

National Institute on Drug Abuse

RESEARCH

MONOGRAPH SERIES

**Drug Abuse
Treatment in
Prisons and Jails**

118



Drug Abuse Treatment in Prisons and Jails

Editors:

Carl G. Leukefeld, D.S.W.
Frank M. Tims, Ph.D.

NIDA Research Monograph 118
1992

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

National Institute on Drug Abuse
5600 Fishers Lane
Rockville, MD 20857

For sale by the U.S. Government Printing Office

Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328

ISBN 0-16-036155-9

ACKNOWLEDGMENT

This monograph is based on the papers from a technical review on "Drug Abuse Treatment in Prisons and Jails" held on May 24-25, 1990, in Rockville, MD. The review meeting was sponsored by the National Institute on Drug Abuse.

COPYRIGHT STATUS

The National Institute on Drug Abuse has obtained permission from the copyright holders to reproduce certain previously published material as noted in the text. Further reproduction of this copyrighted material is permitted only as part of a reprinting of the entire publication or chapter. For any other use, the copyright holder's permission is required. All other material in this volume except quoted passages from copyrighted sources is in the public domain and may be used or reproduced without permission from the Institute or the authors. Citation of the source is appreciated.

Opinions expressed in this volume are those of the authors and do not necessarily reflect the opinions or official policy of the National Institute on Drug Abuse or any other part of the U.S. Department of Health and Human Services.

The U.S. Government does not endorse or favor any specific commercial product or company. Trade, proprietary, or company names appearing in this publication are used only because they are considered essential in the context of the studies reported herein.

NIDA Research Monographs are indexed in the *Index Medicus*. They are selectively included in the coverage of *American Statistics Index*, *BioSciences Information Service*, *Chemical Abstracts*, *Current Contents*, *Psychological Abstracts*, and *Psychopharmacology Abstracts*.

DHHS publication number (ADM)92-1884
Printed 1992

Contents

	Page
The Challenge of Drug Abuse Treatment in Prisons and Jails <i>Frank M. Tims and Carl G. Leukefeld</i>	1
Correctional Drug Abuse Treatment in the United States: An Overview <i>Douglas S. Lipton, Gregory P. Falkin, and Harry K. Wexler</i>	8
Program Models <i>Barry S. Brown</i>	31
Drug Treatment Services in Jails <i>Roger H. Peters and Robert May II</i>	38
HIV-1 Infection in the Correctional Setting <i>David Vlahov</i>	51
Drug Abuse Treatment Programs in the Federal Bureau of Prisons: Initiatives for the 1990s <i>Donald W. Murray, Jr</i>	62
Amity Rightturn: A Demonstration Drug Abuse Treatment Program for Inmates and Parolees <i>David L. Wineit, Rod Mullen, Lois L. Lowe, and Elizabeth A. Missakian</i>	84
Substance Abuse Services in Juvenile Justice: The Washington Experience <i>David Brenna</i>	99

Florida Department of Corrections Substance Abuse Programs
Wilson C. Bell, James G. Mitchell, Jennifer Bevino, Abbas Darabi, and Richard Nimer 110

Comprehensive System Development in Corrections for Drug-Abusing Offenders: The Wisconsin Department of Corrections
Gerald L. Vigdal and Donald W. Stadler 126

Oregon Prison Drug Treatment Programs
Gary Field 142

Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment
Harry K. Wexler, Gregory P. Falkin, Douglas S. Lipton, and Andrew B. Rosenblum 156

Obstacles to the Implementation and Evaluation of Drug Treatment Programs in Correctional Settings: Reviewing the Delaware KEY Experience
James A. Inciardi, Steven S. Martin, Dorothy Lockwood, Robert M. Hooper, and Bruce M. Wald 176

Evaluation of In-Jail Methadone Maintenance: Preliminary Results
Stephen Magura, Andrew Rosenblum, and Herman Joseph 192

Management of the Drug-Abusing Offender
John Gregrich 211

A Coordinated Approach for Drug-Abusing Offenders: TASC and Parole
Beth Weinman 232

Methodological Issues: Drug Abuse Treatment in Prisons and Jails
Bennett W. Fletcher and Frank M. Tims 246

Evaluation of the Federal Bureau of Prisons' Drug Treatment Programs
Bernadette Pelissier and Dan McCarthy 261

Directions for Practice and Research
Carl G. Leukefeld and Frank M. Tims 279

List of NIDA Research Monographs 294

The Challenge of Drug Abuse Treatment in Prisons and Jails

Frank M. Tims and Carl G. Leukefeld

INTRODUCTION

Drug dependence and abuse among incarcerated populations is a stark reality that enormously complicates the task of rehabilitating offenders. Estimates of serious drug involvement among offenders points to the urgent need for effective interventions, and available indicators show drug use among arrestees to be at epidemic levels (Lipton et al., this volume). During the 1970s it was pointed out that only about half the Nation's State prisons offered drug abuse treatment (Tims 1981), and only about one-quarter of all jails in the United States had any provision for treatment (Newman and Price 1976). In fact, a review of the National Drug and Alcohol Treatment Utilization Survey from 1976 through 1979 showed a decline in the number of available treatment slots in correctional institutions (Tims 1985). During the 1980s the prison population increased dramatically to more than half a million, and the overall prevalence of drug involvement among incarcerated offenders also rose markedly.

