and Canton) and any incarceration during baseline (in Birmingham).

Inasmuch as being incarcerated was characteristic of Birmingham offenders with more extensive criminal and drug use histories, we believe the findings from all sites lead to the same conclusion. That is, TASC had demonstrable effects on offenders whose behavior was more problematic, whether this characterization is based specifically on sex risk behavior or more broadly on the offender's criminal and drug history.

We do not know why effects on sex while high emerged at all five sites while effects on unprotected sex emerged only at Orlando and Canton. TASC services or treatment services at those two sites may somehow differ from services at other sites, but we were unable to identify any unique site-specific aspect of TASC or treatment services available there.

Chapter 9

Cost-Effectiveness of TASC Programs

A final step in the TASC evaluation was to estimate the costs of implementing and maintaining the TASC model of offender management. Cost information is most valuable when savings attributable to program outcomes can be identified in the short and long term. Long-term cost data were beyond the scope of the evaluation for several reasons. First, the data collection timeframe allowed for only a six-month follow-up. Given the time required to assess, refer, and place offenders in treatment, many offenders had not completed treatment at the end of six months. Thus, suitable post-treatment cost parameters could not be determined. Second, this limited timeframe covered a period of adjustment and change for the offenders; gains from their participation in TASC would not have been fully realized. Third, while some cost offsets may be immediate (e.g., reduced incarceration days), others must be assessed over the longer term (e.g., crime reduction and fewer emergency room episodes) to capture the "return on investment" of persisting benefits of TASC participation. Thus, without longer term follow-up, the cost-effectiveness of TASC remains unclear and is certainly under-valued in any short-term timeframe.

Below, we provide a context for cost-effectiveness evaluation. Next we present a brief history of cost assessments of TASC during the 1970s, when TASC was federally supported. Cost information is then provided for the five programs participating in the outcome evaluation. Finally, we summarize cost findings and suggest additional work to determine more precisely the cost-offset potential of TASC in the long term.

Cost-Effectiveness Considerations

A critical public policy question is whether resources devoted to treatment yield benefits in excess of treatment costs in the short and long term. Further questions concern the comparative assessment of treatment programs, modalities, and components that are most cost-effective. A more general concern at the highest policy level is whether TASC and treatment services combined have met the diverse personal needs of drug-using offenders, whether they have effectively reduced social costs in short- and long-term perspectives, and, if not, how the

system can be improved to achieve an optimal return for society's investment.

Only limited studies analyzing the cost-effectiveness of drug treatment have been conducted. Most have used conventional methodologies that focus on the inclusion and categorization of various costs of drug use that are attenuated by treatment. Common steps in conducting cost-effectiveness analysis include defining relevant categories of costs and effects and determining values for services delivered and outcome measures. Although inclusion of relevant sources of costs and assignment of appropriate values to such categories are important decisions and often involve sophisticated philosophical considerations, calculation methods are usually simple arithmetic. Moreover, such methodologies provide only static descriptions within limited timeframes. Frequently overlooked are the time dynamic aspects of drug use and recovery so as to allow prediction of the future impact of alternative policies.

Definitions

Cost-effectiveness analyses of drug treatment programs are used to determine whether resources devoted to programs yield gains in excess of their cost. However, the idea of overall TASC or treatment system efficacy must also be considered. System efficacy reflects a holistic view of the system in reaching, retaining, and intervening in the behaviors of individuals in need of treatment. We define these terms as follows.

Treatment effectiveness is defined as the reduction of adverse behaviors and consequences of drug use as well as the increase in desired positive behaviors.

Cost-effectiveness analysis compares treatment gains and costs to determine if resources expended for the treatment modality, program, or component are warranted. Cost-effectiveness analysis can evaluate intervention units by some outcomes that are not always expressible in monetary values (e.g., moral hazard or safe communities). Because some interventions may be costly relative to the gains achieved, not all effective programs are efficient. A program is efficient only if gains, monetary and non-monetary, exceed costs. This concept is usually applied to single programs or modalities but also can be applied to multiple programs or modalities for comparison purposes.

Treatment system efficacy is an extension of cost-effectiveness methodology to an aggregate system level, taking into consideration the number of people served and duration times

in treatment for those processed by the treatment system, while also considering the necessity to meet diverse needs of individuals. In addition, from a system's view, to meet the diverse needs of individuals, and in the absence of better alternatives, some programs or modalities will have to be maintained even if they individually may not be efficient. Efficacy is determined not only by clinical success in matching between client needs and treatment services but also by management morale, physical layout of programs, and policies and protocols that meet client needs. Efficacy assessments also may involve analyzing the aggregate benefits of bringing, by various means (e.g., legal coercion), increasing fractions of untreated populations into treatment as well as how the level of overall treatment system efficacy can be improved.

Cost and Benefit Measures

Variations in study design, sample representativeness, and outcome measures often lead to inconsistent estimates of treatment effectiveness. These considerations also apply to cost-effectiveness analysis, even though the prominent considerations of most studies have been determining the categories of cost and effectiveness measures that should be considered and the magnitude of costs.

Treatment Benefits

The simplest treatment goal traditionally has been abstinence. From a public policy perspective, however, drug use reduction is associated with a variety of other treatment goals such as crime reduction, prison management, and the spread of Acquired Immuno Deficiency Syndrome (AIDS). In a review article, Anglin and Hser (1990a) argued that in examining the effectiveness of treatment, evaluations should employ outcome measures that encompass a variety of behaviors. Several specific outcome categories are important: cessation or decreased use of the primary drug of dependence and other drugs; decreased levels of illegal activities such as drug trafficking, property crime, or prostitution; increased employment and decreased reliance on social service agencies; improved social and family functioning; improved psychological functioning; and decreased mortality and improved physical heath.

Additional criteria might need to be considered when targeting different levels of analysis units within the treatment system. For example, some treatment modalities, such as

detoxification, are not considered effective in achieving the above goals on any long-term basis. However, from a system's point of view, such programs may be necessary to control drug withdrawal symptoms temporarily and perhaps as an opportunity to motivate clients to participate in other modalities for long-term rehabilitation. Finally, for a truly effective system, some components (e.g., programs) may never be cost-effective, but still need to be supported. For example, programs for the dually diagnosed may need to provide lifetime services at considerable investment for some clients. Such programs may still be preferable to far more costly alternatives (e.g., mental hospitals or prisons).

Some analyses have attempted to translate behaviors into economic cost terms. This approach, called cost-benefit analysis, considers the overall effectiveness of treatment for those served and applies cost factors as "weights" that "revalue" effectiveness in terms of social "return on investment." The reduction in social costs constitutes a large measure of the benefit of drug use treatment and other intervention programs and provides the rationale for their support by public funds (Anglin and Hser, 1990b). However, some major costs of drug use are almost impossible to quantify. For example, it is difficult to place a dollar value on the benefit to society of reducing the public fear of being victimized by drug users who have turned to robbery and burglary to finance their dependence. Consequently, only those costs that can be quantified are estimated in cost-benefit analyses, and the resulting estimates understate the true gains associated with treatment.

TASC and Treatment Costs

In measuring the costs of a specific treatment program, the appropriate perspective considers the higher of (1) the monetary expenses of the program and (2) the value of these resources for the next best use, for example, what the benefits would have been in using the resources in an alternative type of program. This latter perspective represents the opportunity cost of the investment. For a program to be comparatively efficient, resources that it utilizes should not be able to be better employed elsewhere.

In practice, measuring opportunity cost is rarely attempted. It requires not only an examination of the program's effectiveness but also an examination of the effectiveness of all other programs with which it competes for resources. Consequently, monetary costs are

examined instead. Treatment costs vary across cities and programs due to differences in local treatment policies, salaries, cost-of-living, specific services provided, the age and type of facilities, and other related factors (National Association of State Alcohol and Drug Abuse Directors, 1988). There are also several ways these monetary program costs can be measured, depending on whether the perspective derives from operational, societal, or client considerations (Yates, 1985). A method that has been commonly used is to seek an estimate of the average cost to treat a drug user in a specific program for a specific period, that is, a week, year, or possibly the length of time typically taken for a treatment episode. Program overhead costs as well as operating costs must be measured; in addition, the opportunity cost of resources used by the program should be counted, even if the resources utilized do not represent direct costs. This consideration conceivably could affect the cost estimate for a program that utilizes a large volunteer staff that would otherwise be likely to provide free services to another socially worthwhile cause.

Combining Cost and Benefit Estimates

There are several ways in which to analyze cost, benefit, and effectiveness data once they are obtained (Yates, 1985). A commonly used method is to form a benefit-to-cost ratio. In this way, efficiency can be quantified. For example, if $8,000 was required to care for a heroin addict for one year in a therapeutic community and this resulted in benefits of $24,000 in present-value terms, then the benefit-to-cost ratio would equal three. A ratio in excess of unity would indicate efficiency and be required, in the absence of other criteria, to rationalize continuation of the program. However, it may not be a sufficient condition to the extent that alternative programs that vie for scarce dollars exhibit even larger ratios.

An analysis that examined economic benefits to society of drug use treatment utilized data from the 1980 Treatment Outcome Prospective Study (TOPS) (Hubbard et al., 1989; Harwood et al., 1988). This analysis focused on the economic benefits derived from a decrease in criminal activity during treatment and one year after treatment discharge. The cost-benefit of treatment was compared across three treatment modalities based on average length of stay. The benefit-to-cost ratio was larger than unity for residential, methadone maintenance, and outpatient drug-free programs. This finding suggests that the benefits from reducing crime that are derived

from these treatment modalities outweigh the cost of providing treatment. Seen from an aggregate level, treatment costs are a small percentage of the total cost of drug use to society-- approximately 3 percent (Wallack, 1990). Increasing the percentage to even 6 to 10 percent could have dramatic social benefits.

Although ratios simplify findings, they discard important information such as absolute net benefits that prove the investment worthwhile or caseload and scale-of-service provisions. In addition, ratios do not allow prediction of how the cost and outcome relationship would change as relevant policy changes (i.e., if client load was altered within a program). A more complete model of the relationship among costs, outcomes, and other relevant variables is needed--one that can be provided only by mathematical models. These models may be considerably more generalizable than single ratios.

In our cost-effectiveness analysis, we were able to address some of these issues, though by no means all. Below we provide a brief review of existing information on TASC cost-effectiveness. Then we turn to findings from our analysis of cost-effectiveness at the five participating TASC programs.

TASC History

A major objective when establishing the TASC initiative was to reduce the costs of dealing with drug-involved offenders. The argument was that it would be more cost-effective to treat drug users than to incarcerate them. The results of the national evaluation of TASC at the close of the 1970s suggested that the TASC effort had indeed been a cost-effective initiative (System Sciences, 1979). Among the programs studied in the System Sciences evaluation, the cost of processing a TASC client was $637. In addition, annual treatment costs varied from $2,662 for outpatient programs to $6,212 for residential programs. Thus it was estimated that the maximum cost for identifying, referring, monitoring, and treating a TASC client was no more than $7,000 annually (in late 1970s dollars).

The estimate for the court processing of a drug-involved offender (with a trial by judge or jury and a not-guilty verdict) was a maximum of $5,000, suggesting that TASC could be a more costly process in some instances. However, for convictions resulting in incarceration, costs quickly escalated to more than $14,000 per year (Inciardi et al., 1996). In addition, there were

other significant cost-benefits to TASC. In the Treatment Outcome Prospective Study, TASC clients in treatment typically reduced their drug intake and hence their associated criminal activity. This study estimated that for clients with $50-a-day habits, six months in TASC had a potential savings of some $51,000, based on the proportion of drug funds coming from crime and the fencing of stolen property at a fraction of its actual market value (Collins et al., 1982).

Since the 1970s, little further work addressed cost-benefit considerations across TASC programs. Because local policy makers had to be convinced that TASC was a sound investment for local government dollars, each surviving program had to make a persuasive cost-benefit argument to budget planners, typically at the county level. The survival and even expansion of TASC programs during the 1980s suggests that local program cost-benefit arguments were successful.

Cost-Effectiveness of TASC

We obtained records of treatment services received and subsequent criminal justice contacts in the six-month follow-up period. By matching these records with data on the costs of services and criminal justice processing, we calculated the average "treatment service bill" and "criminal justice bill" at each site. We then compare these "bills" between TASC and the control/comparison groups to determine if TASC was successful in encouraging greater service utilization and reducing criminal justice expenditures. This is approximately the methodology used to compare costs in a study of the effect of intensive probation compared to routine probation services on a similar set of outcomes (Petersilia and Turner, 1990).

Service Utilization, Criminal Justice Outcomes, and Related Costs

Offenders were referred to a variety of services by TASC. Data were collected on the type and number of services received. With the addition of information on the unit costs of each of these services, we calculated overall program costs for offenders in both groups by multiplying utilization of each service, by its unit price. For example, if we know that a TASC offender received three urine tests and that each test cost $3.50, urine test costs for that offender are (3 x $3.50) = $10.50.

TASC costs were thus defined as the cost of all services provided directly by TASC or to

which TASC referred an offender. (TASC programs do not pay for services to which they refer offenders. The cost of those services nevertheless represents an expense attributable to TASC participation.) Control/comparison group costs were derived similarly from service utilization, measured using self-report surveys as well as official records. Data on the unit costs of various services was obtained from TASC and other agencies at each site. However, full data on all relevant costs were not available at all sites. In these cases, we relied on data from other sites, or made assumptions based on other available data on treatment costs. Sources for actual site cost data are as follows.

Birmingham. L. Foster Cook, director of the Substance Abuse Program at the University of Alabama, Birmingham, provided data on treatment and criminal justice costs.

Canton. Linda Bradshaw, Vice President of QUEST Recovery Services, provided data on treatment costs. Steve Van Dyne, a researcher in the Ohio state prison system, provided information on prison costs. Harry Hagaman provided information on county jail costs. Fritz Rauschenberg of the Ohio Sentencing Commission provided information on parole and probation costs.

Chicago. Mark Nufer, Vice President of Chicago TASC, provided data on treatment costs. Art Lurigio of the Cook County Probation Department provided data on criminal justice costs.

Orlando. Julianne Zabrecky of the Florida Department of Health and Rehabilitative Services provided treatment and criminal justice cost data.

Portland. Marion Robbins provided data on treatment costs. Cary Harkaway, deputy director of Multnomah County Department of Corrections, provided data on criminal justice costs.

All service utilization data are from client self-reports except for probation days, which are available via official record. While official record data were also provided for a subset of these outcomes, we concentrate in this section on services reported by offenders since we found that the official records often underestimated clients' level of service utilization.

Similarly, data on TASC and control/comparison groups' subsequent social outcomes were collected from both official records and self-report surveys. We thus have information on the incidence of outcomes with the criminal justice system, particularly the number of arrests, technical violations, and jail and prison days. We costed these outcomes using the same methodology used for service utilization. For example, if TASC offenders have 10 fewer jail

days than control/comparison offenders at follow-up and a day in jail costs $75, TASC has produced a measurable criminal justice savings of $750 per offender through a reduction of jail days. Data on arrests were taken from self-report surveys. Data on the number of jail and prison days and technical violations were taken from official records since these data were not included in the self-report survey. Notes provide information on sources of cost data not available from sites and the methodology used to interpolate them.

Cost-Effectiveness Findings

TASC was designed to reduce negative criminal justice outcomes, and thereby to reduce associated costs, by increasing offenders' use of services and thus operated on the principle that it was cheaper to treat drug-involved offenders than to incarcerate them. A national evaluation of TASC at the end of the 1970's indicated that this objective was being met. It was estimated that the *maximum* cost for identifying, referring, monitoring, and treating a TASC client was no more than $7,000 annually (in late 1970's dollars). The study went on to estimate the *maximum* cost of court processing for convictions resulting in incarceration of a drug-involved offender at $14,000 annually and concluded that TASC was cost-effective (Inciardi, et al., 1996).

However, the simple approach used for cost-effectiveness is not valid unless all TASC clients receive maximum services and incur fewer subsequent incarcerations. Based on the criminal justice outcomes data described above (Chapter 7), we know this is not always the case. In addition, not all offenders would have been incarcerated had they not received referrals from TASC. Thus, the true test of TASC cost-effectiveness is not whether it is cheaper than incarceration. We measured differences in service utilization and total criminal justice costs between TASC and control/comparison offenders. If TASC encouraged greater utilization of services, this should be reflected in larger costs of treatment for TASC clients. And if TASC is successful in reducing negative criminal justice outcomes, this should be reflected in lower criminal justice costs, at least in the long term.

Tables 9.1 to 9.5 compare treatment costs and criminal justice costs in each of the five sites. At all sites TASC clients had higher total service bills during the six-month period than their non-TASC counterparts. This indicates that TASC was successful at increasing treatment utilization among drug-involved offenders. In Birmingham, Canton, Chicago, and Portland,

Table 9.1: Birmingham

Service Utilization	TASC	Comparison	Unit Price	TASC Cost	Comparison Cost	TASC- Comparison Difference
TASC Enrollment	1	0	$115.00	$115.00	$0.00	
TASC Program days	144.47	7.35	$2.87	$414.63	$21.10	
Urinalysis	13.92	0.45	$8.50	$118.35	$3.83	
Detox	0.00	0.00	$111.00	$0.00	$0.00	
Methadone Maintenance	0.80	1.09	$12.48	$9.96	$13.65	
Residential	7.39	0.85	$58.34	$431.22	$49.59	
Outpatient	18.71	1.51	$13.00	$243.19	$19.66	
TASC Outpatient (SR housing stat)	115.09	3.52	$13.00	$1,496.17	$45.76	
Halfway House	1.38	0.00	$35.67	$49.05	$0.00	
Routine Probation	131.06	111.34	$2.87	$376.13	$319.53	
Total Service Cost				$3,253.70	$473.12	$2,780.57

CJ Outcomes	TASC	Comparison	Unit Price	TASC Cost	Comparison Cost	TASC- Comparison Difference
Arrests	0.06	0.10	$1,500.00	$84.00	$150.00	
Technical Violations	0.12	0.03	$500.00	$59.45	$15.30	
Jail Days	2.17	1.91	$31.50	$68.37	$60.22	
Prison Days	11.26	3.18	$25.00	$281.39	$79.56	
Total CJ Outcome Cost				$493.21	$305.08	$188.13

GRAND TOTAL $2,968.70

Table 9.2: Canton

Service Utilization	TASC	Control	Unit Price	TASC Cost	Control Cost	TASC-Control Difference
TASC Enrollment	1	0	$76.00	$76.00	$0.00	
TASC Program days	85.27	8.09	$3.00	$255.82	$24.28	
QUEST Program days	5.24	39.40	$3.00	$15.71	$118.19	
Urinalysis	5.52	2.92	$7.63	$42.11	$22.26	
Detox	0.00	0.01	$110.50	$0.33	$1.55	
Methadone Maintenance	0.00	0.00	$16.03	$0.00	$0.00	
Residential	4.93	13.50	$65.21	$321.22	$880.34	
Outpatient	48.97	29.88	$28.23	$1,382.48	$843.51	
TASC Outpatient (SR housing stat)	21.71	0.00	$28.23	$612.82	$0.00	
Halfway House	0.00	0.00	$46.72	$0.00	$0.00	
Routine Probation	79.29	115.83	$3.00	$237.87	$347.49	
Total Service Cost				$2,944.35	$2,237.62	$706.74
CJ Outcomes						
Arrests	0.33	0.08	$1,500.00	$499.50	$112.50	
Technical Violations	0.05	0.03	$500.00	$23.25	$15.65	
Jail Days	17.34	8.62	$47.70	$826.91	$411.12	
Prison Days	40.10	14.04	$42.48	$1,703.30	$596.59	
Total CJ Outcome Cost				$3,052.97	$1,135.86	$1,917.11
GRAND TOTAL						$2,623.85

Table 9.3: Chicago

Service Utilization	TASC	Comparison	Unit Price	TASC Cost	Comparison Cost	TASC-Comparison Difference
TASC Enrollment	1	0	$180.00	$180.00	$0.00	
TASC Program days	102.80	13.56	$2.74	$281.66	$37.14	
Urinalysis	0.48	0.06	$3.50	$1.68	$0.21	
Detox	0.52	1.22	$110.50	$57.02	$135.25	
Methadone Maintenance	1.05	3.28	$12.48	$13.13	$40.88	
Residential	39.10	11.92	$58.34	$2,281.22	$695.34	
Outpatient	14.32	0.13	$26.76	$383.32	$3.45	
TASC Outpatient (SR Housing stat)	49.35	5.33	$26.76	$1,320.60	$142.72	
Halfway House	3.77	0.82	$42.55	$160.59	$34.72	
Routine Probation	138.30	158.65	$2.74	$378.94	$434.70	
Total Service Cost				$5,058.16	$1,524.43	$3,533.73

CJ Outcomes

	TASC	Comparison	Unit Price	TASC Cost	Comparison Cost	TASC-Comparison Difference
Arrests	0.42	0.36	$1,500.00	$636.00	$546.00	
Technical Violations	0.35	0.22	$500.00	$177.40	$110.55	
Jail Days	20.32	5.59	$38.00	$772.15	$212.26	
Prison Days	2.29	0.41	$46.58	$106.44	$19.23	
Total CJ Outcome Cost				$1,691.99	$342.04	$1,349.95

GRAND TOTAL $4,883.68

Table 9.4: Orlando

Service Utilization	TASC	Comparison	Unit Price	TASC Cost	Control Comparison	TASC-Comparison Difference
TASC Enrollment	1	0	$150.00	$150.00	$0.00	
TASC Program days	5.67	0.00	$2.87	$16.28	$0.00	
Urinalysis	0.33	0.00	$1.56	$0.52	$0.00	
Detox	0.00	0.28	$110.00	$0.00	$30.47	
Methadone Maintenance	0.00	0.00	$12.48	$0.00	$0.00	
Residential	14.67	13.95	$56.26	$825.50	$784.71	
Outpatient	12.25	3.82	$45.00	$551.34	$171.99	
TASC Outpatient (SR housing stat)	0.71	0.00	$45.00	$31.73	$0.00	
Halfway House	6.03	4.25	$50.63	$305.40	$215.28	
Routine Probation	110.25	97.49	$2.87	$316.42	$279.80	
Total Service Cost				$2,197.19	$1,482.25	$714.94

CJ Outcomes

	TASC	Comparison	Unit Price	TASC Cost	Control Comparison	TASC-Comparison Difference
Arrests	0.74	0.74	$1,500.00	$1,104.00	$1,107.00	
Technical Violations	0.12	0.08	$500.00	$59.50	$39.00	
Jail Days	13.20	17.61	$69.00	$910.78	$1,215.21	
Prison Days	0.00	0.30	$62.50	$0.00	$18.90	
Total CJ Outcome Cost				$2,074.28	$2,380.11	($305.83)

GRAND TOTAL $409.11

Table 9.5: Portland

Service Utilization	TASC	Control	Unit Price	TASC Cost	Control Cost	TASC-Control Difference
TASC Enrollment	1	0	$241.00	$241.00	$0.00	
TASC Program days	77.74	9.68	$2.87	$223.13	$27.78	
CODA Program days	1.02	9.16	$2.87	$2.92	$26.29	
ASAP Program days	1.02	19.23	$2.87	$2.92	$55.18	
PCR Program days	0.00	12.77	$2.87	$0.00	$36.66	
Urinalysis	8.91	3.34	$2.25	$20.04	$7.51	
Detox	0.04	0.21	$110.50	$4.31	$23.54	
Methadone Maintenance	0.79	3.56	$12.48	$9.91	$44.43	
Residential	7.56	8.13	$53.56	$404.97	$435.60	
Outpatient	4.57	40.22	$20.82	$95.08	$837.46	
TASC Outpatient (SR housing stat)	76.35	7.64	$20.82	$1,589.61	$159.09	
Halfway House	0.48	0.00	$37.19	$17.89	$0.00	
Routine Probation	129.57	125.53	$2.87	$371.87	$360.28	
Total Service Cost				$2,983.64	$2,013.81	$969.83

CJ Outcomes

	TASC	Control	Unit Price	TASC Cost	Control Cost	TASC-Control Difference
Arrests	0.13	0.30	$1,500.00	$199.50	$450.00	
Technical Violations	0.81	0.46	$500.00	$402.90	$231.85	
Jail Days	11.28	4.17	$91.54	$1,032.67	$382.00	
Prison Days	2.83	4.51	$50.51	$143.04	$228.01	
Total CJ Outcome Cost				$1,778.11	$1,291.85	$486.26
GRAND TOTAL						$1,456.09

TASC offenders also experienced more negative criminal justice outcomes in nearly every category during the six months, and thus accumulated criminal justice costs greater than those of control/comparison offenders.

Orlando was the only site where criminal justice costs were less among TASC clients than in the comparison group. But costs were still not low enough to lead to cost-effectiveness. While TASC clients used $715 more in service resources, their criminal justice costs were only $306 less than those of controls. Thus, the program still spent more on services than it averted in criminal justice costs.

Apart from the association of TASC with higher criminal justice costs (at four of five sites), other TASC effects, such as reduced drug use days or less frequent HIV risk behavior, were not quantifiable. Nonquantifiable effects must nevertheless be considered along with quantifiable effects.

In Birmingham, we found 14 fewer days of drug use and 16 fewer drug crimes in the TASC group overall. Moreover, when comparing offenders who had at least one incarceration day during the baseline period, the decline in frequency of sex while high was 54% greater among those assigned to TASC than among those in the comparison group. These effects were achieved at a cost of $16.49 per day (this represents the per-offender cost difference of $2,968.70 divided by 180 days).

In Canton, TASC was associated with a threefold greater reduction in number. These effects were sustained when we adjusted for number of days at risk. This effect was achieved at a cost of $14.57 per day.

In Chicago, TASC was associated with 15 fewer days of drug use for offenders with no arrest record before age 18 and with 43 fewer drug use days for offenders who had been arrested before age 18. TASC was also associated with a twofold greater reduction in number of drugs used. These effects were sustained when we adjusted for number of days at risk. We also found 40 fewer drug crimes among Chicago TASC offenders with at least three prior criminal convictions. Finally, reduction in the frequency of sex while high was 48% greater among TASC offenders than among control/comparison offenders in Chicago. These effects were achieved at a cost of $27.13 per day.

In Orlando, the reduction in frequency of unprotected sex was 62% greater, and the reduction in frequency of sex while high was 173% greater, among TASC offenders. These effects were achieved at a cost of $2.27 per day.

Finally, in Portland, the reduction in frequency of sex while high was 13% greater among TASC offenders than among control group offenders. This effect was achieved at a per-offender cost of $8.09 per day.

Conclusion

Any intervention that delivers more intensive services than an alternative intervention will cost more in the short term than the alternative. The extra treatment costs associated with TASC are therefore to be expected and are a by-product of success; the programs delivered services which they were chartered to deliver.

The important cost-effectiveness question addressed here is whether the impact of TASC on other costs, both quantifiable criminal justice costs and nonquantifiable behavioral outcomes, makes TASC a worthwhile investment in comparison to the alternative tested at each site. When the added cost of TASC is prorated by offender, we found that more favorable behavioral outcomes were achieved by TASC at a cost ranging from $2.27 per day to $27.13 per day. Omitted from this analysis are the downstream costs (beyond the six-month follow-up period) incurred by TASC and control/comparison offenders and the long-term outcomes of TASC participation. As indicated above, post-intervention behavioral outcomes and cost savings are likely to be favorable and would thus improve the apparent cost-effectiveness of TASC.

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Notes

1. All data were self-reported, except for probation, jail and prison days, and the number of technical violations.

2. For methadone maintenance we used a cost of $12.48/day, which was the average daily cost across six sites surveyed in the DATCAP (drug abuse treatment cost analysis program). This value was used for all sites except Canton, Ohio, which was the only site to report methadone maintenance costs.

3. Detox costs were reported by only two sites, but the costs reported were virtually identical ($110 in Orlando, $111 in Birmingham). We thus assumed a cost of $110.50/day for detox at the other sites.

4. For Orlando and Canton we used the cost of "Initial Physician Assessment" as TASC enrollment cost. In Birmingham, we used the sum of physician assessment, $12 TASC fee, and $3 initial urine test.

5. Outpatient cost in Chicago was approximated by the average per diem outpatient charge at all other sites.

6. Halfway House costs were approximated using outpatient charges for each site.

7. Probation costs in Orlando, Birmingham and Portland were approximated using the average of probation costs in Chicago ($2.74) and Canton ($3.00).

8. Residential costs in Chicago and Birmingham were approximated using the average of residential treatment costs at other sites.

9. Program days' costs were approximated using probation costs at that site.

10. For Portland, outpatient cost was reported as $791/episode of a duration of seven to 12 months. If we assume once weekly visits for outpatients, this would suggest a per visit cost of $20.82.

11. Costs for arrests and technical violations are approximated as $1,500 and $500, respectively, per Petersilia and Turner (1990).

Chapter 10

Summary and Conclusions

For over two decades, Treatment Alternatives to Street Crime (TASC) programs of offender management have served as a broker between criminal justice agencies and community-based social services. By identifying drug-using offenders, assessing their service needs on an individualized basis, placing them in drug treatment, and monitoring their progress, TASC programs have sought to break the link between drug use and crime and to reduce public costs arising from the repeated criminal justice involvement and incarceration of drug users. This evaluation of seven diverse TASC programs provided a comprehensive description of the historical context in which TASC programs have evolved and the processes by which TASC programs perform this bridging function. Moreover, the evaluation, using a rigorous research design, examined outcomes across a number of behavioral domains at five of the seven participating TASC programs.

Background

Primary responsibility for controlling drug use in the United States rests with the criminal justice system. In attempting to meet this responsibility, the police, courts, prosecutors, and corrections personnel have been overwhelmed in terms of work load, stretched resources, and limited options. Corrections departments at local, state, and federal levels have been especially affected by overcrowded jails and prisons and by high recidivism rates among drug-using probationers and parolees.

The potential benefits of treatment for drug-using offenders and the public have been amply demonstrated by research on the close link between drug use and crime and by the negative impact of drug use on other efforts at rehabilitation. Numerous studies have documented the large number of crimes committed by drug-using offenders, particularly those whose drug use is heaviest. As levels of drug use increase, so does the user's criminal activity; similarly, declines in drug use are accompanied by declines in crime.

Realizing these benefits requires a strategy for ensuring that drug-using offenders receive adequate treatment and, at the same time, are watched closely enough to detect continued drug use or crime and to institute appropriate intervention. The offender management model known as TASC

evolved as one such strategy. The TASC model emerged in the 1960s and early 1970s with support initially from the federal Law Enforcement Assistance Administration (LEAA), Special Action Office for Drug Abuse Prevention, and National Institute on Drug Abuse. By 1982, when direct federal funding ended, there were 130 TASC programs in 39 states. Subsequently, TASC programs had to seek and secure alternate resources of funding. Those unable to do so closed down. Others survived by broadening their base of support with state and federal grants, service contracts with other local agencies, and other sources. While some programs were unable to sustain this effort and closed, new programs were implemented. By 1996, the estimated number of TASC programs was 320 in 30 states.

Evaluation Objectives

Funded by the National Institute on Drug Abuse (NIDA) in October 1991, this evaluation studied TASC program outcomes at five sites and program processes at these same sites plus another two. The evaluation team worked closely with NIDA, with governmental and community agencies in the sites where these programs are located, and with a national advisory board, to coordinate the research, anticipate and solve problems, and ensure the participation of key stakeholders. Primary objectives of the evaluation were as follows.

1.   To provide a structured description of the organization, operation, staffing, services, and community support of selected TASC programs.

2.   To describe the characteristics of drug-using offenders referred to TASC programs.

3.   To assess the extent to which TASC programs are effective in facilitating treatment and reducing drug use, crime, and HIV risk behavior.

4.   To assess the costs of TASC relative to routine criminal justice processing, including the daily costs of TASC supervision, the costs associated with processing the offender's subsequent technical violations and arrests, and the daily costs for time the offender may spend in residential treatment, jail, or prison.

5.   To identify barriers that reduce effective coordination of TASC efforts between the local criminal justice system and the drug abuse treatment system and to identify strategies that might be used to overcome these problems and achieve more effective coordination.

6. To disseminate information on TASC programs to aid practitioners in program planning, implementation, and assessment.

Process Study

The TASC program model includes a number of features that research and clinical experience has found to be important for drug treatment to be effective, and it is possibly the only model that combines all of these features: (1) coordination of criminal justice and treatment, (2) use of legal sanctions as incentives to enter and remain in treatment, (3) matching of offenders to appropriate treatment services, and (4) monitoring of offenders with drug testing and keeping criminal justice officials apprised of the offender's performance.

TASC was originally viewed as a bridge between the CJS and drug treatment on the assumption that treating drug addiction (primarily to heroin) would reduce criminal behavior. Over time, this bridge metaphor is becoming less appropriate as TASC programs broaden their functions. Because drug use and crime arise from multiple problems and deficits of drug-using offenders that require services in multiple agencies, a better metaphor to characterize TASC may be that of a network. Increasingly, TASC projects are assessing the multiple needs of their clients and managing the coordination of the treatment or attention to these needs through a variety of programs and agencies. Where once TASC provided a link between criminal justice and drug treatment, it is now being extended (or could be extended) to serve its clients by providing network linkage with a variety of agencies, programs, and services through some form of case management.

The ability of TASC in the 1990s to fulfill its objectives needs to be considered within the context of social and economic developments over the past two decades. When TASC began in the early 1970s, the primary illicit drug problem was heroin, treatment programs were expanding, social services were relatively well funded, and AIDS had yet to emerge. In addition, throughout the 1970s, TASC programs had direct federal funding and policy and programmatic support. The 1980s brought a dramatic shift in the environment within which TASC operated. Federal funding for TASC disappeared, as did many TASC programs, although most were able to obtain local funding. Other developments also changed the ecology of TASC programs. Crack cocaine

replaced heroin as the nation's primary illicit drug problem; the availability of social services declined as federal, state, and local funding was pared back in the face of budget deficits and increasing emphasis on strict criminal justice sanctions; AIDS placed increasing pressure on an already strained medical and social service system; and, in many areas, high unemployment rates and the disappearance of traditional blue-collar jobs made it difficult for TASC clients to find jobs. All of these changes have made it more difficult for TASC to bring about significant behavioral change in a large number of clients. In this respect, TASC faces the same problems as other intervention programs for offenders, but in a number of ways--its long experience, its well-conceived model, its linkages with the local service system--TASC is in a better position than many other programs to operate successfully within an eroding public service ecology.

Outcome Study

At five selected TASC programs, we measured TASC program outcomes in four domains: treatment services received, drug use, criminal recidivism, and HIV risk behavior. We also examined the cost-effectiveness of TASC programs within the six-month timeframe of data collection. TASC outcomes at any site depended partly on client population, program maturity, and evaluation design. Accordingly, in data interpretation, we believed the sensible approach was to look for patterns in findings across sites, rather than to read findings from each site in isolation. When patterns emerged, we viewed them as evidence regarding the effectiveness of the TASC model overall--as implemented at different points of intervention, with different client populations, and by programs at different stages in their development. We also took into account that, at two sites where the design was experimental, TASC had to outperform a nonroutine alternative intervention, i.e., another treatment provider, rather than routine probation. This was a stringent criterion for success. Accordingly, favorable TASC outcomes, even if modest, would constitute persuasive evidence for the value of the TASC model. At our three quasi-experimental sites, TASC had to outperform routine probation in the same community. This was a less stringent criterion for success but had the advantage of comparing TASC to the intervention routinely available to most offenders in the same community.

A total of 2,014 offenders agreed to participate in the outcome study and completed the intake interview. Over 80% of them were relocated six months later and completed the follow-up interview. Analyses of drug use, crime, and HIV risk behavior were performed on an "intent to treat" basis. That

is, at each site, all offenders in the TASC group were compared to all offenders in the control/comparison group regardless of the amount or "dose" of treatment services actually received by offenders in either group. This method is conservative. TASC effects might have appeared stronger if we had excluded TASC cases who received no treatment services after referral by TASC and cases whose "dose" of treatment services was less than intended or optimal.

Analyses of three outcomes--drug use, crime, and HIV risk behavior--were multivariate. This is important for two reasons. First, adjusting for offender background characteristics related to group assignment or to outcome measures in a multivariate analysis enabled us to isolate potential TASC effects more clearly and reduced the possibility that pre-existing differences between TASC and control/comparison offenders might account for findings. Second, by checking for interactions between group assignment and other predictor variables, we moved beyond the more common but limited analyses that deal only with main effects of an intervention. Favorable outcomes within offender subsamples might have been missed in main-effects analyses based on entire samples. Conversely, if favorable outcomes emerge in main-effects analyses, it is still important to see if these outcomes are actually confined to, or greatest within, particular offender subsamples.

Service Delivery

In relation to the intervention alternatives to which control/comparison offenders were assigned, TASC programs delivered more treatment services to offenders. These services were usually drug counseling, urinalysis to detect drug use, and/or AIDS education. At four of five sites, the difference in service delivery was statistically significant. At the fifth site, Canton, it was not. However, because we used an experimental design in Canton, the TASC program there was compared to an alternative treatment provider which, while it did not conform to the TASC model of offender management, nevertheless delivered treatment. Thus, the pattern of findings across sites suggests that the TASC model is an effective strategy for improving delivery of treatment services.

Because of recall errors, offenders' self-reports of treatment services they received may not be totally accurate. However, we believe the difference between services received by TASC offenders and those received by control/comparison offenders is too large to be attributable to recall error or other sources of error. Moreover, recall error is likely to have been of the same magnitude, and in the same direction, for both TASC and control/comparison offenders.

Drug Use

On one or more measures of drug use, TASC programs outperformed the alternative interventions at three of five sites. In Chicago, drug use reductions were greater for TASC offenders on all four drug use outcomes: drug use days, frequency of drug use, number of drugs used, and ratio of drug days to days at risk. In Birmingham, drug use reductions were greater for TASC offenders on two outcomes: drug use days and ratio of drug days to days at risk. In Canton, reductions were greater for TASC offenders on number of drugs used. Some of these effects were found in the overall sample of TASC offenders; others were found in subsamples defined on the basis of high baseline levels of drug use or other characteristics indicating high risk. Because the design was experimental in Canton, the favorable outcomes we found there, while modest, represent strong evidence for effectiveness of TASC, especially when combined with favorable results in Birmingham and Chicago. While such evidence did not emerge in Orlando and Portland, our overall conclusion, based on findings across sites, is that the TASC model was able to produce greater reductions in drug use than were achieved by alternative interventions--most often, standard probation--in the same community.

Crime

Evidence on new crimes, arrests, and technical violations in the six-month follow-up period was quite mixed. Two TASC programs, Birmingham and Chicago, showed favorable effects on self-reported drug crimes. In Chicago, this effect was seen only among offenders with at least three prior convictions. We found no sign that these TASC programs, compared to alternative interventions, led to greater reductions in property crime. (We were unable to examine possible effects on violent crime because the percentage of offenders self-reporting any violent crime was quite low at both intake and follow-up in the TASC and control/comparison groups.)