There are numerous reasons for offering drug abuse treatment to these populations. First, there is the matter of institutional management. Newman and Price (1976) pointed out that sheriffs reported fewer administrative problems with inmates who received some treatment, usually detoxification, while in jail. Second, there was reduction in drug-seeking behavior by the incarcerated population, and third, jails and prisons offer an opportunity to engage the drug-dependent individual in a rehabilitation process. Thus, for many drug abusers, incarceration may be the only contact with treatment providers.

The nature of drug dependence is a chronic, relapsing condition, and recovery is a continuing process. Although engagement in treatment may begin in a prison or jail setting, aftercare—or continuing care—is critically important. Thus, a model of treatment should include prerelease treatment, transitional care, and aftercare or continuing treatment.

NOTHING WORKS

A common criticism of offender rehabilitation programs is that “nothing works”; that is, nothing has been shown to evoke such dramatic improvements as to satisfy the program critics. In fact, almost any student of programs that have been tried in correctional settings can point to some concrete achievement. Indeed, the case for treating those who are serving finite incarceration terms and who have some motivation to live drug-free, productive lives seems to be effective from the practitioner’s point of view. But evidence of program effectiveness is also noted from scientific studies. Amassing such evidence must be viewed in the context of the usual high relapse rates that are certain to be cited as indications that these interventions are not successful. It could even be argued that, given the complexity of the problems as well as the economic and social costs inherent in continued drug abuse after release from jail or prison, gains of the magnitude observed thus far more than justify the resources devoted to those programs. However, the evidence for treatment in general and treatment under legal pressure in particular is even more encouraging. For example, it has been shown that those entering community-based drug abuse programs under legal sanction do as well as those who enter voluntarily (Hubbard et al. 1989). Whether drug abuse treatment programs directed at incarcerated populations produce lasting change is one question that has been debated but never satisfactorily answered, although there are multiple examples of correctional programs attracting incarcerated clients into drug abuse treatment (Lipton et al., this volume; Wexler et al., this volume; Magura et al., this volume).

THE CHALLENGE OF DEVELOPING RESPONSIVE TREATMENT PROGRAMS

Developing viable and evaluable programs is a major challenge to those charged with the responsibility for treating drug abusers. As Lipton and colleagues (this volume), Magura and colleagues (this volume), and Fletcher and Tims (this volume) point out, this is no simple task. The program must have continuing organizational support, a conceptual basis, and clear objectives, all of which should feed into an evaluation design. The evaluation, in turn, can be the basis for program improvement. Several laudable attempts at such designs and evaluations of prerelease and aftercare programs were initiated in the 1970s. The most notable was at the Federal level, “Project TRAP” (Treatment and Rehabilitation of Addicted Parolees), with a prerelease component, a transitional component, and a community corrections (aftercare) component. Grants were given by the Law Enforcement Assistance Administration, U.S. Department of Justice, to four States for controlled studies of TRAP models. Program service integration and evaluation were required,

and evaluation was to be conducted by an independent organization. However, the program did not have a fair trial because Federal budget cuts produced premature grant terminations.

Another example is a Wisconsin prerelease demonstration program structured as a therapeutic community. This demonstration incorporated a transitional reentry program at a different site, community aftercare, and an integrated program design and evaluation design for the entire program and the individual elements. Unfortunately, the rate at which prisoners were paroled was insufficient to provide the necessary sample size for the evaluation design. The design requirements, which involved random assignment of persons with parole potential from a pool of volunteers having histories of drug dependence, exceeded the number of available subjects, although there had been no reason to expect that the numbers needed would not be available.

Still another effort involved a State that had a well-thought-out and executed program of prerelease treatment and aftercare. However, the evaluation contractor could not achieve a satisfactory completion rate for followup interviews. Thus, all program elements were in place, but evaluation data were lacking because a problem of contractor performance was not detected in time for remedial action.

These three examples reveal several problems that confront advocates for these treatment programs. Clearly, the program must be given a chance to succeed or fail, which assumes an adequate and sustained funding level as well as adequate institutional support over time. Evaluation designs also must be supported by realistic projections of available subjects. In addition, a program must have a continuing commitment to the integrity of better programing and evaluation design as well as the practical requirements of constantly monitoring the evaluation to resolve problems in a timely fashion.

The other critical ingredient is time. Programs should be given a fair chance to mature. Evaluative research is necessarily a long-term endeavor. The politicians, administrators, and treatment professionals who must advocate support for these programs are frustrated by the delay in availability of "hard data." Lack of stable research funding in the past, together with compromises in method and program budgets occasioned by events beyond the control of treatment providers and administrators, has left the field even further behind than reason suggests it should be in developing arguments for adequate treatment.

NEW BEGINNINGS

Researchers and policymakers are at a point in the history of drug abuse treatment in the United States where a frank assessment is needed of the present state of knowledge and the most promising directions in treatment programming indicated by the weight of clinical experience. Such new beginnings call for a new realism, which is the driving force behind this monograph. A body of knowledge was developed concerning treatment effectiveness (Tims and Ludford 1984; Tims et al. 1991; Hubbard et al. 1989; Simpson and Sells 1990) and its effectiveness with criminal justice populations (Hubbard et al. 1989; Leukefeld and Tims 1990). In addition, studies have documented the effectiveness of specific corrections-based programs (Wexler et al., this volume; Anglin and McGlothlin 1984), and ongoing studies are adding to that evidence (e.g., Inciardi et al., this volume; Magura et al., this volume). Also, the National Institute on Drug Abuse (NIDA) has entered into a memorandum of understanding with the U.S. Bureau of Prisons (BOP) to provide evaluative support for its study of drug abuse treatment outcomes in BOP inmate populations. NIDA's involvement not only will strengthen the BOP evaluation but also will increase comparability of these and other studies by promoting the use of common instruments and methodologies. NIDA also has entered into a similar relationship with the Bureau of Justice Assistance, U.S. Department of Justice, to support research on corrections-based programs and on case management strategies.

This new beginning must be accompanied by an assertion that the treatment of drug abuse and dependence in incarcerated populations is a necessity during incarceration. To consider it an "extra" aspect of jail or prison operation ensures that it will be among the first items cut in the inevitable, cyclic periods of budget austerity. Therefore, it will not be possible to guarantee that the stable levels of support necessary for examining effectiveness will be provided. Considering drug abuse treatment as separate from jail or prison operations also carries the risk that it will not have the programmatic integration so necessary for meaningful rehabilitation of drug-dependent offenders. Failure to provide adequate treatment for this admittedly difficult problem means that society will pay the price in the costs of recidivism, and the already overburdened facilities will be subjected to further pressures.

Drug abuse treatment must be approached in a systematic and stable way. Effective programs must be developed and refined, with emphasis on assessment of needs, appropriateness of treatment, integrity of treatment, continuity of care, and adequate aftercare programming. Aftercare cannot be only a good intention and a paper plan but must include an active commitment on the part of both the client and the parole system. In addition, aftercare

programing must be a proactive part of parole and consist of more than referral or urine testing.

The range of available models also must be expanded to include linkages with existing drug abuse treatment resources outside the jail or prison. These models, which are linked to community treatment programs, provide a basis for ensuring that continuity of care is conceptual as well as temporal. The Key Extended Entry Program (KEEP), for example, provides methadone maintenance to jail inmates who will be back on the streets in a relatively short time. Many judges are reluctant to refer opiate addicts to methadone programs, even though this is the treatment of choice for many. Therefore, KEEP is an innovation. The value of such an innovation is that it *engages* the addict during a vulnerable stage in his or her addiction career and provides a link with a community-based program so that meaningful treatment can continue after release from confinement (Magura et al., this volume).

Evaluation is essential, and resources must be made available. This is a policy need (accountability) and a programmatic need (treatment improvement). It also is needed because treatment improvement calls for better understanding of the elements that contribute to treatment outcome. Thus, in the face of real-world constraints and limitations, the development of drug abuse treatment programs must include evaluation designs that allow for methodologically adequate assessment of effectiveness and analysis of process (Fletcher and Tims, this volume).

CONCLUSION

This volume has several objectives. Given the limited, though somewhat persuasive, data available on corrections-based treatments, it is particularly important to bring together available research knowledge, program concepts, and clinical insights regarding drug abuse treatment of incarcerated, drug-dependent offenders. To meet these objectives, this review includes activities that are in their early stages as well as requirements for effective implementation of treatment and research strategies. In addition, it examines programing in differing jurisdictions and across bureaucratic lines. In other words, this is another step along the way to approach the complex and difficult task of treating drug dependence in a framework that emphasizes a systematic approach to treatment, continuity of care, stability of outcomes, research support, and a continuing commitment to improving treatment.