When we examined new arrests and technical violations, we found no differences at three sites. In Birmingham and Portland, there were signs that TASC offenders were more likely to be arrested or to commit a technical violation during the follow-up period. Studies of intensive supervision programs (ISPs) have found similar effects on arrests and technical violations. This may reflect the fact that ISPs, like TASC, are meant to serve monitoring as well as rehabilitate functions. If offenders are watched more carefully, those who do not conform to requirements of the law are more likely to be

detected and consequently arrested or charged with a technical violation than those under less stringent monitoring. From the standpoint of community safety, the greater likelihood of arrests and technical violations among TASC offenders might actually be considered a sign of success, not failure.

HIV Risk Behavior

HIV can be transmitted through drug risk behaviors such as sharing contaminated injection equipment and sex risk behaviors such as engaging in sex without a condom. The number of drug injectors was very low at each site; thus we were not able to measure possible TASC effects on drug risk behaviors. However, we were able to measure TASC effects on the frequency of unprotected sexual intercourse (sex without a condom) and frequency of engaging in sex while high on drugs or alcohol.

TASC reduced the frequency of unprotected sex among Orlando juvenile offenders but not at any other site. Because some offenders at other sites were married and/or reported having sex with only one partner, they may have had little reason to adopt safer-sex practices such as condom use or abstinence. However, the findings did not change when we ran analyses confined to offenders who were unmarried or who had more than one partner. Favorable TASC effects on the frequency of sex while high on drugs or alcohol emerged at four sites--Birmingham, Chicago, Orlando, and Portland. In Birmingham, this effect was confined to offenders who were incarcerated for one or more days during baseline. At the three other sites, the effect was confined to offenders engaging in a high frequency of sex while high at baseline. Inasmuch as being incarcerated was characteristic of Birmingham offenders with more extensive criminal and drug use histories, we believe the findings on HIV risk behavior lead to the same conclusion, namely, that the TASC model had favorable effects on risk behavior among offenders whose behavior was more problematic.

Cost-effectiveness

At all sites, TASC clients had higher total service bills during the six-month follow-up period than their control/comparison counterparts. This finding, together with evidence on service delivery, indicates that TASC was successful at increasing service utilization among drug-involved offenders. In Birmingham, Canton, Chicago, and Portland, TASC offenders also generated more criminal justice costs during the follow-up period than control/comparison offenders.

Other TASC outcomes, while not quantifiable, must nevertheless be considered in the cost-effectiveness context. In Birmingham, for example, we found 14 fewer days of drug use and 16 fewer drug crimes in the TASC group overall. Moreover, when comparing offenders who had at least one incarceration day during the baseline period, the decline in frequency of sex while high on drugs or alcohol was 54% greater among those assigned to TASC than among those in the comparison group. These effects were achieved at a cost of $16.49 per day over the six-month study period. At other sites, the cost of TASC ranged from $2.27 to $27.13 per day. These amounts represent the added cost of TASC. They exclude the cost of probation and other services directed to both TASC and control/comparison offenders.

Omitted from this analysis are the downstream costs incurred or averted by offenders in each group and long-term outcomes of treatment. These post-intervention behavioral outcomes and cost savings are likely to be favorable and would therefore improve the cost-effectiveness of TASC over time.

Summary of Outcomes

An evaluation in which multiple outcomes are examined at multiple sites is virtually certain to produce complex findings. When so many comparisons are made, it is common to see some differences in the expected direction (favoring the more intensive intervention, in this case TASC) and other differences in the opposite direction. Because a few of these differences will have arisen by chance, the best approach to data interpretation is to look for patterns across sites and outcome measures. This is what we have done in the TASC evaluation.

Table 10.1 arrays the findings for each site in each outcome domain. An effect is shown as favorable or unfavorable if it appeared either in the sample as a whole or in a subsample. Findings for service delivery favored TASC at four of five sites. Findings for drug use favored TASC at three of five sites. At a fourth site, Orlando, we found a marginally significant reduction in drug days favoring comparison offenders. Because this difference was marginal and appeared at only one site, we believe it is unreliable, and, in any case, the overall pattern clearly favored TASC. Findings on drug crimes favored TASC at two of five sites. In view of TASC's clearly favorable effect on drug use, its effect on drug crimes is quite plausible. On other crime outcomes we found either that the groups did not differ or that TASC offenders seemed to perform worse. As already noted, offenders who are

monitored more closely in an intervention are often more likely to be rearrested or charged with technical violations. Against this trend, two TASC programs appeared to reduce drug crime. But on the whole, favorable effects did not emerge--unless detection of new crime is to be counted as success. It is important to note that crime outcomes, like other outcomes, were observed only during the six-month follow-up. Downstream effects of treatment services, and more intensive monitoring, might differ from these short-term effects.

Finally, TASC programs appeared to have favorable effects on frequency of sex while high on drugs or alcohol at four of five sites. Again the overall pattern favored TASC.

Table 10.1: Main and Interactive Effects of TASC Programs

Outcome	Birmingham	Canton	Chicago	Orlando	Portland
Service delivery	T*		T*	T*	T*
Drug use days	T*		T*	C	
Drug use frequency			T		
Number of drugs used		T*	T		
Days/at risk ratio	T		T*		
Drug crime	T*		T*		
Property crime			C		
Incarceration days	C				
Any arrest					C*
Any technical violation	C*				
Frequency of unprotected sex				T	
Frequency of sex while high	T*		T*	T*	T*

Note: "T" and "C" entries denote a significant or near significant difference between TASC and control/comparison offenders overall or within at least one subsample. "T" means that TASC offenders outperformed the control/comparison group. "C" means that control/comparison offenders outperformed TASC offenders. Statistically significant differences (p ≤ .05) are marked with an asterisk. Near significant differences (.05 < p ≤ .10) are unmarked.

Discussion and Recommendations

The functions of TASC programs do not include actual provision of drug treatment. Even so, the value of TASC depends ultimately on whether its existence in a community leads to greater reduction in drug use and other problem behavior than would otherwise be achieved. Our purpose was to evaluate the gains achieved when the TASC bridging (networking) function is added to the local ecology of criminal justice and treatment services.

TASC outcomes across sites were consistently favorable though often modest or confined to high-risk offender subsamples. We believe the consistency of findings represents a strong signal of the effectiveness of the TASC model in different environments, with different client populations, and when tested in a highly rigorous research design. While reductions in drug use, crime, and HIV risk behavior were often modest, recovery from chronic and heavy drug use is an incremental process involving perhaps several cycles of drug use, treatment, abstinence, and relapse. We take a similar view of favorable outcomes found only in subsamples of TASC offenders, rather than in the samples as a whole. It is important to identify offender types for whom an intervention is more, or less, effective. The pattern of findings in this study suggests that the TASC model had favorable effects among offenders whose behavior was more problematic, as indicated in baseline levels on the outcome measures or other characteristics associated with hard-core offending. This is precisely the type of offender who is most in need of intervention and who represents the greatest recurring cost to the public. Thus, the value of TASC programs might be enhanced, from the point of view of system efficacy, if offenders referred to TASC by criminal justice included a higher proportion of these more problematic offenders. Moreover, TASC effectiveness might improve if treatment programs to which TASC makes referrals are able to provide better-quality services where improvement is needed.

Findings should be considered within the context of social and economic developments over the past two decades. When TASC began in the early 1970s, the primary illicit drug problem was heroin, treatment availability was increasing, and social services were relatively well funded. In addition, throughout the 1970s, TASC programs had more stable funding sources as well as policy and programmatic support at the federal level. The 1980s brought a dramatic shift in the environment within which TASC operated. Federal funding for TASC programs diminished and/or became less stable. Cocaine replaced heroin as the nation's primary illicit drug problem. The availability of drug treatment and other social services declined. These trends continued into the 1990s. All of these

developments make it difficult for TASC to bring about significant and enduring change in a large number of offenders. The appearance of consistent TASC effects in our evaluation is, in this context, all the more persuasive.

The current context is a harsh reality for any intervention, not just TASC. However, TASC may be in a better position than many alternative interventions by virtue of the long experience of TASC program leaders, the well-conceived model of offender management represented in the Ten Critical Elements, and strong links between TASC and both the treatment system and the criminal justice system. Moreover, the evaluation findings suggest that TASC's position, process, and outcomes can be further improved. First, because judges refer to TASC at both pre and post sentencing, they and local probation agencies should be apprised of the TASC process and outcome findings. With this information, and if local conditions permit, additional TASC programs could be implemented, both as an alternative to incarceration, given jail/prison overcrowding, and as an appropriate rehabilitation measure to reduce reoffending.

Second, although TASC assists local judges and probation agencies as a screening and assessment service, the fact that low-risk offenders often did no better in TASC than in alternate, and usually lower-cost, placements suggests that the drug-use history threshold employed to place offenders in TASC may be too low in many jurisdictions. More careful selection and placement of high risk offenders might extend the benefits of TASC.

Third, some of the constraints that may limit optimal outcomes from TASC programs are amenable to change. For example, assessment and treatment planning for offenders could be conducted during their pre-trial or during-trial incarceration. Such on-site assessment would lead to several benefits including reduction in the number of offenders who are directed to TASC but who fail to appear. If assessment indicated that TASC placement is suitable, the offender can remain incarcerated until a treatment plan and receiving facility can be arranged. Then the offender can be immediately inducted into a treatment program without lengthy delays, during which the offender in the community can reoffend or choose not to appear once treatment arrangements have been finalized. TASC programs should be co-located with probation agencies to ensure efficient and timely linkages and to allow conjoint treatment planning sessions involving the probation officer. State correctional agencies should utilize local TASC programs for offenders being paroled to their communities, rather than maintaining a separate state parole mechanism.

Finally, efforts should be implemented to integrate TASC with the drug court movement that has received national attention over the past few years. The drug court phenomenon has produced judicially directed interventions with goals similar to TASC. However, there is no uniform drug-court model or standard that is widely implemented, resulting in wide disparities in their philosophies, practices, and actual services provided to offenders. Where drug courts and TASC programs are geographically proximal, the courts should utilize the existing TASC infrastructure, which is designed and has the experience to serve substance abusing offenders. In drug court areas without an existing TASC program, judges and probation should consider developing one as a proven offender management structure.

This evaluation, even in a limited time frame, suggests not only that the TASC model has merit in many criminal justice venues but also that the potential exists to improve the model in a variety of ways. Further, long-term follow-up of these offender samples is recommended, as are new studies of additional samples when programmatic changes in client selection, assignment, or service merit evaluation.

Appendix A

TASC Critical Elements

Organizational Elements

1. A broad base of support from the criminal justice system with a formal system for effective communication.

2. A broad base of support from the treatment system wit a formal system for effective communication.

3. An independent TASC unit with a designated administrator.

4. Required staff training, outlined in TASC policies and procedures.

5. A system of data collection for both program management and evaluation.

Operational Elements and Performance Standards

6. Explicit and agreed upon eligibility criteria.

7. Screening procedures for the early identification of eligible offenders.

8. Documented procedures for assessment and referral.

9. Documented policies, procedures, and technology for drug testing.

10. Procedures for offender monitoring with established success/failure criteria and constant reporting to criminal justice referral source.

Source: Bureau of Justice Assistance. (1992). *Treatment Alternatives to Street Crime: TASC Programs: Program Brief* (NCJ 129759). Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice.

Appendix B

Procedures of the Process Study

A process study of TASC programs formed an important part of the overall evaluation. The process study was conducted by Duane C. McBride and James A. Inciardi. Its purpose was to aid in interpreting program outcomes by providing a detailed understanding of the history of TASC, the original and changing objectives of TASC, the operating structure, and the human service and criminal justice system environment within which TASC operated.

History and Development of TASC

We interviewed TASC program founders, judges and other criminal justice system personnel as well as treatment program personnel who were a part of the initiation of each of seven TASC programs in the evaluation. These were: Birmingham, Alabama; Canton, Ohio; Chicago, Illinois; Miami, Florida; Orlando, Florida; Pittsburgh, Pennsylvania; and Portland, Oregon. In addition, national TASC leaders were interviewed to obtain their insights. We focused on the various stages of development of TASC programs. These interviews concerned:

(1) the original purpose of TASC;

(2) how TASC was implemented, what changes were made since implementation, and why;

(3) the political/policy environment of TASC program development and implementation and how that has changed over time;

(4) the original target population, changes in the target population, and why they occurred; and

(5) the original services planned and changes in those services over time.

The Current Structure and Environment of TASC

Because the various study sites had different structures, it was important to document how each TASC program was structured and how that structure might affect services and the impact of those services. This structural analysis put in context the types of services offered, the relationships with other components of the criminal justice and drug treatment systems, and the changes that had occurred during the existence of the program (and during the study). Interviews

with TASC leadership and staff as well as criminal justice and treatment personnel provided the information necessary for the structural analysis. The interviews focused on:

(1)   the organizational structure and interconnectedness of the TASC program with the criminal justice system and local drug treatment system;

(2)   the current ecological environment in which the program operates, including such things as community support, institutional support, and the program's place in the overall community drug treatment effort; and

(3)   current staffing patterns, including educational level, ethnic and gender composition, and specific roles of staff in interacting with the clients.

Participant Perceptions of TASC

In addition to the interviews with TASC and other relevant administrators, TASC clients were interviewed to obtain an overview of their perceptions of the meaning and effectiveness of the program. These interviews focused on:

(1)   client perceptions of TASC overall effectiveness; and

(2)   client perceptions of specific component strengths and weaknesses.

Changes During the TASC Evaluation Project and the Future of TASC

Because the phenomenon of drug use, drug abuse treatment services and the local and national environment within which TASC operates can rapidly change, TASC is a dynamic program. To understand these dynamics, we focused on the changes that occurred during the study and the reason for those changes based on the environment within which TASC locally and nationally existed. Interviews were conducted with state criminal justice officials, judges, others in the criminal justice and drug treatment systems as well as TASC leaders and administrators. Interviews covered:

(1)   significant changes in community judicial and treatment program perceptions about how to best deal with the drugs-crime connection;

(2)   new program initiatives, apart from TASC, that attempted to serve the drug using offender; and

(3)   the response of TASC to these changes.

The Drug Court Phenomenon

It was the observation of most of those interviewed in the process analysis as well as the independent observation of the investigators that the establishment and rapid expansion of drug courts during the time period of this study was the most significant external event affecting the existence and future of TASC. To understand further how TASC and the drug court movement were interfacing, we interviewed drug court judges and TASC administrators in the TASC study sites. The interviews focused on:

(1)   why drug courts emerged;

(2)   the role of the various relevant professionals and programs (judges, probation, drug treatment) in a drug court; and

(3)   how drug courts and TASC interface.

Use of Process Data

Process data were used in a variety of ways. First, process data formed a core part of understanding and describing the history and development of TASC nationally and in each of the study sites. Second, process data were used to describe the structure of each TASC program, its model of operation, and how that structure and operation might affect the outcome of services. Third, process data were used to focus on the future challenges of TASC and how TASC is evolving.

Appendix C

Prediction Equations for Drug Use Outcomes

Primary Outcome Analyses

Number of Drug Use Days

Tables C.1 through C.5 show final regression results for all covariates as well as the baseline number of drug use days and group assignment (the interaction between baseline drug use days and group assignment was not included in these models). Findings in Table 6.2 were drawn from these tables. Because we saw evidence of an interaction in Chicago, Table C.3 shows two separate results -- one for offenders with no arrest before the age of 18; and one for offenders with one or more arrests before the age of 18. In each Chicago subsample, TASC was associated with a reduction in the number of drug use days. However, this effect was much stronger for offenders with one or more arrests before the age of 18.

Frequency of Drug Use

Tables C.6 through C.10 show final regression results for all covariates as well as the baseline frequency of drug use, group assignment, and the interaction of the two. Findings in Table 6.3 were drawn from these tables.

Number of Drugs Used

Tables C.11 through C.15 show final regression results for all covariates as well as the baseline number of drugs used and the interaction of the two. Findings in Table 6.4 were drawn from these tables.

Ratio of Days Used/Days at Risk

Tables C.16 through C.20 show final regression results for all covariates as well as baseline ratio of days used to days at risk, and the interaction of the two. Findings in Table 6.5 are drawn from these tables.

Supplemental Outcome Analyses

Number of Drug Use Days

Tables C.21 though C.25 report regression analyses to determine whether the number of drug use days showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 6.

Tables C.41 through C.45 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 6.

Frequency of Drug Use

Tables C.26 through C.30 report regression analyses to determine whether the frequency of drug use showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 6.

Tables C.46 through C.50 report results of regressions in which dummy variables for primary drug use were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 6.

Number of Drugs Used

Tables C.31 through C.35 report regression analyses to determine whether the number of drugs used showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 6.

Tables C.51 though C.55 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 6.

Ratio of Days Used/Days at Risk

Tables C.36 through C.40 report regression analyses to determine whether the number of drugs used showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 6.

Tables C.56 though C.60 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 6.

Any Drug Use

Tables C.61-C.65 present the results of logistic regression equations in which any drug use (yes or no) during the follow-up period was regressed on the variables included in the model for number of days used drugs.

Table C.1
Prediction Equation for Number of Drug Use Days
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-12.51**	4.22
Baseline number of drug use days	-.01	
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.15	.23
Lifetime weeks in outpatient treatment	-.01	.09
Any outpatient treatment	-8.75	6.56
Arrested for violent crime	-.31	12.3
Arrested for property crime	-4.68	11.17
Arrested for drug crime	-15.57	11.3
Times arrested before the age of 18	-.15	.55
Lifetime number of convictions	.03	.31
Number of drug crimes in baseline six months (logged)	5.03***	1.72
Number of property crimes in baseline six months (logged)	-2.02	2.47
Age at first drug use	-.55	.61
Frequency of drug use in baseline six months (logged)	6.29***	1.67
Frequency of sex while high in baseline six months	-.18	1.19
Any illegal income in baseline six months	23.50**	8.92
Highest grade completed	-1.87	1.28
Misreported no drug use in baseline six months	16.23	10.51
Misreported no drug use in baseline 30 days	-1.57	8.33
Misreported no drug use in follow-up six months	-20.19[a]	10.69
Misreported no drug use in follow-up 30 days	-1.72	9.26
Intercept	50.01***	
Adjusted R2	.28	
F-value	7.58***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.2
Prediction Equation for Number of Drug Use Days
Canton (n=134)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.54	.35
Baseline number of drug use days	.33**	.12
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	.23	.35
Lifetime weeks in outpatient treatment	.06	.38
Any outpatient treatment	10.48	10.50
Arrested for violent crime	-4.73	15.91
Arrested for property crime	-11.43	12.96
Arrested for drug crime	16.09	12.10
Times arrested before the age of 18	1.24***	.39
Lifetime number of convictions	-.13	.16
Number of drug crimes in baseline six months (logged)	2.01	2.88
Number of property crimes in baseline six months (logged)	.41	3.58
Age at first drug use	-4.21***	1.26
Frequency of drug use in baseline six months (logged)	-.69	2.92
Frequency of sex while high in baseline six months	1.52	2.45
Any illegal income in baseline six months	-31.61[a]	17.6
Highest grade completed	3.29	3.03
Misreported no drug use in baseline six months	6.12	33.42
Misreported no drug use in baseline 30 days	-7.41	23.16
Misreported no drug use in follow-up six months	-10.98	33.10
Misreported no drug use in follow-up 30 days	-31.58	25.30
Intercept	69.51*	
Adjusted R2	.27	
F-value	3.37***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.3
Prediction Equation for Number of Drug Use Days,
Arrests Before 18=yes
Chicago (n=163)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-42.63***	9.70
Baseline number of drug use days	.39***	.11
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	-.14	.42
Lifetime weeks in outpatient treatment	.37	.30
Any outpatient treatment	-11.04	13.60
Arrested for violent crime	52.22*	23.62
Arrested for property crime	49.31*	21.69
Arrested for drug crime	55.18*	22.22
Lifetime number of convictions	-.96	.89
Number of drug crimes in baseline six months (logged)	-3.52	2.41
Number of property crimes in baseline six months (logged)	1.01	2.93
Age at first drug use	-2.23	1.62
Frequency of drug use in baseline six months (logged)	-4.36	3.20
Frequency of sex while high in baseline six months	-1.12	2.14
Any illegal income in baseline six months	25.74	15.66
Highest grade completed	-1.70	2.79
Misreported no drug use in baseline six months	-60.43	54.38
Misreported no drug use in baseline 30 days	34.79[a]	20.99
Misreported no drug use in follow-up six months	-40.75	24.99
Misreported no drug use in follow-up 30 days	8.93	17.82
Intercept	97.56*	
Adjusted R2	.23	
F-value	3.47***	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.3
Prediction Equation for Number of Drug Use Days,
Arrests Before 18=no
Chicago (n=229)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-14.98[a]	8.49
Baseline number of drug use days	.43***	.09
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	-.63	.64
Lifetime weeks in outpatient treatment	-.03	.11
Any outpatient treatment	11.22	11.28
Arrested for violent crime	-12.69	21.27
Arrested for property crime	-14.53	17.54
Arrested for drug crime	-1.96	17.18
Lifetime number of convictions	-.37	.30
Number of drug crimes in baseline six months (logged)	-5.75***	2.20
Number of property crimes in baseline six months (logged)	4.50[a]	2.70
Age at first drug use	-.91	.95
Frequency of drug use in baseline six months (logged)	-2.65	3.20
Frequency of sex while high in baseline six months	5.69**	2.02
Any illegal income in baseline six months	5.84	14.32
Highest grade completed	-4.77*	2.34
Misreported no drug use in baseline six months	52.86	36.48
Misreported no drug use in baseline 30 days	-5.82	12.31
Misreported no drug use in follow-up six months	-22.50	18.48
Misreported no drug use in follow-up 30 days	-8.64	11.59
Intercept	91.56***	
Adjusted R2	.27	
F-value	5.18***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.4
Prediction Equation for Number of Drug Use Days
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	6.86[a]	3.77
Baseline number of drug use days	.38***	.07
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	-.17	.18
Lifetime weeks in outpatient treatment	-.45	.39
Any outpatient treatment	-6.02	11.63
Arrested for violent crime	-7.09	5.38
Arrested for property crime	1.66	5.51
Arrested for drug crime	14.23*	6.83
Times arrested before the age of 18	.54	.35
Lifetime number of convictions	-1.14*	.58
Number of drug crimes in baseline six months (logged)	2.36	1.44
Number of property crimes in baseline six months (logged)	-.37	1.71
Age at first drug use	.71	.96
Frequency of drug use in baseline six months (logged)	3.05*	1.52
Frequency of sex while high in baseline six months	3.83*	1.93
Any illegal income in baseline six months	-12.04[a]	6.45
Highest grade completed	-1.54	3.28
Misreported no drug use in baseline six months	21.89	16.32
Misreported no drug use in baseline 30 days	11.70	10.76
Misreported no drug use in follow-up six months	-12.19	14.25
Misreported no drug use in follow-up 30 days	-10.04	9.64
Intercept	-7.92	
Adjusted R2	.36	
F-value	12.40***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table C.5
Prediction Equation for Number of Drug Use Days
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-3.24	4.77
Baseline number of drug use days	.20*	.09
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.50**	.19
Lifetime weeks in outpatient treatment	.12	.10
Any outpatient treatment	-8.21	5.55
Arrested for violent crime	2.14	10.20
Arrested for property crime	5.71	8.94
Arrested for drug crime	11.98	9.18
Times arrested before the age of 18	.12	.13
Lifetime number of convictions	.34	.24
Number of drug crimes in baseline six months (logged)	-1.71	2.19
Number of property crimes in baseline six months (logged)	-3.81	2.49
Age at first drug use	-.72	.55
Frequency of drug use in baseline six months (logged)	5.59**	1.99
Frequency of sex while high in baseline six months	.89	1.45
Any illegal income in baseline six months	6.11	10.70
Highest grade completed	1.12	1.50
Misreported no drug use in baseline six months	-9.86	13.35
Misreported no drug use in baseline 30 days	2.83*	10.21
Misreported no drug use in follow-up six months	-2.98	14.06
Misreported no drug use in follow-up 30 days	-20.05[a]	10.41
Intercept	14.35	
Adjusted R2	.22	
F-value	5.42***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.6
Prediction Equation for Frequency of Drug Use (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.32	.26
Baseline frequency of drug use (logged)	.62***	.15
Group by baseline interaction	-.09	.08
Any outpatient treatment	-.27	.27
Arrested for violent crime	-.48	.56
Arrested for property crime	-.36	.51
Arrested for drug crime	-.64	.52
Lifetime number of convictions	.01	.01
Number of violent crimes in baseline six months (logged)	-.24	.21
Number of drug crimes in baseline six months (logged)	.15	.08
Age at first drug use	-.04	.03
Number of drug use days in baseline six months (logged)	-.01	.00
Frequency of unprotected sex in baseline six months	.04	.06
Frequency of sex while high in baseline six months	.10	.08
Sex risk index for baseline six months (logged)	-.19	.16
Number of people with whom had unprotected sex in baseline six months (logged)	-.24	.26
Any illegal income in baseline six months	.78	.40
Age	-.02	.01
Male	-.19	.23
Living in own place in baseline six months	.13	.22
African-American	.09	.21
Hispanic	No estimate: no Hispanics in Birmingham	
Misreported no drug use in baseline six months	.85	.48
Misreported no drug use in baseline 30 days	.24	.39
Misreported no drug use in follow-up six months	-2.33***	.49
Misreported no drug use in follow-up 30 days	.61	.43
Intercept	3.05***	
Adjusted R2	.34	
F-value	8.4***	

a p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.7
Prediction Equation for Frequency of Drug Use (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.52	.54
Baseline frequency of drug use (logged)	.58*	.26
Group by baseline interaction	-.25	.14
Any outpatient treatment	.62	.37
Arrested for violent crime	-.74	.59
Arrested for property crime	-1.21*	.48
Arrested for drug crime	-.23	.46
Lifetime number of convictions	.00	.00
Number of violent crimes in baseline six months (logged)	-.28	.39
Number of drug crimes in baseline six months (logged)	.17	.11
Age at first drug use	-.17***	.05
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	.07	.10
Frequency of sex while high in baseline six months	-.15	.13
Sex risk index for baseline six months (logged)	.62**	.23
Number of people with whom had unprotected sex in baseline six months (logged)	-.40	.42
Any illegal income in baseline six months	-.25	.62
Age	-.02	.02
Male	-1.00*	.39
Living in own place in baseline six months	-.20	.35
African-American	.55	.38
Hispanic	-1.34	2.03
Misreported no drug use in baseline six months	.55	1.22
Misreported no drug use in baseline 30 days	.00	.83
Misreported no drug use in follow-up six months	-1.37	1.24
Misreported no drug use in follow-up 30 days	-1.13	.93
Intercept	4.53***	
Adjusted R2	.31	
F-value	3.25***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.8
Prediction Equation for Frequency of Drug Use (logged)
Chicago (n=389)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.31	.72
Baseline frequency of drug use (logged)	-.02	.26
Group by baseline interaction	.00	.13
Any outpatient treatment	.33	.30
Arrested for violent crime	.89	.62
Arrested for property crime	.15	.54
Arrested for drug crime	.60	.54
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline six months (logged)	-.27	.16
Number of drug crimes in baseline six months (logged)	-.14*	.06
Age at first drug use	-.04	.03
Number of drug use days in baseline six months (logged)	.01***	.00
Frequency of unprotected sex in baseline six months	-.01	.08
Frequency of sex while high in baseline six months	.09	.09
Sex risk index for baseline six months (logged)	-.10	.20
Number of people with whom had unprotected sex in baseline six months (logged)	.03	.32
Any illegal income in baseline six months	.63	.42
Age	-.01	.01
Male	.13	.32
Living in own place in baseline six months	.61*	.27
African-American	.75	.38
Hispanic	.39	.67
Misreported no drug use in baseline six months	.75	1.16
Misreported no drug use in baseline 30 days	-.29	.42
Misreported no drug use in follow-up six months	-1.84**	.58
Misreported no drug use in follow-up 30 days	-.47	.39
Intercept	4.21*	
Adjusted R2	.27	
F-value	6.56***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.9
Prediction Equation for Frequency of Drug Use (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.08	.27
Baseline frequency of drug use (logged)	.24	.14
Group by baseline interaction	.10	.08
Any outpatient treatment	-.21	.46
Arrested for violent crime	-.92***	.26
Arrested for property crime	-.41	.27
Arrested for drug crime	-.24	.34
Lifetime number of convictions	-.01	.02
Number of violent crimes in baseline six months (logged)	.11	.10
Number of drug crimes in baseline six months (logged)	.01	.07
Age at first drug use	-.05	.05
Number of drug use days in baseline six months (logged)	.01	.00
Frequency of unprotected sex in baseline six months	.03	.07
Frequency of sex while high in baseline six months	.07	.11
Sex risk index for baseline six months (logged)	.24	.14
Number of people with whom had unprotected sex in baseline six months (logged)	-.38	.25
Any illegal income in baseline six months	-.33	.32
Age	.14	.07
Male	-.48*	.22
Living in own place in baseline six months	.05	.21
African-American	.45*	.22
Hispanic	.01	.31
Misreported no drug use in baseline six months	1.33	.80
Misreported no drug use in baseline 30 days	.67	.53
Misreported no drug use in follow-up six months	-2.13***	.69
Misreported no drug use in follow-up 30 days	.40	.47
Intercept	.18	
Adjusted R2	.38	
F-value	10.79***	

^ap≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.10
Prediction Equation for Frequency of Drug Use (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.08	.36
Baseline frequency of drug use (logged)	.51*	.20
Group by baseline interaction	-.02	.11
Any outpatient treatment	-.05	.25
Arrested for violent crime	.50	.53
Arrested for property crime	.61	.45
Arrested for drug crime	.78	.46
Lifetime number of convictions	.03**	.01
Number of violent crimes in baseline six months (logged)	.15	.48
Number of drug crimes in baseline six months (logged)	-.12	.11
Age at first drug use	-.05	.03
Number of drug use days in baseline six months (logged)	-.00	.00
Frequency of unprotected sex in baseline six months	-.10	.07
Frequency of sex while high in baseline six months	.10	.09
Sex risk index for baseline six months (logged)	.10	.19
Number of people with whom had unprotected sex in baseline six months (logged)	.08	.39
Any illegal income in baseline six months	.35	.55
Age	.01	.02
Male	.50	.30
Living in own place in baseline six months	.18	.27
African-American	.04	.28
Hispanic	-.79	.76
Misreported no drug use in baseline six months	.48	.67
Misreported no drug use in baseline 30 days	.40	.51
Misreported no drug use in follow-up six months	-1.46*	.70
Misreported no drug use in follow-up 30 days	-.49	.52
Intercept	.66	
Adjusted R2	.22	
F-value	4.47**	

a p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.11
Prediction Equation for Number of Drugs Used
Birmingham (n= 365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.00	.08
Baseline number of drugs used	.39**	.13
Group by baseline interaction	-.06	.08
Any residential treatment	-.26**	.08
Lifetime weeks in prison/jail treatment	.00	.00
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	-.16	.18
Arrested for property crime	-.09	.16
Arrested for drug crime	-.21	.17
Age at first arrest	-.01*	.01
Number of arrests before age 18	-.00	.01
Any arrest during baseline six months	-.04	.07
Number of violent crimes in baseline six months (logged)	-.08	.07
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.23***	.07
Age at first drug use	-.01	.01
Number of drug use days in baseline six months (logged)	.00[a]	.00
Frequency of unprotected sex in baseline six months	.02	.01
Sex risk index for baseline six months (logged)	-.05	.04
Any sex for money/drugs in baseline six months	.11	.11
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.33***	.12
Age	.00	.00
Hispanic	No estimate; no Hispanic offenders at this site	
African-American	.05	.07
Misreported no drug use in baseline six months	.17	.16
Misreported no drug use in baseline 30 days	.12	.12
Misreported no drug use in follow-up six months	-1.09***	.16
Misreported no drug use in follow-up 30 days	.40***	.13
Intercept	.71**	
Adjusted R2	.35	
F-value	8.10***	

[a] p≥.10
 *p≥.05
 **p≥.01
***p≥.005

Table C.12
Prediction Equation for Number of Drugs Used
Canton (n= 133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.34[a]	.20
Baseline number of drugs used	1.20***	.24
Group by baseline interaction	-.43***	.14
Any residential treatment	.10	.13
Lifetime weeks in prison/jail treatment	-.01	.01
Lifetime weeks in outpatient treatment	.01*	.00
Arrested for violent crime	-.40	.23
Arrested for property crime	-.41*	.20
Arrested for drug crime	-.16	.19
Age at first arrest	.01	.01
Number of arrests before age 18	-.00	.00
Any arrest during baseline six months	-.01	.16
Number of violent crimes in baseline six months (logged)	-.15	.14
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.03	.16
Age at first drug use	-.06***	.02
Number of drug use days in baseline six months (logged)	-.00[a]	.00
Frequency of unprotected sex in baseline six months	-.01	.03
Sex risk index for baseline six months (logged)	.11	.08
Any sex for money/drugs in baseline six months	-.29	.22
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	.23	.23
Age	-.00	.01
Hispanic	-.97	.73
African-American	.08	.14
Misreported no drug use in baseline six months	.45	.46
Misreported no drug use in baseline 30 days	.03	.32
Misreported no drug use in follow-up six months	-.47	.48
Misreported no drug use in follow-up 30 days	-.29	.40
Intercept	.55	
Adjusted R2	.41	
F-value	4.10***	

[a]p≥.10
*p≥.05
**p≥.01
***p≥.005

Table C.13
Prediction Equation for Number of Drugs Used
Chicago (n= 390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.19	.22
Baseline number of drugs used	.54**	.19
Group by baseline interaction	-.18	.11
Any residential treatment	-.23*	.11
Lifetime weeks in prison/jail treatment	-.01	.01
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.17	.25
Arrested for property crime	-.20	.22
Arrested for drug crime	-.13	.21
Age at first arrest	-.00	.01
Number of arrests before age 18	.01	.00
Any arrest during baseline six months	-.09	.10
Number of violent crimes in baseline six months (logged)	-.14*	.06
Number of incarceration days in baseline six months	-.00	.00
Ever used crack or cocaine	.18	.12
Age at first drug use	.00	.01
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	.02	.02
Sex risk index for baseline six months (logged)	-.09	.07
Any sex for money/drugs in baseline six months	-.02	.18
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	.10	.16
Age	-.00	.00
Hispanic	.04	.27
African-American	-.08	.15
Misreported no drug use in baseline six months	.23	.48
Misreported no drug use in baseline 30 days	.04	.17
Misreported no drug use in follow-up six months	-.96***	.23
Misreported no drug use in follow-up 30 days	.03	.16
Intercept	1.34*	
Adjusted R2	.22	
F-value	4.75***	

[a]p≥.10
*p≥.05
**p≥.01
***p≥.005

Table C.14
Prediction Equation for Number of Drugs Used
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.13	.08
Baseline number of drugs used	.55***	.15
Group by baseline interaction	-.19*	.09
Any residential treatment	.04	.09
Lifetime weeks in prison/jail treatment	.54*	.25
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	-.19*	.07
Arrested for property crime	-.03	.08
Arrested for drug crime	-.03	.09
Age at first arrest	.03[a]	.02
Number of arrests before age 18	.01[a]	.00
Any arrest during baseline six months	-.16**	.06
Number of violent crimes in baseline six months (logged)	.06*	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.10	.14
Age at first drug use	.00	.01
Number of drug use days in baseline six months (logged)	.00*	.00
Frequency of unprotected sex in baseline six months	-.01	.02
Sex risk index for baseline six months (logged)	.06[a]	.03
Any sex for money/drugs in baseline six months	-.04	.32
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	-.10	.08
Age	.00	.02
Hispanic	.15	.06
African-American	.02	.06
Misreported no drug use in baseline six months	.37	.23
Misreported no drug use in baseline 30 days	.11	.15
Misreported no drug use in follow-up six months	-.80*	.19
Misreported no drug use in follow-up 30 days	.26*	.13
Intercept	-.26	
Adjusted R2	.29	
F-value	6.99***	

[a] $p \geq .10$
* $p \geq .05$
** $p \geq .01$
*** $p \geq .005$

Table C.15
Prediction Equation for Number of Drugs Used
Portland (n= 330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.11	.13
Baseline number of drugs used	.30	.18
Group by baseline interaction	.05	.11
Any residential treatment	-.00	.10
Lifetime weeks in prison/jail treatment	.01	.00
Lifetime weeks in outpatient treatment	.00*	.00
Arrested for violent crime	-.11	.20
Arrested for property crime	.14	.17
Arrested for drug crime	.05	.18
Age at first arrest	-.00	.01
Number of arrests before age 18	.00	.00
Any arrest during baseline six months	-.03	.14
Number of violent crimes in baseline six months (logged)	.42*	.19
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.10	.10
Age at first drug use	-.02[a]	.01
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	-.06**	.02
Sex risk index for baseline six months (logged)	.11[a]	.06
Any sex for money/drugs in baseline six months	.73*	.33
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.05	.20
Age	.02*	.01
Hispanic	-.07	.29
African-American	.03	.11
Misreported no drug use in baseline six months	.19	.25
Misreported no drug use in baseline 30 days	.27	.19
Misreported no drug use in follow-up six months	-1.2***	.27
Misreported no drug use in follow-up 30 days	.14	.20
Intercept	.45	
Adjusted R2	.28	
F-value	5.45***	