REFERENCES

- Anglin, M.D., and McGlothlin, W.H. Outcome of narcotic addict treatment in California. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 106-128.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989.
- Leukefeld, C.G., and Tims, F.M. Compulsory treatment for drug abuse. *Int J Addict* 25(6):621-640, 1990.
- Newman, C.M., and Price, B.R. *Drug Treatment in Jails*. State College, PA: Pennsylvania State University, 1976.
- Simpson, D.D., and Sells, S.B. *Opioid Addiction and Treatment: A 12-Year Follow-Up*. Malabar, FL: Robert A. Krieger Publishing Co., 1990.
- Tims, F.M. *Drug Abuse Treatment in Prisons*. Treatment Research Reports. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1981.
- Tims, F.M. "Drug Abuse Treatment in Correctional Settings." Paper presented at the annual meeting of the Alcohol and Drug Problems Association, Washington, DC, 1985.
- Tims, F.M.; Fletcher, B.W.; and Hubbard, R.L. Treatment outcomes for drug abuse clients. In: Pickens, R.W.; Leukefeld, C.G.; and Schuster, C.R., eds. *Improving Drug Abuse Treatment*. National Institute on Drug Abuse Research Monograph 106. DHHS Pub. No. (ADM)91-1754. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1991. pp. 93-113.
- Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.

AUTHORS

Frank M. Tims, Ph.D.
Deputy Branch Chief
Division of Clinical Research
National Institute on Drug Abuse
Parklawn Building, Room 10A-30
5600 Fishers Lane
Rockville, MD 20857

Carl G. Leukefeld, D.S.W.
Director
Center on Drug and Alcohol Research
University of Kentucky
210 Medical Annex 2
Lexington, KY 40536-0080

Correctional Drug Abuse Treatment in the United States: An Overview

Douglas S. Lipton, Gregory P. Falkin, and Harry K. Wexler

INTRODUCTION

There is no question in the mind of any responsible citizen that drug abuse is a serious problem in the United States. There are many obvious measures that might be taken. The urban news media daily carry stories and editorials related to drug abuse, its casualties, and its consequences for public safety and the quality of life. The Federal Government is making tax dollars available at an unprecedented level for drug abuse treatment and prevention programs and research as well as demonstration efforts. Federal spending on drug control activities overall tripled from \$1.2 billion to \$3.9 billion from 1981 to 1988. Although there is some controversy over the exact size of the drug abuse problem and whether some drugs are declining in usage among householders and high school students, there is no denying the magnitude of drug use among persons arrested for felonies and misdemeanors. The Drug Use Forecasting (DUF) system of the National Institute of Justice clearly documents the extent to which persons involved in criminal lifestyles are engaged in the use of drugs around the time of their arrests. All 22 cities now participating in DUF are showing significant levels of cocaine and other drug use among their arrestees regardless of charge, although there has been no evidence of an increase in heroin use by male arrestees in the past few years. In every DUF city, opiates have been found in less than 20 percent of tested males (except New York, where the heroin-positive rate has ranged between 17 and 29 percent). In contrast, cocaine levels consistently have been high in most cities. The highest rates of cocaine use-above 60 percent-have been found in Washington, DC, New York, and Philadelphia (Wish and O'Neil 1989). In figure 1, the proportion of arrestees with positive urinalysis assays for cocaine is marked by a dark line on the columns.

At the other end of the criminal justice funnel (i.e., at the incarceration level) it is a safe assumption that the proportion of drug-using offenders among those incarcerated is higher than their proportion among arrestees. In many

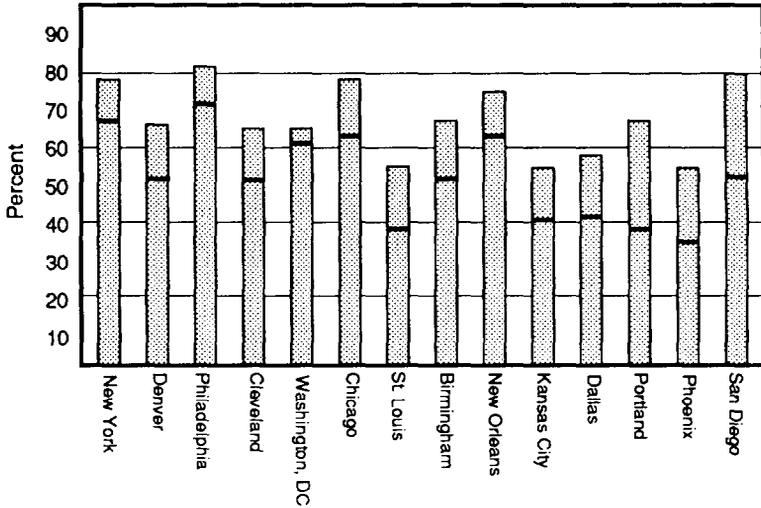


FIGURE 1. *Percent of male arrestees who tested positive for any drug. The proportion of arrestees who tested positive for cocaine is marked by a dark line on the columns. Testing October to December 1988 for opium, cocaine, phencyclidine hydrochloride (PCP), marijuana, amphetamines, diazepam (Valium), propoxyphene hydrochloride (Darvon), methaqualone, barbituates, and methadone.*

SOURCE: National institute of Justice 1989

instances these men and women do not use a single drug but many different drugs and mostly in combination with each other and with alcohol. If they are chronic users, as the data of Johnson and coworkers (1986) would suggest, their drug use pervades their lifestyle and preoccupies their daily hours. Most of these persons have avoided treatment while active in the community, although some have experienced detoxification several times. Their entry into the country's crowded jails and prisons stills their criminal predations for a while, but the problems of prison crowding are of such enormity that for each person incarcerated there is bound to be one released, and he or she is highly likely to be an untreated drug user. At least 45 percent of arrestees charged with violent crimes or income-generating crimes (like robbery, burglary, and theft) tested positive for use of one or more drugs, according to "NIJ Reports" (National Institute of Justice 1989). In the Federal prison system, cells for 31,000 (Office of National Drug Control Policy 1989) are holding more than 56,500 inmates (Murray, this volume). In the States, 533,000 are being held

in facilities for 436,000 (Abell 1989). All but eight States are under some kind of court order or consent decree to relieve prison crowding. Much of this prison crowding pressure is directly due to public outrage regarding drug-related crime and the resultant tougher sentencing practices that have been enacted for repeat offenders and criminals committing drug-related crimes, as well as the dramatic increase in arrests directly related to crime increases generally. Drug-using offenders are a substantial proportion of the pool of persons now flooding the prisons and jails, and this trend of the 1980s appears likely to continue undiminished into the current decade.

One legislative reaction to the public's concern has been to accelerate prison construction, but this is at the astronomical cost of \$70,000 to \$100,000 per bed space. Operational costs added to construction costs and amortized over the life of a facility still yields a per-inmate per-year cost averaging \$25,000 (Abell 1989). Costs vary between \$9,000 and \$40,000 per year among the States; the City of New York states its annual incarceration cost to be about \$57,000, according to the New York City Department of Correction Office of Public Affairs. At the present time, about 14 percent of the criminal justice system budget is being spent on such construction, double what it was in 1974 (Abell 1989).

With the advent of crack use in the mid-1980s the already heady relationship between drugs and crime has quickened. Cocaine use has doubled in most cities and tripled in some cities in the past 4 years, whereas other crime-related drugs—notably heroin and PCP—have declined or remained stable (Wish and O'Neil 1989). Crack-accelerated violence in the streets, particularly increasing numbers of shootings of innocent bystanders, have angered the public; consequently, there is increasing pressure on the police and the courts for action. Cocaine users who were reasonably in control of their drug use say they went out of control with crack; that is, they would do anything to continue the crack high while on a binge. Pregnant crack-using women have abandoned their newborns in hospital nurseries. Those who work with drug-using mothers report that crack use is the most potent centrifugal force on the mother-child relationship yet seen. Crack is apparently much more compelling than heroin, with which drug treatment professionals are more familiar. Moreover, levels of crack use have been reported to be increasing in rural, suburban, and urban quarters of the country; consequently, rates of crack-related violent crime and crack distribution crime and numbers of inmates in State prisons with crack histories also have increased (Fagan et al. 1990).

Overall, the U.S. prison population has grown about 55 percent since 1981, largely fueled by the major influx of drug-using offenders. These offenders—among them the most predatory, the heroin-using “violent predators”—are

responsible for a relatively large amount of crime; compared with non-drug-using offenders, they committed 15 times as many robberies, 20 times as many burglaries, and 10 times as many thefts (Chaiken 1986). Studies in Baltimore (Ball 1986; Ball et al. 1981) and New York (Johnson et al. 1986) have demonstrated that active drug use accelerates the users' crime rate by a factor of four to six and that crime content is at least as violent, or more so, than that of non-drug-using counterparts. The subjects of these studies were heroin users. Initial impressions from crack-crime studies indicate that crack-related crime is as high as, or higher than, heroin-related crime and is certainly more violent.

Although data vary across studies, it would appear that drug-using felons are also a primary source of failure on parole. That is, they constitute a disproportionate share of the repeat offenders. Of untreated parolees with histories of heroin and/or cocaine use, 60 to 75 percent are reported to return to heroin and/or cocaine use within 3 months after release and to become reinvolved in criminal activity (Wexler et al. 1988a). The "revolving door" analogy epitomizes the situation with hard-drug-using offenders. Since a great proportion of American drug users are processed through some part of the criminal justice system during their drug-using careers, it makes a great deal of sense to consider that system as a location for treatment. Most inmates have not been treated in the community, and when asked, they state that they have no particular interest in entering treatment. Thus, the criminal justice system is a major opportunity to bring to bear the state of the art in drug abuse treatment for this otherwise elusive population.