[a] p≥.10
*p≥.05
**p≥.01
***p≥.005

Table C.16
Prediction Equation for Ratio of Days Used/Days at Risk
Birmingham (n=359)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.06[a]	.03
Baseline ratio of days used/days at risk	.29*	.14
Group by baseline interaction	-.13	.09
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	.01	.08
Arrested for property crime	-.01	.07
Arrested for drug crime	-.07	.08
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.00	.00
Drug use frequency in baseline six months (logged)	.04***	.01
Sex risk index for baseline six months (logged)	-.02	.02
Past month income	.01	.01
Any illegal income in baseline six monts	.16**	.06
Age	-.00	.00
African-American	-.00	.03
Hispanic	No estimate; no Hispanic offenders in site	
Misreported no drug use in baseline six months	.11	.07
Misreported no drug use in baseline 30 days	-.02	.06
Misreported no drug use in follow-up six months	-.10	.07
Misreported no drug use in follow-up 30 days	-.02	.06
Intercept	.29*	
Adjusted R2	.25	
F-value	6.90***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.17
Prediction Equation for Ratio of Days Used/Days at Risk
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.09	.07
Baseline ratio of days used/days at risk	.72***	.23
Group by baseline interaction	-.25[a]	.14
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	-.07	.10
Arrested for property crime	-.07	.08
Arrested for drug crime	.02	.08
Number of arrests before age 18	.01*	.00
Lifetime number of convictions	-.00	.00
Age at first drug use	-.03***	.01
Drug use frequency in baseline six months (logged)	.01	.02
Sex risk index for baseline six months (logged)	.04	.03
Past month income	.03	.03
Any illegal income in baseline six monts	-.17	.10
Age	-.00	.00
African-American	.12[a]	.06
Hispanic	-.33	.31
Misreported no drug use in baseline six months	.06	.21
Misreported no drug use in baseline 30 days	-.07	.15
Misreported no drug use in follow-up six months	.00	.21
Misreported no drug use in follow-up 30 days	-.22	.16
Intercept	.41*	
Adjusted R2	.28	
F-value	3.47***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.18
Prediction Equation for Ratio of Days Used/Days at Risk
Chicago (n= 380)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.00	.08
Baseline ratio of days used/days at risk	.56***	.16
Group by baseline interaction	-.23*	.10
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	.01	.11
Arrested for property crime	-.00	.10
Arrested for drug crime	.05	.10
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.01	.01
Drug use frequency in baseline six months (logged)	.01	.02
Sex risk index for baseline six months (logged)	-.02	.03
Past month income	.05[a]	.03
Any illegal income in baseline six monts	.15*	.08
Age	-.00	.00
African-American	.09	.07
Hispanic	.17	.12
Misreported no drug use in baseline six months	.13	.21
Misreported no drug use in baseline 30 days	.01	.08
Misreported no drug use in follow-up six months	-.28***	.10
Misreported no drug use in follow-up 30 days	-.01	.07
Intercept	.13	
Adjusted R2	.18	
F-value	4.90***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.19
Prediction Equation for Ratio of Days Used/Days at Risk
Orlando (n=396)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.03	.03
Baseline ratio of days used/days at risk	.32*	.12
Group by baseline interaction	.02	.08
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	-.04	.03
Arrested for property crime	-.00	.03
Arrested for drug crime	.08[a]	.04
Number of arrests before age 18	.01*	.00
Lifetime number of convictions	-.01*	.00
Age at first drug use	-.00	.01
Drug use frequency in baseline six months (logged)	.03***	.01
Sex risk index for baseline six months (logged)	.00	.01
Past month income	.04	.02
Any illegal income in baseline six monts	-.03	.04
Age	.01	.01
African-American	.04	.03
Hispanic	-.03	.04
Misreported no drug use in baseline six months	.18[a]	.10
Misreported no drug use in baseline 30 days	.04	.06
Misreported no drug use in follow-up six months	-.05	.09
Misreported no drug use in follow-up 30 days	-.07	.06
Intercept	-.27[a]	
Adjusted R2	.39	
F-value	12.92***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.20
Prediction Equation for Ratio of Days Used/Days at Risk
Portland (n=322)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.00	.04
Baseline ratio of days used/days at risk	.24	.18
Group by baseline interaction	-.07	.11
Lifetime weeks in residential treatment	.00***	.00
Arrested for violent crime	.02	.07
Arrested for property crime	.04	.06
Arrested for drug crime	.09	.06
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.00	.00
Drug use frequency in baseline six months (logged)	.04***	.01
Sex risk index for baseline six months (logged)	.01	.02
Past month income	-.01	.02
Any illegal income in baseline six monts	.08	.06
Age	.00	.00
African-American	-.01	.04
Hispanic	-.04	.10
Misreported no drug use in baseline six months	-.08	.09
Misreported no drug use in baseline 30 days	.11	.07
Misreported no drug use in follow-up six months	.04	.09
Misreported no drug use in follow-up 30 days	-.15*	.06
Intercept	.02	
Adjusted R2	.22	
F-value	5.33***	

a p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.21
Prediction Equation for Number of Drug Use Days
Birmingham TASC group(n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	-.81	1.45
Group by baseline interaction	Not Applicable	Not Applicable
Lifetime weeks in residential treatment	-.21	.21
Lifetime weeks in outpatient treatment	-.01	.07
Any outpatient treatment	-2.79	5.99
Arrested for violent crime	4.66	14.14
Arrested for property crime	6.82	12.96
Arrested for drug crime	1.48	12.85
Times arrested before the age of 18	-.28	.56
Lifetime number of convictions	-.13	.32
Number of drug crimes in baseline six months (logged)	.57	2.13
Number of property crimes in baseline six months (logged)	-.71	2.46
Age at first drug use	-.11	.56
Frequency of drug use in baseline six months (logged)	2.45	1.68
Frequency of sex while high in baseline six months	.45	1.30
Any illegal income in baseline six months	35.50***	10.33
Highest grade completed	-2.48[a]	1.31
Misreported no drug use in baseline six months	-6.25	12.22
Misreported no drug use in baseline 30 days	5.15	8.61
Misreported no drug use in follow-up six months	-29.18*	11.49
Misreported no drug use in follow-up 30 days	4.63	10.94
Any treatment service	-1.41	18.22
Baseline by any service interaction	.92	1.47
Intercept	15.06	
Adjusted R2	.18	
F-value	2.95***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.22
Prediction Equation for Number of Drug Use Days
Canton TASC group (n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	.25	.20
Group by baseline interaction	Not Applicable	Not Applicable
Lifetime weeks in residential treatment	.15	.39
Lifetime weeks in outpatient treatment	-.49	.44
Any outpatient treatment	17.15	11.97
Arrested for violent crime	-23.46	19.79
Arrested for property crime	-34.21*	15.42
Arrested for drug crime	22.90	15.30
Times arrested before the age of 18	.91[a]	.46
Lifetime number of convictions	.11	.24
Number of drug crimes in baseline six months (logged)	2.95	3.48
Number of property crimes in baseline six months (logged)	5.05	4.77
Age at first drug use	-6.27**	1.90
Frequency of drug use in baseline six months (logged)	-5.91	3.16
Frequency of sex while high in baseline six months	2.67	3.17
Any illegal income in baseline six months	-21.39	21.59
Highest grade completed	.42	3.96
Misreported no drug use in baseline six months	-19.97	43.86
Misreported no drug use in baseline 30 days	12.84	27.87
Misreported no drug use in follow-up six months	-5.08	34.11
Misreported no drug use in follow-up 30 days	-40.54	27.63
Any treatment service	-28.85[a]	15.00
Baseline by any service interaction	.04	.21
Intercept	143.70***	
Adjusted R2	.42	
F-value	3.58***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.23
Prediction Equation for Number of Drug Use Days
Chicago TASC group, arrest before 18=no (n=114)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	.33[a]	.20
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.28	.79
Lifetime weeks in outpatient treatment	-.29	.24
Any outpatient treatment	21.32	18.14
Arrested for violent crime	-16.07	26.31
Arrested for property crime	-12.50	20.28
Arrested for drug crime	-8.91	20.10
Lifetime number of convictions	-.45	.31
Number of drug crimes in baseline six months (logged)	-5.37	3.44
Number of property crimes in baseline six months (logged)	1.05	4.30
Age at first drug use	-.12	1.66
Frequency of drug use in baseline six months (logged)	-1.05	5.18
Frequency of sex while high in baseline six months	8.55**	3.10
Any illegal income in baseline six months	46.74[a]	24.40
Highest grade completed	-4.99	3.36
Misreported no drug use in baseline six months	781.04	2,293.61
Misreported no drug use in baseline 30 days	-7.28	16.49
Misreported no drug use in follow-up six months	2.66	25.63
Misreported no drug use in follow-up 30 days	-27.97	17.25
Any treatment service	-27.64	17.84
Baseline by any service interaction	-.03	.15
Intercept	67.37	
Adjusted R2	.25	
F-value	2.79***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.23
Prediction Equation for Number of Drug Use Days
Chicago TASC group, arrest before 18=yes (n=115)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	.20	.16
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.14	.36
Lifetime weeks in outpatient treatment	.90***	.32
Any outpatient treatment	-18.28	14.90
Arrested for violent crime	45.44[a]	23.80
Arrested for property crime	30.16	22.01
Arrested for drug crime	40.39[a]	22.66
Lifetime number of convictions	-1.22	.79
Number of drug crimes in baseline six months (logged)	-3.44	2.68
Number of property crimes in baseline six months (logged)	-3.89	2.96
Age at first drug use	-2.66	1.68
Frequency of drug use in baseline six months (logged)	-.57	3.03
Frequency of sex while high in baseline six months	-1.24	2.15
Any illegal income in baseline six months	43.48**	16.05
Highest grade completed	1.01	2.89
Misreported no drug use in baseline six months	-42.49	46.58
Misreported no drug use in baseline 30 days	33.77	21.11
Misreported no drug use in follow-up six months	-64.88*	26.36
Misreported no drug use in follow-up 30 days	46.34	20.10
Any treatment service	-28.70*	13.52
Baseline by any service interaction	.04	.15
Intercept	40.51	
Adjusted R2	.24	
F-value	2.76***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.24
Prediction Equation for Number of Drug Use Days
Orlando TASC group (n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	.41***	.11
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	-.10	.40
Lifetime weeks in outpatient treatment	-.01	.47
Any outpatient treatment	-9.89	16.14
Arrested for violent crime	-3.40	8.84
Arrested for property crime	1.41	8.93
Arrested for drug crime	17.99[a]	9.92
Times arrested before the age of 18	.60	.59
Lifetime number of convictions	-.89	1.00
Number of drug crimes in baseline six months (logged)	3.81[a]	2.30
Number of property crimes in baseline six months (logged)	-2.69	2.81
Age at first drug use	1.96	1.47
Frequency of drug use in baseline six months (logged)	5.33*	2.36
Frequency of sex while high in baseline six months	.67	3.26
Any illegal income in baseline six months	-9.93	10.01
Highest grade completed	-.83	4.75
Misreported no drug use in baseline six months	67.87**	24.99
Misreported no drug use in baseline 30 days	-7.28	14.03
Misreported no drug use in follow-up six months	-13.31	19.58
Misreported no drug use in follow-up 30 days	-11.90	12.14
Any treatment service	.74	7.24
Baseline by any service interaction	-.31*	.15
Intercept	-17.73	
Adjusted R2	.38	
F-value	7.05***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.25
Prediction Equation for Number of Drug Use Days
Portland TASC group(n=178)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug use days	.31	.19
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	.13	.24
Lifetime weeks in outpatient treatment	.16	.17
Any outpatient treatment	1.25	7.95
Arrested for violent crime	-4.89	14.00
Arrested for property crime	7.69	12.36
Arrested for drug crime	12.04	12.86
Times arrested before the age of 18	.19	.21
Lifetime number of convictions	.05	.42
Number of drug crimes in baseline six months (logged)	-2.22	2.97
Number of property crimes in baseline six months (logged)	-5.92[a]	3.26
Age at first drug use	-.53	.68
Frequency of drug use in baseline six months (logged)	5.43[a]	2.66
Frequency of sex while high in baseline six months	2.11	1.91
Any illegal income in baseline six months	12.73	15.93
Highest grade completed	1.48	1.96
Misreported no drug use in baseline six months	-11.69	17.12
Misreported no drug use in baseline 30 days	15.29	14.15
Misreported no drug use in follow-up six months	-12.58	20.09
Misreported no drug use in follow-up 30 days	-10.29	14.03
Any treatment service	-20.70*	8.74
Baseline by any service interaction	-.25	.16
Intercept	20.83	
Adjusted R2	.23	
F-value	3.49***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.26
Prediction Equation for Frequency of Drug Use (logged)
Birmingham TASC Group (n=368)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of drug use (logged)	.11	.63
Any outpatient treatment	-.02	.30
Arrested for violent crime	.05	.79
Arrested for property crime	.93	.71
Arrested for drug crime	.84	.71
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline six months (logged)	-.17	.24
Number of drug crimes in baseline six months (logged)	-.08	.11
Age at first drug use	-.03	.04
Frequency of drug use in baseline six months	-.00	.00
Frequency of unprotected sex in baseline six months	.04	.08
Frequency of sex while high in baseline six months	.21	.10
Sex risk index for baseline six months (logged)	-.51*	.22
Number of people with whom had unprotected sex in baseline six months (logged)	-.01	.37
Any illegal income in baseline six months	1.63***	.56
Age	-.00	.02
Male	-.19	.28
Living in own place in baseline six months	-.03	.28
African-American	.14	
Hispanic	No estimate; no Hispanics in this site.	
Misreported no drug use in baseline six months	-.41	.68
Misreported no drug use in baseline 30 days	.24	.49
Misreported no drug use in follow-up six months	-2.82***	.67
Misreported no drug use in follow-up 30 days	.80	.62
Any treatment service	1.08	1.01
baseline by any service interaction	.22	.63
Intercept	.07	1.39
Adjusted R2	.27	
F-value	3.86***	

a p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.27
Prediction Equation for Frequency of Drug Use (logged)
Canton TASC Group (n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of drug use (logged)	-.05	.20
Any outpatient treatment	.73	.51
Arrested for violent crime	-.08	.85
Arrested for property crime	-2.04***	.66
Arrested for drug crime	-.11	.66
Lifetime number of convictions	.01	.01
Number of violent crimes in baseline six months (logged)	-.13	.47
Number of drug crimes in baseline six months (logged)	.10	.16
Age at first drug use	-.18*	.08
Frequency of drug use in baseline six months	.01	.01
Frequency of unprotected sex in baseline six months	.02	.15
Frequency of sex while high in baseline six months	-.14	.18
Sex risk index for baseline six months (logged)	.38	.30
Number of people with whom had unprotected sex in baseline six months (logged)	.20	.67
Any illegal income in baseline six months	-.20	.83
Age	-.06	.04
Male	-.20	.60
Living in own place in baseline six months	-.71	.51
African-American	.70	.55
Hispanic	-2.30	2.19
Misreported no drug use in baseline six months	.10	1.86
Misreported no drug use in baseline 30 days	.63	1.16
Misreported no drug use in follow-up six months	-.42	1.50
Misreported no drug use in follow-up 30 days	-1.45	1.21
Any treatment service	-.48	.86
baseline by any service interaction	.09	.19
Intercept	6.54***	
Adjusted R2	.27	
F-value	2.2*	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.28
Prediction Equation for Frequency of Drug Use(logged)
Chicago TASC Group (n=228)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of drug use (logged)	-.04	.16
Any outpatient treatment	.34	.44
Arrested for violent crime	1.54*	.77
Arrested for property crime	.24	.65
Arrested for drug crime	1.04	.66
Lifetime number of convictions	-.02[a]	.02
Number of violent crimes in baseline six months (logged)	-.22	.20
Number of drug crimes in baseline six months (logged)	-.14	.10
Age at first drug use	-.02	.05
Frequency of drug use in baseline six months	.01**	.00
Frequency of unprotected sex in baseline six months	-.19[a]	.11
Frequency of sex while high in baseline six months	.16	.12
Sex risk index for baseline six months (logged)	-.01	.28
Number of people with whom had unprotected sex in baseline six months (logged)	.29	.45
Any illegal income in baseline six months	.97	.63
Age	-.01	.02
Male	.79	.51
Living in own place in baseline six months	.73[a]	.40
African-American	.57	.46
Hispanic	.57	.91
Misreported no drug use in baseline six months	-.88	2.41
Misreported no drug use in baseline 30 days	-.77	.56
Misreported no drug use in follow-up six months	-1.38[a]	.83
Misreported no drug use in follow-up 30 days	-.65	.59
Any treatment service	-1.21[a]	.70
baseline by any service interaction	-.02	.15
Intercept	1.41	
Adjusted R2	.23	
F-value	3.61***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.29
Prediction Equation for Frequency of Drug Use (logged)
Orlando TASC Group (n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of drug use (logged)	.54***	.13
Any outpatient treatment	-.15	.56
Arrested for violent crime	-.76[a]	.41
Arrested for property crime	-.62	.41
Arrested for drug crime	-.32	.48
Lifetime number of convictions	.00	.04
Number of violent crimes in baseline six months (logged)	.24	.16
Number of drug crimes in baseline six months (logged)	-.11	.12
Age at first drug use	-.00	.07
Frequency of drug use in baseline six months	.01	.01
Frequency of unprotected sex in baseline six months	-.02	.11
Frequency of sex while high in baseline six months	-.04	.16
Sex risk index for baseline six months (logged)	.33	.21
Number of people with whom had unprotected sex in baseline six months (logged)	-.32	.37
Any illegal income in baseline six months	-.09	.47
Age	.22*	.10
Male	-.68*	.32
Living in own place in baseline six months	.13	.30
African-American	.79*	.31
Hispanic	.09	.45
Misreported no drug use in baseline six months	3.23***	1.18
Misreported no drug use in baseline 30 days	-.01	.67
Misreported no drug use in follow-up six months	-1.70[a]	.92
Misreported no drug use in follow-up 30 days	.41	.58
Any treatment service	.38	.42
baseline by any service interaction	-.18	.13
Intercept		
Adjusted R2	.40	
F-value	6.62***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.30
Prediction Equation for Frequency of Drug Use (logged)
Portland TASC Group (n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of drug use (logged)	.36*	.17
Any outpatient treatment	.18	.36
Arrested for violent crime	.00	.73
Arrested for property crime	.47	.65
Arrested for drug crime	.80	.68
Lifetime number of convictions	.01	.02
Number of violent crimes in baseline six months (logged)	-.13	.62
Number of drug crimes in baseline six months (logged)	-.14	.16
Age at first drug use	-.07[a]	.04
Frequency of drug use in baseline six months	-.00	.00
Frequency of unprotected sex in baseline six months	-.11	.10
Frequency of sex while high in baseline six months	.21	.14
Sex risk index for baseline six months (logged)	-.02	.33
Number of people with whom had unprotected sex in baseline six months (logged)	.44	.61
Any illegal income in baseline six months	.59	.85
Age	.04	.03
Male	.37	.42
Living in own place in baseline six months	.53	.37
African-American	.02	.41
Hispanic	-2.00[a]	1.17
Misreported no drug use in baseline six months	-.49	.91
Misreported no drug use in baseline 30 days	.53	.76
Misreported no drug use in follow-up six months	-1.58	1.06
Misreported no drug use in follow-up 30 days	-.44	.75
Any treatment service	-1.18*	.56
baseline by any service interaction	.03	.16
Intercept	1.08	
Adjusted R2	.23	
F-value	3.07***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.31
Prediction Equation for Number of Drugs Used
Birmingham TASC Group(n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drugs used	.31	.57
Any residential treatment	-.30**	.11
Lifetime weeks in prison/jail treatment	.00	.00
Lifetime weeks in outpatient treatment	.00[a]	.00
Arrested for violent crime	-.12	.27
Arrested for property crime	.15	.26
Arrested for drug crime	.04	.26
Age at first arrest	.01[a]	.01
Number of arrests before age 18	-.01*	.01
Any arrest during baseline six months	-.17[a]	.10
Number of violent crimes in baseline six months (logged)	-.10	.08
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.25*	.10
Age at first drug use	.01	.01
Number of drug use in baseline six months	.00***	.00
Frequency of unprotected sex in baseline six months	.03	.02
Sex risk index for baseline six months (logged)	-.16*	.06
Any sex for money/drugs in baseline six months	.22	.16
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.64***	.19
Age	.01	.01
Hispanic	No estimate; no Hispanics in this site.	
African-American	.10	.10
Misreported no drug use in baseline six months	-.12	.24
Misreported no drug use in baseline 30 days	.06	.17
Misreported no drug use in follow-up six months	-1.31***	.23
Misreported no drug use in follow-up 30 days	.56**	.21
Any treatment service	.08	.40
Baseline by any service interaction	.52	.57
Intercept	.33	
Adjusted R2	.37	
F-value	5.02***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table C.32
Prediction Equation for Number of Drugs Used
Canton TASC group(n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drugs used	.62***	.20
Any residential treatment	.00	.20
Lifetime weeks in prison/jail treatment	-.01	.01
Lifetime weeks in outpatient treatment	.01	.01
Arrested for violent crime	-.13	.32
Arrested for property crime	-.71*	.27
Arrested for drug crime	-.37	.29
Age at first arrest	.01	.02
Number of arrests before age 18	-.00	.01
Any arrest during baseline six months	.22	.23
Number of violent crimes in baseline six months (logged)	-.13	.18
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	-.12	.24
Age at first drug use	-.03	.03
Number of drug use in baseline six months	-.00	.00
Frequency of unprotected sex in baseline six months	-.05	.05
Sex risk index for baseline six months (logged)	.10	.10
Any sex for money/drugs in baseline six months	-.08	.32
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.08	.32
Age	-.01	.01
Hispanic	-1.53[a]	.78
African-American	.08	.19
Misreported no drug use in baseline six months	1.12	.70
Misreported no drug use in baseline 30 days	-.14	.47
Misreported no drug use in follow-up six months	-.89	.66
Misreported no drug use in follow-up 30 days	-.05	.55
Any treatment service	.52	.33
Baseline by any service interaction	-.26	.22
Intercept	1.08	
Adjusted R2	.23	
F-value	1.83*	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.33
Prediction Equation for Number of Drugs Used
Chicago TASC Group(n=228)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drugs used	.28*	.13
Any residential treatment	-.14	.14
Lifetime weeks in prison/jail treatment	-.01	.01
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	.51[a]	.30
Arrested for property crime	-.04	.26
Arrested for drug crime	.31	.26
Age at first arrest	.01	.01
Number of arrests before age 18	.01*	.00
Any arrest during baseline six months	-.08	.13
Number of violent crimes in baseline six months (logged)	-.10	.08
Number of incarceration days in baseline six months	-.00	.00
Ever used crack or cocaine	-.29[a]	.15
Age at first drug use	.00	.02
Number of drug use in baseline six months	.00	.00
Frequency of unprotected sex in baseline six months	-.04	.03
Sex risk index for baseline six months (logged)	-.05	.09
Any sex for money/drugs in baseline six months	-.13	.25
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	.12	.23
Age	-.01	.01
Hispanic	.39	.35
African-American	-.11	.18
Misreported no drug use in baseline six months	-.63	.94
Misreported no drug use in baseline 30 days	.18	.23
Misreported no drug use in follow-up six months	-1.03***	.32
Misreported no drug use in follow-up 30 days	.12	.23
Any treatment service	-.23	.25
Baseline by any service interaction	-.13	.14
Intercept	.69	
Adjusted R2	.20	
F-value	2.96**	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.34
Prediction Equation for Number of Drugs Used
Orlando TASC group(n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drugs used	.16	.10
Any residential treatment	.12	.11
Lifetime weeks in prison/jail treatment	-1.34*	.58
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	-.19	.12
Arrested for property crime	-.09	.12
Arrested for drug crime	-.12	.13
Age at first arrest	.02	.02
Number of arrests before age 18	.01	.01
Any arrest during baseline six months	-.19*	.09
Number of violent crimes in baseline six months (logged)	.09*	.04
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.08	.21
Age at first drug use	.02	.02
Number of drug use in baseline six months	.00***	.00
Frequency of unprotected sex in baseline six months	-.02	.02
Sex risk index for baseline six months (logged)	.10ᵃ	.05
Any sex for money/drugs in baseline six months	.07	.44
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	-.14	.13
Age	.02	.03
Hispanic	.19	.14
African-American	.06	.09
Misreported no drug use in baseline six months	.59ᵃ	.35
Misreported no drug use in baseline 30 days	-.06	.19
Misreported no drug use in follow-up six months	-.76***	.27
Misreported no drug use in follow-up 30 days	.25	.17
Any treatment service	.00	.14
Baseline by any service interaction	-.10	.15
Intercept	-.50	
Adjusted R2	.21	
F-value	2.97***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.35
Prediction Equation for Number of Drugs Used
Portland TASC group(n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drugs used	-.02	.13
Any residential treatment	.01*	.01
Lifetime weeks in prison/jail treatment	-.00	.00
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	-.17	.26
Arrested for property crime	-.04	.23
Arrested for drug crime	-.11	.24
Age at first arrest	.00	.01
Number of arrests before age 18	-.00	.00
Any arrest during baseline six months	.02	.18
Number of violent crimes in baseline six months (logged)	.24	.22
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.13	.14
Age at first drug use	-.02	.02
Number of drug use in baseline six months	.00	.00
Frequency of unprotected sex in baseline six months	-.02	.03
Sex risk index for baseline six months (logged)	.04	.09
Any sex for money/drugs in baseline six months	.10	.48
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	-.01	.26
Age	.02	.01
Hispanic	-.34	.42
African-American	-.02	.14
Misreported no drug use in baseline six months	-.07	.32
Misreported no drug use in baseline 30 days	.49a	.27
Misreported no drug use in follow-up six months	-.97*	.37
Misreported no drug use in follow-up 30 days	-.07	.26
Any treatment service	-.36a	.19
Baseline by any service interaction	.26	.16
Intercept	.51	
Adjusted R2	.27	
F-value	3.24***	

ap≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.36
Prediction Equation for Ratio of Days Used/Days at Risk
Birmingham TASC Group (n=194)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline ratio of days used/days at risk	-.87	2.02
Lifetime weeks in residential treatment	-.00[a]	.00
Arrested for violent crime	.02	.09
Arrested for property crime	.05	.08
Arrested for drug crime	-.00	.08
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	-.00	.00
Age at first drug use	.00	.00
Drug use frequency in baseline six months (logged)	.02*	.01
Sex risk index for baseline six months (logged)	.00	-.02
Past month income	-.03	.02
Any illegal income in baseline six months	.19**	.06
Age	-.00	.00
African-American	-.03	.03
Hispanic	No estimate; no Hispanics in this site.	
Misreported no drug use in baseline six months	-.04	.08
Misreported no drug use in baseline 30 days	-.02	.06
Misreported no drug use in follow-up six months	.14[a]	.08
Misreported no drug use in follow-up 30 days	-.02	.07
Any treatment service	-.02	.12
Baseline by any service interaction	.98	2.02
Intercept	.10	
Adjusted R2	.18	
F-value	3.12***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.37
Prediction Equation for Ratio of Days Used/Days at Risk
Canton TASC Group (n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline ratio of days used/days at risk	.04	.14
Lifetime weeks in residential treatment	.00	.00
Arrested for violent crime	-.17	.12
Arrested for property crime	-.14	.10
Arrested for drug crime	.20*	.10
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.00[a]	.00
Age at first drug use	-.06**	.01
Drug use frequency in baseline six months (logged)	-.04[a]	.02
Sex risk index for baseline six months (logged)	-.01	.03
Past month income	.01	.03
Any illegal income in baseline six months	-.06	.12
Age	-.00	.01
African-American	.15[a]	.08
Hispanic	-.40	.28
Misreported no drug use in baseline six months	-.04	.25
Misreported no drug use in baseline 30 days	-.12	.17
Misreported no drug use in follow-up six months	-.09	.22
Misreported no drug use in follow-up 30 days	-.31	.18
Any treatment service	-.21*	.09
Baseline by any service interaction	.33[a]	.17
Intercept	1.29***	
Adjusted R2	.44	
F-value	4.00***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.38
Prediction Equation for Ratio of Days Used/Days at Risk
Chicago TASC Group (n=226)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline ratio of days used/days at risk	.15	.11
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	.03	.12
Arrested for property crime	-.02	.11
Arrested for drug crime	.05	.11
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	-.00	.00
Age at first drug use	-.00	.01
Drug use frequency in baseline six months (logged)	.01	.02
Sex risk index for baseline six months (logged)	-.01	.03
Past month income	.05	.04
Any illegal income in baseline six months	.78***	.11
Age	.00	.01
African-American	.03	.07
Hispanic	.04	.15
Misreported no drug use in baseline six months	-.04	.39
Misreported no drug use in baseline 30 days	.01	.09
Misreported no drug use in follow-up six months	-2.1	.13
Misreported no drug use in follow-up 30 days	-.01	.09
Any treatment service	-.19*	.09
Baseline by any service interaction	-.11	.11
Intercept	.20	.20
Adjusted R2	.23	
F-value	4.18***	

ap≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.39
Prediction Equation for Ratio of Days Used/Days at Risk
Orlando TASC Group (n=208)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline ratio of days used/days at risk	.30***	.10
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	-.01	.05
Arrested for property crime	.01	.05
Arrested for drug crime	.10[a]	.06
Number of arrests before age 18	.01[a]	.00
Lifetime number of convictions	-.01	.01
Age at first drug use	.01	.01
Drug use frequency in baseline six months (logged)	.05***	.01
Sex risk index for baseline six months (logged)	.01	.02
Past month income	.06*	.03
Any illegal income in baseline six months	-.04	.06
Age	.02	.01
African-American	.11***	.04
Hispanic	.03	.05
Misreported no drug use in baseline six months	.36*	.14
Misreported no drug use in baseline 30 days	-.05	.08
Misreported no drug use in follow-up six months	-.01	.11
Misreported no drug use in follow-up 30 days	-.10	.07
Any treatment service	.03	.04
Baseline by any service interaction	-.35*	.16
Intercept	-.50*	
Adjusted R2	.43**	
F-value	8.30***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.40
Prediction Equation for Ratio of Days Used/Days at Risk
Portland TASC Group (n=174)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline ratio of days used/days at risk	.31*	.14
Lifetime weeks in residential treatment	.00	.00
Arrested for violent crime	-.04	.09
Arrested for property crime	.04	.08
Arrested for drug crime	.04	.08
Number of arrests before age 18	.00	.00
Lifetime number of convictions	-.00	.00
Age at first drug use	-.01	.00
Drug use frequency in baseline six months (logged)	.03*	.01
Sex risk index for baseline six months (logged)	.02	.02
Past month income	-.05*	.02
Any illegal income in baseline six months	.13	.08
Age	.01[a]	.00
African-American	-.05	.05
Hispanic	-.19	.13
Misreported no drug use in baseline six months	-.10	.10
Misreported no drug use in baseline 30 days	.06	.09
Misreported no drug use in follow-up six months	-.00	.12
Misreported no drug use in follow-up 30 days	-.10	.08
Any treatment service	-.17***	.06
Baseline by any service interaction	-.41***	.15
Intercept	.17	
Adjusted R2	.36	
F-value	5.67***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.41
Prediction Equation for Number of Drug Use Days
Birmingham (n=368)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-11.05**	4.24
Baseline number of drug use days	-.02	.08
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	.05	.25
Lifetime weeks in outpatient treatment	-.04	.09
Any outpatient treatment	-5.69	6.62
Arrested for violent crime	-1.07	12.23
Arrested for property crime	-5.14	11.12
Arrested for drug crime	-16.14	11.25
Times arrested before the age of 18	-.24	.55
Lifetime number of convictions	.10	.31
Number of drug crimes in baseline six months (logged)	4.68**	1.73
Number of property crimes in baseline six months (logged)	-1.77	2.50
Age at first drug use	-.50	.60
Frequency of drug use in baseline six months (logged)	6.54**	2.34
Frequency of sex while high in baseline six months	.09	1.19
Any illegal income in baseline six months	24.27**	8.94
Highest grade completed	-1.56	1.29
Misreported no drug use in baseline six months	16.91	11.18
Misreported no drug use in baseline 30 days	-1.87	8.64
Misreported no drug use in follow-up six months	-19.71[a]	10.64
Misreported no drug use in follow-up 30 days	-3.69	9.22
Primary marijuana user	3.51	7.53
Primary heroin user	-42.00[a]	24.71
Primary crack user	-8.32	8.30
Primary non-crack cocaine user	23.08	16.85
Intercept	45.73***	
Adjusted R2	.29	
F-value	6.81***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.42
Prediction Equation for Number of Drug Use Days
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-3.50	8.49
Baseline number of drug use days	.40**	.12
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	.34	.34
Lifetime weeks in outpatient treatment	-.02	.37
Any outpatient treatment	14.54	10.34
Arrested for violent crime	-2.92	15.49
Arrested for property crime	-8.52	12.79
Arrested for drug crime	18.63	11.92
Times arrested before the age of 18	1.15***	.38
Lifetime number of convictions	-.04	.16
Number of drug crimes in baseline six months (logged)	2.05	2.82
Number of property crimes in baseline six months (logged)	.95	3.55
Age at first drug use	-4.02	1.24
Frequency of drug use in baseline six months (logged)	-8.31*	3.91
Frequency of sex while high in baseline six months	1.11	2.40
Any illegal income in baseline six months	-34.13*	17.11
Highest grade completed	3.13	2.97
Misreported no drug use in baseline six months	21.52	32.96
Misreported no drug use in baseline 30 days	-8.30	22.55
Misreported no drug use in follow-up six months	2.58	32.52
Misreported no drug use in follow-up 30 days	-37.34	24.72
Primary marijuana user	46.77***	15.72
	No estimate; no primary heroin users at this site.	
Primary crack user	47.08**	17.56
Primary non-crack cocaine user	-.98	48.42
Intercept	53.9*	
Adjusted R2	.31	
F-value	3.52***	

^ap≤.10
*p≤.05
**p≤.01
***p≤.005

Table C.43
Prediction Equation for Number of Drug Use Days,
Arrest Before 18=yes
Chicago (n=163)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-43.30***	9.85
Baseline number of drug use days	.43***	.12
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.15	.43
Lifetime weeks in outpatient treatment	.38	.30
Any outpatient treatment	-11.95	13.82
Arrested for violent crime	50.36*	24.41
Arrested for property crime	-47.96*	22.08
Arrested for drug crime	55.03*	22.69
Lifetime number of convictions	-.91	.90
Number of drug crimes in baseline six months (logged)	-3.24	2.49
Number of property crimes in baseline six months (logged)	1.76	3.09
Age at first drug use	-2.48	1.67
Frequency of drug use in baseline six months (logged)	-5.28	4.62
Frequency of sex while high in baseline six months	-1.30	2.17
Any illegal income in baseline six months	24.99	15.91
Highest grade completed	-1.54	2.89
Misreported no drug use in baseline six months	-65.59	55.74
Misreported no drug use in baseline 30 days	40.91[a]	22.54
Misreported no drug use in follow-up six months	-44.89[a]	26.70
Misreported no drug use in follow-up 30 days	13.63	18.58
Primary marijuana user	4.42	20.75
Primary heroin user	-8.19	22.14
Primary crack user	3.28	21.24
Primary non-crack cocaine user	15.36	25.90
Intercept	101.14*	
Adjusted R2	.22	
F-value	2.96***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table C.43
Prediction Equation for Number of Drug Use Day,
Arrest Before 18=no
Chicago (n=229)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-13.88	8.54
Baseline number of drug use days	.43***	.10
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.67	.66
Lifetime weeks in outpatient treatment	-.03	.11
Any outpatient treatment	12.57	11.43
Arrested for violent crime	-11.78	21.77
Arrested for property crime	-12.65	17.66
Arrested for drug crime	-1.03	17.24
Lifetime number of convictions	-.39	.30
Number of drug crimes in baseline six months (logged)	-5.85**	2.24
Number of property crimes in baseline six months (logged)	4.03	2.70
Age at first drug use	-1.29	.98
Frequency of drug use in baseline six months (logged)	-3.64	4.01
Frequency of sex while high in baseline six months	5.29*	2.05
Any illegal income in baseline six months	3.46	14.54
Highest grade completed	-5.67*	2.39
Misreported no drug use in baseline six months	64.42	42.02
Misreported no drug use in baseline 30 days	-12.39	13.59
Misreported no drug use in follow-up six months	-19.36	18.79
Misreported no drug use in follow-up 30 days	-12.76	11.85
Primary marijuana user	-10.77	21.30
Primary heroin user	14.78	21.45
Primary crack user	11.30	20.73
Primary non-crack cocaine user	12.77	28.29
Intercept	97.23***	
Adjusted R2	.27	
F-value	4.49***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table C.44
Prediction Equation for Number of Drug Use Days
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	7.70*	.04
Baseline number of drug use days	.33***	.08
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	-.18	.18
Lifetime weeks in outpatient treatment	-.42	.39
Any outpatient treatment	-6.94	11.63
Arrested for violent crime	-7.45	5.40
Arrested for property crime	1.43	5.55
Arrested for drug crime	14.06*	6.85
Times arrested before the age of 18	.53	.36
Lifetime number of convictions	-1.11[a]	.59
Number of drug crimes in baseline six months (logged)	2.22	1.47
Number of property crimes in baseline six months (logged)	-.43	1.72
Age at first drug use	.65	.97
Frequency of drug use in baseline six months (logged)	4.94*	2.19
Frequency of sex while high in baseline six months	4.26*	1.95
Any illegal income in baseline six months	-11.50[a]	6.74
Highest grade completed	-.93	3.31
Misreported no drug use in baseline six months	19.44	16.59
Misreported no drug use in baseline 30 days	12.40	10.86
Misreported no drug use in follow-up six months	-12.62	14.26
Misreported no drug use in follow-up 30 days	-10.34	9.63
Primary marijuana user	-6.14	6.57
Primary heroin user	No estimate; no primary heroin users at this site.	
Primary crack user	-27.21	24.05
Primary non-crack cocaine user	-47.52	28.94 ·
Intercept	-7.74	
Adjusted R2	.36	
F-value	11.03***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.45
Prediction Equation for Number of Drug Use Days
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-3.74	4.83
Baseline number of drug use days	.12	.10
Group by baseline interaction	Not Applicable	Not Applicable
Lifetime weeks in residential treatment	.53***	.19
Lifetime weeks in outpatient treatment	.13	.10
Any outpatient treatment	-8.35	5.60
Arrested for violent crime	3.14	10.23
Arrested for property crime	6.23	8.94
Arrested for drug crime	12.07	9.22
Times arrested before the age of 18	.13	.13
Lifetime number of convictions	.34	.24
Number of drug crimes in baseline six months (logged)	-1.56	2.22
Number of property crimes in baseline six months (logged)	-4.11	2.58
Age at first drug use	-.52	.57
Frequency of drug use in baseline six months (logged)	8.51***	2.70
Frequency of sex while high in baseline six months	.70	1.45
Any illegal income in baseline six months	5.62	10.70
Highest grade completed	1.11	1.50
Misreported no drug use in baseline six months	-15.82	15.01
Misreported no drug use in baseline 30 days	22.87[a]	11.80
Misreported no drug use in follow-up six months	-2.38	14.09
Misreported no drug use in follow-up 30 days	-18.41[a]	10.48
Primary marijuana user	-7.89	8.28
Primary heroin user	-3.35	14.16
Primary crack user	-15.85	10.43
Primary non-crack cocaine user	-23.24	12.13
Intercept	13.54	
Adjusted R2	.22	
F-value	4.76***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table C.40
Prediction Equation for Frequency of Drug Use (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.34	.26
Baseline frequency of drug use (logged)	.46***	.17
Group by baseline interaction	-.06	.08
Any outpatient treatment	-.18	.28
Arrested for violent crime	-.49	.56
Arrested for property crime	-.36	.51
Arrested for drug crime	-.70	.52
Lifetime number of convictions	.01	.01
Number of violent crimes in baseline 6 mos.(logged)	-.30	.22
Number of drug crimes in baseline six months (logged)	.17*	.08
Age at first drug use	-.04	.03
Number of drug use days in baseline six months (logged)	-.00	.00
Frequency of unprotected sex in baseline six months	.04	.06
Frequency of sex while high in baseline six months	.11	.07
Sex risk index for baseline six months (logged)	-.17	.16
Number of people with whom had unprotected sex in baseline six months (logged)	-.25	.26
Any illegal income in baseline six months	.83*	.41
Age	-.01	.01
Male	-.12	.23
Living in own place in baseline six months	.16	.22
African-American	.09	.23
Hispanic	No estimate; no Hispanics in this site.	
Misreported no drug use in baseline six months	1.14*	.52
Misreported no drug use in baseline 30 days	.04	.41
Misreported no drug use in follow-up six months	-2.35***	.49
Misreported no drug use in follow-up 30 days	.59	.43
Primary marijuana user	.61*	.35
Primary heroin user	-.72	1.10
Primary crack user	.34	.38
Primary non-crack cocaine user	.82	.79
Intercept	2.87***	
Adjusted R2	.34	
F-value	7.41***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.47
Prediction Equation for Frequency of Drug Use (logged)
Canton (n= 133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.22	.51
Baseline frequency of drug use (logged)	.10	.28
Group by baseline interaction	-.17	.13
Any outpatient treatment	.80*	.36
Arrested for violent crime	-.61	.57
Arrested for property crime	-.95*	.46
Arrested for drug crime	-.06	.44
Lifetime number of convictions	.00	.00
Number of violent crimes in baseline 6 mos.(logged)	-.19	.37
Number of drug crimes in baseline six months (logged)	.16	.11
Age at first drug use	-.16***	.05
Number of drug use days in baseline six months (logged)	.01	.00
Frequency of unprotected sex in baseline six months	.03	.11
Frequency of sex while high in baseline six months	-.11	.13
Sex risk index for baseline six months (logged)	.56*	.22
Number of people with whom had unprotected sex in baseline six months (logged)	-.40	.40
Any illegal income in baseline six months	-.29	.59
Age	-.02	.02
Male	.77[a]	.39
Living in own place in baseline six months	-.19	.34
African-American	.42	.38
Hispanic	-2.57	1.95
Misreported no drug use in baseline six months	1.19	1.17
Misreported no drug use in baseline 30 days	-.02	.79
Misreported no drug use in follow-up six months	-.73	1.19
Misreported no drug use in follow-up 30 days	-1.31	.88
Primary marijuana user	2.10***	.57
Primary heroin user	No estimate; no primary heroin users at this site.	
Primary crack user	2.24***	.66
Primary non-crack cocaine user	-.52	1.76
Intercept	4.01***	
Adjusted R2	.38	
F-value	3.78***	

[a] p≤ .10
 *p≤ .05
 **p≤ .01
 ***p≤ .005

Table C.48
Prediction Equation for Frequency of Drug Use (logged)
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.31[a]	.73
Baseline frequency of drug use (logged)	-.07	.27
Group by baseline interaction	.00	.14
Any outpatient treatment	.34	.31
Arrested for violent crime	.80	.64
Arrested for property crime	.11	.55
Arrested for drug crime	.56	.55
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline 6 months (logged)	-.28[a]	.16
Number of drug crimes in baseline six months (logged)	-.13*	.07
Age at first drug use	-.05	.03
Number of drug use days in baseline six months (logged)	.01***	.00
Frequency of unprotected sex in baseline six months	-.00	.08
Frequency of sex while high in baseline six months	.10	.09
Sex risk index for baseline six months (logged)	-.13	.21
Number of people with whom had unprotected sex in baseline six months (logged)	.00	.33
Any illegal income in baseline six months	.64	.43
Age	-.01	.02
Male	.14	.33
Living in own place in baseline six months	.61*	.28
African-American	.78[a]	.40
Hispanic	.44	.68
Misreported no drug use in baseline six months	1.00	1.30
Misreported no drug use in baseline 30 days	-.26	.45
Misreported no drug use in follow-up six months	-1.81***	.60
Misreported no drug use in follow-up 30 days	-.48	.39
Primary marijuana user	.30	.61
Primary heroin user	.24	.62
Primary crack user	.46	.60
Primary non-crack cocaine user	.39	.77
Intercept	4.20*	
Adjusted R2	.26	
F-value	5.67***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.49
Prediction Equation for Frequency of Drug Use (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.05	.27
Baseline frequency of drug use (logged)	.27[a]	.16
Group by baseline interaction	.12	.08
Any outpatient treatment	-.24	.46
Arrested for violent crime	-.90***	.27
Arrested for property crime	-.39	.27
Arrested for drug crime	-.20	.34
Lifetime number of convictions	-.00	.02
Number of violent crimes in baseline six months (logged)	.10	.10
Number of drug crimes in baseline six months (logged)	.02	.07
Age at first drug use	-.06	.05
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	.04	.07
Frequency of sex while high in baseline six months	.09	.11
Sex risk index for baseline six months (logged)	.25[a]	.13
Number of people with whom had unprotected sex in baseline six months (logged)	-.37	.25
Any illegal income in baseline six months	-.39	.33
Age	.15*	.07
Male	-.46*	.22
Living in own place in baseline six months	.05	.21
African-American	.42[a]	.22
Hispanic	-.02	.31
Misreported no drug use in baseline six months	1.30	.82
Misreported no drug use in baseline 30 days	.66	.53
Misreported no drug use in follow-up six months	-2.13***	.70
Misreported no drug use in follow-up 30 days	.39	.47
Primary marijuana user	-.17	.32
Primary heroin user	No estimate; no primary heroin users at this site.	
Primary crack user	-.06	1.19
Primary non-crack cocaine user	-2.83*	1.42
Intercept	.14	
Adjusted R2	.38	
F-value	9.84***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.50
Prediction Equation for Frequency of Drug Use (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.02	.36
Baseline frequency of drug use (logged)	.44*	.22
Group by baseline interaction	-.02	.11
Any outpatient treatment	-.08	.26
Arrested for violent crime	.47	.53
Arrested for property crime	.63	.45
Arrested for drug crime	.78[a]	.47
Lifetime number of convictions	.03**	.01
Number of violent crimes in baseline six months (logged)	.16	.48
Number of drug crimes in baseline six months (logged)	-.09	.11
Age at first drug use	-.04	.03
Number of drug use days in baseline six months (logged)	-.00	.01
Frequency of unprotected sex in baseline six months	-.10	.07
Frequency of sex while high in baseline six months	.11	.09
Sex risk index for baseline six months (logged)	.11	.19
Number of people with whom had unprotected sex in baseline six months (logged)	.08	.39
Any illegal income in baseline six months	.31	.55
Age	.02	.02
Male	.55	.30
Living in own place in baseline six months	.16	.27
African-American	.02	.31
Hispanic	-.90	.76
Misreported no drug use in baseline six months	.64	.76
Misreported no drug use in baseline 30 days	.39	.59
Misreported no drug use in follow-up six months	-1.46*	.71
Misreported no drug use in follow-up 30 days	-.51	.53
Primary marijuana user	.56	.41
Primary heroin user	.59	.72
Primary crack user	.21	.57
Primary non-crack cocaine user	-.20	.62
Intercept	.16	
Adjusted R2	.21	
F-value	4.00***	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.51
Prediction Equation for Number of Drugs Used
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.00	.08
Baseline number of drugs used	.39**	.15
Group by baseline interaction	-.06	.08
Any residential treatment	-.26***	.08
Lifetime weeks in prison/jail treatment	.00	.00
Lifetime weeks in outpatient treatment	.00[a]	.00
Arrested for violent crime	-.17	.17
Arrested for property crime	-.09	.16
Arrested for drug crime	-.23	.17
Age at first arrest	-.01[a]	.01
Number of arrests before age 18	-.01	.01
Any arrest during baseline six months	-.06	.07
Number of violent crimes in baseline 6 mos.(logged)	-.08	.07
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.23***	.08
Age at first drug use	-.01	.01
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	.02	.01
Sex risk index for baseline six months (logged)	-.05	.04
Any sex for money/drugs in baseline six months	.16	.12
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.33**	.12
Age	.00	.00
Hispanic	No estimate; no Hispanic offenders in this site	
African-American	.04	.07
Misreported no drug use in baseline six months	.26	.16
Misreported no drug use in baseline 30 days	.06	.13
Misreported no drug use in follow-up six months	-1.09***	.16

Table C.51
Prediction Equation for Number of Drugs Used
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Misreported no drug use in follow-up 30 days	.39**	.13
Primary marijuana user	.30*	.12
Primary heroin user	.16	.34
Primary crack user	.24[a]	.13
Primary non-crack cocaine user	.04	.25
Intercept	.65*	
Adjusted R2	.35	
F-value	7.35***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.52
Prediction Equation for Number of Drugs Used
Canton (n= 133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.31	.20
Baseline number of drugs used	1.18***	.25
Group by baseline interaction	-.41**	.14
Any residential treatment	.11	.13
Lifetime weeks in prison/jail treatment	-.00	.01
Lifetime weeks in outpatient treatment	.01*	.00
Arrested for violent crime	-.41[a]	.23
Arrested for property crime	-.45*	.20
Arrested for drug crime	-.12	.19
Age at first arrest	.01	.01
Number of arrests before age 18	-.00	.00
Any arrest during baseline six months	.08	.16
Number of violent crimes in baseline 6 mos.(logged)	-.19	.14
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.09	.16
Age at first drug use	-.05***	.02
Number of drug use days in baseline six months (logged)	-.00*	.00
Frequency of unprotected sex in baseline six months	-.00	.03
Sex risk index for baseline six months (logged)	.12	.08
Any sex for money/drugs in baseline six months	-.31	.22
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	.18	.24
Age	-.00	.01
Hispanic	-.97	.72
African-American	.06	.15
Misreported no drug use in baseline six months	.47	.46
Misreported no drug use in baseline 30 days	.01	.31
Misreported no drug use in follow-up six months	-.42	.48
Misreported no drug use in follow-up 30 days	-.35	.40
Primary marijuana user	.13	.21

Table C.52
Prediction Equation for Number of Drugs Used
Canton (n= 133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary heroin user	No estimate; no primary heroin users at this site	
Primary crack user	.00	.25
Primary non-crack cocaine user	-1.44*	.71
Intercept	.40	
Adjusted R2	.42	
F-value	3.99***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.53
Prediction Equation for Number of Drugs Used
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.20	.23
Baseline number of drugs used	.54**	.20
Group by baseline interaction	-.18	.12
Any residential treatment	-.23*	.11
Lifetime weeks in prison/jail treatment	-.01	.01
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.18	.26
Arrested for property crime	-.21	.22
Arrested for drug crime	-.13	.22
Age at first arrest	-.01	.01
Number of arrests before age 18	.01	.00
Any arrest during baseline six months	-.08	.10
Number of violent crimes in baseline 6 mos.(logged)	-.14*	.06
Number of incarceration days in baseline six months	-.00	.00
Ever used crack or cocaine	.17	.13
Age at first drug use	.01	.01
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	.02	.02
Sex risk index for baseline six months (logged)	-.08	.07
Any sex for money/drugs in baseline six months	-.02	.19
Days lived at current address in baseline six months	-.00	.00
Any illegal income in baseline six months	.10	.16
Age	-.00	.01
Hispanic	.04	.27
African-American	-.08	.16
Misreported no drug use in baseline six months	.18	.52
Misreported no drug use in baseline 30 days	.05	.19

Table C.53
Prediction Equation for Number of Drugs Used
Chicago (n=390)
(con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Misreported no drug use in follow-up six months	-.96***	.23
Misreported no drug use in follow-up 30 days	.03	.16
Primary marijuana user	-.03	.25
Primary heroin user	-.05	.24
Primary crack user	-.06	.22
Primary non-crack cocaine user	-.14	.31
Intercept	1.38*	
Adjusted R2	.22	
F-value	4.13***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.54
Prediction Equation for Number of Drugs Used
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.12	.09
Baseline number of drugs used	.69***	.18
Group by baseline interaction	-.17[a]	.09
Any residential treatment	.06	.09
Lifetime weeks in prison/jail treatment	.36	.27
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	-.18*	.07
Arrested for property crime	-.03	.07
Arrested for drug crime	-.03	.09
Age at first arrest	.03	.02
Number of arrests before age 18	.01	.00
Any arrest during baseline six months	-.15**	.06
Number of violent crimes in baseline 6 mos.(logged)	.06*	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.06	.15
Age at first drug use	.00	.01
Number of drug use days in baseline six months (logged)	.00***	.00
Frequency of unprotected sex in baseline six months	-.01	.02
Sex risk index for baseline six months (logged)	.07*	.03
Any sex for money/drugs in baseline six months	.19	.37
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	-.12	.08
Age	.01	.02
Hispanic	.14	.09
African-American	.02	.06
Misreported no drug use in baseline six months	.32	.23
Misreported no drug use in baseline 30 days	.13	.15
Misreported no drug use in follow-up six months	-.82***	.19
Misreported no drug use in follow-up 30 days	.27*	.13

Table C.54
Prediction Equation for Number of Drugs Used
Orlando (n=422)
(con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary marijuana user	-.22	.13
Primary heroin user	No estimate; no heroin users at this site.	
Primary crack user	-.35	.40
Primary non-crack cocaine user	-.66	.44
Intercept	-.26	
Adjusted R2	.29	
F-value	6.47***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.55
Prediction Equation for Number of Drugs Used
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.10	.13
Baseline number of drugs used	.15	.19
Group by baseline interaction	.06	.11
Any residential treatment	-.03	.10
Lifetime weeks in prison/jail treatment	.01	.00
Lifetime weeks in outpatient treatment	.00[a]	.00
Arrested for violent crime	-.08	.20
Arrested for property crime	.17	.17
Arrested for drug crime	.09	.17
Age at first arrest	-.00	.01
Number of arrests before age 18	.00	.00
Any arrest during baseline six months	-.02	.14
Number of violent crimes in baseline 6 mos.(logged)	.45*	.18
Number of incarceration days in baseline six months	.00	.00
Ever used crack or cocaine	.11	.10
Age at first drug use	-.02[a]	.01
Number of drug use days in baseline six months (logged)	.00	.00
Frequency of unprotected sex in baseline six months	-.06**	.02
Sex risk index for baseline six months (logged)	.10	.06
Any sex for money/drugs in baseline six months	.83*	.33
Days lived at current address in baseline six months	.00	.00
Any illegal income in baseline six months	.16	.20
Age	.02*	.01
Hispanic	-.13	.29
African-American	.01	.12
Misreported no drug use in baseline six months	.42	.28
Misreported no drug use in baseline 30 days	.13	.22
Misreported no drug use in follow-up six months	-1.15***	.27
Misreported no drug use in follow-up 30 days	.08	.20
Primary marijuana user	.45**	.16

Table C.55 Prediction Equation for Number of Drugs Used
Portland (n=330)
(con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary heroin user	.69*	.28
Primary crack user	.23	.21
Primary non-crack cocaine user	.16	.24
Intercept	.20	
Adjusted R2	.30	
F-value	5.26***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.56
Prediction Equation for Ratio of Days Used/Days at Risk
Birmingham (n=359)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.05[a]	.03
Baseline ratio of days used/days at risk	.24[a]	.14
Group by baseline interaction	-.11	.09
Lifetime weeks in residential treatment	.00	.00
Arrested for violent crime	.01	.08
Arrested for property crime	-.01	.07
Arrested for drug crime	-.07	.08
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.00	.00
Drug use frequency in baseline six months (logged)	.04***	.01
Sex risk index for baseline six months (logged)	-.02	.02
Past month income	.01	.01
Any illegal income in baseline six months	.17***	.06
Age	-.00	.00
African-American	-.00	.03
Hispanic	No estimate; no Hispanic offenders in site	
Misreported no drug use in baseline six months	.12	.07
Misreported no drug use in baseline 30 days	-.02	.06
Misreported no drug use in follow-up six months	-.10	.07
Misreported no drug use in follow-up 30 days	-.04	.06
Primary marijuana user	.03	.05
Primary heroin user	-.21	.16
Primary crack user	-.05	.05
Primary non-crack cocaine user	.11	.11
Intercept	.25*	
Adjusted R2	.25	
F-value	6.05***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table C.57
Prediction Equation for Ratio of Days Used/Days at Risk
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.06	.07
Baseline ratio of days used/days at risk	.66***	.22
Group by baseline interaction	-.18	.14
Lifetime weeks in residential treatment	.00	.00
Arrested for violent crime	-.08	.10
Arrested for property crime	-.05	.08
Arrested for drug crime	.05	.08
Number of arrests before age 18	.01*	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.03***	.01
Drug use frequency in baseline six months (logged)	.06***	.02
Sex risk index for baseline six months (logged)	.03	.03
Past month income	.05	.03
Any illegal income in baseline six months	.19a	.10
Age	-.00	.00
African-American	.09	.07
Hispanic	-.44	.31
Misreported no drug use in baseline six months	.18	.21
Misreported no drug use in baseline 30 days	-.08	.14
Misreported no drug use in follow-up six months	.09	.21
Misreported no drug use in follow-up 30 days	-.25	.16
Primary marijuana user	.29***	.10
Primary heroin user	No estimate; no heroin users in this site	
Primary crack user	.34***	.12
Primary non-crack cocaine user	.04	.31
Intercept	.36a	
Adjusted R2	.32	
F-value	3.61***	

a p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.58
Prediction Equation for Ratio of Days Used/Days at Risk
Chicago (n= 380)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.00	.08
Baseline ratio of days used/days at risk	.53***	.16
Group by baseline interaction	-.22*	.10
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	.04	.11
Arrested for property crime	.01	.10
Arrested for drug crime	.05	.10
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.01	.01
Drug use frequency in baseline six months (logged)	.02	.02
Sex risk index for baseline six months (logged)	-.02	.03
Past month income	.05[a]	.03
Any illegal income in baseline six months	.15[a]	.08
Age	-.00	.00
African-American	.08	.07
Hispanic	.16	.12
Misreported no drug use in baseline six months	.09	.23
Misreported no drug use in baseline 30 days	-.01	.08
Misreported no drug use in follow-up six months	-.29**	.11
Misreported no drug use in follow-up 30 days	-.02	.07
Primary marijuana user	-.08	.10
Primary heroin user	-.03	.11
Primary crack user	-.08	.10
Primary non-crack cocaine user	-.08	.14
Intercept	.15	
Adjusted R2	.17	
F-value	4.13***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.59
Prediction Equation for Ratio of Days Used/Days at Risk
Orlando (n=396)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.03	.03
Baseline ratio of days used/days at risk	.27*	.12
Group by baseline interaction	.02	.08
Lifetime weeks in residential treatment	-.00	.00
Arrested for violent crime	-.05	.03
Arrested for property crime	.01	.03
Arrested for drug crime	.07	.04
Number of arrests before age 18	.01*	.00
Lifetime number of convictions	-.01***	.00
Age at first drug use	-.00	.01
Drug use frequency in baseline six months (logged)	.05***	.01
Sex risk index for baseline six months (logged)	.00	.01
Past month income	.04*	.02
Any illegal income in baseline six months	-.02	.04
Age	.02[a]	.01
African-American	.04	.03
Hispanic	-.04	.04
Misreported no drug use in baseline six months	.13	.10
Misreported no drug use in baseline 30 days	.06	.07
Misreported no drug use in follow-up six months	-.06	.09
Misreported no drug use in follow-up 30 days	-.07	.06
Primary marijuana user	-.07[a]	.04
Primary heroin user	No estimate; no heroin users in site	
Primary crack user	-.33*	.14
Primary non-crack cocaine user	-.35	.23
Intercept	-.28*	
Adjusted R2	.40	
F-value	11.81***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.60
Prediction Equation for Ratio of Days Used/Days at Risk
Portland (n=322)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.01	.03
Baseline ratio of days used/days at risk	.18	.18
Group by baseline interaction	-.06	.11
Lifetime weeks in residential treatment	.00***	.00
Arrested for violent crime	.02	.07
Arrested for property crime	.05	.06
Arrested for drug crime	.09	.06
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.00	.00
Age at first drug use	-.00	.00
Drug use frequency in baseline six months (logged)	.05***	.01
Sex risk index for baseline six months (logged)	.00	.02
Past month income	-.01	.02
Any illegal income in baseline six months	.07	.07
Age	.00	.00
African-American	-.00	.04
Hispanic	-.06	.10
Misreported no drug use in baseline six months	-.12	.10
Misreported no drug use in baseline 30 days	.13[a]	.08
Misreported no drug use in follow-up six months	.04	.09
Misreported no drug use in follow-up 30 days	-.14*	.07
Primary marijuana user	-.04	.05
Primary heroin user	-.04	.09
Primary crack user	-.08	.07
Primary non-crack cocaine user	-.13[a]	.08
Intercept	.02	
Adjusted R2	.22	
F-value	4.60***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table C.61
Prediction Equation for No Drug Use
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.03	.05
No drug use in baseline six months	.35***	.08
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.01*	.00
Lifetime weeks in outpatient treatment	-.00	.00
Any outpatient treatment	.04	.07
Arrested for violent crime	.07	.13
Arrested for property crime	-.01	.12
Arrested for drug crime	.10	.12
Times arrested before the age of 18	.00	.00
Lifetime number of convictions	-.00	.00
Number of drug crimes in baseline six months (logged)	-.01	.02
Number of property crimes in baseline six months (logged)	.01	.03
Age at first drug use	.01[a]	.01
Frequency of drug use in baseline six months (logged)	-.03*	.02
Frequency of sex while high in baseline six months	.00	.01
Any illegal income in baseline six months	-.10	.10
Highest grade completed	.02	.01
Misreported no drug use in baseline six months	-.30*	.12
Misreported no drug use in baseline 30 days	.04	.09
Misreported no drug use in follow-up six months	.81***	.12
Misreported no drug use in follow-up 30 days	-.25*	.10
Intercept	.08	
Adjusted R2	.34	
F-value	9.95***	

[a]p≥.10
*p≥.05
**p≥.01
***p≥.005

Table C.62
Prediction Equation for No Drug Use
Canton (n=134)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.06	.07
No drug use in baseline six months	.47***	.13
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.00[a]	.00
Lifetime weeks in outpatient treatment	-.00	.00
Any outpatient treatment	-.16[a]	.09
Arrested for violent crime	.18	.13
Arrested for property crime	.16	.11
Arrested for drug crime	-.01	.10
Times arrested before the age of 18	-.00	.00
Lifetime number of convictions	.00	.00
Number of drug crimes in baseline six months (logged)	-.02	.02
Number of property crimes in baseline six months (logged)	-.02	.03
Age at first drug use	.02*	.01
Frequency of drug use in baseline six months (logged)	.00	.03
Frequency of sex while high in baseline six months	-.02	.02
Any illegal income in baseline six months	-.03	.14
Highest grade completed	.01	.02
Misreported no drug use in baseline six months	-.32	.28
Misreported no drug use in baseline 30 days	-.04	.19
Misreported no drug use in follow-up six months	.82***	.27
Misreported no drug use in follow-up 30 days	-.32	.21
Intercept	-.21	
Adjusted R2	.32	
F-value	3.99***	

[a] $p \geq .10$
* $p \geq .05$
** $p \geq .01$
*** $p \geq .005$

Table C.63
Prediction Equation for No Drug Use
Chicago (n= 392)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.23***	.05
No drug use in baseline six months	.32**	.10
Group by baseline interaction	Not Applicable	
Lifetime weeks in residential treatment	.00	.00
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	-.02	.06
Arrested for violent crime	-.21[a]	.11
Arrested for property crime	-.08	.10
Arrested for drug crime	-.16[a]	.10
Times arrested before the age of 18	-.00	.00
Lifetime number of convictions	.00	.00
Number of drug crimes in baseline six months (logged)	.01	.01
Number of property crimes in baseline six months (logged)	.02	.01
Age at first drug use	-.00	.01
Frequency of drug use in baseline six months (logged)	-.00	.02
Frequency of sex while high in baseline six months	-.01	.01
Any illegal income in baseline six months	-.13[a]	.08
Highest grade completed	.02	.01
Misreported no drug use in baseline six months	-.19	.22
Misreported no drug use in baseline 30 days	.10	.08
Misreported no drug use in follow-up six months	.66***	.11
Misreported no drug use in follow-up 30 days	-.15	.07
Intercept	.03	
Adjusted R2	.26	
F-value	7.65***	

[a] p≥.10
* p≥.05
** p≥.01
*** p≥.005

Table C.64
Prediction Equation for No Drug Use
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.03	.04
No drug use in baseline six months	.16*	.07
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.00	.00
Lifetime weeks in outpatient treatment	-.00	.00
Any outpatient treatment	-.04	.13
Arrested for violent crime	.22***	.06
Arrested for property crime	.18***	.06
Arrested for drug crime	.12	.08
Times arrested before the age of 18	.00	.00
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.01	.02
Number of property crimes in baseline six months (logged)	-.03	.02
Age at first drug use	-.00	.01
Frequency of drug use in baseline six months (logged)	-.05***	.01
Frequency of sex while high in baseline six months	-.00	.02
Any illegal income in baseline six months	.11	.07
Highest grade completed	-.01	.04
Misreported no drug use in baseline six months	-.45*	.18
Misreported no drug use in baseline 30 days	-.10	.12
Misreported no drug use in follow-up six months	.80***	.16
Misreported no drug use in follow-up 30 days	-.30	.11
Intercept	.33[a]	
Adjusted R2	.25	
F-value	7.71***	

[a] $p \geq .10$
* $p \geq .05$
** $p \geq .01$
*** $p \geq .005$

Table C.65
Prediction Equation for No Drug Use
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.02	.05
No drug use in baseline six months	.32***	.08
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.00	.00
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	.01	.05
Arrested for violent crime	-.06	.10
Arrested for property crime	-.10	.08
Arrested for drug crime	-.12	.09
Times arrested before the age of 18	-.00	.00
Lifetime number of convictions	-.00	.00
Number of drug crimes in baseline six months (logged)	.02	.02
Number of property crimes in baseline six months (logged)	.04	.02
Age at first drug use	.01	.01
Frequency of drug use in baseline six months (logged)	-.03	.02
Frequency of sex while high in baseline six months	-.03*	.01
Any illegal income in baseline six months	-.12	.10
Highest grade completed	-.02	.01
Misreported no drug use in baseline six months	-.27*	.13
Misreported no drug use in baseline 30 days	-.03	.10
Misreported no drug use in follow-up six months	.62***	.14
Misreported no drug use in follow-up 30 days	-.21*	.10
Intercept	.41**	
Adjusted R2	.23	
F-value	5.57***	

^{a}p≥.10
*p≥.05
**p≥.01
***p≥.005

Appendix D

Prediction Equations for Crime

Primary Outcome Analyses

Number of Incarceration Days

Tables D.1 through D.5 show final regression results for all covariates as well as the baseline number of incarceration days and group assignment (the interaction between baseline incarceration days and group assignment was not included in these models). Findings in Table 7.2 were drawn from these tables.

Number of Property Crimes

Tables D.6 through D.10 show final regression results for all covariates as well as the baseline number of property crimes, group assignment, and the interaction of the two. Findings in Table 7.3 were drawn from these tables.

Number of Violent Crimes

Tables D.11 through D.15 show final regression results for all covariates as well as the baseline number of violent crimes and the interaction of the two. Due to the small numbers of violent crimes committed in all sites except Orlando, we did not present summaries of these findings in the text. We present them in this appendix for the interested reader, but we caution that they may be unreliable because the frequency of occurrence was so low.

Number of Drug Crimes

Tables D.16 through D.20 show final regression results for all covariates as well as baseline number of drug crimes, group assignment, and the interaction of the two. Findings in Table 7.4 are drawn from these tables.

Supplemental Outcome Analyses

Number of Incarceration Days

Tables D.21 though D.25 report regression analyses to determine whether the number of incarceration days showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 7.

Tables D.41 through D.45 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 7.

Number of Property Crimes

Tables D.26 through D.30 report regression analyses to determine whether the number of property crimes showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter7.

Tables D.46 through D.50 report results of regressions in which dummy variables for primary drug use were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 7.

Number of Violent Crimes

Tables D.31 through D.35 report regression analyses to determine whether the number of violent crimes showed significantly greater reductions for TASC offenders who received services than for those who did not.

Tables D.51 though D.55 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses.

Number of Drug Crimes

Tables D.36 through D.40 report regression analyses to determine whether the number of drug crimes showed significantly greater reductions for TASC offenders who received services than for those who did not. Results are reported in Chapter 7.

Tables C.56 though C.60 report results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome analyses. Results are reported in Chapter 7.

Any Property Crime

Tables D.61 through D.65 present the results from logistic regression models in which any property crime (yes or no) during the follow-up period was regressed on the variables included in the model for number of property crimes. Results are discussed in Chapter 7.

Any Drug Crime

Tables D.66 through D.70 present the results from logistic regression models in which any drug crime (yes or no) during the follow-up period was regressed on the variables included in the model for number of drug crimes. Results are discussed in Chapter 7.

Any Crime

Tables D.71 through D.75 present the results from logistic regression models in which any drug, violent, or property crime (yes or no) during the follow-up period was regressed on the variables included in the model for number of drug crimes. Results are discussed in Chapter 7.

Any Arrest

Tables D.76 through D.80 present results from logistic regression models in which any arrest recorded in official records (yes or no) was regressed on covariates. Results are discussed in Chapter 7.

Any Technical Violation

Tables D.81 through D.85 present results from logistic regression models in which any technical violation recorded in official records (yes or no) was regressed on covariates. Results are discussed in Chapter 7.

Prediction Equation for Number of Incarceration Days
Birmingham (n=359)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	11.03	6.23
Baseline number of incarceration days	-.12	.09
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.90*	.36
Any residential treatment	11.90	8.20
Any prison/jail treatment	29.79[a]	17.61
Arrested for violent crime	22.05	17.65
Arrested for property crime	9.23	16.23
Arrested for drug crime	17.20	16.75
Lifetime number of convictions	.36	.38
Arrested in baseline six months	-7.48	7.86
Number of violent crimes in baseline six months (logged)	7.39	7.20
Number of property crimes in baseline six months (logged)	3.96	3.92
Incarcerated in baseline six months	18.40*	7.86
Age at first drug use	-.01	.97
Frequency of drug use in baseline six months (logged)	.17	.47
Frequency of unprotected sex in baseline six months	3.30[a]	1.83
Sex risk index for baseline six months (logged)	-5.09	4.06
Used a condom in baseline six months	5.52	8.03
Living in own place in baseline six months	-7.95	7.12
Days lived at current address in baseline six months	.00*	.00
Employed in baseline six months	6.18	6.27
Any illegal income in baseline six months	-2.51	12.14
Age	.53	.40
Male	-6.05	7.23
Highest grade completed	-2.79	1.85
African-American	13.00[a]	6.94
Hispanic	No estimate; no Hispanics in this site.	
Misreported no drug use in baseline six months	-9.90	15.51
Misreported no drug use in baseline 30 days	-3.39	12.14
Misreported no drug use in follow-up six months	1.37	15.43
Misreported no drug use in follow-up 30 days	-12.85	13.36
Intercept	-40.39	
Adjusted R2	.11	
F-value	2.49**	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Prediction Equation for Number of Incarceration Days
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	4.80	9.96
Baseline number of incarceration days	.45***	.12
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.27	.51
Any residential treatment	5.63	12.41
Any prison/jail treatment	19.69	23.41
Arrested for violent crime	34.39[a]	19.45
Arrested for property crime	24.55	16.55
Arrested for drug crime	-4.93	15.99
Lifetime number of convictions	.04	.13
Arrested in baseline six months	11.64	14.37
Number of violent crimes in baseline six months (logged)	8.82	12.06
Number of property crimes in baseline six months (logged)	.75	5.01
Incarcerated in baseline six months	-.77	12.56
Age at first drug use	3.11*	1.56
Frequency of drug use in baseline six months (logged)	1.48	2.47
Frequency of unprotected sex in baseline six months	7.03*	3.29
Sex risk index for baseline six months (logged)	-11.36[a]	6.72
Used a condom in baseline six months	16.81	15.34
Living in own place in baseline six months	-8.57	11.87
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-13.75	13.57
Any illegal income in baseline six months	1.18	22.19
Age	-.61	.75
Male	-9.96	12.56
Highest grade completed	-1.87	3.93
African-American	9.09	11.81
Hispanic	12.29	65.37
Misreported no drug use in baseline six months	15.27	38.99
Misreported no drug use in baseline 30 days	-2.77	27.30
Misreported no drug use in follow-up six months	-1.01	40.17
Misreported no drug use in follow-up 30 days	-14.02	30.09
Intercept	-28.09	38.42
Adjusted R2	.26	
F-value	2.46***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.3
Prediction Equation for Number of Incarceration Days
Chicago (n=380)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	3.79	7.42
Baseline number of incarceration days	.10	.07
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.49	.48
Any residential treatment	-2.52	8.63
Any prison/jail treatment	-.99	10.90
Arrested for violent crime	-3.79	17.09
Arrested for property crime	-.02	14.88
Arrested for drug crime	-11.60	14.84
Lifetime number of convictions	.94***	.30
Arrested in baseline six months	-4.64	7.47
Number of violent crimes in baseline six months (logged)	9.88*	4.34
Number of property crimes in baseline six months (logged)	1.92	2.23
Incarcerated in baseline six months	20.98[a]	11.12
Age at first drug use	.77	.94
Frequency of drug use in baseline six months (logged)	1.46	1.95
Frequency of unprotected sex in baseline six months	1.16	2.10
Sex risk index for baseline six months (logged)	-6.44	4.81
Used a condom in baseline six months	16.67[a]	8.97
Living in own place in baseline six months	-1.34	7.60
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-24.63***	8.46
Any illegal income in baseline six months	30.98***	10.96
Age	-1.51***	.46
Male	-16.70[a]	8.81
Highest grade completed	.05	1.98
African-American	6.14	10.29
Hispanic	-4.50	18.09
Misreported no drug use in baseline six months	-40.36	31.85
Misreported no drug use in baseline 30 days	9.64	11.51
Misreported no drug use in follow-up six months	-.53	15.71
Misreported no drug use in follow-up 30 days	2.46	10.54
Intercept	56.46	
Adjusted R2	.15	
F-value	3.21***	