PRISON TREATMENT PROGRAMS

In 1979, the National Institute on Drug Abuse (NIDA) conducted a comprehensive survey of drug abuse treatment programs in prisons (Tims 1981). The survey identified 160 prison treatment programs serving about 10,000 inmates (4 percent of the prison population). In 1979, 49 programs (32 percent of the programs) were based on the therapeutic community (TC) model. They served about 4,200 participants (or 42 percent of all participants). Chaiken (1989) and Chaiken and Johnson (1988) estimated that, in 1987, 11.1 percent of the inmates in the 50 States were in drug treatment programs. Although this represents a sizeable increase (from 10,500 inmates in 1979 to 51,500 inmates in 1987), the vast majority of inmates with substance abuse problems still do not receive treatment while in prison.

Although there is still no consensus about the percentage of offenders being treated for drug use, recent incomplete surveys of treatment for incarcerated drug abusers show that 39 States use preliminary assessment procedures with

newly sentenced inmates; 44 States allow Narcotics Anonymous (NA), Cocaine Anonymous (CA), or Alcoholics Anonymous (AA) self-help group meetings once or twice a week; 44 States have some form of short-term (35 to 50 hours) drug education programming; 31 States have some form of individual counseling available for drug users in which a counselor or therapist meets with an individual inmate occasionally during the week; 36 States have group counseling in which small groups of inmates meet once or twice weekly with a therapist; and 30 States have some type of intensive residential program, often based on the TC model. Most optimistically, less than 20 percent of identified drug-using offenders are believed to be served by these programs (Frohling 1989).

Unfortunately, little research evidence exists to support the effectiveness of the sorts of correctional programming noted above with the exception of TCs. Drug education and information programs are for basic support of other programs. Their cost is low and can be maintained by inmates in resource centers, but they do not constitute treatment. However, they are useful adjuncts to self-help groups, group counseling, and various forms of milieu therapy. Drug information and education is delivered on the premise that persons using drugs or tempted to use them lack information about the drugs or their consequences. Most drug-using inmates do not lack information about the drugs or their consequences; in fact, most drug users are fairly sophisticated street pharmacologists, and it is naive to think that improving the depth and quality of information about drug abuse will deter future use. Drug education programs do have utility and are probably cost-effective for naive first-time offenders who were occasional drug users in the community, and they are likely to be particularly useful when combined with more intense programming for younger offenders with little drug experience.

Such self-help groups as NA, CA, and AA provide models for a drug-free lifestyle and a support system to maintain the abstinence resolve upon release. They are low-cost programs run by recovered persons who volunteer their time to work with inmates. Using the AA 12-step model, they insist on sobriety, encourage sharing experiences and problems related to drug dependence, teach constructive tools to deal with the triggers to relapse, urge positive alternatives to a drug-dependent lifestyle, and perhaps most importantly, provide an important aftercare link—a network of supportive human resources to help offenders returning to the community avoid relapse provoking pitfalls. They also provide a focus for drug-free social interaction and leisure activity. Although there is a good deal of anecdotal evidence, there is little *research* evidence that has demonstrated long-term success of these programs with drug users. Nevertheless, they are useful as part of an overall comprehensive drug abuse continuity-of-care system, particularly when combined with more intensive counseling or milieu efforts, and they are essentially cost-free.

Individual counseling is the least common program qua program but a frequently available service that inmates can request within institutions. Using one-to-one interviews with a psychologist, social worker, and in some instances, psychiatrist, individual counseling sessions focus typically on problems, feelings, attitudes, and behaviors. The ultimate goal of the sessions is to improve the inmate's self-image, sense of personal responsibility, and ability to function in a socially acceptable manner. Styles may include traditional psychotherapy, transactional analysis, behavior modification, and reality therapy, depending on the training and inclination of the therapist and the needs of the inmate patient. The likelihood of the effective use of this modality is limited by the paucity of trained individual therapists working in prisons and by its higher cost. Most research studies of the effectiveness of individual counseling have shown little evidence of success in reducing recidivism (and other negative behaviors), although positive psychological changes have been demonstrated.

Group counseling is the most common intensive therapeutic method used in prisons. It usually has 8 to 10 members meeting 1 to 2 days per week with a trained professional. Although high expectations of involvement and participation exist, and the focus is often on intensely felt personal problems, the interaction is tempered by the presence of custody officers or the possibility of revealing too much weakness or vulnerability in a group setting in which the participants are members of and return to the general population after each session. Much of the subject matter of the counseling sessions is offered voluntarily by participating inmates, and the environment needs to be supportive and psychologically safe for useful work to go on. Unfortunately, the group counseling modality in most institutions is particularly beset by the pervasive antisocial pro-criminal inmate subculture that exists in every prison. Despite this powerful shortcoming, changes have been reported in the research literature from time to time, particularly when the group is sustained with the same competent and dedicated (and often charismatic) professional leader for more than a year. And there are powerful additional components, such as life skills rehearsal, role reversal, stress management, social skill practice, problemsolving skills training, relapse prevention, and participation in AA-type groups.