[a] $p \le .10$
*$p \le .05$
**$p \le .01$
***$p \le .005$

Table D.4
Prediction Equation for Number of Incarceration Days
Orlando (n=396)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-5.89	4.44
Baseline number of incarceration days	.41***	.09
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.14	.22
Any residential treatment	8.57	7.98
Any prison/jail treatment	65.84[a]	29.70
Arrested for violent crime	-.41	6.22
Arrested for property crime	-3.06	6.38
Arrested for drug crime	-6.20	7.87
Lifetime number of convictions	1.09*	.53
Arrested in baseline six months	5.68	4.87
Number of violent crimes in baseline six months (logged)	-2.83	2.47
Number of property crimes in baseline six months (logged)	-.53	2.10
Incarcerated in baseline six months	6.13	6.05
Age at first drug use	-2.30*	1.14
Frequency of drug use in baseline six months (logged)	2.50*	1.15
Frequency of unprotected sex in baseline six months	-2.08	1.51
Sex risk index for baseline six months (logged)	-1.24	3.26
Used a condom in baseline six months	-1.24	5.36
Living in own place in baseline six months	-12.26*	5.16
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-6.07	6.56
Any illegal income in baseline six months	15.55*	6.56
Age	1.42	1.89
Male	-9.93[a]	5.26
Highest grade completed	-1.39	4.32
African-American	19.06***	5.24
Hispanic	9.22	7.26
Misreported no drug use in baseline six months	15.73	18.61
Misreported no drug use in baseline 30 days	-10.81	11.88
Misreported no drug use in follow-up six months	-2.43	15.69
Misreported no drug use in follow-up 30 days	1.24	10.84
Intercept		
Adjusted R2	.25	
F-value	5.35***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.5
Prediction Equation for Number of Incarceration Days
Portland (n=322)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	5.47	5.12
Baseline number of incarceration days	.03	.06
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.00	.24
Any residential treatment	-.49	6.78
Any prison/jail treatment	-.72	9.67
Arrested for violent crime	3.59	11.58
Arrested for property crime	12.54	10.04
Arrested for drug crime	1.83	10.12
Lifetime number of convictions	.36	.24
Arrested in baseline six months	-14.14	8.68
Number of violent crimes in baseline six months (logged)	-9.38	10.48
Number of property crimes in baseline six months (logged)	5.17[a]	2.95
Incarcerated in baseline six months	8.18	8.36
Age at first drug use	-.63	.69
Frequency of drug use in baseline six months (logged)	1.66	1.34
Frequency of unprotected sex in baseline six months	1.12	1.61
Sex risk index for baseline six months (logged)	.69	3.62
Used a condom in baseline six months	-4.78	7.48
Living in own place in baseline six months	-12.22*	6.01
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-7.97	5.95
Any illegal income in baseline six months	8.57	11.28
Age	.13	.42
Male	-13.86*	6.67
Highest grade completed	-3.15[a]	1.66
African-American	4.49	6.29
Hispanic	19.53	16.13
Misreported no drug use in baseline six months	-5.83	14.36
Misreported no drug use in baseline 30 days	-.21	11.46
Misreported no drug use in follow-up six months	11.83	14.92
Misreported no drug use in follow-up 30 days	-5.92	11.20
Intercept	30.74	
Adjusted R2	.07	
F-value	1.80**	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.6
Prediction Equation for Number of Property Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.02	.06
Baseline number of property crimes (logged)	.48***	.11
Group by baseline interaction	-.21***	.06
Lifetime weeks in residential treatment	.00	.00
Any residential treatment	.06	.07
Any prison/jail treatment	-.02	.16
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.22	.15
Arrested for property crime	.29*	.14
Arrested for drug crime	.21	.15
Number of arrests before age 18	-.02***	.01
Lifetime number of convictions	.02***	.00
Number of violent crimes in baseline six months (logged)	.00	.06
Number of drug crimes in baseline six months (logged)	.04	.02
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.05	.04
Number of people with whom had unprotected sex in baseline six months (logged)	.08	.06
Sex for money/drugs during baseline six months	-.03	.11
Sex with injection drug user during baseline six months	.40[a]	.23
Married	.11	.07
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.06	.05
Any illegal income in baseline six months	.25*	.11
Age	-.00	.00
African-American	.13*	.06
Hispanic	No estimate; no Hispanics at this site.	
Misreported no drug use in baseline six months	.19	.13
Misreported no drug use in baseline 30 days	.02	.10
Misreported no drug use in follow-up six months	-.06	.13
Misreported no drug use in follow-up 30 days	.02	.12
Intercept	-.38[a]	
Adjusted R2	.24	
F-value	4.87	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.7
Prediction Equation for Number of Property Crimes (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.15	.16
Baseline number of property crimes (logged)	-.09	.18
Group by baseline interaction	.18	.11
Lifetime weeks in residential treatment	.01[a]	.01
Any residential treatment	.22	.18
Any prison/jail treatment	.44	.32
Lifetime weeks in outpatient treatment	-.00	.01
Arrested for violent crime	-.15	.28
Arrested for property crime	.18	.22
Arrested for drug crime	.25	.21
Number of arrests before age 18	-.00	.01
Lifetime number of convictions	-.00	.00
Number of violent crimes in baseline six months (logged)	.57***	.18
Number of drug crimes in baseline six months (logged)	-.14**	.05
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	-.14	.10
Number of people with whom had unprotected sex in baseline six months (logged)	.38*	.18
Sex for money/drugs during baseline six months	.51[a]	.26
Sex with injection drug user during baseline six months	.59	.38
Married	-.13	.23
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.20	.17
Any illegal income in baseline six months	.27	.32
Age	.00	.01
African-American	.07	.17
Hispanic	-1.13	.87
Misreported no drug use in baseline six months	-.67	.52
Misreported no drug use in baseline 30 days	.49	.39
Misreported no drug use in follow-up six months	-.10	.57
Misreported no drug use in follow-up 30 days	.33	.43
Intercept	-.07	
Adjusted R2	.22	
F-value	2.19***	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.8
Prediction Equation for Number of Property Crimes (logged)
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.26[a]	.16
Baseline number of property crimes (logged)	.65***	.13
Group by baseline interaction	-.32***	.08
Lifetime weeks in residential treatment	-.00	.01
Any residential treatment	.29[a]	.17
Any prison/jail treatment	.08	.22
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	.15	.34
Arrested for property crime	.17	.30
Arrested for drug crime	.09	.29
Number of arrests before age 18	.01	.01
Lifetime number of convictions	.00	.01
Number of violent crimes in baseline six months (logged)	-.00	.09
Number of drug crimes in baseline six months (logged)	-.03	.03
Number of drug use days in baseline six months (logged)	.00***	.00
Sex risk index for baseline six months (logged)	-.14	.09
Number of people with whom had unprotected sex in baseline six months (logged)	-.15	.16
Sex for money/drugs during baseline six months	.41	.26
Sex with injection drug user during baseline six months	1.75*	.87
Married	-.34[a]	.20
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-.13	.16
Any illegal income in baseline six months	.73***	.23
Age	-.01	.01
African-American	.16	.21
Hispanic	-.02	.36
Misreported no drug use in baseline six months	-.49	.65
Misreported no drug use in baseline 30 days	.05	.23
Misreported no drug use in follow-up six months	-.16	.32
Misreported no drug use in follow-up 30 days	-.31	.21
Intercept	-.11	
Adjusted R2	.18	
F-value	3.83***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.9
Prediction Equation for Number of Property Crimes (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.05	.12
Baseline number of property crimes (logged)	.48***	.12
Group by baseline interaction	-.13[a]	.08
Lifetime weeks in residential treatment	-.00	.00
Any residential treatment	-.08	.18
Any prison/jail treatment	.40	.70
Lifetime weeks in outpatient treatment	.03	.14
Arrested for violent crime	.11	.14
Arrested for property crime	-.02	.18
Arrested for drug crime	.03***	.0
Number of arrests before age 18	-.01	.02
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline six months (logged)	-.01	.06
Number of drug crimes in baseline six months (logged)	-.04	.04
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	.11	.07
Number of people with whom had unprotected sex in baseline six months (logged)	-.08	.10
Sex for money/drugs during baseline six months	.00	.65
Sex with injection drug user during baseline six months	No estimate; no offenders with sex with injection drug users at this site.	
Married	-.33	.45
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.07	.15
Any illegal income in baseline six months	-.03	.17
Age	-.02	.04
African-American	-.12	.12
Hispanic	.22	.17
Misreported no drug use in baseline six months	-.22	.42
Misreported no drug use in baseline 30 days	-.04	.28
Misreported no drug use in follow-up six months	.08	.36
Misreported no drug use in follow-up 30 days	-.09	.25
Intercept	.41	
Adjusted R2	.14	
F-value	3.44***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table D.10
Prediction Equation for Number of Property Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.04	.11
Baseline number of property crimes (logged)	.77***	.17
Group by baseline interaction	-.35***	.10
Lifetime weeks in residential treatment	.01	.01
Any residential treatment	.05	.14
Any prison/jail treatment	.59***	.20
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.14	.24
Arrested for property crime	.06	.20
Arrested for drug crime	-.03	.21
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	.01*	.01
Number of violent crimes in baseline six months (logged)	.33	.22
Number of drug crimes in baseline six months (logged)	-.04	.05
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.03	.08
Number of people with whom had unprotected sex in baseline six months (logged)	.25[a]	.15
Sex for money/drugs during baseline six months	-.17	.39
Sex with injection drug user during baseline six months	-.02	.22
Married	.07	.18
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.27*	.12
Any illegal income in baseline six months	.30	.25
Age	.00	.01
African-American	-.13	.13
Hispanic	-.42	.35
Misreported no drug use in baseline six months	-.58[a]	.30
Misreported no drug use in baseline 30 days	.53*	.23
Misreported no drug use in follow-up six months	-.61[a]	.32
Misreported no drug use in follow-up 30 days	.26	.24
Intercept	-.01	
Adjusted R2	.19	
F-value	3.64***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table D.11
Prediction Equation for Number of Violent Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.00	.03
Baseline number of violent crimes (logged)	.49***	.14
Group by baseline interaction	-.24***	.08
Any residential treatment	-.03	.04
Arrested for violent crime	-.11	.09
Arrested for property crime	-.04	.09
Arrested for drug crime	-.10	.09
Number of arrests before age 18	.01*	.00
Arrested in baseline six months	-.05	.04
Number of property crimes in baseline six months (logged)	.00	.02
Number of drug crimes in baseline six months (logged)	.03*	.01
Number of incarceration days in baseline six months	.00*	.00
Ever used crack/other cocaine	-.05	.04
Age at first drug use	-.00	.00
Frequency of drug use in baseline six months (logged)	.02*	.01
Sex for money/drugs during baseline six months	.03	.06
Sex with injection drug user during baseline six months	.04	.13
Used a condom in baseline six months	-.00	.03
Days lived at current address in baseline six months	.00*	.00
Employed in baseline six months	-.06*	.03
Age	.00	.00
Highest grade completed	-.00	.00
Misreported no drug use in baseline six months	-.05	.08
Misreported no drug use in baseline 30 days	.02	.06
Misreported no drug use in follow-up six months	.04	.08
Misreported no drug use in follow-up 30 days	.04	.07
Intercept	.07	
Adjusted R2	.11	
F-value	2.79***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.13
Prediction Equation for Number of Violent Crimes (logged)
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.17	.13
Baseline number of violent crimes (logged)	.15	.33
Group by baseline interaction	-.13	.18
Any residential treatment	.13	.13
Arrested for violent crime	.25	.29
Arrested for property crime	.33	.26
Arrested for drug crime	.30	.26
Number of arrests before age 18	.01	.00
Arrested in baseline six months	.01	.12
Number of property crimes in baseline six months (logged)	-.00	.04
Number of drug crimes in baseline six months (logged)	.07*	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	-.14	.14
Age at first drug use	-.01	.02
Frequency of drug use in baseline six months (logged)	.05	.03
Sex for money/drugs during baseline six months	.11	.20
Sex with injection drug user during baseline six months	-.02	.76
Used a condom in baseline six months	.16	.12
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.06	.15
Age	-.03***	.01
Highest grade completed	-.04	.03
Misreported no drug use in baseline six months	.00	.56
Misreported no drug use in baseline 30 days	-.27	.20
Misreported no drug use in follow-up six months	.21	.27
Misreported no drug use in follow-up 30 days	-.18	.18
Intercept	.65	
Adjusted R2	.07	
F-value	2.07***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.14
Prediction Equation for Number of Violent Crimes (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.04	.12
Baseline number of violent crimes (logged)	.45***	.14
Group by baseline interaction	-.13	.09
Any residential treatment	-.02	.15
Arrested for violent crime	.14	.13
Arrested for property crime	.09	.13
Arrested for drug crime	.04	.16
Number of arrests before age 18	.02**	.01
Arrested in baseline six months	-.09	.10
Number of property crimes in baseline six months (logged)	-.05	.04
Number of drug crimes in baseline six months (logged)	-.01	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	.23	.23
Age at first drug use	-.04[a]	.02
Frequency of drug use in baseline six months (logged)	.00	.02
Sex for money/drugs during baseline six months	-.27	.55
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users at this site.	
Used a condom in baseline six months	.14	.09
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.20	.14
Age	-.03	.04
Highest grade completed	.09	.09
Misreported no drug use in baseline six months	.08	.38
Misreported no drug use in baseline 30 days	-.04	.25
Misreported no drug use in follow-up six months	-.58[a]	.33
Misreported no drug use in follow-up 30 days	.14	.22
Intercept	1.16[a]	
Adjusted R2	.11	
F-value	3.13***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.15
Prediction Equation for Number of Violent Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.04	.04
Baseline number of violent crimes (logged)	1.70***	.30
Group by baseline interaction	-.76***	.17
Any residential treatment	.05	.04
Arrested for violent crime	-.02	.08
Arrested for property crime	-.10	.07
Arrested for drug crime	-.10	.08
Number of arrests before age 18	.00	.00
Arrested in baseline six months	-.07	.07
Number of property crimes in baseline six months (logged)	-.02	.02
Number of drug crimes in baseline six months (logged)	-.02	.02
Number of incarceration days in baseline six months	.00*	.00
Ever used crack/other cocaine	.00	.04
Age at first drug use	.01	.01
Frequency of drug use in baseline six months (logged)	.02	.01
Sex for money/drugs during baseline six months	-.07	.14
Sex with injection drug user during baseline six months	.18*	.07
Used a condom in baseline six months	-.03	.04
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.02	.04
Age	-.01**	.00
Highest grade completed	.01	.01
Misreported no drug use in baseline six months	-.03	.11
Misreported no drug use in baseline 30 days	.02	.09
Misreported no drug use in follow-up six months	-.16	.12
Misreported no drug use in follow-up 30 days	.10	.09
Intercept	.13	
Adjusted R2	.14	
F-value	3.09***	

a p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.16
Prediction Equation for Number of Drug Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.19[a]	.12
Baseline number of drug crimes (logged)	.35**	.12
Group by baseline interaction	-.10	.08
Any residential treatment	-.17	.15
Any prison/jail treatment	.74*	.34
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	-.27	.18
Arrested for violent crime	.12	.33
Arrested for property crime	.22	.30
Arrested for drug crime	-.05	.31
Lifetime number of convictions	-.01	.01
Arrested in baseline six months	-.12	.13
Number of violent crimes in baseline six months (logged)	.21[a]	.13
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.01	.02
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.01	.03
Sex with injection drug user during baseline six months	-.38	.48
Past month income	-.10	.06
Any illegal income in baseline six months	.59*	.24
Age	.00	.01
Male	-.15	.14
Misreported no drug use in baseline six months	.10	.28
Misreported no drug use in baseline 30 days	.03	.22
Misreported no drug use in follow-up six months	-.09	.29
Misreported no drug use in follow-up 30 days	-.17	.25
Intercept	.75	
Adjusted R2	.16	
F-value	3.76***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.17
Prediction Equation for Number of Drug Crimes (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.13	.21
Baseline number of drug crimes (logged)	.11	.19
Group by baseline interaction	-.02	.11
Any residential treatment	.08	.19
Any prison/jail treatment	.25	.38
Lifetime weeks in outpatient treatment	-.00	.00
Any outpatient treatment	-.07	.22
Arrested for violent crime	.02	.36
Arrested for property crime	-.28	.30
Arrested for drug crime	.10	.28
Lifetime number of convictions	-.00	.00
Arrested in baseline six months	-.15	.24
Number of violent crimes in baseline six months (logged)	-.07	.21
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	-.04	.03
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.08	.05
Sex with injection drug user during baseline six months	1.51***	.46
Past month income	.07	.09
Any illegal income in baseline six months	.46	.34
Age	-.01	.01
Male	-.37[a]	.21
Misreported no drug use in baseline six months	-.21	.68
Misreported no drug use in baseline 30 days	.22	.48
Misreported no drug use in follow-up six months	-.09	.68
Misreported no drug use in follow-up 30 days	-.33	.53
Intercept	1.37[a]	
Adjusted R2	.05	
F-value	1.29	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.18
Prediction Equation for Number of Drug Crimes (logged)
Chicago, fewer than three prior convictions=yes (n=244)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.16	.24
Baseline number of drug crimes (logged)	-.06	.13
Group by baseline interaction	.12	.09
Any residential treatment	.14	.22
Any prison/jail treatment	-.27	.37
Lifetime weeks in outpatient treatment	-.01	.01
Any outpatient treatment	.19	.30
Arrested for violent crime	-.03	.57
Arrested for property crime	-.29	.52
Arrested for drug crime	-.21	.51
Arrested in baseline six months	.12	.21
Number of violent crimes in baseline six months (logged)	-.19	.19
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	.00	.03
Days drugs used in baseline six months (logged)	.00[a]	.00
Frequency of sex while high during baseline six months	-.00	.05
Sex with injection drug user during baseline six months	.87	1.53
Past month income	.16	.11
Any illegal income in baseline six months	.75*	.38
Age	-.05***	.02
Male	-.19	.23
Misreported no drug use in baseline six months	-.85	1.46
Misreported no drug use in baseline 30 days	-.23	.36
Misreported no drug use in follow-up six months	-.92*	.46
Misreported no drug use in follow-up 30 days	.28	.30
Intercept	2.20*	
Adjusted R2	.13	
F-value	2.43***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.18
Prediction Equation for Number of Drug Crimes (logged)
Chicago, fewer than three prior convictions=no (n=146)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.09*	.42
Baseline number of drug crimes (logged)	.97**	.30
Group by baseline interaction	-.48***	.17
Any residential treatment	.41	.27
Any prison/jail treatment	.12	.36
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	.10	.39
Arrested for violent crime	.34	.53
Arrested for property crime	.95	.46
Arrested for drug crime	.63	.47
Arrested in baseline six months	-.10	.26
Number of violent crimes in baseline six months (logged)	-.20	.12
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	-.07	.04
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.13*	.07
Sex with injection drug user during baseline six months	5.21***	1.43
Past month income	.26	.17
Any illegal income in baseline six months	-.49	.50
Age	-.07***	.02
Male	-.74	.46
Misreported no drug use in baseline six months	-.62	.92
Misreported no drug use in baseline 30 days	.74[a]	.44
Misreported no drug use in follow-up six months	-2.42***	.67
Misreported no drug use in follow-up 30 days	1.52***	.48
Intercept	5.58***	
Adjusted R2	.28	
F-value	3.25***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.19
Prediction Equation for Number of Drug Crimes (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.15	.20
Baseline number of drug crimes (logged)	.26[a]	.15
Group by baseline interaction	-.00	.09
Any residential treatment	-.28	.29
Any prison/jail treatment	.47	1.24
Lifetime weeks in outpatient treatment	-.04*	.02
Any outpatient treatment	.20	.54
Arrested for violent crime	.03	.25
Arrested for property crime	.02	.25
Arrested for drug crime	.51	.32
Lifetime number of convictions	.02	.02
Arrested in baseline six months	-.23	.19
Number of violent crimes in baseline six months (logged)	.21*	.09
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-1.0*	.05
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.24**	.09
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users at this site	
Past month income	.19	.14
Any illegal income in baseline six months	.30	.31
Age	.05	.07
Male	-.50*	.20
Misreported no drug use in baseline six months	1.14	.74
Misreported no drug use in baseline 30 days	.80	.49
Misreported no drug use in follow-up six months	-.27	.64
Misreported no drug use in follow-up 30 days	-.35	.44
Intercept	1.00	
Adjusted R2	.27	
F-value	7.12***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.20
Prediction Equation for Number of Drug Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.13	.16
Baseline number of drug crimes (logged)	.60**	.21
Group by baseline interaction	-.29*	.12
Any residential treatment	.47**	.17
Any prison/jail treatment	.03	.29
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	.08	.18
Arrested for violent crime	-.02	.34
Arrested for property crime	.40	.29
Arrested for drug crime	.59*	.30
Lifetime number of convictions	.02*	.01
Arrested in baseline six months	-.03	.23
Number of violent crimes in baseline six months (logged)	-.00	.32
Number of incarceration days in baseline six months	.00***	.00
Age at first drug use	-.04*	.02
Days drugs used in baseline six months (logged)	.00*	.00
Frequency of sex while high during baseline six months	.00	.05
Sex with injection drug user during baseline six months	.08	.30
Past month income	-.05	.09
Any illegal income in baseline six months	.62[a]	.35
Age	.01	.01
Male	.12	.20
Misreported no drug use in baseline six months	-.39	.43
Misreported no drug use in baseline 30 days	.42	.33
Misreported no drug use in follow-up six months	-.08	.46
Misreported no drug use in follow-up 30 days	-.48	.34
Intercept	-.51	
Adjusted R2	.14	
F-value	3.09***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.21
Prediction Equation for Number of Incarceration Days
Birmingham TASC group(n=194)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of incarceration days	17.28[a]	9.75
Lifetime weeks in residential treatment	.42	.59
Any residential treatment	10.49	13.79
Any prison/jail treatment	54.07*	23.34
Arrested for violent crime	15.62	30.60
Arrested for property crime	-6.30	28.48
Arrested for drug crime	15.03	28.92
Lifetime number of convictions	.50	.53
Arrested in baseline six months	1.63	12.21
Number of violent crimes in baseline six months (logged)	12.76	10.10
Number of property crimes in baseline six months (logged)	2.11	5.75
Incarcerated in baseline six months	18.36	12.22
Age at first drug use	.39	1.41
Frequency of drug use in baseline six months (logged)	-1.11	2.46
Frequency of unprotected sex in baseline six months	5.89a	3.15
Sex risk index for baseline six months (logged)	-6.96	7.10
Used a condom in baseline six months	3.77	12.70
Living in own place in baseline six months	-5.49	11.85
Days lived at current address in baseline six months	.00[a]	.00
Employed in baseline six months	9.26	10.12
Any illegal income in baseline six months	-17.89	22.67
Age	.56	.64
Male	-6.90	11.33
Highest grade completed	-3.16	2.84
African-American	12.92	10.92
Hispanic	No estimate; no Hispanics in this site	
Misreported no drug use in baseline six months	-23.03	26.78
Misreported no drug use in baseline 30 days	7.13	18.55
Misreported no drug use in follow-up six months	-12.97	26.05
Misreported no drug use in follow-up 30 days	-4.07	24.27
Any treatment service	18.48	36.83
Baseline by any service interaction	-17.11[a]	9.74
Intercept	-43.32	
Adjusted R2	.07	
F-value	1.45[a]	.

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of incarceration days	1.11***	.31
Lifetime weeks in residential treatment	.30	.59
Any residential treatment	15.79	17.69
Any prison/jail treatment	29.90	32.43
Arrested for violent crime	-12.24	26.75
Arrested for property crime	4.69	22.93
Arrested for drug crime	-16.70	23.34
Lifetime number of convictions	.10	.20
Arrested in baseline six months	25.63	17.72
Number of violent crimes in baseline six months (logged)	-27.93[a]	15.15
Number of property crimes in baseline six months (logged)	-.82	7.69
Incarcerated in baseline six months	9.48	18.16
Age at first drug use	7.28***	2.46
Frequency of drug use in baseline six months (logged)	1.47	3.45
Frequency of unprotected sex in baseline six months	4.39	4.75
Sex risk index for baseline six months (logged)	-12.38	8.45
Used a condom in baseline six months	.39	24.97
Living in own place in baseline six months	-9.79	15.94
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-12.25	17.96
Any illegal income in baseline six months	-7.68	31.20
Age	-1.62	1.35
Male	-15.82	17.86
Highest grade completed	-6.68	6.45
African-American	-14.33	16.27
Hispanic	87.39	71.12
Misreported no drug use in baseline six months	-25.63	55.31
Misreported no drug use in baseline 30 days	58.64	39.38
Misreported no drug use in follow-up six months	-7.46	49.28
Misreported no drug use in follow-up 30 days	-6.00	38.99
Any treatment service	8.97	19.91
Baseline by any service interaction	-1.02*	.39
Intercept	-10.01	
Adjusted R2	.36	
F-value	2.37***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Prediction Equation for Number of Incarceration Days
Chicago TASC Group(n=226)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of incarceration days	.27[a]	.15
Lifetime weeks in residential treatment	.64	.57
Any residential treatment	-7.66	12.19
Any prison/jail treatment	-11.58	13.84
Arrested for violent crime	-5.28	21.60
Arrested for property crime	6.94	18.72
Arrested for drug crime	-9.26	19.16
Lifetime number of convictions	1.06***	.34
Arrested in baseline six months	13.69	10.88
Number of violent crimes in baseline six months (logged)	14.11*	5.60
Number of property crimes in baseline six months (logged)	.16	3.23
Incarcerated in baseline six months	16.21	16.70
Age at first drug use	-.41	1.52
Frequency of drug use in baseline six months (logged)	-2.85	2.65
Frequency of unprotected sex in baseline six months	4.20	3.08
Sex risk index for baseline six months (logged)	-10.44	6.93
Used a condom in baseline six months	24.01[a]	12.82
Living in own place in baseline six months	-7.03	11.53
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-41.14***	13.58
Any illegal income in baseline six months	35.39*	16.51
Age	-2.12***	.71
Male	-38.99**	14.52
Highest grade completed	1.65	2.84
African-American	1.71	12.91
Hispanic	-4.67	26.27
Misreported no drug use in baseline six months	-50.27	68.41
Misreported no drug use in baseline 30 days	21.36	16.14
Misreported no drug use in follow-up six months	-3.07	23.62
Misreported no drug use in follow-up 30 days	6.37	17.46
Any treatment service	-8.49	14.99
Baseline by any service interaction	-.30[a]	.15
Intercept	144.54***	
Adjusted R2	.20	
F-value	2.78***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Prediction Equation for Number of Incarceration Days
Orlando TASC group(n=208)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of incarceration days	.50***	.15
Lifetime weeks in residential treatment	-.30	.39
Any residential treatment	-1.20	8.92
Any prison/jail treatment	104.85*	40.88
Arrested for violent crime	-4.05	8.53
Arrested for property crime	-14.97[a]	8.87
Arrested for drug crime	-11.60	9.87
Lifetime number of convictions	2.39***	.82
Arrested in baseline six months	6.02	6.83
Number of violent crimes in baseline six months (logged)	-6.60*	3.23
Number of property crimes in baseline six months (logged)	3.14	2.93
Incarcerated in baseline six months	.37	8.11
Age at first drug use	-2.34	1.49
Frequency of drug use in baseline six months (logged)	1.48	1.48
Frequency of unprotected sex in baseline six months	-2.98	2.06
Sex risk index for baseline six months (logged)	8.47[a]	4.39
Used a condom in baseline six months	-8.92	7.15
Living in own place in baseline six months	-12.70*	6.32
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-5.99	8.76
Any illegal income in baseline six months	21.58*	9.09
Age	-.19	2.33
Male	-7.91	6.64
Highest grade completed	3.73	5.57
African-American	13.74*	6.66
Hispanic	13.63	9.71
Misreported no drug use in baseline six months	-4.79	23.86
Misreported no drug use in baseline 30 days	-2.17	13.59
Misreported no drug use in follow-up six months	2.88	18.57
Misreported no drug use in follow-up 30 days	5.60	11.70
Any treatment service	-1.20	7.23
Baseline by any service interaction	-.31	.21
Intercept		
Adjusted R2	.25	
F-value	3.16***	

[a] p≤.10
*p≤.05
**p≤.01
***p≤.005

Prediction Equation for Number of Incarceration Days
Portland TASC group(n=174)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of incarceration days	-.06	.15
Lifetime weeks in residential treatment	.14	.32
Any residential treatment	-1.84	10.47
Any prison/jail treatment	11.11	14.92
Arrested for violent crime	-1.23	17.45
Arrested for property crime	11.98	15.80
Arrested for drug crime	-3.79	16.02
Lifetime number of convictions	.66	.59
Arrested in baseline six months	-16.98	13.74
Number of violent crimes in baseline six months (logged)	-18.20	14.13
Number of property crimes in baseline six months (logged)	5.03	4.35
Incarcerated in baseline six months	4.65	13.14
Age at first drug use	-1.00	.99
Frequency of drug use in baseline six months (logged)	1.51	2.07
Frequency of unprotected sex in baseline six months	-.39	2.64
Sex risk index for baseline six months (logged)	2.96	6.22
Used a condom in baseline six months	.48	11.29
Living in own place in baseline six months	-17.71*	8.89
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-11.69	8.99
Any illegal income in baseline six months	8.99	16.87
Age	-.17	.65
Male	-18.34[a]	10.07
Highest grade completed	-2.26	2.45
African-American	12.05	9.59
Hispanic	1.68	27.06
Misreported no drug use in baseline six months	8.71	20.83
Misreported no drug use in baseline 30 days	-17.53	18.14
Misreported no drug use in follow-up six months	12.98	24.33
Misreported no drug use in follow-up 30 days	-6.42	17.17
Any treatment service	-14.16	12.22
Baseline by any service interaction	-.00	.15
Intercept	80.82*	
Adjusted R2	.05	
F-value	1.30	

[a]$p \le .10$
*$p \le .05$
**$p \le .01$
***$p \le .005$

Table D.26
Prediction Equation for Number of Property Crimes (logged)
Birmingham TASC group(n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of property crimes (logged)	.05	.71
Lifetime weeks in residential treatment	.00	.00
Any residential treatment	-.01	.09
Any prison/jail treatment	.05	.16
Lifetime weeks in outpatient treatment	.00[a]	.00
Arrested for violent crime	.29	.20
Arrested for property crime	.41*	.19
Arrested for drug crime	.32a	.19
Number of arrests before age 18	-.00	.01
Lifetime number of convictions	.00	.00
Number of violent crimes in baseline six months (logged)	.09	.06
Number of drug crimes in baseline six months (logged)	-.05	.03
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.10*	.05
Number of people with whom had unprotected sex in baseline six months (logged)	.06	.08
Sex for money/drugs during baseline six months	.13	.12
Sex with injection drug user during baseline six months	.82***	.26
Married	.22*	.09
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-.05	.06
Any illegal income in baseline six months	.25[a]	.15
Age	-.00	.00
African-American	.12	.07
Hispanic	No estimate; no Hispanics at this site	
Misreported no drug use in baseline six months	-.14	.17
Misreported no drug use in baseline 30 days	.23*	.12
Misreported no drug use in follow-up six months	-.25	.16
Misreported no drug use in follow-up 30 days	.07	.15
Any treatment service	.13	.25
Baseline by any service interaction	-.03	.71
Intercept		
Adjusted R2	.19	
F-value	2.60***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.27
Prediction Equation for Number of Property Crimes (logged)
Canton TASC group(n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of property crimes (logged)	.67***	.13
Lifetime weeks in residential treatment	-.02*	.01
Any residential treatment	.28	.24
Any prison/jail treatment	.39	.41
Lifetime weeks in outpatient treatment	-.00	.01
Arrested for violent crime	-.06	.41
Arrested for property crime	.01	.28
Arrested for drug crime	-.04	.28
Number of arrests before age 18	-.00	.01
Lifetime number of convictions	-.00	.00
Number of violent crimes in baseline six months (logged)	.29	.20
Number of drug crimes in baseline six months (logged)	-.08	.06
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	-.22[a]	.11
Number of people with whom had unprotected sex in baseline six months (logged)	.60*	.25
Sex for money/drugs during baseline six months	1.06**	.37
Sex with injection drug user during baseline six months	-.51	.51
Married	-.29	.35
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.30	.21
Any illegal income in baseline six months	.60	.41
Age	-.01	.01
African-American	.03	.23
Hispanic	-.92	.85
Misreported no drug use in baseline six months	-.20	.69
Misreported no drug use in baseline 30 days	.07	.48
Misreported no drug use in follow-up six months	.11	.65
Misreported no drug use in follow-up 30 days	-.06	.53
Any treatment service	.28	.22
Baseline by any service interaction	-.59***	.14
Intercept	.05	
Adjusted R2	.64	
F-value	3.01***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.28
Prediction Equation for Number of Property Crimes (logged)
Chicago TASC group(n=228)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of property crimes (logged)	-.02	.09
Lifetime weeks in residential treatment	-.00	.01
Any residential treatment	.22	.22
Any prison/jail treatment	-.09	.24
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	.05	.40
Arrested for property crime	.17	.34
Arrested for drug crime	.07	.34
Number of arrests before age 18	-.00	.01
Lifetime number of convictions	-.00	.01
Number of violent crimes in baseline six months (logged)	.08	.10
Number of drug crimes in baseline six months (logged)	.05	.05
Number of drug use days in baseline six months (logged)	.00*	.00
Sex risk index for baseline six months (logged)	-.10	.12
Number of people with whom had unprotected sex in baseline six months (logged)	-.11	.22
Sex for money/drugs during baseline six months	-.09	.33
Sex with injection drug user during baseline six months	2.94*	1.25
Married	-.57*	.26
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.02	.23
Any illegal income in baseline six months	.85**	.31
Age	.00	.01
African-American	.05	.24
Hispanic	-.37	.46
Misreported no drug use in baseline six months	.44	1.23
Misreported no drug use in baseline 30 days	-.16	.29
Misreported no drug use in follow-up six months	-.31	.43
Misreported no drug use in follow-up 30 days	-.21	.31
Any treatment service	-.41a	.21
Baseline by any service interaction	.04	.11
Intercept	.58	
Adjusted R2	.10	
F-value	1.84	

ap≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.29
Prediction Equation for Number of Property Crimes (logged)
Orlando TASC group(n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of property crimes (logged)	.20*	.08
Lifetime weeks in residential treatment	-.00	.01
Any residential treatment	.03	.21
Any prison/jail treatment	-.61	.98
Lifetime weeks in outpatient treatment	-.00	.01
Arrested for violent crime	.07	.20
Arrested for property crime	.12	.21
Arrested for drug crime	.02	.24
Number of arrests before age 18	.06***	.01
Lifetime number of convictions	-.08***	.02
Number of violent crimes in baseline six months (logged)	.01	.08
Number of drug crimes in baseline six months (logged)	-.03	.06
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	.12	.10
Number of people with whom had unprotected sex in baseline six months (logged)	.06	.14
Sex for money/drugs during baseline six months	.16	.97
Sex with injection drug user during baseline six months	No estimate; no offenders with sex with injection drug user	
Married	-.30	.67
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.06	.20
Any illegal income in baseline six months	-.14	.24
Age	-.03	.05
African-American	-.07	.16
Hispanic	.31	.24
Misreported no drug use in baseline six months	-.43	.57
Misreported no drug use in baseline 30 days	-.04	.33
Misreported no drug use in follow-up six months	.35	.45
Misreported no drug use in follow-up 30 days	-.11	.28
Any treatment service	-.01	.19
Baseline by any service interaction	.09	.12
Intercept	.52	
Adjusted R2	.10***	
F-value	1.82	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.30
Prediction Equation for Number of Property Crimes (logged)
Portland TASC group(n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of property crimes (logged)	.22[a]	.13
Lifetime weeks in residential treatment	-.01	.00
Any residential treatment	.08	.19
Any prison/jail treatment	.50[a]	.26
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	-.25	.32
Arrested for property crime	-.22	.28
Arrested for drug crime	.20	.29
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline six months (logged)	.06	.26
Number of drug crimes in baseline six months (logged)	-.06	.06
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	.13	.13
Number of people with whom had unprotected sex in baseline six months (logged)	.15	.21
Sex for money/drugs during baseline six months	-.59	.57
Sex with injection drug user during baseline six months	-.23	.35
Married	-.26	.27
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.30[a]	.16
Any illegal income in baseline six months	.93**	.35
Age	.00	.01
African-American	-.20	.17
Hispanic	-.09	.51
Misreported no drug use in baseline six months	-.57	.37
Misreported no drug use in baseline 30 days	.48	.32
Misreported no drug use in follow-up six months	-.64	.44
Misreported no drug use in follow-up 30 days	.34	.31
Any treatment service	-.20	.16
Baseline by any service interaction	-.16	.14
Intercept		
Adjusted R2	.05	
F-value	1.34	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table D.31
Prediction Equation for Number of Violent Crimes (logged)
Birmingham TASC group(n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of violent crimes (logged)	.02	.03
Any residential treatment	-.01	.04
Arrested for violent crime	-.19[a]	.10
Arrested for property crime	-.25*	.10
Arrested for drug crime	-.24*	.10
Number of arrests before age 18	.00	.00
Arrested in baseline six months	.04	.04
Number of property crimes in baseline six months (logged)	-.05*	.02
Number of drug crimes in baseline six months (logged)	.07***	.05
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	-.03	.04
Age at first drug use	.00	.00
Frequency of drug use in baseline six months (logged)	.02*	.01
Sex for money/drugs during baseline six months	-.02	.06
Sex with injection drug user during baseline six months	.15	.13
Used a condom in baseline six months	-.05	.03
Days lived at current address in baseline six months	.00*	.00
Employed in baseline six months	-.03	.03
Age	-.00	.00
Highest grade completed	-.02[a]	.01
Misreported no drug use in baseline six months	-.01	.09
Misreported no drug use in baseline 30 days	.01	.06
Misreported no drug use in follow-up six months	-.20*	.09
Misreported no drug use in follow-up 30 days	.18*	.08
Any treatment service	-.07	.11
Baseline by any service interaction	No estimate; no offenders with violent crimes and no services	
Intercept	.35*	.17
Adjusted R2	.23	
F-value	3.35***	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.32
Prediction Equation for Number of Violent Crimes (logged)
Canton TASC group(n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of violent crimes (logged)	.39***	.11
Any residential treatment	-.10	.09
Arrested for violent crime	-.16	.17
Arrested for property crime	-.08	.14
Arrested for drug crime	-.14	.15
Number of arrests before age 18	-.00	.00
Arrested in baseline six months	-.03	.11
Number of property crimes in baseline six months (logged)	.02	.03
Number of drug crimes in baseline six months (logged)	-.01	.02
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	.11	.11
Age at first drug use	.01	.01
Frequency of drug use in baseline six months (logged)	-.01	.02
Sex for money/drugs during baseline six months	-.08	.15
Sex with injection drug user during baseline six months	.15	.21
Used a condom in baseline six months	-.05	.13
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.16	.11
Age	-.01	.01
Highest grade completed	-.05	.04
Misreported no drug use in baseline six months	.09	.34
Misreported no drug use in baseline 30 days	-.09	.22
Misreported no drug use in follow-up six months	.12	.27
Misreported no drug use in follow-up 30 days	.08	.21
Any treatment service	-.01	.09
Baseline by any service interaction	-.13	.14
Intercept	.16	
Adjusted R2	.21	
F-value	1.79*	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.33
Prediction Equation for Number of Violent Crimes (logged)
Chicago TASC group(n=228)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of violent crimes (logged)	-.43*	.20
Any residential treatment	-.07	.18
Arrested for violent crime	.41	.37
Arrested for property crime	.42	.32
Arrested for drug crime	.35	.32
Number of arrests before age 18	.00	.01
Arrested in baseline six months	-.16	.18
Number of property crimes in baseline six months (logged)	-.05	.06
Number of drug crimes in baseline six months (logged)	.18***	.05
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	-.27	.19
Age at first drug use	-.01	.03
Frequency of drug use in baseline six months (logged)	.07	.04
Sex for money/drugs during baseline six months	-.36	.28
Sex with injection drug user during baseline six months	-.27	1.12
Used a condom in baseline six months	.14	.17
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.19	.23
Age	-.04***	.01
Highest grade completed	-.04	.05
Misreported no drug use in baseline six months	.74	1.17
Misreported no drug use in baseline 30 days	-.61*	.27
Misreported no drug use in follow-up six months	-.15	.40
Misreported no drug use in follow-up 30 days	-.06	.29
Any treatment service	-.52***	.18
Baseline by any service interaction	.35	.22
Intercept	1.58*	
Adjusted R2	.15	
F-value	2.55***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.34
Prediction Equation for Number of Violent Crimes (logged)
Orlando TASC group(n=220

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of violent crimes (logged)	.22*	.08
Any residential treatment	.01	.17
Arrested for violent crime	.29	.18
Arrested for property crime	.06	.19
Arrested for drug crime	.12	.22
Number of arrests before age 18	.03*	.01
Arrested in baseline six months	-.15	.14
Number of property crimes in baseline six months (logged)	-.08	.06
Number of drug crimes in baseline six months (logged)	-.05	.05
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	-.00	.31
Age at first drug use	-.03	.03
Frequency of drug use in baseline six months (logged)	.01	.03
Sex for money/drugs during baseline six months	-.26	.67
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users in this site.	
Used a condom in baseline six months	.22[a]	.12
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.23	.18
Age	.01	.05
Highest grade completed	.00	.12
Misreported no drug use in baseline six months	-.87	.53
Misreported no drug use in baseline 30 days	.21	.30
Misreported no drug use in follow-up six months	-.02	.42
Misreported no drug use in follow-up 30 days	-.08	.25
Any treatment service	.37*	.16
Baseline by any service interaction	-.02	.13
Intercept	.35	
Adjusted R2	.09	
F-value	1.81*	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.35
Prediction Equation for Number of Violent Crimes (logged)
Portland TASC group(n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of violent crimes (logged)	-.06	.18
Any residential treatment	.05	.06
Arrested for violent crime	-.13	.12
Arrested for property crime	-.21[a]	.11
Arrested for drug crime	-.14	.11
Number of arrests before age 18	.00	.00
Arrested in baseline six months	.01	.10
Number of property crimes in baseline six months (logged)	-.04	.03
Number of drug crimes in baseline six months (logged)	-.02	.02
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	.09	.06
Age at first drug use	.01	.01
Frequency of drug use in baseline six months (logged)	.01	.02
Sex for money/drugs during baseline six months	-.18	.22
Sex with injection drug user during baseline six months	.24*	.11
Used a condom in baseline six months	-.09	.06
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.01	.06
Age	-.01*	.00
Highest grade completed	.02	.02
Misreported no drug use in baseline six months	-.05	.15
Misreported no drug use in baseline 30 days	.01	.13
Misreported no drug use in follow-up six months	-.27	.18
Misreported no drug use in follow-up 30 days	.21[a]	.13
Any treatment service	-.08	.06
Baseline by any service interaction	.18	.22
Intercept	.31	
Adjusted R2	.03	
F-value	1.21	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.36
Prediction Equation for Number of Drug Crimes (logged)
Birmingham TASC group(n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.19***	.05
Any residential treatment	-.20	.14
Any prison/jail treatment	.47[a]	.25
Lifetime weeks in outpatient treatment	-.00	.00
Any outpatient treatment	-.06	.15
Arrested for violent crime	-.50	.33
Arrested for property crime	-.37	.30
Arrested for drug crime	-.62*	.31
Lifetime number of convictions	-.01	.01
Arrested in baseline six months	-.13	.12
Number of violent crimes in baseline six months (logged)	-.08	.10
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.01	.01
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.04	.03
Sex with injection drug user during baseline six months	-.25	.42
Past month income	-.14*	.06
Any illegal income in baseline six months	.18	.23
Age	.01	.01
Male	-.14	.12
Misreported no drug use in baseline six months	-.25	.29
Misreported no drug use in baseline 30 days	.07	.19
Misreported no drug use in follow-up six months	-.46[a]	.27
Misreported no drug use in follow-up 30 days	.42	.26
Any treatment service	.04	.34
Baseline by any service interaction	No estimate; no offenders with no service and drug crimes	
Intercept	.77	
Adjusted R2	.14	
F-value	2.29***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.37
Prediction Equation for Number of Drug Crimes (logged)
Canton TASC group(n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.11	.14
Any residential treatment	.08	.30
Any prison/jail treatment	.03	.57
Lifetime weeks in outpatient treatment	.00	.01
Any outpatient treatment	-.10	.32
Arrested for violent crime	-.12	.53
Arrested for property crime	-.41	.46
Arrested for drug crime	-.06	.45
Lifetime number of convictions	-.01	.00
Arrested in baseline six months	-.22	.36
Number of violent crimes in baseline six months (logged)	-.01	.28
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.03	.05
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.15[a]	.08
Sex with injection drug user during baseline six months	1.66*	.68
Past month income	.26[a]	.13
Any illegal income in baseline six months	.39	.51
Age	-.01	.03
Male	-.31	.34
Misreported no drug use in baseline six months	.24	1.07
Misreported no drug use in baseline 30 days	-.40	.69
Misreported no drug use in follow-up six months	-.22	.90
Misreported no drug use in follow-up 30 days	-.25	.75
Any treatment service	-.42	.36
Baseline by any service interaction	-.03	.17
Intercept	1.71	
Adjusted R2	.00	
F-value	1.02	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table D.38
Prediction Equation for Number of Drug Crimes (logged)
Chicago TASC, fewer than three prior convictions=no (n=113)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.20	.17
Any residential treatment	.17	.31
Any prison/jail treatment	-.58	.48
Lifetime weeks in outpatient treatment	-.01	.01
Any outpatient treatment	-.02	.48
Arrested for violent crime	.96	.70
Arrested for property crime	.14	.61
Arrested for drug crime	.07	.59
Arrested in baseline six months	.06	.33
Number of violent crimes in baseline six months (logged)	-.26	.22
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	-.03	.04
Days drugs used in baseline six months (logged)	.01*	.00
Frequency of sex while high during baseline six months	-.00	.07
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users in this sample.	
Past month income	-.39*	.19
Any illegal income in baseline six months	.43	.62
Age	-.02	.02
Male	-.14	.35
Misreported no drug use in baseline six months	26.96	47.40
Misreported no drug use in baseline 30 days	.05	.49
Misreported no drug use in follow-up six months	-1.02	.64
Misreported no drug use in follow-up 30 days	.24	.47
Any treatment service	-.80*	.36
Baseline by any service interaction	-.00	.19
Intercept	2.50*	1.07
Adjusted R2	.16	
F-value	1.87*	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.38
Prediction Equation for Number of Drug Crimes (logged)
Chicago TASC, fewer than three prior convictions=yes (n=115)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.06	.13
Any residential treatment	.14	.27
Any prison/jail treatment	.17	.34
Lifetime weeks in outpatient treatment	.00	.01
Any outpatient treatment	-.01	.42
Arrested for violent crime	.41	.53
Arrested for property crime	.77[a]	.46
Arrested for drug crime	.36	.49
Arrested in baseline six months	.06	.25
Number of violent crimes in baseline six months (logged)	-.17	.12
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	-.03	.04
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.10	.07
Sex with injection drug user during baseline six months	4.18***	1.32
Past month income	-.04	.19
Any illegal income in baseline six months	.50	.53
Age	-.05**	.02
Male	-.39	.59
Misreported no drug use in baseline six months	.35	1.25
Misreported no drug use in baseline 30 days	-.05	.44
Misreported no drug use in follow-up six months	-1.72*	.73
Misreported no drug use in follow-up 30 days	.94*	.54
Any treatment service	-.28	.30
Baseline by any service interaction	-.09	.14
Intercept	2.68*	
Adjusted R2	.08	
F-value	1.39	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.39
Prediction Equation for Number of Drug Crimes (logged)
Orlando TASC group(n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.28*	.13
Any residential treatment	.02	.37
Any prison/jail treatment	-.93	1.90
Lifetime weeks in outpatient treatment	-.03	.02
Any outpatient treatment	.31	.72
Arrested for violent crime	.26	.39
Arrested for property crime	.15	.39
Arrested for drug crime	.89[a]	.46
Lifetime number of convictions	-.01	.04
Arrested in baseline six months	-.32	.29
Number of violent crimes in baseline six months (logged)	.21	.15
Number of incarceration days in baseline six months	.01	.01
Age at first drug use	-.08	.07
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.09	.14
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users at this site.	
Past month income	.07	.22
Any illegal income in baseline six months	.81	.49
Age	.06	.09
Male	-.59*	.29
Misreported no drug use in baseline six months	2.51*	1.09
Misreported no drug use in baseline 30 days	.40	.62
Misreported no drug use in follow-up six months	-.23	.85
Misreported no drug use in follow-up 30 days	-.42	.53
Any treatment service	.44	.31
Baseline by any service interaction	-.22	.16
Intercept	.86	
Adjusted R2	.24	
F-value	3.78***	

[a] p ≤ .10
* p ≤ .05
** p ≤ .01
*** p ≤ .005

Table D.40
Prediction Equation for Number of Drug Crimes (logged)
Portland TASC group(n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline number of drug crimes (logged)	.37[a]	.19
Any residential treatment	.48[a]	.24
Any prison/jail treatment	.71[a]	.41
Lifetime weeks in outpatient treatment	.00	.01
Any outpatient treatment	.24	.26
Arrested for violent crime	-.20	.48
Arrested for property crime	.22	.42
Arrested for drug crime	.50	.43
Lifetime number of convictions	.00	.01
Arrested in baseline six months	.10	.33
Number of violent crimes in baseline six months (logged)	-.01	.39
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.04	.03
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.08	.07
Sex with injection drug user during baseline six months	.06	.46
Past month income	-.11	.14
Any illegal income in baseline six months	.62	.55
Age	.01	.02
Male	.00	.27
Misreported no drug use in baseline six months	-.96[a]	.57
Misreported no drug use in baseline 30 days	.69	.48
Misreported no drug use in follow-up six months	-.18	.68
Misreported no drug use in follow-up 30 days	-.25	.48
Any treatment service	-.31	.25
Baseline by any service interaction	-.42*	.20
Intercept	.29	
Adjusted R2	.16	
F-value	2.32***	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.41
Prediction Equation for Number of Incarceration Days
Birmingham (n=359)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	9.87	6.17
Baseline number of incarceration days	.13	.09
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	1.00*	.39
Any residential treatment	9.18	8.28
Any prison/jail treatment	27.28	17.56
Arrested for violent crime	20.33	17.60
Arrested for property crime	6.83	16.23
Arrested for drug crime	15.60	16.78
Lifetime number of convictions	.35	.38
Arrested in baseline six months	-7.22	7.85
Number of violent crimes in baseline six months (logged)	8.12	7.39
Number of property crimes in baseline six months (logged)	2.90	3.98
Incarcerated in baseline six months	16.41*	7.89
Age at first drug use	-.05	.97
Frequency of drug use in baseline six months (logged)	-1.43	2.11
Frequency of unprotected sex in baseline six months	3.04	1.84
Sex risk index for baseline six months (logged)	-4.56	4.08
Used a condom in baseline six months	3.45	8.07
Living in own place in baseline six months	-6.96	7.11
Days lived at current address in baseline six months	.00*	.00
Employed in baseline six months	6.61	6.25
Any illegal income in baseline six months	-1.91	12.14
Age	.43	.42
Male	-5.28	7.27
Highest grade completed	-3.12[a]	1.86
African-American	9.55	7.11
Hispanic	No estimate; no Hispanics at this site.	
Misreported no drug use in baseline six months	-1.08	16.70
Misreported no drug use in baseline 30 days	-8.60	12.73
Misreported no drug use in follow-up six months	.68	15.38
Misreported no drug use in follow-up 30 days	-11.45	13.33
Primary marijuana user	10.81	10.49
Primary heroin user	-38.16	35.22

Table D.41
Prediction Equation for Number of Incarceration Days
Birmingham (n=359 (con't))

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	20.10[a]	11.31
Primary non-crack user	-14.13	24.13
Intercept	-34.50	
Adjusted R2	.12	
F-value	2.43***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.42
Prediction Equation for Number of Incarceration Days
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	4.49	10.15
Baseline number of incarceration days	.45***	.13
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.24	.52
Any residential treatment	6.64	12.71
Any prison/jail treatment	19.70	23.82
Arrested for violent crime	35.57[a]	19.79
Arrested for property crime	24.90	16.86
Arrested for drug crime	-5.17	16.33
Lifetime number of convictions	.05	.13
Arrested in baseline six months	10.72	15.01
Number of violent crimes in baseline six months(logged)	8.58	12.26
Number of property crimes in baseline six months (logged)	.87	5.08
Incarcerated in baseline six months	-.51	12.76
Age at first drug use	3.01[a]	1.59
Frequency of drug use in baseline six months (logged)	1.32	3.56
Frequency of unprotected sex in baseline six months	7.14*	3.35
Sex risk index for baseline six months (logged)	-11.80[a]	6.88
Used a condom in baseline six months	19.42	16.37
Living in own place in baseline six months	-10.17	12.27
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-15.79	14.29
Any illegal income in baseline six months	1.49	22.50
Age	-.49	.80
Male	-9.43	13.10
Highest grade completed	-1.43	4.04
African-American	10.85	12.73
Hispanic	12.38	66.63
Misreported no drug use in baseline six months	18.99	40.72
Misreported no drug use in baseline 30 days	-4.29	27.75
Misreported no drug use in follow-up six months	2.01	41.55
Misreported no drug use in follow-up 30 days	-15.56	30.74
Primary marijuana user	6.04	19.30
Primary heroin user	No estimate; no primary heroin users at this site.	

Table D.42
Prediction Equation for Number of Incarceration Days
Canton (n=132) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	-.43	28.87
Primary non-crack user	28.53	58.39
Intercept	-34.41	
Adjusted R2	.24	
F-value	2.20***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.43
Prediction Equation for Number of Incarceration Days
Chicago (n=380)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	3.81	7.43
Baseline number of incarceration days	.09	.07
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.43	.48
Any residential treatment	-3.34	8.66
Any prison/jail treatment	-2.26	10.94
Arrested for violent crime	-5.39	17.53
Arrested for property crime	-.52	14.97
Arrested for drug crime	-13.64	14.95
Lifetime number of convictions	.92***	.30
Arrested in baseline six months	-2.58	7.53
Number of violent crimes in baseline six months (logged)	10.15*	4.35
Number of property crimes in baseline six months (logged)	2.21	2.27
Incarcerated in baseline six months	19.26[a]	11.19
Age at first drug use	.79	.95
Frequency of drug use in baseline six months (logged)	3.22	2.31
Frequency of unprotected sex in baseline six months	1.63	2.12
Sex risk index for baseline six months (logged)	-5.54	4.85
Used a condom in baseline six months	19.55*	9.15
Living in own place in baseline six months	.24	7.65
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-25.50***	8.47
Any illegal income in baseline six months	29.22**	11.03
Age	-1.49***	.47
Male	-19.25*	8.93
Highest grade completed	.39	2.00
African-American	2.96	10.70
Hispanic	-5.27	18.15
Misreported no drug use in baseline six months	-66.14[a]	35.19
Misreported no drug use in baseline 30 days	14.68	12.42
Misreported no drug use in follow-up six months	-4.88	16.05
Misreported no drug use in follow-up 30 days	3.96	10.76
Primary marijuana user	-25.33	16.02
Primary heroin user	-26.08	16.74

Table D.43
Prediction Equation for Number of Incarceration Days
Chicago (n=380) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	-21.34	15.53
Primary non-crack user	-46.96*	2.01
Intercept	72.72*	
Adjusted R2	.16	
F-value	3.00***	

^{a}p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.44
Prediction Equation for Number of Incarceration Days
Orlando (n=396)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-7.03	4.43
Baseline number of incarceration days	.39***	.09
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	.18	.22
Any residential treatment	5.95	8.06
Any prison/jail treatment	56.92[a]	29.49
Arrested for violent crime	1.14	6.21
Arrested for property crime	-.05	6.41
Arrested for drug crime	-3.46	7.89
Lifetime number of convictions	1.14*	.53
Arrested in baseline six months	5.75	4.83
Number of violent crimes in baseline six months (logged)	-2.28	2.47
Number of property crimes in baseline six months (logged)	-1.04	2.11
Incarcerated in baseline six months	5.33	6.04
Age at first drug use	-2.35*	1.14
Frequency of drug use in baseline six months (logged)	1.82	1.53
Frequency of unprotected sex in baseline six months	-2.51[a]	1.51
Sex risk index for baseline six months (logged)	-.63	3.26
Used a condom in baseline six months	-2.14	5.33
Living in own place in baseline six months	-12.27*	5.12
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-8.58	6.59
Any illegal income in baseline six months	12.09[a]	6.71
Age	1.72	1.88
Male	-9.85[a]	5.25
Highest grade completed	-1.92	4.30
African-American	20.20***	5.22
Hispanic	10.67	7.25
Misreported no drug use in baseline six months	20.08	18.97
Misreported no drug use in baseline 30 days	-12.82	11.96
Misreported no drug use in follow-up six months	-2.32	15.67
Misreported no drug use in follow-up 30 days	1.50	10.77
Primary marijuana user	6.04	6.89

Table D.44
Prediction Equation for Number of Incarceration Days
Orlando (n=396) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary heroin user	No estimate; no primary heroin users at this site.	
Primary crack user	74.72***	26.20
Primary non-crack user	-26.97	42.01
Intercept	30.05	
Adjusted R2	.27	
F-value	5.23***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.45
Prediction Equation for Number of Incarceration Days
Portland (n=322)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	6.44	5.13
Baseline number of incarceration days	.05	.06
Group by baseline interaction	Not applicable	
Lifetime weeks in residential treatment	-.08	.24
Any residential treatment	-1.45	6.72
Any prison/jail treatment	-.64	9.64
Arrested for violent crime	2.69	11.47
Arrested for property crime	9.91	10.00
Arrested for drug crime	1.10	10.06
Lifetime number of convictions	.31	.24
Arrested in baseline six months	-13.44	8.61
Number of violent crimes in baseline six months (logged)	-9.23	10.41
Number of property crimes in baseline six months (logged)	5.12[a]	3.01
Incarcerated in baseline six months	8.41	8.28
Age at first drug use	-.75	.69
Frequency of drug use in baseline six months (logged)	-.66	.77
Frequency of unprotected sex in baseline six months	1.66	1.60
Sex risk index for baseline six months (logged)	-.47	3.60
Used a condom in baseline six months	-3.88	7.48
Living in own place in baseline six months	-9.66	6.04
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-7.27	5.89
Any illegal income in baseline six months	11.69	11.19
Age	-.06	.43
Male	-14.48*	6.73
Highest grade completed	-3.22[a]	1.64
African-American	-.14	6.89
Hispanic	19.64	10.02
Misreported no drug use in baseline six months	16.27	16.23
Misreported no drug use in baseline 30 days	-14.24	12.92
Misreported no drug use in follow-up six months	10.74	14.81
Misreported no drug use in follow-up 30 days	-6.75	11.25
Primary marijuana user	11.73	8.38
Primary heroin user	34.06*	15.22

Table D.45
Prediction Equation for Number of Incarceration Days
Portland (n=322) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	27.14*	11.48
Primary non-crack user	32.84**	12.41
Intercept	33.00	
Adjusted R2	.09	
F-value	1.93***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.46
Prediction Equation for Number of Property Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.02	.06
Baseline number of property crimes (logged)	.48***	.11
Group by baseline interaction	-.21***	.06
Lifetime weeks in residential treatment	.00	.00
Any residential treatment	.04	.07
Any prison/jail treatment	-.03	.16
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.22	.15
Arrested for property crime	.28[a]	.14
Arrested for drug crime	.20	.15
Number of arrests before age 18	-.01**	.01
Lifetime number of convictions	.02***	.00
Number of violent crimes in baseline six months (logged)	.01	.06
Number of drug crimes in baseline six months (logged)	.04[a]	.02
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.06	.04
Number of people with whom had unprotected sex in baseline six months (logged)	.10	.06
Sex for money/drugs during baseline six months	-.04	.10
Sex with injection drug user during baseline six months	.38[a]	.22
Married	.12[a]	.07
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.06	.05
Any illegal income in baseline six months	.24*	.11
Age	-.00	.00
African-American	.11[a]	.06
Hispanic	No estimate; no Hispanics at this site.	
Misreported no drug use in baseline six months	.22	.14
Misreported no drug use in baseline 30 days	.01	.11
Misreported no drug use in follow-up six months	-.06	.13
Misreported no drug use in follow-up 30 days	.02	.12
Primary marijuana user	.01	.07
Primary heroin user	-.16	.31

Table D.46
Prediction Equation for Number of Property Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	.10	.08
Primary non-crack user	-.19	.20
Intercept	-.34[a]	
Adjusted R2	.23	
F-value	4.37***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.47
Prediction Equation for Number of Property Crimes (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.17	.16
Baseline number of property crimes (logged)	-.12	.18
Group by baseline interaction	.18	.11
Lifetime weeks in residential treatment	-.01[a]	.01
Any residential treatment	.20	.18
Any prison/jail treatment	.38	.32
Lifetime weeks in outpatient treatment	-.00	.01
Arrested for violent crime	-.18	.28
Arrested for property crime	.22	.22
Arrested for drug crime	.23	.22
Number of arrests before age 18	-.00	.01
Lifetime number of convictions	-.00	.00
Number of violent crimes in baseline six months (logged)	.59***	.18
Number of drug crimes in baseline six months (logged)	-.16***	.05
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	-.14	.10
Number of people with whom had unprotected sex in baseline six months (logged)	.39*	.18
Sex for money/drugs during baseline six months	.39	.27
Sex with injection drug user during baseline six months	.58	.38
Married	-.14	.23
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.24	.17
Any illegal income in baseline six months	.34	.33
Age	-.00	.01
African-American	-.01	.18
Hispanic	-1.20	.87
Misreported no drug use in baseline six months	-.48	.55
Misreported no drug use in baseline 30 days	.41	.39
Misreported no drug use in follow-up six months	.01	.57
Misreported no drug use in follow-up 30 days	.33	.43
Primary marijuana user	.02	.22
Primary heroin user	No estimate; no primary heroin users at this site.	

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	.35	.24
Primary non-crack user	.24	.80
Intercept	.06	
Adjusted R2	.21	
F-value	2.09***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.48
Prediction Equation for Number of Property Crimes (logged)
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.25	.16
Baseline number of property crimes (logged)	.65***	.13
Group by baseline interaction	-.31***	.08
Lifetime weeks in residential treatment	-.00	.01
Any residential treatment	.28	.17
Any prison/jail treatment	.06	.22
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	.09	.35
Arrested for property crime	.14	.30
Arrested for drug crime	.05	.30
Number of arrests before age 18	.01	.01
Lifetime number of convictions	.00	.01
Number of violent crimes in baseline six months (logged)	-.00	.09
Number of drug crimes in baseline six months (logged)	-.03	.04
Number of drug use days in baseline six months (logged)	.01***	.00
Sex risk index for baseline six months (logged)	-.10	.10
Number of people with whom had unprotected sex in baseline six months (logged)	-.16	.16
Sex for money/drugs during baseline six months	.36	.26
Sex with injection drug user during baseline six months	1.80*	.89
Married	-.34[a]	.20
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-.11	.16
Any illegal income in baseline six months	.72***	.23
Age	-.01	.01
African-American	.14	.22
Hispanic	-.02	.36
Misreported no drug use in baseline six months	-.77	.70
Misreported no drug use in baseline 30 days	.12	.25
Misreported no drug use in follow-up six months	-.23	.33
Misreported no drug use in follow-up 30 days	-.29	.22
Primary marijuana user	-.34	.28
Primary heroin user	-.31	.28

Table D.48
Prediction Equation for Number of Property Crimes (logged)
Chicago (n=390) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	-.15	.26
Primary non-crack user	-.29	.38
Intercept	.14	
Adjusted R2	.17	
F-value	3.42***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.05	.12
Baseline number of property crimes (logged)	.48***	.12
Group by baseline interaction	-.13[a]	.08
Lifetime weeks in residential treatment	-.00	.01
Any residential treatment	-.07	.19
Any prison/jail treatment	.39	.70
Lifetime weeks in outpatient treatment	-.01	.01
Arrested for violent crime	.03	.14
Arrested for property crime	.11	.14
Arrested for drug crime	-.01	.18
Number of arrests before age 18	.03***	.01
Lifetime number of convictions	-.01	.02
Number of violent crimes in baseline six months (logged)	-.01	.06
Number of drug crimes in baseline six months (logged)	-.04	.04
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	.10	.07
Number of people with whom had unprotected sex in baseline six months (logged)	-.08	.10
Sex for money/drugs during baseline six months	.11	.72
Sex with injection drug user during baseline six months	No estimate; no sex with injection users in this site.	
Married	-.31	.46
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.08	.15
Any illegal income in baseline six months	-.03	.18
Age	-.02	.04
African-American	-.11	.12
Hispanic	.22	.17
Misreported no drug use in baseline six months	-.18	.44
Misreported no drug use in baseline 30 days	-.06	.28
Misreported no drug use in follow-up six months	.10	.37
Misreported no drug use in follow-up 30 days	-.10	.25
Primary marijuana user	.04	.12
Primary heroin user	No estimate; no primary heroin users at this site.	

Table D.49
Prediction Equation for Number of Property Crimes (logged)
Orlando (n=422) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	-.01	.68
Primary non-crack user	-.25	.81
Intercept	.40	
Adjusted R2	.14	
F-value	3.10***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.50
Prediction Equation for Number of Property Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.04	.11
Baseline number of property crimes (logged)	.72***	.17
Group by baseline interaction	-.34***	.10
Lifetime weeks in residential treatment	.00	.01
Any residential treatment	.05	.14
Any prison/jail treatment	.61***	.20
Lifetime weeks in outpatient treatment	.00	.00
Arrested for violent crime	.11	.24
Arrested for property crime	.00	.20
Arrested for drug crime	-.07	.21
Number of arrests before age 18	.00	.00
Lifetime number of convictions	.01[a]	.01
Number of violent crimes in baseline six months (logged)	.34	.22
Number of drug crimes in baseline six months (logged)	-.03	.05
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.04	.08
Number of people with whom had unprotected sex in baseline six months (logged)	.28[a]	.15
Sex for money/drugs during baseline six months	-.24	.40
Sex with injection drug user during baseline six months	-.11	.22
Married	.04	.20
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.27*	.12
Any illegal income in baseline six months	.31	.25
Age	-.00	.01
African-American	-.14	.14
Hispanic	-.40	.35
Misreported no drug use in baseline six months	-.26	.34
Misreported no drug use in baseline 30 days	.21	.27
Misreported no drug use in follow-up six months	-.67*	.32
Misreported no drug use in follow-up 30 days	.33	.24
Primary marijuana user	-1.0	.15
Primary heroin user	.69*	.31

Table D.50
Prediction Equation for Number of Property Crimes (logged)
Portland (n=330) (con't)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Primary crack user	.04	.21
Primary non-crack user	.20	.24
Intercept	.17	
Adjusted R2	.20	
F-value	3.45***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.51
Prediction Equation for Number of Violent Crimes (logged)
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.01	.03
Baseline number of violent crimes (logged)	.47***	.14
Group by baseline interaction	-.23***	.08
Any residential treatment	-.02	.04
Arrested for violent crime	-.12	.09
Arrested for property crime	-.04	.09
Arrested for drug crime	-.12	.09
Number of arrests before age 18	.01[a]	.00
Arrested in baseline six months	-.05	.04
Number of property crimes in baseline six months (logged)	.01	.02
Number of drug crimes in baseline six months (logged)	.03*	.01
Number of incarceration days in baseline six months	.00*	.00
Ever used crack/other cocaine	-.03	.04
Age at first drug use	.00	.00
Frequency of drug use in baseline six months (logged)	.01	.01
Sex for money/drugs during baseline six months	.05	.06
Sex with injection drug user during baseline six months	.06	.13
Used a condom in baseline six months	-.00	.03
Days lived at current address in baseline six months	.00*	.00
Employed in baseline six months	-.06[a]	.03
Age	.00	.00
Highest grade completed	.00	.01
Misreported no drug use in baseline six months	-.02	.08
Misreported no drug use in baseline 30 days	.00	.07
Misreported no drug use in follow-up six months	.03	.08
Misreported no drug use in follow-up 30 days	.04	.07
Primary marijuana user	.08	.06
Primary heroin user	-.05	.17
Primary crack user	-.04	.06
Primary non-crack user	.04	.13
Intercept	.00	
Adjusted R2	.12	
F-value	2.64***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.52
Prediction Equation for Number of Violent Crimes (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.08	.06
Baseline number of violent crimes (logged)	-.12	.33
Group by baseline interaction	.23	.17
Any residential treatment	-.12[a]	.06
Arrested for violent crime	-.04	.11
Arrested for property crime	.07	.10
Arrested for drug crime	.05	.09
Number of arrests before age 18	-.00	.00
Arrested in baseline six months	-.06	.08
Number of property crimes in baseline six months (logged)	.04	.02
Number of drug crimes in baseline six months (logged)	-.02	.02
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	.01	.08
Age at first drug use	-.00	.01
Frequency of drug use in baseline six months (logged)	.03	.02
Sex for money/drugs during baseline six months	-.03	.10
Sex with injection drug user during baseline six months	.06	.14
Used a condom in baseline six months	-.09	.08
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.16*	.08
Age	-.00	.00
Highest grade completed	-.04[a]	.02
Misreported no drug use in baseline six months	.01	.23
Misreported no drug use in baseline 30 days	-.04	.16
Misreported no drug use in follow-up six months	-.04	.22
Misreported no drug use in follow-up 30 days	.19	.17
Primary marijuana user	-.07	.11
Primary heroin user	No estimate; no heroin users at this site.	
Primary crack user	-.11	.12
Primary non-crack user	-.09	.33
Intercept	.43*	
Adjusted R2	.23	
F-value	2.37***	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.53
Prediction Equation for Number of Violent Crimes (logged)
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.18	.13
Baseline number of violent crimes (logged)	.18	.33
Group by baseline interaction	-.15	.18
Any residential treatment	.16	.13
Arrested for violent crime	.35	.30
Arrested for property crime	.40	.26
Arrested for drug crime	.34	.26
Number of arrests before age 18	.01	.00
Arrested in baseline six months	.01	.12
Number of property crimes in baseline six months (logged)	-.01	.04
Number of drug crimes in baseline six months (logged)	.07*	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	-.12	.15
Age at first drug use	-.01	.02
Frequency of drug use in baseline six months (logged)	.03	.04
Sex for money/drugs during baseline six months	.11	.20
Sex with injection drug user during baseline six months	-.24	.76
Used a condom in baseline six months	.13	.13
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.03	.15
Age	-.03***	.01
Highest grade completed	-.05	.03
Misreported no drug use in baseline six months	.26	.62
Misreported no drug use in baseline 30 days	-.43[a]	.22
Misreported no drug use in follow-up six months	.31	.28
Misreported no drug use in follow-up 30 days	.27	.19
Primary marijuana user	.03	.27
Primary heroin user	.34	.29
Primary crack user	.06	.27
Primary non-crack user	.02	.35
Intercept	.57	
Adjusted R2	.07	
F-value	1.96***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table D.54
Prediction Equation for Number of Violent Crimes (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.04	.12
Baseline number of violent crimes (logged)	.46***	.14
Group by baseline interaction	-.14	.09
Any residential treatment	-.01	.15
Arrested for violent crime	.15	.13
Arrested for property crime	.09	.13
Arrested for drug crime	.05	.17
Number of arrests before age 18	.02***	.01
Arrested in baseline six months	-.09	.10
Number of property crimes in baseline six months (logged)	-.04	.05
Number of drug crimes in baseline six months (logged)	-.01	.03
Number of incarceration days in baseline six months	.00	.00
Ever used crack/other cocaine	.25	.24
Age at first drug use	-.05*	.02
Frequency of drug use in baseline six months (logged)	-.03	.03
Sex for money/drugs during baseline six months	-.09	.63
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users at this site.	
Used a condom in baseline six months	.12	.09
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.19	.14
Age	-.03	.04
Highest grade completed	.10	.09
Misreported no drug use in baseline six months	.23	.39
Misreported no drug use in baseline 30 days	-.12	.26
Misreported no drug use in follow-up six months	-.52	.33
Misreported no drug use in follow-up 30 days	.12	.22
Primary marijuana user	.24	.14
Primary heroin user	No estimate; no heroin users at this site.	
Primary crack user	-.09	.62
Primary non-crack user	.05	.73
Intercept	1.20*	
Adjusted R2	.11	
F-value	2.91***	

^ap≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.55
Prediction Equation for Number of Violent Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.02	.04
Baseline number of violent crimes (logged)	1.73***	.30
Group by baseline interaction	-.79***	.17
Any residential treatment	.06	.04
Arrested for violent crime	-.01	.09
Arrested for property crime	-.10	.08
Arrested for drug crime	-.10	.08
Number of arrests before age 18	.00ᵃ	.00
Arrested in baseline six months	-.08	.07
Number of property crimes in baseline six months (logged)	-.03	.02
Number of drug crimes in baseline six months (logged)	-.03	.02
Number of incarceration days in baseline six months	.00*	.00
Ever used crack/other cocaine	.00	.05
Age at first drug use	.00	.01
Frequency of drug use in baseline six months (logged)	.04**	.01
Sex for money/drugs during baseline six months	-.10	.14
Sex with injection drug user during baseline six months	.17*	.07
Used a condom in baseline six months	-.03	.05
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.02	.04
Age	-.01**	.00
Highest grade completed	.02	.01
Misreported no drug use in baseline six months	-.11	.12
Misreported no drug use in baseline 30 days	.05	.10
Misreported no drug use in follow-up six months	-.18	.12
Misreported no drug use in follow-up 30 days	.13	.09
Primary marijuana user	-.17*	.07
Primary heroin user	-.15	.12
Primary crack user	-.07	.08
Primary non-crack user	-.11	.10
Intercept	.21	
Adjusted R2	.15	
F-value	2.97***	

ᵃp≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.56
Prediction Equation for Number of Drug Crimes (logged)
Birmingham (n=369)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.17	.12
Baseline number of drug crimes (logged)	.33**	.13
Group by baseline interaction	-.08	.08
Any residential treatment	-.14	.15
Any prison/jail treatment	.74*	.33
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	-.25	.19
Arrested for violent crime	.09	.33
Arrested for property crime	.23	.30
Arrested for drug crime	-.08	.31
Lifetime number of convictions	-.01	.01
Arrested in baseline six months	-.15	.13
Number of violent crimes in baseline six months (logged)	.23[a]	.13
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.01	.02
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.00	.03
Sex with injection drug user during baseline six months	-.33	.48
Past month income	-.11[a]	.06
Any illegal income in baseline six months	.62**	.24
Age	.01	.01
Male	-.11	.14
Misreported no drug use in baseline six months	.24	.30
Misreported no drug use in baseline 30 days	-.04	.23
Misreported no drug use in follow-up six months	-.12	.29
Misreported no drug use in follow-up 30 days	-.18	.25
Primary marijuana user	.33*	.15
Primary heroin user	-.02	.62
Primary crack user	-.02	.17
Primary non-crack user	-.42	.43
Intercept	.49	
Adjusted R2	.17	
F-value	3.57***	

[a] p<.10
* p<.05
** p<.01
*** p<.005

Table D.57
Prediction Equation for Number of Drug Crimes (logged)
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.08	.22
Baseline number of drug crimes (logged)	.06	.20
Group by baseline interaction	-.00	.11
Any residential treatment	.10	.20
Any prison/jail treatment	-.32	.39
Lifetime weeks in outpatient treatment	-.00	.01
Any outpatient treatment	-.06	.23
Arrested for violent crime	.03	.36
Arrested for property crime	-.22	.30
Arrested for drug crime	.09	.29
Lifetime number of convictions	-.00	.00
Arrested in baseline six months	-.23	.25
Number of violent crimes in baseline six months (logged)	-.06	.22
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.04	.03
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.08	.05
Sex with injection drug user during baseline six months	1.48***	.46
Past month income	.08	.09
Any illegal income in baseline six months	.49	.34
Age	-.01	.01
Male	-.42[a]	.22
Misreported no drug use in baseline six months	.09	.72
Misreported no drug use in baseline 30 days	.12	.49
Misreported no drug use in follow-up six months	.07	.69
Misreported no drug use in follow-up 30 days	-.34	.53
Primary marijuana user	.24	.27
Primary heroin user	No estimate; no heroin users at this site.	
Primary crack user	.38	.29
Primary non-crack user	.63	1.05
Intercept	1.39[a]	
Adjusted R2	.04	
F-value	1.21	

[a]$p<.10$
*$p<.05$
**$p<.01$
***$p<.005$

Table D.58
Prediction Equation for Number of Drug Crimes (logged)
Fewer Than Three Prior Convictions=yes
Chicago (n=243)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.10	.25
Baseline number of drug crimes (logged)	-.05	.14
Group by baseline interaction	.12	.09
Any residential treatment	.16	.23
Any prison/jail treatment	-.29	.38
Lifetime weeks in outpatient treatment	-.01	.00
Any outpatient treatment	.21	.31
Arrested for violent crime	.07	.59
Arrested for property crime	-.22	.52
Arrested for drug crime	-.17	.51
Arrested in baseline six months	.15	.21
Number of violent crimes in baseline six months (logged)	-.23	.19
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	.00	.03
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.01	.05
Sex with injection drug user during baseline six months	.71	1.54
Past month income	.18[a]	.11
Any illegal income in baseline six months	.69[a]	.38
Age	-.05***	.02
Male	-.21	.23
Misreported no drug use in baseline six months	-.86	1.53
Misreported no drug use in baseline 30 days	-.46	.39
Misreported no drug use in follow-up six months	-.89[a]	.47
Misreported no drug use in follow-up 30 days	.22	.31
Primary marijuana user	-.26	.45
Primary heroin user	.28	.44
Primary crack user	.01	.41
Primary non-crack user	.36	.63
Intercept	2.20*	
Adjusted R2	.13	
F-value	2.21***	

[a]p<.10
*p<.05
**p<.01
***p<.005

Table D.58
Prediction Equation for Number of Drug Crimes (logged)
Fewer Than Three Prior Convictions=no
Chicago (n=146)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.16**	.43
Baseline number of drug crimes (logged)	.90***	.31
Group by baseline interaction	-.45**	.17
Any residential treatment	.35	.28
Any prison/jail treatment	.05	.36
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	.20	.40
Arrested for violent crime	.42	.55
Arrested for property crime	.99*	.46
Arrested for drug crime	.58	.47
Arrested in baseline six months	-.05	.27
Number of violent crimes in baseline six months (logged)	-.17	.12
Number of incarceration days in baseline six months	-.00	.00
Age at first drug use	-.06	.04
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	-.11[a]	.07
Sex with injection drug user during baseline six months	5.17***	1.43
Past month income	.26	.17
Any illegal income in baseline six months	-.49	.50
Age	-.07***	.02
Male	-.75	.46
Misreported no drug use in baseline six months	-.85	1.02
Misreported no drug use in baseline 30 days	.84[a]	.47
Misreported no drug use in follow-up six months	-2.45***	.69
Misreported no drug use in follow-up 30 days	1.48***	.49
Primary marijuana user	-.01	.47
Primary heroin user	-.18	.48
Primary crack user	-.09	.45
Primary non-crack user	-.89	.65
Intercept	5.71***	
Adjusted R2	.27	
F-value	2.89***	

[a]p<.10
*p<.05
**p<.01
***p<.005

Table D.59
Prediction Equation for Number of Drug Crimes (logged)
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.16	.20
Baseline number of drug crimes (logged)	.24	.15
Group by baseline interaction	.00	.09
Any residential treatment	-.14	.30
Any prison/jail treatment	.44	1.24
Lifetime weeks in outpatient treatment	-.04*	.02
Any outpatient treatment	.14	.54
Arrested for violent crime	.03	.25
Arrested for property crime	.01	.25
Arrested for drug crime	.52	.32
Lifetime number of convictions	.02	.02
Arrested in baseline six months	-.20	.19
Number of violent crimes in baseline six months (logged)	.19*	.09
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	-.11	.05
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.26***	.09
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users in this site.	
Past month income	.20	.14
Any illegal income in baseline six months	.36	.32
Age	.06	.07
Male	-.47*	.20
Misreported no drug use in baseline six months	1.09	.77
Misreported no drug use in baseline 30 days	.78	.50
Misreported no drug use in follow-up six months	-.31	.65
Misreported no drug use in follow-up 30 days	-.34	.44
Primary marijuana user	-.05	.21
Primary heroin user	No estimate; no primary heroin users at this site.	
Primary crack user	-1.17	1.07
Primary non-crack user	-2.18[a]	1.28
Intercept	.89	
Adjusted R2	.27	
F-value	6.52***	