Milieu therapy programs are typically more intensive than the foregoing programs. Milieu therapy for drug-abusing inmates is administered in an isolated, drug-free living area within the prison and usually includes individual and group counseling, mildly confrontational group sessions, peer interaction, and other techniques noted above in connection with group counseling. The staff usually comprises professionals, such as social workers and psychologists, and specially trained corrections officers. Costs are higher for

the above-mentioned modalities, but success rates are significantly higher than for group counseling alone. Milieu programs appear to be best suited for chronic multidrug users with addiction histories of fewer than 5 years. Although time in program is an important factor in achieving higher success levels, research shows that longer times in treatment in milieu therapy do not produce as profound an effect on recidivism as do longer terms in TCs (Falkin et al. 1990).

THERAPEUTIC COMMUNITY APPROACH

With respect to community-based TCs, more than 20 years of program-based and multimodality studies have yielded an impressive knowledge base concerning the modality. Simply stated, more than 40 percent of clients formally treated in TCs maintain favorable outcomes to the most stringent criteria (no illicit drug use and no crime), and an additional 30 percent improve over their pretreatment status (De Leon 1989). Among program graduates who were followed for 7 years after treatment, success rates exceed 75 percent. Among dropouts, success rates average 30 percent. All studies of residential TCs demonstrate the positive relationship between favorable outcome and length of stay in treatment (De Leon 1989).

Prior to 1980, relatively few outcome research studies of TCs in prison settings had been conducted. In a study of inmates who participated in various kinds of prison-based drug treatment programs, Nash (1973) found no significant differences in arrest rates among inmates who had participated in four TCs, one non-TC residential program, and two drug counseling programs when compared with a nontreatment comparison group. In an extensive reanalysis of Nash's data, Des Jarlais and Wexler (1979) found that participants in two of the four prison-based TCs did significantly better than the comparison group in terms of reduced drug use and criminality following release. Recently, published findings regarding the Stay'n Out program (Wexler et al. 1988b, 1990a) and the Cornerstone program (Field 1985, 1989) substantiate the significant accomplishments of correction-based TCs with incarcerated drug-abusing felons.

Stay'n Out

The Stay'n Out program, a TC for the treatment of incarcerated drug offenders, has been identified as a national model. Stay'n Out began as a joint effort by the New York State Division of Substance Abuse Services, which funded the program during its first years; New York Therapeutic Communities (NYTC), which operates it; and the New York State Department of Correctional Services, which currently funds it. It has two sites: a program for male offenders at the

New York State Arthur Kill Correctional Facility on Staten Island established in 1977, and one for females, which opened in 1978, at the Bayview Correctional Facility in Manhattan. Currently, there are three treatment units at the Arthur Kill Correctional Facility, with about 35 beds per unit (a total capacity of 146 beds), and one female treatment unit at the Bayview Correctional Facility, with 40 beds.

In 1984 NIDA provided a grant to Narcotic and Drug Research, Inc. (NDRI) to evaluate Stay'n Out and compare it with other prison drug abuse treatment programs. The evaluation was designed to test the proposition that effective treatment of substance abusers is possible within prison (Wexler et al. 1990a). A large-scale, quantitative analysis was conducted relating several measures of treatment outcome (e.g., rearrest, reincarceration) to both client characteristics and program attributes (time in program and termination status). The study included males and females as well as treatment and no-treatment comparison groups. Statistical analyses were performed to test several hypotheses, including the following: that the Stay'n Out TC is more effective at reducing recidivism than no treatment and alternative prison-based drug treatment modalities and that increases in time in program would be related to reductions in recidivism. These two hypotheses were confirmed, with the main finding being that, as time in TC treatment increases, recidivism declines significantly.

Since the program began, nearly 1,000 men and more than 500 women have been admitted to treatment. The aim of the program is to treat felony offenders for their drug abuse and related problems so that they are less likely to recidivate after leaving prison. Inmates selected for the programs are recruited at State correctional facilities. The criteria for admission to the program are official history of drug abuse (or indication of involvement in the drug culture); at least 18 years of age; evidence of positive institutional participation; no history of extensive violence, arson, sex crimes, or mental illness; and that inmates be no more than 12 months nor less than 6 months away from their first parole hearing.

On average, males in the Stay'n Out program have been convicted previously four times and have been incarcerated for 4 years (prior to admission into Stay'n Out). Most of the offenders are in prison for robbery (43 percent), drug sales (18 percent), or burglary (18 percent). Drug abusers in the Stay'n Out program have been heavily involved with drug use since the mean age of 16 1/2. Seventy-three percent of the clients have abused opiates; 77 percent have abused cocaine (and other stimulants). Previous attempts at changing their lifestyle have ended with two prior treatment failures averaging 18 months in treatment combined.