[a] p<.10
*p<.05
**p<.01
***p<.005

Table D.60
Prediction Equation for Number of Drug Crimes (logged)
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.13	.17
Baseline number of drug crimes (logged)	.58**	.21
Group by baseline interaction	-.28*	.12
Any residential treatment	.46**	.17
Any prison/jail treatment	.06	.29
Lifetime weeks in outpatient treatment	.00	.00
Any outpatient treatment	.08	.18
Arrested for violent crime	.00	.34
Arrested for property crime	.44	.30
Arrested for drug crime	.64*	.30
Lifetime number of convictions	.01*	.01
Arrested in baseline six months	.00	.24
Number of violent crimes in baseline six months (logged)	.01	.32
Number of incarceration days in baseline six months	.00**	.00
Age at first drug use	-.04*	.02
Days drugs used in baseline six months (logged)	-.00a	.00
Frequency of sex while high during baseline six months	.01	.05
Sex with injection drug user during baseline six months	.06	.31
Past month income	-.05	.09
Any illegal income in baseline six months	.63a	.35
Age	.01	.01
Male	.16	.20
Misreported no drug use in baseline six months	-.52	.49
Misreported no drug use in baseline 30 days	.55	.38
Misreported no drug use in follow-up six months	-.03	.46
Misreported no drug use in follow-up 30 days	-.52	.34
Primary marijuana user	.10	.21
Primary heroin user	-.20	.44
Primary crack user	-.25	.29
Primary non-crack user	-.05	.36
Intercept	-.72	
Adjusted R2	.21	
F-value	2.72***	

a p<.10
*p<.05
**p<.01
***p<.005

Table D.61
Prediction Equation for No Property Crime
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.53	.79
Property crime free in baseline six months	-.94	1.73
Group by baseline interaction	1.71	1.16
Lifetime weeks in residential treatment	-.01	.04
Lifetime weeks in outpatient treatment	-.02**	.01
Any residential treatment	.72	.68
Any prison/jail treatment	-.30	1.30
Arrested for violent crime	-18.72	19.48
Arrested for property crime	-19.91	19.53
Arrested for drug crime	-18.91	19.56
Number of arrests before age 18	.02	.09
Lifetime number of convictions	-.07	.05
Number of violent crimes in baseline six months (logged)	.05	.42
Number of drug crimes in baseline six months (logged)	-.25	.16
Number of drug use days in baseline six months (logged)	-.01*	.00
Sex risk index for baseline six months (logged)	.91a	.53
Number of people with whom had unprotected sex in baseline six months (logged)	-1.34*	.67
Sex for money/drugs during baseline six months	.29	.93
Sex with injection drug user during baseline six months	-1.53	1.68
Married	.43	.75
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	-.97	.64
Any illegal income in baseline six months	-.06	.91
Age	.02	.04
African-American	-1.22	.75
Hispanic	No estimate; no Hispanics at this site.	
Misreported no drug use in baseline six months	-.25	1.20
Misreported no drug use in baseline 30 days	-1.16	1.04
Misreported no drug use in follow-up six months	1.62	1.28
Misreported no drug use in follow-up 30 days	-1.38	.95
Intercept	24.61	

a p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.62
Prediction Equation for No Property Crime
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	25.06	35.86
Property crime free in baseline six months	24.90	55.67
Group by baseline interaction	2.24	20.07
Lifetime weeks in residential treatment	2.04	2.18
Any residential treatment	-28.91	35.99
Any prison/jail treatment	-34.32	27.19
Lifetime weeks in outpatient treatment	-.00	2.64
Arrested for violent crime	116.7	106.6
Arrested for property crime	20.38	30.14
Arrested for drug crime	-8.31	20.14
Number of arrests before age 18	-.40	.93
Lifetime number of convictions	.03	.35
Number of violent crimes in baseline six months (logged)	-61.49	46.68
Number of drug crimes in baseline six months (logged)	18.14	12.08
Number of drug use days in baseline six months (logged)	.16	.13
Sex risk index for baseline six months (logged)	6.37	9.48
Number of people with whom had unprotected sex in baseline six months (logged)	-11.92	17.37
Sex for money/drugs during baseline six months	-20.51	27.71
Sex with injection drug user during baseline six months	-24.42	17.71
Married	45.90	97.76
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	34.08	37.90
Any illegal income in baseline six months	-49.28	50.86
Age	-.25	.50
African-American	-1.79	15.46
Hispanic	105.6	180.7
Misreported no drug use in baseline six months	218.4	999.1
Misreported no drug use in baseline 30 days	22.41	31.36
Misreported no drug use in follow-up six months	-5.01	41.71
Misreported no drug use in follow-up 30 days	-23.69	54.42
Intercept	-15.37	

a p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.63
Prediction Equation for No Property Crime
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.63	.46
Property crime free in baseline six months	2.93**	1.05
Group by baseline interaction	-1.49*	.63
Lifetime weeks in residential treatment	.04	.03
Any residential treatment	-.52	.42
Any prison/jail treatment	-.06	.50
Lifetime weeks in outpatient treatment	.01	.01
Arrested for violent crime	.27	.86
Arrested for property crime	-.42	.72
Arrested for drug crime	-.15	.73
Number of arrests before age 18	-.02	.01
Lifetime number of convictions	-.01	.01
Number of violent crimes in baseline six months (logged)	-.10	.18
Number of drug crimes in baseline six months (logged)	-.01	.08
Number of drug use days in baseline six months (logged)	-.00*	.00
Sex risk index for baseline six months (logged)	.10	.22
Number of people with whom had unprotected sex in baseline six months (logged)	.38	.38
Sex for money/drugs during baseline six months	-1.26*	.55
Sex with injection drug user during baseline six months	-3.28*	1.55
Married	1.60*	.70
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.78a	.45
Any illegal income in baseline six months	-1.09*	.48
Age	.01	.02
African-American	-.36	.49
Hispanic	.45	.99
Misreported no drug use in baseline six months	-.03	1.47
Misreported no drug use in baseline 30 days	.40	.63
Misreported no drug use in follow-up six months	1.89	1.53
Misreported no drug use in follow-up 30 days	.95	.61
Intercept	.52	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.64
Prediction Equation for No Property Crime
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.23	.32
Property crime free in baseline six months	2.52**	.90
Group by baseline interaction	-.72	.55
Lifetime weeks in residential treatment	-.02	.01
Any residential treatment	.64	.50
Any prison/jail treatment	-1.08	1.84
Lifetime weeks in outpatient treatment	.05	.05
Arrested for violent crime	-.33	.37
Arrested for property crime	-.49	.37
Arrested for drug crime	.14	.53
Number of arrests before age 18	-.05*	.02
Lifetime number of convictions	.04	.04
Number of violent crimes in baseline six months (logged)	-.20	.13
Number of drug crimes in baseline six months (logged)	.02	.10
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	-.27	.18
Number of people with whom had unprotected sex in baseline six months (logged)	.04	.27
Sex for money/drugs during baseline six months	12.61	13.11
Sex with injection drug user during baseline six months	No estimate; no sex with injection users at this site.	
Married	.42	1.42
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.38	.44
Any illegal income in baseline six months	-.15	.42
Age	.26**	.10
African-American	.33	.30
Hispanic	-.48	.41
Misreported no drug use in baseline six months	1.24	1.38
Misreported no drug use in baseline 30 days	-.38	.73
Misreported no drug use in follow-up six months	2.29[a]	1.33
Misreported no drug use in follow-up 30 days	-.19	.66
Intercept	-3.53*	

[a] $p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.65
Prediction Equation for No Property Crime
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.55	.72
Property crime free in baseline six months	1.31	1.43
Group by baseline interaction	-.20	.85
Lifetime weeks in residential treatment	.00	.01
Any residential treatment	-.25	.47
Any prison/jail treatment	-1.22*	.54
Lifetime weeks in outpatient treatment	-.01	.01
Arrested for violent crime	-1.02	1.09
Arrested for property crime	-.85	1.03
Arrested for drug crime	-.27	1.09
Number of arrests before age 18	-.00	.00
Lifetime number of convictions	-.03[a]	.02
Number of violent crimes in baseline six months (logged)	-1.10[a]	.57
Number of drug crimes in baseline six months (logged)	.17	.16
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	.24	.32
Number of people with whom had unprotected sex in baseline six months (logged)	-1.04[a]	.56
Sex for money/drugs during baseline six months	-.82	1.09
Sex with injection drug user during baseline six months	-.25	.76
Married	-.03	.59
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	1.09*	.48
Any illegal income in baseline six months	-1.47*	.71
Age	.00	.03
African-American	.85	.52
Hispanic	13.19	454.0
Misreported no drug use in baseline six months	.76	.94
Misreported no drug use in baseline 30 days	-1.00	.63
Misreported no drug use in follow-up six months	4.44	4.14
Misreported no drug use in follow-up 30 days	-.58	.87
Intercept	1.52	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.66
Prediction Equation for Any Drug Crime
Birmingham (n=366)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.64	.95
Any drug crime in baseline six months	.36	1.61
Group by baseline interaction	.37	1.06
Any residential treatment	.27	.62
Any prison/jail treatment	-2.56*	1.15
Lifetime weeks in outpatient treatment	.01	.05
Any outpatient treatment	1.56	1.30
Arrested for violent crime	-.71	1.40
Arrested for property crime	-.91	1.33
Arrested for drug crime	.36	1.40
Lifetime number of convictions	.07	.07
Arrested in baseline six months	.51	.52
Number of violent crimes in baseline six months (logged)	-.89*	.41
Number of incarceration days in baseline six months	.00	.01
Age at first drug use	.06	.09
Days drugs used in baseline six months (logged)	-.00	.00
Frequency of sex while high during baseline six months	-.13	.12
Sex with injection drug user during baseline six months	12.11	639.60
Past month income	.63*	.28
Any illegal income in baseline six months	-1.94	.77
Age	-.01	.03
Male	1.39	.86
Misreported no drug use in baseline six months	-.49	1.04
Misreported no drug use in baseline 30 days	-.28	.89
Misreported no drug use in follow-up six months	.14	1.25
Misreported no drug use in follow-up 30 days	.63	.89
Intercept	-1.64	1.34

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.67
Prediction Equation for Any Drug Crime
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.01	1.67
Any drug crime in baseline six months	23.30	92.87
Group by baseline interaction	-9.77	46.44
Any residential treatment	-1.11	1.39
Any prison/jail treatment	.59	2.00
Lifetime weeks in outpatient treatment	.49	.58
Any outpatient treatment	-3.07	2.93
Arrested for violent crime	2.36	2.68
Arrested for property crime	2.64	2.15
Arrested for drug crime	-1.97	1.66
Lifetime number of convictions	.01	.04
Arrested in baseline six months	1.22	1.58
Number of violent crimes in baseline six months (logged)	2.27[a]	1.34
Number of incarceration days in baseline six months	-.04*	.02
Age at first drug use	.31	.20
Days drugs used in baseline six months (logged)	.00	.00
Frequency of sex while high during baseline six months	.03	.35
Sex with injection drug user during baseline six months	-2.99	2.55
Past month income	-1.62[a]	.83
Any illegal income in baseline six months	-.29	.54
Age	.20	.15
Male	4.59*	2.17
Misreported no drug use in baseline six months	478.9	585.4
Misreported no drug use in baseline 30 days	-.91	2.28
Misreported no drug use in follow-up six months	-42.06[a]	23.19
Misreported no drug use in follow-up 30 days	51.88*	23.69
Intercept	-14.79[a]	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.68
Prediction Equation for Any Drug Crime
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.81[a]	.42
Any drug crime in baseline six months	.99	.93
Group by baseline interaction	.13	.58
Any residential treatment	-.16	.31
Any prison/jail treatment	.12	.50
Lifetime weeks in outpatient treatment	.00	.01
Any outpatient treatment	-.03	.41
Arrested for violent crime	.33	.67
Arrested for property crime	.60	.58
Arrested for drug crime	.63	.57
Lifetime number of convictions	.01	.05
Arrested in baseline six months	.02	.31
Number of violent crimes in baseline six months (logged)	.50*	.25
Number of incarceration days in baseline six months	.00	.00
Age at first drug use	.05	.04
Days drugs used in baseline six months (logged)	-.00	.00
Frequency of sex while high during baseline six months	.06	.07
Sex with injection drug user during baseline six months	-18.63	1338.40
Past month income	-.01	.15
Any illegal income in baseline six months	-.84[a]	.48
Age	.04[a]	.02
Male	1.19***	.41
Misreported no drug use in baseline six months	-.57	1.30
Misreported no drug use in baseline 30 days	-.17	.50
Misreported no drug use in follow-up six months	2.37*	1.20
Misreported no drug use in follow-up 30 days	-.43	.43
Intercept	-4.38***	1.39

[a] p≤ .10
* p≤ .05
** p≤ .01
*** p≤ .005

Table D.69
Prediction Equation for Any Drug Crime
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.08	.38
Any drug crime in baseline six months	.43	.86
Group by baseline interaction	.12	.52
Any residential treatment	.19	.41
Any prison/jail treatment	-1.51	1.65
Lifetime weeks in outpatient treatment	.13	.12
Any outpatient treatment	-.02	1.07
Arrested for violent crime	-.11	.38
Arrested for property crime	-.18	.39
Arrested for drug crime	-.95*	.46
Lifetime number of convictions	.01	.03
Arrested in baseline six months	.44	.30
Number of violent crimes in baseline six months (logged)	-.29*	.13
Number of incarceration days in baseline six months	-.01	.00
Age at first drug use	.10*	.06
Days drugs used in baseline six months (logged)	-.00	.00
Frequency of sex while high during baseline six months	-.13	.12
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users.	
Past month income	.01	.19
Any illegal income in baseline six months	-.65[a]	.39
Age	-.06	.10
Male	1.28***	.39
Misreported no drug use in baseline six months	-.50	1.02
Misreported no drug use in baseline 30 days	-.28	.73
Misreported no drug use in follow-up six months	1.47	1.30
Misreported no drug use in follow-up 30 days	.04	.70
Intercept	-.68	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.70
Prediction Equation for Any Drug Crime
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.35	.62
Any drug crime in baseline six months	1.57	1.20
Group by baseline interaction	-.52	.72
Any residential treatment	-.60[a]	.33
Any prison/jail treatment	.07	.54
Lifetime weeks in outpatient treatment	-.00	.01
Any outpatient treatment	-.36	.36
Arrested for violent crime	-.59	.94
Arrested for property crime	-1.23	.87
Arrested for drug crime	-1.65[a]	.88
Lifetime number of convictions	-.03*	.01
Arrested in baseline six months	.37	.46
Number of violent crimes in baseline six months (logged)	-.34	.59
Number of incarceration days in baseline six months	-.01***	.00
Age at first drug use	.09[a]	.05
Days drugs used in baseline six months (logged)	-.01***	.00
Frequency of sex while high during baseline six months	-.03	.10
Sex with injection drug user during baseline six months	-.00	.57
Past month income	.40[a]	.22
Any illegal income in baseline six months	-.53	.60
Age	-.03	.02
Male	.14	.41
Misreported no drug use in baseline six months	.11	.87
Misreported no drug use in baseline 30 days	.14	.67
Misreported no drug use in follow-up six months	.02	1.11
Misreported no drug use in follow-up 30 days	1.24	.77
Intercept	2.11	

[a] p≤ .10
* p≤ .05
** p≤ .01
*** p≤ .005

Table D.71
Prediction Equation for No Crime
Birmingham (n=366)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.72	.47
No crime during baseline six months	.76	1.07
Group by baseline interaction	-.01	.71
Lifetime weeks in residential treatment	.03	.03
Any residential treatment	.07	.53
Any prison/jail treatment	-.60	.89
Lifetime weeks in outpatient treatment	.01[a]	.01
Arrested for violent crime	-3.81*	1.62
Arrested for property crime	-3.78*	1.59
Arrested for drug crime	-2.42	1.57
Number of arrests before age 18	-.03	.04
Lifetime number of convictions	-.02	.03
Number of violent crimes in baseline six months (logged)	-.55	.36
Number of drug crimes in baseline six months (logged)	-.25[a]	.13
Number of drug use days in baseline six months (logged)	.00	.00
Sex risk index for baseline six months (logged)	.30	.29
Number of people with whom had unprotected sex in baseline six months (logged)	-.98*	.39
Sex for money/drugs during baseline six months	.21	.63
Sex with injection drug user during baseline six months	.81	1.52
Married	-.03	.52
Days lived at current address in baseline six months	-.00[a]	.00
Employed in baseline six months	.31	.36
Any illegal income in baseline six months	-1.43*	.63
Age	.02	.02
African-American	-.71	.47
Hispanic	No estimate, no Hispanics at this site.	
Misreported no drug use in baseline six months	.02	.79
Misreported no drug use in baseline 30 days	-.63	.67
Misreported no drug use in follow-up six months	-.51	.85
Misreported no drug use in follow-up 30 days	.13	.72
Intercept	4.71*	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.72
Prediction Equation for No Crime
Canton (n=133)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.05	.00
No crime during baseline six months	1.24	2.08
Group by baseline interaction	-.27	1.17
Lifetime weeks in residential treatment	.05[a]	.03
Any residential treatment	-.20	.66
Any prison/jail treatment	-.49	1.18
Lifetime weeks in outpatient treatment	.03	.05
Arrested for violent crime	1.12	1.26
Arrested for property crime	.34	.88
Arrested for drug crime	-.19	.85
Number of arrests before age 18	-.03	.04
Lifetime number of convictions	.03	.03
Number of violent crimes in baseline six months (logged)	-1.79*	.87
Number of drug crimes in baseline six months (logged)	.09	.20
Number of drug use days in baseline six months (logged)	.00	.01
Sex risk index for baseline six months (logged)	.41	.34
Number of people with whom had unprotected sex in baseline six months (logged)	-1.10[a]	.66
Sex for money/drugs during baseline six months	-.63	.89
Sex with injection drug user during baseline six months	-2.46[a]	1.46
Married	.50	.98
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	-.73	.64
Any illegal income in baseline six months	-2.34*	1.06
Age	.04	.04
African-American	.14	.64
Hispanic	15.32	329.6
Misreported no drug use in baseline six months	.250[a]	522.1
Misreported no drug use in baseline 30 days	.28	1.51
Misreported no drug use in follow-up six months	2.05	1.85
Misreported no drug use in follow-up 30 days	-2.30[a]	1.40
Intercept	.25	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table D.73
Prediction Equation for No Crime
Chicago (n=390)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.22	.29
No crime during baseline six months	.21	.93
Group by baseline interaction	.08	.55
Lifetime weeks in residential treatment	.04[a]	.55
Any residential treatment	-.28	.02
Any prison/jail treatment	.40	.33
Lifetime weeks in outpatient treatment	.01	.00
Arrested for violent crime	.04	.62
Arrested for property crime	.19	.53
Arrested for drug crime	.30	.53
Number of arrests before age 18	-.03	.02
Lifetime number of convictions	-.00	.02
Number of violent crimes in baseline six months (logged)	-.10	.17
Number of drug crimes in baseline six months (logged)	.02	.07
Number of drug use days in baseline six months (logged)	-.00[a]	.00
Sex risk index for baseline six months (logged)	.00	.18
Number of people with whom had unprotected sex in baseline six months (logged)	.34	.30
Sex for money/drugs during baseline six months	-1.34***	.48
Sex with injection drug user during baseline six months	-16.94***	1437.5
Married	.79[a]	.41
Days lived at current address in baseline six months	.00	.00
Employed in baseline six months	.22	.31
Any illegal income in baseline six months	-1.24	.42
Age	.03	.02
African-American	-.73[a]	.41
Hispanic	-.24	.69
Misreported no drug use in baseline six months	-1.14	1.30
Misreported no drug use in baseline 30 days	.05	.44
Misreported no drug use in follow-up six months	2.11***	.78
Misreported no drug use in follow-up 30 days	-.57	.38
Intercept	-.41	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.74
Prediction Equation for No Crime
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.25	.25
No crime during baseline six months	.75	.93
Group by baseline interaction	-.10	.60
Lifetime weeks in residential treatment	-.02	.01
Any residential treatment	-.10	.43
Any prison/jail treatment	.95	1.51
Lifetime weeks in outpatient treatment	.04[a]	.02
Arrested for violent crime	.04	.32
Arrested for property crime	-.43	.33
Arrested for drug crime	-.08	.42
Number of arrests before age 18	-.03	.02
Lifetime number of convictions	.01	.03
Number of violent crimes in baseline six months (logged)	-.17	.14
Number of drug crimes in baseline six months (logged)	-.07	.10
Number of drug use days in baseline six months (logged)	-.00*	.00
Sex risk index for baseline six months (logged)	-.33*	.17
Number of people with whom had unprotected sex in baseline six months (logged)	.04	.26
Sex for money/drugs during baseline six months	-.85	1.79
Sex with injection drug user during baseline six months	No estimate; no sex with injection drug users at this site.	
Married	.60	1.11
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	.27	.34
Any illegal income in baseline six months	-.00	.42
Age	.14[a]	.08
African-American	-.24	.26
Hispanic	-.82*	.40
Misreported no drug use in baseline six months	-.26	.99
Misreported no drug use in baseline 30 days	-.33	.63
Misreported no drug use in follow-up six months	2.05*	.87
Misreported no drug use in follow-up 30 days	-.54	.57
Intercept	-1.83	

[a] p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.75
Prediction Equation for No Crime
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.15	.49
No crime during baseline six months	-.13	1.02
Group by baseline interaction	.12	.61
Lifetime weeks in residential treatment	.00	.01
Any residential treatment	-.51	.36
Any prison/jail treatment	-.93[a]	.48
Lifetime weeks in outpatient treatment	-.00	.00
Arrested for violent crime	-1.33[a]	.74
Arrested for property crime	-1.05	.68
Arrested for drug crime	-1.44*	.70
Number of arrests before age 18	.01	.01
Lifetime number of convictions	-.06**	.02
Number of violent crimes in baseline six months (logged)	-.77	.54
Number of drug crimes in baseline six months (logged)	.08	.13
Number of drug use days in baseline six months (logged)	-.00	.00
Sex risk index for baseline six months (logged)	-.13	.22
Number of people with whom had unprotected sex in baseline six months (logged)	.25	.40
Sex for money/drugs during baseline six months	-.21	.95
Sex with injection drug user during baseline six months	-1.18*	.57
Married	.20	.47
Days lived at current address in baseline six months	-.00	.00
Employed in baseline six months	1.12***	.33
Any illegal income in baseline six months	-1.53*	.66
Age	.02	.02
African-American	.71*	.36
Hispanic	2.22	1.36
Misreported no drug use in baseline six months	.30	.75
Misreported no drug use in baseline 30 days	-.31	.57
Misreported no drug use in follow-up six months	1.54	1.01
Misreported no drug use in follow-up 30 days	.67	.66
Intercept	1.45	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.76
Prediction Equation for Any Arrest
Birmingham (n=378)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.29	.44
Ever incarcerated	-2.34**	.84
Incarceration days in baseline six months	1.45**	.62
Number of property crimes in baseline six months (logged)	.08	.20
Misreported no drug use in baseline six months	-70.45	366.70
Misreported no drug use in baseline 30 days	-2.38	3.23
Misreported no drug use in follow-up six months	.08	1.22
Misreported no drug use in follow-up 30 days	.17	1.02
Intercept	-.97	

[a]p$\geq$.10
*p$\geq$.05
**p$\geq$.01
***p$\geq$.005

Table D.77
Prediction Equation for Any Arrest
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.77	.71
Incarceration days in baseline six months	-.78	.66
Ratio days used/days at risk	.81	.69
Misreported no drug use in baseline six months	186.80	649.10
Misreported no drug use in baseline 30 days	2.04	3.57
Misreported no drug use in follow-up six months	-2.11	3.48
Misreported no drug use in follow-up 30 days	1.34	3.34
Intercept	-3.24*	

[a]$p \geq .10$
*$p \geq .05$
**$p \geq .01$
***$p \geq .005$

Table D.78
Prediction Equation for Any Arrest
Chicago (n=488)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.32	.27
Baseline number of drug use days	.01*	.00
Ratio days used/days at risk	-1.14*	.54
Highest grade completed	.17*	.08
Sex with injection drug user in baseline six months	2.40*	1.00
Age	-.05**	.02
Lifetime number of convictions	.03	.02
Misreported no drug use in baseline six months	-60.08	59.86
Misreported no drug use in baseline 30 days	.84*	.40
Misreported no drug use in follow-up six months	-.14	.74
Misreported no drug use in follow-up 30 days	1.11**	.40
Intercept	-.54	

[a]$p \geq .10$
*$p \geq .05$
**$p \geq .01$
***$p \geq .005$

Table D.79
Prediction Equation for Any Arrest
Orlando (n=470)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.11	.21
Baseline number of drug use days	.02*	.01
Lifetime number of convictions	.08**	.03
Ratio of days used/days at risk in baseline six months	-3.13*	1.31
Number of property crimes in baseline six months (logged)	.18*	.09
Past month income	.36*	.17
Age	-.28***	.08
African-American	.39a	.23
Hispanic	.35	.37
Misreported no drug use in baseline six months	.29	.88
Misreported no drug use in baseline 30 days	.08	.64
Misreported no drug use in follow-up six months	.11	.84
Misreported no drug use in follow-up 30 days	.06	.58
Intercept	2.67*	1.25

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.80
Prediction Equation for Any Arrest
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.26**	.33
Baseline number of drug use days	-.00	.00
Lifetime number of convictions	-.02[a]	.01
Number of drugs used in baseline six months	.58**	.19
Employed in baseline six months	.77*	.34
Male	-1.12*	.45
Age	-.03	.02
Misreported no drug use in baseline six months	.34	.81
Misreported no drug use in baseline 30 days	.02	.63
Misreported no drug use in follow-up six months	-.11	.89
Misreported no drug use in follow-up 30 days	.07	.66
Intercept	-1.78[a]	

[a]p≥.10
*p≥.05
**p≥.01
***p≥.005

Table D.81
Prediction Equation for Any Technical Violation
Birmingham (n=378)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.23*	.51
Lifetime weeks in residential treatment	.08**	.03
Lifetime weeks in outpatient treatment	-.07	.05
Number of days incarcerated during baseline six months	.01*	.00
Past month income	-.49	.31
Age	.05*	.03
Misreported no drug use in baseline six months	-.99	1.40
Misreported no drug use in baseline 30 days	.21	.84
Misreported no drug use in follow-up six months	-1.40	1.98
Misreported no drug use in follow-up 30 days	-.26	1.11
Intercept	-5.70***	

^{a}p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.82
Prediction Equation for Any technical Violation
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	12.99	14.07
Lifetime weeks in residential treatment	-.45	2.3
Arrested for violent crime	13.16	26.13
Arrested for property crime	17.87	23.37
Arrested for drug crime	10.19	22.23
Number of violent crimes in baseline six months (logged)	20.31	23.15
Number of property crimes in baseline six months (logged)	-19.77	21.89
Days incarcerated in baseline six months	.12	.13
Days used/days at risk in baseline six months	8.39	22.44
Past month income	4.64	9.85
African-American	12.92	30.13
Hispanic	-22.60	232.70
Misreported no drug use in baseline six months	1.15	50.92
Misreported no drug use in baseline 30 days	-2.91	10.95
Misreported no drug use in follow-up six months	1.32	41.80
Misreported no drug use in follow-up 30 days	-8.26	43.47
Intercept	-69.52	

[a]p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.83
Prediction Equation for Any Technical Violation
Chicago (n=477)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.22	.25
Arrested for violent crime	-.80	.62
Arrested for property crime	-.59	.54
Arrested for drug crime	-.88	.54
Number of property crimes in baseline six months (logged)	.15*	.07
Any illegal income in baseline six months	.92**	.36
Sex with injection drug user in baseline six months	2.06*	1.04
Age	-.06***	.02
Misreported no drug use in baseline six months	-.03	1.21
Misreported no drug use in baseline 30 days	.13	.43
Misreported no drug use in follow-up six months	.39	.59
Misreported no drug use in follow-up 30 days	.48	.44
Intercept	1.01	

^{a}p≤ .10
*p≤ .05
**p≤ .01
***p≤ .005

Table D.84
Prediction Equation for Any Technical Violation
Orlando (n=470)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.41	.34
Arrested for violent crime	-.26	.44
Arrested for property crime	-.85[a]	.51
Arrested for drug crime	-.06	.51
Number of violent crimes in baseline six months (logged)	-.03	.18
Number of incarceration days in baseline six months	-.01	.01
African-American	.76[a]	.41
Hispanic	.33	.59
Misreported no drug use in baseline six months	-.93	1.31
Misreported no drug use in baseline 30 days	.44	.81
Misreported no drug use in follow-up six months	.61	.92
Misreported no drug use in follow-up 30 days	.79	.69
Intercept	-3.01***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table D.85
Prediction Equation for Any technical
Portland (n=378)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.35	.24
Lifetime weeks in outpatient treatment	.01***	.00
Number of incarceration days in baseline six months	.01*	.00
Ratio of days used/days at risk in baseline six months	1.00*	.44
Past month income	-.38*	.16
Any illegal income in baseline six months	.57	.47
Male	-.85**	.33
Age	-.03ª	.02
Misreported no drug use in baseline six months	.94	.63
Misreported no drug use in baseline 30 days	.29	.52
Misreported no drug use in follow-up six months	-.58	.78
Misreported no drug use in follow-up 30 days	.58	.53
Intercept	.26	

ª$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Appendix E

Prediction Equations for HIV Risk Behavior Outcomes

Primary Outcome Analyses

Frequency of Unprotected Sex

Tables E.1 to E.7 show final regression results for all covariates as well as the baseline frequency of unprotected sex, group assignment, and the interaction of the two. Findings summarized above in Table 8.1 were drawn from Tables E.1 (Birmingham), E.4 (Canton), E.5 (Chicago), E.6 (Orlando), and E.7 (Portland). Because we saw evidence of an interaction between group assignment and incarceration in Birmingham (Table E.1), we added Tables E.2 and E.3, which show separate regression results for cases who were not incarcerated on any day during the baseline period (Table E.2) and cases who were incarcerated on any day during baseline (Table E.3). Finding no significant main or interactive effect of group assignment in Tables E.2 and E.3, we concluded that findings based on the full sample (Table E.1) accurately depict a non-effect of TASC on frequency of unprotected sex at that site.

Frequency of Sex While High

Tables E.8 to E.13 show final regression results for all covariates as well as the baseline frequency of sex while high, group assignment, and the interaction of the two. Findings summarized above in Table 8.2 were drawn from Tables E.8 and E.9 (Birmingham), E.10 (Canton), E.11 (Chicago), E.12 (Orlando), and E.13 (Portland). Because there was an interaction between group assignment and incarceration in Birmingham, we explored the nature of this interaction by splitting the Birmingham sample into cases who were not incarcerated on any day during the baseline period (Table E.8) and cases who were incarcerated on any day during the baseline period (Table E.9). While TASC had no main or interactive effect on frequency of sex while high in the subsample with no incarceration days, TASC had a significant main effect on this outcome measure in subsample that did report incarceration days. Accordingly we concluded that split-sample findings were needed to depict accurately the effect of TASC on frequency of sex while high in Birmingham.

Supplemental Outcome Analyses

Frequency of Unprotected Sex

Tables E.14 to E.18 report regression analyses to determine whether frequency of unprotected sex showed significantly greater reductions for TASC offenders who received treatment services than for those who did not. In Birmingham (Table E.14), the interaction between any service and baseline behavior was significant and negative; Birmingham TASC offenders who were initially high on frequency of unprotected sex showed a greater reduction in this risk behavior if they received treatment services. Neither the any-service variable nor its interaction with baseline behavior was associated with frequency of unprotected sex at follow-up at any other site (see Tables E.15 to E.18).

Tables E.19 to E.23 show results of regressions in which dummy variables for primary drug were added to the prediction equations for primary outcome anaylses. None of these dummy variables had a significant relationship to unprotected sex at follow-up or changed findings regarding the relationship between group assignment and unprotected sex.

Tables E.24 to E.28 show results of logistic regressions predicting the yes/no measure of unprotected sex, i.e., the no-risk outcome measure. Group assignment and baseline unprotected sex had a significant interactive effect at one site, Canton, where offenders who had engaged in unprotected sex during the baseline period were more likely to report having engaged in no unprotected sex during the follow-up period if they had been assigned to TASC (Table E.25).

Frequency of Sex While High

Tables E.29 to E.34 report regression analyses to determine whether frequency of sex while high showed significantly greater reductions among TASC offenders who received treatment services than among those who did not. Neither the any-service variable nor its interaction with the baseline behavior measure was associated with frequency of unprotected sex at follow-up at any site.

Tables E.35 to E.40 show results from regression analyses in which dummy variables for primary drug were added to the set of predictors used in primary outcome analyses. None of these variables had a significant relationship to sex while high during the follow-up period or changed findings regarding the relationship between group assignment and sex while high.

Tables E.41 to E.46 show ressults from logistic regression analyses focused on the yes/no measure of sex while high. We found significant and favorable effects of TASC in interaction with offender characteristics at two sites. In Birmingham, offenders who had been incarcerated for one or more days during baseline were more likely to report having engaged in no sex while high during follow-up if they were assigned to TASC (see Table E.42). In Orlando, offenders who had engaged in any sex while high during baseline were more likely to report having engaged in no sex while high during follow-up if they had been assigned to TASC (see Table E.45).

Table E.1
Prediction Equation for Frequency of Unprotected Sex
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.81	.44
Baseline frequency of unprotected sex	.29*	.14
Group by baseline interaction	-.01	.09
Lifetime weeks in outpatient treatment	.00	.00
Number of property crimes in baseline six months (logged)	.00	.02
Number of drug crimes in baseline six months (logged)	-.01	.02
Times arrested before the age of 18	.00	.02
Any incarceration during baseline six months	2.38***	.71
Group by incarceration interaction	-1.24***	.44
Any illegal income in baseline six months	-.77	.45
Age at first drug use	-.07	.04
Number of drugs used in baseline six months	.04	.17
Sex risk index for baseline six months (logged)	.04	.03
Any sex for money/drugs in baseline six months	1.24***	.40
Marital status (married=1)	-.64	.33
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.54	.29
Past-month legal income	.47***	.12
Age	-.01	.01
Misreported no drug use in baseline 30 days	-.07	.45
Misreported no drug use in follow-up 30 days	.24	.50
Misreported no drug use in baseline six months	-.63	.57
Misreported no drug use in follow-up six months	.14	.57
Intercept	.99	
Adjusted R^2	.22	
F-value	5.50***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.2
Prediction Equation for Frequency of Unprotected Sex
Birmingham, Incarceration = No (n=159)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.65	.61
Baseline frequency of unprotected sex	.28	.25
Group by baseline interaction	-.03	.16
Lifetime weeks in outpatient treatment	-.01	.01
Number of property crimes in baseline six months (logged)	.05	.06
Number of drug crimes in baseline six months (logged)	.01	.05
Times arrested before the age of 18	.02	.04
Any illegal income in baseline six months	.59	.54
Age at first drug use	-.08	.07
Number of drugs used in baseline six months	-.32	.27
Sex risk index for baseline six months (logged)	.01	.06
Any sex for money/drugs in baseline six months	1.76*	.86
Marital status (married=1)	-.29	.59
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.61	.46
Past-month legal income	.25	.21
Age	-.01	.02
Misreported no drug use in baseline 30 days	.73	.69
Misreported no drug use in follow-up 30 days	-.48	1.02
Misreported no drug use in baseline six months	-1.49	.92
Misreported no drug use in follow-up six months	.53	1.12
Intercept	2.68	
Adjusted R^2	.10	
F-value	1.81*	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.3
Prediction Equation for Frequency of Unprotected Sex
Birmingham, Incarceration = Yes (n=188)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.59	.47
Baseline frequency of unprotected sex	.36	.20
Group by baseline interaction	-.02	.12
Lifetime weeks in outpatient treatment	.00	.01
Number of property crimes in baseline six months (logged)	-.02	.02
Number of drug crimes in baseline six months (logged)	.03	.02
Times arrested before the age of 18	-.05	.04
Any illegal income in baseline six months	-1.25*	.51
Age at first drug use	-.08	.05
Number of drugs used in baseline six months	.28	.22
Sex risk index for baseline six months (logged)	.03	.04
Any sex for money/drugs in baseline six months	1.46**	.52
Marital status (married=1)	-.83	.45
Months married or living with primary partner	.02	.01
Living at home at time of baseline interview	.30	.42
Past-month legal income	.78***	.17
Age	-.02	.02
Misreported no drug use in baseline 30 days	-.58	.61
Misreported no drug use in follow-up 30 days	.90	.57
Misreported no drug use in baseline six months	-.02	.77
Misreported no drug use in follow-up six months	-.42	.68
Intercept	2.47	
Adjusted R²	.33	
F-value	5.42***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.4
Prediction Equation for Frequency of Unprotected Sex
Canton (n=134)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.27	.68
Baseline frequency of unprotected sex	.63	.32
Group by baseline interaction	-.29	.19
Lifetime weeks in outpatient treatment	.01	.01
Number of property crimes in baseline six months (logged)	-.05	.03
Number of drug crimes in baseline six months (logged)	-.05	.03
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	-.16	.45
Any illegal income in baseline six months	.94	.76
Age at first drug use	-.05	.05
Number of drugs used in baseline six months	.52	.30
Sex risk index for baseline six months (logged)	.10*	.05
Any sex for money/drugs in baseline six months	.68	.61
Marital status (married=1)	.29	.69
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.21	.48
Past-month legal income	.01	.19
Age	-.01	.03
Misreported no drug use in baseline 30 days	-1.16	1.01
Misreported no drug use in follow-up 30 days	1.33	1.09
Misreported no drug use in baseline six months	2.41	1.52
Misreported no drug use in follow-up six months	.52	1.48
Intercept	-.38	
Adjusted R^2	.22	
F-value	2.67***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.5
Prediction Equation for Frequency of Unprotected Sex
Chicago (n=391)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.12	.36
Baseline frequency of unprotected sex	.46***	.16
Group by baseline interaction	-.10	.10
Lifetime weeks in outpatient treatment	.00	.00
Number of property crimes in baseline six months (logged)	-.04*	.02
Number of drug crimes in baseline six months (logged)	-.01	.01
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.08	.35
Any illegal income in baseline six months	-1.01*	.44
Age at first drug use	-.08*	.03
Number of drugs used in baseline six months	.03	.15
Sex risk index for baseline six months (logged)	.02	.03
Any sex for money/drugs in baseline six months	.14	.41
Marital status (married=1)	-.11	.39
Months married or living with primary partner	.00	.00
Living at home at time of baseline interview	.17	.28
Past-month legal income	.32*	.13
Age	.00	.02
Misreported no drug use in baseline 30 days	.13	.41
Misreported no drug use in follow-up 30 days	.38	.38
Misreported no drug use in baseline six months	-1.60	1.17
Misreported no drug use in follow-up six months	.52	1.48
Intercept	2.37*	
Adjusted R2	.16	
F-value	4.35***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.6
Prediction Equation for Frequency of Unprotected Sex
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.33	.20
Baseline frequency of unprotected sex	.53***	.13
Group by baseline interaction	-.16*	.08
Lifetime weeks in outpatient treatment	.05***	.01
Number of property crimes in baseline six months (logged)	-.01	.01
Number of drug crimes in baseline six months (logged)	.03*	.01
Times arrested before the age of 18	-.02*	.01
Any incarceration during baseline six months	-.25	.23
Any illegal income in baseline six months	.26	.28
Age at first drug use	-.04	.04
Number of drugs used in baseline six months	-.27	.17
Sex risk index for baseline six months (logged)	.03	.02
Any sex for money/drugs in baseline six months	.36	1.09
Marital status (married=1)	1.57*	.75
Months married or living with primary partner	.24***	.06
Living at home at time of baseline interview	.40*	.19
Past-month legal income	-.04	.13
Age	.19***	.06
Misreported no drug use in baseline 30 days	-1.02*	.46
Misreported no drug use in follow-up 30 days	1.19	.71
Misreported no drug use in baseline six months	-.51	.41
Misreported no drug use in follow-up six months	.18	.60
Intercept	-1.78	
Adjusted R^2	.30	
F-value	8.80***	

[a]$p \leq .10$
*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

Table E.7
Prediction Equation for Frequency of Unprotected Sex
Portland (n=330)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.12	.40
Baseline frequency of unprotected sex	.36*	.17
Group by baseline interaction	-.07	.10
Lifetime weeks in outpatient treatment	.01	.00
Number of property crimes in baseline six months (logged)	-.03	.02
Number of drug crimes in baseline six months (logged)	-.03	.02
Times arrested before the age of 18	.01	.01
Any incarceration during baseline six months	.91**	.34
Any illegal income in baseline six months	.59	.54
Age at first drug use	.03	.03
Number of drugs used in baseline six months	.05	.17
Sex risk index for baseline six months (logged)	.05	.03
Any sex for money/drugs in baseline six months	-1.10	.86
Marital status (married=1)	.73	.48
Months married or living with primary partner	.00	.01
Living at home at time of baseline interview	-.59*	.28
Past-month legal income	.14	.15
Age	.00	.02
Misreported no drug use in baseline 30 days	.35	.53
Misreported no drug use in follow-up 30 days	.24	.70
Misreported no drug use in baseline six months	-.05	.54
Misreported no drug use in follow-up six months	-.81	.73
Intercept	.42	
Adjusted R²	.12	
F-value	2.98***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.8
Prediction Equation for Frequency of Sex While High
Birmingham, Incarceration = No (n=159)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.39	.25
Baseline frequency of unprotected sex	.03	.20
Group by baseline interaction	-.05	.13
Any treatment experience	-.62*	.27
Lifetime number of convictions	.01	.02
Number of drug crimes in baseline six months (logged)	.03	.03
Times arrested before the age of 18	-.01	.03
Arrested for violent crime	-.38	.35
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.16	.20
Sex risk index for baseline six months (logged)	.02	.04
Any sex for money/drugs in baseline six months	1.15*	.51
Any condom use in baseline six months	.25	.34
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	.04	.03
Employed	-.23	.23
Age	-.02	.01
Misreported no drug use in baseline 30 days	.72	.44
Misreported no drug use in follow-up 30 days	-.50	.63
Misreported no drug use in baseline six months	-.86	.57
Misreported no drug use in follow-up six months	.55	.69
Intercept	1.37	
Adjusted R²	.13	
F-value	2.09**	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.9
Prediction Equation for Frequency of Sex While High
Birmingham, Incarceration = Yes (n=188)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.84***	.29
Baseline frequency of unprotected sex	.56*	.22
Group by baseline interaction	-.20	.13
Any treatment experience	-.06	.27
Lifetime number of convictions	.03*	.02
Number of drug crimes in baseline six months (logged)	.00	.02
Times arrested before the age of 18	-.02	.03
Arrested for violent crime	-.25	.41
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	-.03	.20
Sex risk index for baseline six months (logged)	-.05	.04
Any sex for money/drugs in baseline six months	-.38	.42
Any condom use in baseline six months	-.09	.38
Months married or living with primary partner	.03***	.01
Number of sex partners in baseline six months (logged)	.04	.03
Employed	.04	.24
Age	-.03*	.01
Misreported no drug use in baseline 30 days	-.34	.50
Misreported no drug use in follow-up 30 days	-.45	.46
Misreported no drug use in baseline six months	.46	.62
Misreported no drug use in follow-up six months	.71	.55
Intercept	2.94	
Adjusted R²	.23	
F-value	3.64***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.10
Prediction Equation for Frequency of Sex While High
Canton (n=134)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.50	.43
Baseline frequency of unprotected sex	.43	.29
Group by baseline interaction	-.13	.17
Any treatment experience	-.28	.33
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.01	.02
Times arrested before the age of 18	.01	.01
Any incarceration during baseline six months	-.19	.35
Arrested for violent crime	-.20	.52
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.27	.23
Sex risk index for baseline six months (logged)	.17***	.05
Any sex for money/drugs in baseline six months	2.03***	.48
Any condom use in baseline six months	-1.23*	.51
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	-.12***	.04
Employed	.27	.34
Age	.00	.02
Misreported no drug use in baseline 30 days	.13	.41
Misreported no drug use in follow-up 30 days	.38	.38
Misreported no drug use in baseline six months	-1.60	1.17
Misreported no drug use in follow-up six months	.52	1.48
Intercept	-.18	
Adjusted R^2	.26	
F-value	3.14***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.11
Prediction Equation for Frequency of Sex While High
Chicago (n=388)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.24	.25
Baseline frequency of unprotected sex	.47***	.16
Group by baseline interaction	-.21*	.09
Any treatment experience	.15	.19
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.01	.01
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.03	.29
Arrested for violent crime	.38	.30
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	-.13	.12
Sex risk index for baseline six months (logged)	.00	.03
Any sex for money/drugs in baseline six months	.36	.35
Any condom use in baseline six months	.14	.35
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	.02	.03
Employed	-.12	.24
Age	.01	.01
Misreported no drug use in baseline 30 days	-.26	.34
Misreported no drug use in follow-up 30 days	.13	.31
Misreported no drug use in baseline six months	-.42	.94
Misreported no drug use in follow-up six months	-.11	.46
Intercept	.86	
Adjusted R²	.07	
F-value	2.27***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.12
Prediction Equation for Frequency of Sex While High
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.05	.10
Baseline frequency of unprotected sex	.64***	.14
Group by baseline interaction	-.20*	.09
Any treatment experience	.03	.14
Lifetime number of convictions	-.05***	.01
Number of drug crimes in baseline six months (logged)	.01	.01
Times arrested before the age of 18	.06***	.01
Any incarceration during baseline six months	-.02	.13
Arrested for violent crime	.09	.10
Number of drug use days in baseline six months	.01***	.00
Number of drugs used in baseline six months	-.22*	.10
Sex risk index for baseline six months (logged)	.02	.01
Any sex for money/drugs in baseline six months	-.13	.56
Any condom use in baseline six months	-.20	.14
Months married or living with primary partner	.13***	.04
Number of sex partners in baseline six months (logged)	-.01	.01
Employed	-.22	.15
Age	.08*	.03
Misreported no drug use in baseline 30 days	-.19	.30
Misreported no drug use in follow-up 30 days	-.01	.24
Misreported no drug use in baseline six months	1.05*	.41
Misreported no drug use in follow-up six months	-.22	.35
Intercept	-1.14	
Adjusted R²	.31	
F-value	9.57***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.13
Prediction Equation for Frequency of Sex While High
Portland (n=329)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.23	.23
Baseline frequency of unprotected sex	.44*	.18
Group by baseline interaction	-.19[a]	.11
Any treatment experience	-.02	.22
Lifetime number of convictions	.02	.01
Number of drug crimes in baseline six months (logged)	-.01	.02
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.01	.27
Arrested for violent crime	-.08	.28
Number of drug use days in baseline six months	.01*	.00
Number of drugs used in baseline six months	.05	.14
Sex risk index for baseline six months (logged)	.02	.03
Any sex for money/drugs in baseline six months	-.40	.70
Any condom use in baseline six months	.32	.30
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	.02	.03
Employed	-.57**	.21
Age	.03*	.01
Misreported no drug use in baseline 30 days	.08	.42
Misreported no drug use in follow-up 30 days	.18	.43
Misreported no drug use in baseline six months	.38	.55
Misreported no drug use in follow-up six months	-.56	.57
Intercept	.03	
Adjusted R^2	.10	
F-value	2.70***	

[a] $p \leq .10$
* $p \leq .05$
** $p \leq .01$
*** $p \leq .005$

Table E.14
Prediction Equation for Frequency of Unprotected Sex
Birmingham TASC Group (n=195)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of unprotected sex	1.23**	.48
Lifetime weeks in outpatient treatment	.00	.00
Number of property crimes in baseline six months (logged)	-.03	.03
Number of drug crimes in baseline six months (logged)	.02	.03
Times arrested before the age of 18	.01	.03
Any incarceration during baseline six months	-.05	.33
Any illegal income in baseline six months	-.21	.69
Age at first drug use	-.03	.04
Number of drugs used in baseline six months	.02	.22
Sex risk index for baseline six months (logged)	.07	.04
Any sex for money/drugs in baseline six months	.78	.54
Marital status (married=1)	-.66	.46
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.85*	.39
Past-month legal income	.41*	.18
Age	-.05*	.02
Misreported no drug use in baseline 30 days	.19	.59
Misreported no drug use in follow-up 30 days	.07	.77
Misreported no drug use in baseline six months	-.88	.86
Misreported no drug use in follow-up six months	.52	.82
Any treatment service	1.78	1.20
Baseline by any service interaction	-1.01*	0.48
Intercept	1.25	
Adjusted R²	.25	
F-value	3.98***	

ªp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.15
Prediction Equation for Frequency of Unprotected Sex
Canton TASC Group (n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of unprotected sex	.07	.23
Lifetime weeks in outpatient treatment	-.01	.02
Number of property crimes in baseline six months (logged)	-.10*	.05
Number of drug crimes in baseline six months (logged)	-.06	.05
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.23	.66
Any illegal income in baseline six months	2.31*	1.04
Age at first drug use	-.08	.09
Number of drugs used in baseline six months	.44	.47
Sex risk index for baseline six months (logged)	.10	.08
Any sex for money/drugs in baseline six months	.73	.92
Marital status (married=1)	-.88	1.08
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.85	.76
Past-month legal income	-.02	.27
Age	-.02	.05
Misreported no drug use in baseline 30 days	-3.21*	1.33
Misreported no drug use in follow-up 30 days	.44	1.39
Misreported no drug use in baseline six months	4.64*	2.18
Misreported no drug use in follow-up six months	1.27	1.78
Any treatment service	.63	1.45
Baseline by any service interaction	-.06	.32
Intercept	1.87	
Adjusted R^2	.24	
F-value	2.14*	

⁺p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.16
Prediction Equation for Frequency of Unprotected Sex
Chicago TASC group (n=229)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of unprotected sex	.22	.13
Lifetime weeks in outpatient treatment	.00	.01
Number of property crimes in baseline six months (logged)	-.06***	.02
Number of drug crimes in baseline six months (logged)	.00	.02
Times arrested before the age of 18	-.01	.01
Any incarceration during baseline six months	.18	.49
Any illegal income in baseline six months	-1.28	.68
Age at first drug use	-.09	.05
Number of drugs used in baseline six months	-.04	.20
Sex risk index for baseline six months (logged)	.04	.03
Any sex for money/drugs in baseline six months	-.11	.56
Marital status (married=1)	-.39	.52
Months married or living with primary partner	-.01	.00
Living at home at time of baseline interview	.33	.42
Past-month legal income	.37	.22
Age	.00	.02
Misreported no drug use in baseline 30 days	.21	.56
Misreported no drug use in follow-up 30 days	.20	.57
Misreported no drug use in baseline six months	-2.44	2.38
Misreported no drug use in follow-up six months	-.54	.79
Any treatment service	-.23	.50
Baseline by any service interaction	.02	.14
Intercept	2.51	
Adjusted R²	.10	
F-value	2.09***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.17
Prediction Equation for Frequency of Unprotected Sex
Orlando TASC group (n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of unprotected sex	.19*	.08
Lifetime weeks in outpatient treatment	.05***	.01
Number of property crimes in baseline six months (logged)	-.03	.02
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	.01	.02
Any incarceration during baseline six months	.06	.34
Any illegal income in baseline six months	.82	.44
Age at first drug use	-.01	.06
Number of drugs used in baseline six months	-.29	.25
Sex risk index for baseline six months (logged)	.03	.02
Any sex for money/drugs in baseline six months	1.12	1.81
Marital status (married=1)	1.30	1.23
Months married or living with primary partner	-.16	.26
Living at home at time of baseline interview	.60*	.28
Past-month legal income	-.22	.21
Age	.25**	.09
Misreported no drug use in baseline 30 days	-.82	.59
Misreported no drug use in follow-up 30 days	-.75	.50
Misreported no drug use in baseline six months	1.42	1.06
Misreported no drug use in follow-up six months	.42	.81
Any treatment service	.13	.30
Baseline by any service interaction	.10	.14
Intercept	2.95	
Adjusted R²	.23	
F-value	3.97***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.18
Prediction Equation for Frequency of Unprotected Sex
Portland TASC group (n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of unprotected sex	.04	.15
Lifetime weeks in outpatient treatment	.02*	.01
Number of property crimes in baseline six months (logged)	-.05	.03
Number of drug crimes in baseline six months (logged)	-.06	.03
Times arrested before the age of 18	.01	.01
Any incarceration during baseline six months	1.39***	.49
Any illegal income in baseline six months	1.70*	.78
Age at first drug use	.03	.04
Number of drugs used in baseline six months	.19	.23
Sex risk index for baseline six months (logged)	.07	.04
Any sex for money/drugs in baseline six months	-1.73	1.34
Marital status (married=1)	.94	.66
Months married or living with primary partner	.00	.01
Living at home at time of baseline interview	-.28	.38
Past-month legal income	.23	.22
Age	.00	.03
Misreported no drug use in baseline 30 days	.19	.76
Misreported no drug use in follow-up 30 days	.04	.74
Misreported no drug use in baseline six months	.28	.92
Misreported no drug use in follow-up six months	-.41	1.08
Any treatment service	.08	.62
Baseline by any service interaction	.20	.17
Intercept	-.72	
Adjusted R²	.14	
F-value	2.30***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.19
Prediction Equation for Frequency of Unprotected Sex
Birmingham (n=365)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.85	.44
Baseline frequency of unprotected sex	.29	.15
Group by baseline interaction	-.02	.09
Lifetime weeks in outpatient treatment	-.01	.00
Number of property crimes in baseline six months (logged)	.01	.02
Number of drug crimes in baseline six months (logged)	-.01	.02
Times arrested before the age of 18	-.01	.03
Any incarceration during baseline six months	2.23***	.73
Group by incarceration interaction	-1.13*	.45
Any illegal income in baseline six months	-.71	.45
Age at first drug use	-.07	.04
Number of drugs used in baseline six months	.21	.28
Sex risk index for baseline six months (logged)	.04	.03
Any sex for money/drugs in baseline six months	1.27***	.41
Marital status (married=1)	-.56	.33
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.55	.29
Past-month legal income	.45***	.12
Age	-.02	.02
Primary heroin user	-.51	1.20
Primary crack user	-.37	.35
Primary noncrack cocaine user	-.24	.84
Primary other user	.04	.44
Intercept	.85	
Adjusted R²	.22	
F-value	5.39***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.20
Prediction Equation for Frequency of Unprotected Sex
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.05	.69
Baseline frequency of unprotected sex	.52	.32
Group by baseline interaction	-.21	.19
Lifetime weeks in outpatient treatment	.01	.01
Number of property crimes in baseline six months (logged)	-.04	.03
Number of drug crimes in baseline six months (logged)	-.04	.03
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	-.25	.45
Any illegal income in baseline six months	.82	.77
Age at first drug use	-.05	.06
Number of drugs used in baseline six months	.25	.38
Sex risk index for baseline six months (logged)	.10*	.05
Any sex for money/drugs in baseline six months	.56	.64
Marital status (married=1)	.22	.72
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.30	.49
Past-month legal income	-.04	.19
Age	.00	.03
Primary heroin user	No estimate; no primary heroin users at this site	
Primary crack user	.13	.52
Primary noncrack cocaine user	1.67	2.21
Primary other user	.04	.67
Intercept	.32	
Adjusted R²	.18	
F-value	2.33***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.21
Prediction Equation for Frequency of Unprotected Sex
Chicago (n=391)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.05	.36
Baseline frequency of unprotected sex	.47***	.16
Group by baseline interaction	-.10	.10
Lifetime weeks in outpatient treatment	.00	.00
Number of property crimes in baseline six months (logged)	-.04*	.02
Number of drug crimes in baseline six months (logged)	-.01	.01
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.10	.35
Any illegal income in baseline six months	-1.06*	.44
Age at first drug use	-.08*	.03
Number of drugs used in baseline six months	-.02	.16
Sex risk index for baseline six months (logged)	.01	.03
Any sex for money/drugs in baseline six months	.04	.42
Marital status (married=1)	-.16	.38
Months married or living with primary partner	.00	.00
Living at home at time of baseline interview	.20	.28
Past-month legal income	.32*	.13
Age	-.01	.02
Primary heroin user	.42	.34
Primary crack user	.49	.35
Primary noncrack cocaine user	-.19	.57
Primary other user	-.09	.55
Intercept	2.21*	
Adjusted R²	.16	
F-value	4.35***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.22
Prediction Equation for Frequency of Unprotected Sex
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.31	.20
Baseline frequency of unprotected sex	.53***	-.13
Group by baseline interaction	-.17*	.08
Lifetime weeks in outpatient treatment	.05***	.01
Number of property crimes in baseline six months (logged)	-.01	.01
Number of drug crimes in baseline six months (logged)	.03*	.01
Times arrested before the age of 18	.02*	.01
Any incarceration during baseline six months	-.25	.23
Any illegal income in baseline six months	.36	.29
Age at first drug use	-.04	.04
Number of drugs used in baseline six months	.05	.31
Sex risk index for baseline six months (logged)	.03	.02
Any sex for money/drugs in baseline six months	.25	1.20
Marital status (married=1)	1.58*	.76
Months married or living with primary partner	.23***	.06
Living at home at time of baseline interview	.37*	.19
Past-month legal income	-.02	.13
Age	.18***	.06
Primary heroin user	No estimate; no primary heroin users at this site	
Primary crack user	-.93	1.08
Primary noncrack cocaine user	1.48	1.31
Primary other user	.47	.37
Intercept	-2.09	
Adjusted R²	.28	
F-value	8.99***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.23
Prediction Equation for Frequency of Unprotected Sex
Portland (n=324)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.14	.40
Baseline frequency of unprotected sex	.34*	.17
Group by baseline interaction	-.06	.10
Lifetime weeks in outpatient treatment	.01	.00
Number of property crimes in baseline six months (logged)	-.03	.02
Number of drug crimes in baseline six months (logged)	-.03	.02
Times arrested before the age of 18	.01*	.01
Any incarceration during baseline six months	.88**	.34
Any illegal income in baseline six months	.56	.55
Age at first drug use	.03	.03
Number of drugs used in baseline six months	.02	.25
Sex risk index for baseline six months (logged)	.05	.03
Any sex for money/drugs in baseline six months	-.85	.87
Marital status (married=1)	.77	.45
Months married or living with primary partner	.00	.01
Living at home at time of baseline interview	-.67*	.27
Past-month legal income	.15	.15
Age	.00	.02
Primary heroin user	.13	.59
Primary crack user	-.73	.42
Primary noncrack cocaine user	.15	.55
Primary other user	-.01	.43
Intercept	.34	
Adjusted R^2	.12	
F-value	3.06***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.24
Prediction Equation for Any Unprotected Sex
Birmingham (n=362)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.52	.51
Baseline frequency of unprotected sex	.74	.39
Group by baseline interaction	-.16	.54
Lifetime weeks in outpatient treatment	.00	.00
Number of property crimes in baseline six months (logged)	.00	.02
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	-.02	.03
Any incarceration during baseline six months	.91*	.40
Group by incarceration interaction	-.72	.52
Any illegal income in baseline six months	-.13	.57
Age at first drug use	-.09*	.04
Number of drugs used in baseline six months	-.03	.19
Sex risk index for baseline six months (logged)	.09*	.03
Any sex for money/drugs in baseline six months	1.77*	.78
Marital status (married=1)	-.15	.40
Months married or living with primary partner	.01	.01
Living at home at time of baseline interview	.96**	.37
Past-month legal income	.30	.15
Age	.00	.02
Intercept	.51	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.25
Prediction Equation for Any Unprotected Sex
Canton (n=128)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.67	1.49
Baseline frequency of unprotected sex	3.06**	1.13
Group by baseline interaction	-2.74*	1.30
Lifetime weeks in outpatient treatment	.04	.04
Number of property crimes in baseline six months (logged)	-.06	.05
Number of drug crimes in baseline six months (logged)	-.03	.04
Times arrested before the age of 18	.01	.03
Any incarceration during baseline six months	-.62	1.32
Any illegal income in baseline six months	7.23	12.80
Age at first drug use	-.11	.08
Number of drugs used in baseline six months	.75	.42
Sex risk index for baseline six months (logged)	.13	.07
Any sex for money/drugs in baseline six months	-.41	.99
Marital status (married=1)	-.28	.96
Months married or living with primary partner	.02	.02
Living at home at time of baseline interview	.56	.72
Past-month legal income	-.09	.30
Age	.02	.04
Intercept	-.98	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.26
Prediction Equation for Any Unprotected Sex
Chicago (n=387)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.62	.75
Baseline frequency of unprotected sex	.94*	.40
Group by baseline interaction	-.60	.51
Lifetime weeks in outpatient treatment	.01	.00
Number of property crimes in baseline six months (logged)	-.04*	.02
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	-.01	.01
Any incarceration during baseline six months	-.32	.57
Any illegal income in baseline six months	-.65	.45
Age at first drug use	-.11***	.04
Number of drugs used in baseline six months	.06	.14
Sex risk index for baseline six months (logged)	.06*	.03
Any sex for money/drugs in baseline six months	.07	.44
Marital status (married=1)	.23	.41
Months married or living with primary partner	-.01	.00
Living at home at time of baseline interview	.20	.30
Past-month legal income	.11	.14
Age	.01	.02
Intercept	1.41	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.27
Prediction Equation for Any Unprotected Sex
Orlando (n=421)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.03	.32
Baseline frequency of unprotected sex	.79*	.32
Group by baseline interaction	.15	.43
Lifetime weeks in outpatient treatment	Excluded, see note.	Excluded, see note.
Number of property crimes in baseline six months (logged)	Excluded, see note.	Excluded, see note.
Number of drug crimes in baseline six months (logged)	Excluded; see note.	Excluded; see note.
Times arrested before the age of 18	Excluded; see note.	Excluded; see note.
Any incarceration during baseline six months	Excluded; see note.	Excluded; see note.
Any illegal income in baseline six months	Excluded; see note.	Excluded; see note.
Age at first drug use	-.11*	.05
Number of drugs used in baseline six months	Excluded; see note.	Excluded; see note.
Sex risk index for baseline six months (logged)	.09***	.03
Any sex for money/drugs in baseline six months	Excluded; see note.	Excluded; see note.
Marital status (married=1)	Excluded; see note.	Excluded; see note.
Months married or living with primary partner	Excluded; see note.	Excluded; see note.
Living at home at time of baseline interview	Excluded; see note.	Excluded; see note.
Past-month legal income	Excluded; see note.	Excluded; see note.
Age	.31***	.09
Intercept	-4.09	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Note: Model ran successfully when Group, Baseline Frequency, and Group by Baseline interaction were forced into the equation and covariates significant (p ≤ .05) at this site were forward stepped.

Table E.28
Prediction Equation for Any Unprotected Sex
Portland (n=320)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.55	.75
Baseline frequency of unprotected sex	.62	.51
Group by baseline interaction	.27	.61
Lifetime weeks in outpatient treatment	.01	.01
Number of property crimes in baseline six months (logged)	-.05*	.03
Number of drug crimes in baseline six months (logged)	-.04	.03
Times arrested before the age of 18	.01	.01
Any incarceration during baseline six months	.83	.53
Any illegal income in baseline six months	.50	.67
Age at first drug use	.02	.04
Number of drugs used in baseline six months	.32	.20
Sex risk index for baseline six months (logged)	.05	.03
Any sex for money/drugs in baseline six months	-.56	.92
Marital status (married=1)	2.65*	1.06
Months married or living with primary partner	.00	.01
Living at home at time of baseline interview	.01	.34
Past-month legal income	.01	.18
Age	.01	.02
Intercept	-2.17	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.29
Prediction Equation for Frequency of Sex While High
Birmingham TASC group, Incarceration = No (n=74)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.19	.40
Any treatment experience	-.70	.49
Lifetime number of convictions	.00	.02
Number of drug crimes in baseline six months (logged)	.12*	.05
Times arrested before the age of 18	-.01	.04
Arrested for violent crime	-.98	.62
Number of drug use days in baseline six months	.00	.01
Number of drugs used in baseline six months	-.01	.34
Sex risk index for baseline six months (logged)	.11	.07
Any sex for money/drugs in baseline six months	-.08	.87
Any condom use in baseline six months	-.19	.59
Months married or living with primary partner	-.01	.01
Number of sex partners in baseline six months (logged)	.03	.04
Employed	-.16	.42
Age	-.02	.02
Misreported no drug use in baseline 30 days	1.52*	.74
Misreported no drug use in follow-up 30 days	-3.37*	1.33
Misreported no drug use in baseline six months	-.29	1.18
Misreported no drug use in follow-up six months	2.68*	1.25
Any treatment service	1.42	1.14
Baseline by any service interaction	-.27	.43
Intercept	2.44	
Adjusted R^2	.14	
F-value	1.58[a]	

[a] $p \le .10$
* $p \le .05$
** $p \le .01$
*** $p \le .005$

Table E.30
Prediction Equation for Frequency of Sex While High
Birmingham TASC group, Incarceration = Yes (n=108)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.09	.09
Any treatment experience	.14	.28
Lifetime number of convictions	.03	.03
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	-.06	.04
Arrested for violent crime	-.25	.45
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.01	.20
Sex risk index for baseline six months (logged)	.03	.04
Any sex for money/drugs in baseline six months	-.16	.43
Any condom use in baseline six months	-.52	.38
Months married or living with primary partner	.03***	.01
Number of sex partners in baseline six months (logged)	-.02	.03
Employed	-.19	.25
Age	-.02	.02
Misreported no drug use in baseline 30 days	-.37	.58
Misreported no drug use in follow-up 30 days	.27	.57
Misreported no drug use in baseline six months	.18	.80
Misreported no drug use in follow-up six months	.00	.62
Any treatment service	-.20	1.26
Baseline by any service interaction	No estimate; only one offender got no treatment service	
Intercept	1.14	
Adjusted R²	.19	
F-value	2.23**	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.31
Prediction Equation for Frequency of Sex While High
Canton TASC group (n=81)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.24	.19
Any treatment experience	-.24	.47
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.03	.04
Times arrested before the age of 18	.01	.02
Any incarceration during baseline six months	-.64	.47
Arrested for violent crime	.17	.75
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.15	.38
Sex risk index for baseline six months (logged)	.15	.07
Any sex for money/drugs in baseline six months	3.09***	.71
Any condom use in baseline six months	-.14	.85
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	-.09	.07
Employed	.17	.46
Age	-.03	.03
Misreported no drug use in baseline 30 days	-1.27	1.07
Misreported no drug use in follow-up 30 days	.11	1.15
Misreported no drug use in baseline six months	2.45	1.78
Misreported no drug use in follow-up six months	-1.29	1.48
Any treatment service	.99	.70
Baseline by any service interaction	-.06	.26
Intercept	1.02	
Adjusted R²	.29	
F-value	2.47***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.32
Prediction Equation for Frequency of Sex While High
Chicago TASC group (n=226)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.11	.12
Any treatment experience	-.11	.23
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	.00	.02
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	-.09	.36
Arrested for violent crime	.71*	.36
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	-.20	.15
Sex risk index for baseline six months (logged)	.02	.04
Any sex for money/drugs in baseline six months	.37	.44
Any condom use in baseline six months	.02	.45
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	-.01	.04
Employed	-.20	.33
Age	.02	.02
Misreported no drug use in baseline 30 days	-.55	.42
Misreported no drug use in follow-up 30 days	.37	.44
Misreported no drug use in baseline six months	-.34	1.76
Misreported no drug use in follow-up six months	-.78	.61
Any treatment service	-.49	.31
Baseline by any service interaction	-.04	.12
Intercept	.49	
Adjusted R^2	.02	
F-value	1.23	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.33
Prediction Equation for Frequency of Sex While High
Orlando TASC group (n=220)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.18*	.09
Any treatment experience	.03	.16
Lifetime number of convictions	-.03	.02
Number of drug crimes in baseline six months (logged)	.00	.01
Times arrested before the age of 18	.05***	.01
Any incarceration during baseline six months	.00	.17
Arrested for violent crime	.22	.14
Number of drug use days in baseline six months	.01***	.00
Number of drugs used in baseline six months	-.31*	.13
Sex risk index for baseline six months (logged)	-.02	.02
Any sex for money/drugs in baseline six months	-.36	.64
Any condom use in baseline six months	.16	.19
Months married or living with primary partner	-.16	.13
Number of sex partners in baseline six months (logged)	.01	.01
Employed	-.13	.19
Age	.10*	.05
Misreported no drug use in baseline 30 days	-.29	.31
Misreported no drug use in follow-up 30 days	-.03	.27
Misreported no drug use in baseline six months	1.17*	.56
Misreported no drug use in follow-up six months	-.29	.44
Any treatment service	-.01	.14
Baseline by any service interaction	.17	.14
Intercept	-1.60	
Adjusted R²	.22	
F-value	3.80***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.34
Prediction Equation for Frequency of Sex While High
Portland TASC group (n=180)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Baseline frequency of sex while high	.02	.13
Any treatment experience	.08	.29
Lifetime number of convictions	.00	.02
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	.01	.01
Any incarceration during baseline six months	-.64	.36
Arrested for violent crime	-.28	.36
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.22	.18
Sex risk index for baseline six months (logged)	-.03	.04
Any sex for money/drugs in baseline six months	-.48	1.07
Any condom use in baseline six months	.65	.39
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	.03	.04
Employed	-.58*	.28
Age	.02	.02
Misreported no drug use in baseline 30 days	-.17	.57
Misreported no drug use in follow-up 30 days	.57	.57
Misreported no drug use in baseline six months	.38	.69
Misreported no drug use in follow-up six months	-1.30	.81
Any treatment service	-.20	.32
Baseline by any service interaction	.21	.15
Intercept	.50	
Adjusted R²	.03	
F-value	1.23	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.35
Prediction Equation for Frequency of Sex While High
Birmingham, Incarceration = No (n=159)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.41	.25
Baseline frequency of sex while high	.05	.20
Group by baseline interaction	-.03	.14
Any treatment experience	-.88***	.27
Lifetime number of convictions	.00	.02
Number of drug crimes in baseline six months (logged)	.03	.03
Times arrested before the age of 18	.00	.03
Arrested for violent crime	-.34	.35
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.26	.32
Sex risk index for baseline six months (logged)	.01	.04
Any sex for money/drugs in baseline six months	1.01	.53
Any condom use in baseline six months	.12	.33
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	.03	.03
Employed	-.24	.23
Age	-.02	.01
Primary heroin user	.08	1.52
Primary crack user	.37	.41
Primary noncrack cocaine user	1.68*	.82
Primary other user	.23	.46
Intercept	1.17	
Adjusted R²	.13	
F-value	2.15***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E..36
Prediction Equation for Frequency of Sex While High
Birmingham, Incarceration = Yes (n=188)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.69*	.30
Baseline frequency of sex while high	.57*	.22
Group by baseline interaction	-.21*	.13
Any treatment experience	-.03	.26
Lifetime number of convictions	.04*	.02
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	-.02	.03
Arrested for violent crime	-.28	.40
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	-.13	.29
Sex risk index for baseline six months (logged)	-.04	.04
Any sex for money/drugs in baseline six months	-.22	.43
Any condom use in baseline six months	-.17	.38
Months married or living with primary partner	.04***	.01
Number of sex partners in baseline six months (logged)	.03	.03
Employed	.06	.24
Age	-.02	.01
Primary heroin user	-1.56	1.56
Primary crack user	-.67	.34
Primary noncrack cocaine user	-1.19	.93
Primary other user	-.45	.47
Intercept	2.76	
Adjusted R²	.24	
F-value	3.88***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.37
Prediction Equation for Frequency of Sex While High
Canton (n=132)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.35	.42
Baseline frequency of sex while high	.32	.28
Group by baseline interaction	-.08	.16
Any treatment experience	-.22	.34
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.01	.02
Times arrested before the age of 18	.01	.02
Any incarceration during baseline six months	-.03	.35
Arrested for violent crime	-.11	.53
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.11	.29
Sex risk index for baseline six months (logged)	.17***	.05
Any sex for money/drugs in baseline six months	2.19***	.50
Any condom use in baseline six months	-1.12*	.53
Months married or living with primary partner	.00	.01
Number of sex partners in baseline six months (logged)	-.11*	.04
Employed	.31	.36
Age	.01	.02
Primary heroin user	No estimate; no primary heroin users at this site	
Primary crack user	-.25	.43
Primary noncrack cocaine user	-.95	1.70
Primary other user	-.74	.55
Intercept	.16	
Adjusted R²	.25	
F-value	3.05***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.38
Prediction Equation for Frequency of Sex While High
Chicago (n=388)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.23	.25
Baseline frequency of sex while high	.49***	.15
Group by baseline interaction	-.21*	.09
Any treatment experience	.13	.19
Lifetime number of convictions	-.01	.01
Number of drug crimes in baseline six months (logged)	-.01	.01
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.01	.29
Arrested for violent crime	.35	.31
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	-.12	.14
Sex risk index for baseline six months (logged)	-.01	.03
Any sex for money/drugs in baseline six months	.35	.36
Any condom use in baseline six months	.16	.35
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	.02	.03
Employed	-.14	.24
Age	.01	.01
Primary heroin user	-.12	.28
Primary crack user	.07	.29
Primary noncrack cocaine user	-.42	.47
Primary other user	-.12	.46
Intercept	.89	
Adjusted R²	.07	
F-value	2.29***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.39
Prediction Equation for Frequency of Sex While High
Orlando (n=422)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.05	.10
Baseline frequency of sex while high	.63***	.15
Group by baseline interaction	-.17ᵃ	.10
Any treatment experience	.07	.14
Lifetime number of convictions	-.05***	.01
Number of drug crimes in baseline six months (logged)	.01	.01
Times arrested before the age of 18	.06***	.01
Any incarceration during baseline six months	-.03	.13
Arrested for violent crime	.11	.10
Number of drug use days in baseline six months	.003**	.001
Number of drugs used in baseline six months	-.17	.18
Sex risk index for baseline six months (logged)	.02	.01
Any sex for money/drugs in baseline six months	.49	.68
Any condom use in baseline six months	-.20	.14
Months married or living with primary partner	.13***	.04
Number of sex partners in baseline six months (logged)	-.01	.01
Employed	-.23	.15
Age	.08*	.03
Primary heroin user	No estimate; no primary heroin users at this site	
Primary crack user	-.55	.62
Primary noncrack cocaine user	-1.29	.79
Primary other user	.12	.21
Intercept	-1.29*	
Adjusted R²	.30	
F-value	9.64***	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.40
Prediction Equation for Frequency of Sex While High
Portland (n=323)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-.19	.23
Baseline frequency of sex while high	.43*	.18
Group by baseline interaction	-.19[a]	.11
Any treatment experience	-.03	.22
Lifetime number of convictions	.01	.01
Number of drug crimes in baseline six months (logged)	.00	.02
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.00	.27
Arrested for violent crime	-.20	.29
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.04	.19
Sex risk index for baseline six months (logged)	.03	.03
Any sex for money/drugs in baseline six months	-.26	.70
Any condom use in baseline six months	.29	.30
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	.02	.03
Employed	-.60***	.21
Age	.04**	.01
Primary heroin user	.38	.46
Primary crack user	-.36	.33
Primary noncrack cocaine user	-.32	.42
Primary other user	.01	.34
Intercept	.05	
Adjusted R²	.11	
F-value	2.80***	

[a]p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.41
Prediction Equation for Any Sex While High
Birmingham, Incarceration = No (n=159)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.08	.61
Baseline frequency of sex while high	-.44	.88
Group by baseline interaction	-.43	1.11
Any treatment experience	-1.80*	.76
Lifetime number of convictions	.04	.06
Number of drug crimes in baseline six months (logged)	.08	.06
Times arrested before the age of 18	-.08	.16
Arrested for violent crime	-1.87	1.14
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	1.08*	.44
Sex risk index for baseline six months (logged)	.52	.32
Any sex for money/drugs in baseline six months	-.04	1.03
Any condom use in baseline six months	-.57	.71
Months married or living with primary partner	-.04	.03`
Number of sex partners in baseline six months (logged)	.05	.06
Employed	-.50	.53
Age	-.07	.03
Intercept	1.16	

`p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.42
Prediction Equation for Any Sex While High
Birmingham, Incarceration = Yes (n=188)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	-1.66***	.57
Baseline frequency of sex while high	.29	.64
Group by baseline interaction	.91	.78
Any treatment experience	-.47	.44
Lifetime number of convictions	.05	.03
Number of drug crimes in baseline six months (logged)	.01	.02
Times arrested before the age of 18	-.01	.05
Arrested for violent crime	-.99	.87
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.06	.30
Sex risk index for baseline six months (logged)	.00	.08
Any sex for money/drugs in baseline six months	.36	.60
Any condom use in baseline six months	.87	.63
Months married or living with primary partner	.06**	.02
Number of sex partners in baseline six months (logged)	.02	.05
Employed	.25	.39
Age	-.02	.02
Intercept	.27	

*p≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.43
Prediction Equation for Any Sex While High
Canton (n=126)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Low baseline TASC group	.66	1.09
Low baseline control group	-3.32**	1.23
High baseline TASC group	.76	1.25
Any treatment experience	-.37	.56
Lifetime number of convictions	-.03	.02
Number of drug crimes in baseline six months (logged)	-.01	.04
Times arrested before the age of 18	.03	.03
Any incarceration during baseline six months	1.94	1.12
Arrested for violent crime	.81	.93
Number of drug use days in baseline six months	-.01	.00
Number of drugs used in baseline six months	.47	.38
Sex risk index for baseline six months (logged)	.53*	.22
Any sex for money/drugs in baseline six months	1.00	.82
Any condom use in baseline six months	-2.59**	.95
Months married or living with primary partner	.02*	.01
Number of sex partners in baseline six months (logged)	-.19*	.09
Employed	1.16*	.59
Age	.02	.03
Intercept	-5.09	

ᵃp≤.10
*p≤.05
**p≤.01
***p≤.005

Note: Because the interaction between group and baseline was significant in initial analyses, we used dummy variables to determine the nature of the interaction. Using the high baseline control group as the reference category, we found that sex while high during follow-up was significantly less likely in the low baseline control group but not in either TASC group.

Table E.44
Prediction Equation for Any Sex While High
Chicago (n=382)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.08	.70
Baseline frequency of sex while high	.83*	.42
Group by baseline interaction	-.41	.48
Any treatment experience	.43	.24
Lifetime number of convictions	-.03	.03
Number of drug crimes in baseline six months (logged)	-.03	.02
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.44	.53
Arrested for violent crime	.37	.38
Number of drug use days in baseline six months	.00	.00
Number of drugs used in baseline six months	.10	.15
Sex risk index for baseline six months (logged)	.02	.04
Any sex for money/drugs in baseline six months	-.22	.45
Any condom use in baseline six months	-.34	.48
Months married or living with primary partner	.00	.00
Number of sex partners in baseline six months (logged)	.00	.04
Employed	.13	.30
Age	.02	.02
Intercept	-2.32	

ªp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.45
Prediction Equation for Any Sex While High
Orlando (n=414)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	1.38	1.03
Baseline frequency of sex while high	1.78**	.67
Group by baseline interaction	-1.54ª	.85
Any treatment experience	.07	.46
Lifetime number of convictions	-.05	.05
Number of drug crimes in baseline six months (logged)	.04	.03
Times arrested before the age of 18	.09***	.03
Any incarceration during baseline six months	-.05	.94
Arrested for violent crime	.20	.40
Number of drug use days in baseline six months	.01*	.00
Number of drugs used in baseline six months	-.61	.39
Sex risk index for baseline six months (logged)	.21*	.10
Any sex for money/drugs in baseline six months	.06	1.73
Any condom use in baseline six months	-.52	.50
Months married or living with primary partner	.17	.09
Number of sex partners in baseline six months (logged)	-.03	.04
Employed	-.06	.53
Age	.20	.14
Intercept	-6.35	

ªp≤.10
*p≤.05
**p≤.01
***p≤.005

Table E.46
Prediction Equation for Any Sex While High
Portland (n=317)

Predictor	Unstandardized Regression Coefficient (B)	Standard Error
Group (TASC=1)	.36	.65
Baseline frequency of sex while high	.27	.44
Group by baseline interaction	-.20	.56
Any treatment experience	-.01	.29
Lifetime number of convictions	.02	.02
Number of drug crimes in baseline six months (logged)	-.02	.02
Times arrested before the age of 18	.00	.01
Any incarceration during baseline six months	.40	.53
Arrested for violent crime	-.60	.42
Number of drug use days in baseline six months	.01	.00
Number of drugs used in baseline six months	.26	.17
Sex risk index for baseline six months (logged)	.03	.05
Any sex for money/drugs in baseline six months	.17	.88
Any condom use in baseline six months	.27	.39
Months married or living with primary partner	-.01	.01
Number of sex partners in baseline six months (logged)	.04	.04
Employed	-.64*	.29
Age	.04*	.02
Intercept	-2.58	

^{a}p≤.10
*p≤.05
**p≤.01
***p≤.005