The Stay'n Out programs at Arthur Kill and Bayview are TCs modified to fit into a correctional institution. (For a full description of the program, see Wexler and Williams 1986.) During the early phase of treatment, the major clinical thrust involves observation and assessment of client needs and problem areas. Orientation to the prison TC procedures occurs through individual counseling, encounter sessions, and seminars. At the outset, clients are given low-level jobs and granted little status. During the latter phases of the recovery process, residents are given opportunities to earn higher level positions and increased status through sincere involvement in the program and hard work. Encounter groups and counseling sessions are more in-depth and focus on the areas of self-discipline, self-worth, self-awareness, respect for authority, and acceptance of guidance for problem areas. Seminars take on a more intellectual nature. Debate is encouraged to enhance self-expression and to increase self-confidence.

Stay'n Out clients are housed in units isolated from the general prison population. They eat in a common dining room, however, and attend morning activities with other prisoners. Most program staff members are ex-addicts who are graduates of community-based TCs as well as ex-offenders. Employed by NYTC, they act as role models demonstrating successful rehabilitation. NYTC has an annual contract with the New York State Department of Correctional Services to provide the entire Stay'n Out program at both facilities. All but one of the units are staffed by a unit director and three counselors; one unit at Arthur Kill has only two counselors.

Upon release, participants are encouraged to seek further substance abuse treatment at cooperating community-based TCs. About half the program graduates continue in residential programs. Extensive involvement with a network of such community TCs is central to the program's operation. Staff and third-phase residents of community TCs visit Stay'n Out on a regular basis to recruit resident inmates for their programs. These visitors provide inspiration since they are ex-addicts and ex-felon role models who are leading productive lives.

The evaluation research design compared a male TC treatment group (n=435) and a female TC group (n=247) to no-treatment control groups and alternative treatment groups. The male treatment group was compared to the no-treatment control group (n=159), which consisted of inmates who were on a waiting list for the program. They met all the criteria for admission except the parole time eligibility criterion and, therefore, completed their prison term without treatment. The male treatment group also was compared with a milieu treatment group (n=576), which offered a less intensive treatment than the TC. That is, time was less structured; there was no hierarchy of jobs or social roles; counselors

were not ex-addicts or ex-offenders but were trained correctional officers; good conduct in the program was not rewarded with greater responsibility; and interaction with community TCs was less extensive.) In addition, the male treatment group was compared with a counseling group (n=261), which only received individual and group counseling once a week. The female treatment group was compared to a no-treatment control group (n=38) and with a counseling treatment group (n=113); these groups were similar to their male counterparts. (That is, the control group met the basic criteria for admission but did not receive treatment, and the alternative treatment group received only counseling services.)

In general, the background characteristics of the samples were comparable, except that the male milieu group had a significantly higher mean age and criminal history score (a weighted average of prior criminal arrests, convictions, and sentences) and spent more time in prison than the other male groups. Multivariate statistical analyses were performed to control for the possible confounding effects of these differences on treatment outcomes. The groups were compared according to several recidivism measures: the percentage arrested, the mean number of months until arrest, the percentage positively discharged from parole, and the percentage not reincarcerated. The sampling timeframe was based on inmates released from prison between 1977 and 1984; the followup period (which ended in 1986), therefore, ranged up to 9 years, depending on the year prisoners were released. (Almost all had at least 3 years, and many had 6 years, of followup.)

Statistical analyses were performed to compare the effectiveness of TC treatment with alternative interventions and no treatment and to assess the relationship between treatment outcomes and time in treatment. The across-group comparisons yielded mixed results (i.e., when compared with the other groups, the TC groups had significantly lower arrest rates, but differences in other outcome variables were not significant); however, the most powerful finding was that there was a consistent and significant correlation between treatment outcomes and time in program. The Stay'n Out evaluation research, like other TC evaluation research, consistently found statistically significant and salient effects between time in program and treatment outcomes. Generally speaking, failure to look at time in treatment is almost always bound to mask important findings and to yield spurious, no-difference outcomes.

Male and female Stay'n Out clients do better on parole if they remain in the program for 9 to 12 months rather than terminating earlier (or later). Furthermore, time in the comparison modalities does not produce a positive effect. This pattern was found to be consistent for the other outcome variables as well, leading to the firm conclusion that Stay'n Out is more effective than no

treatment and alternative treatments, especially so when clients remain in treatment for an optimal period.

Insofar as testing the hypothesis that treatment outcomes improve as time in program increases, several statistical analyses were performed on subgroups of TC clients that spent varying amounts of time in treatment. For example, when clients who completed the program in 9 to 12 months were compared with clients who left within 3 months, differences between the percentages positively discharged from parole for the two treatment periods were significant. Among the males who terminated in less than 3 months, the percent with favorable outcomes was only 49.2 percent, whereas the counterpart rate for the males who stayed in the program for 9 to 12 months was 77.3 percent. Similar findings were obtained for the females, although the percentages with favorable outcomes were generally higher than for their male counterparts (79 percent for females in treatment less than 3 months, 92 percent for the 9- to 12-month group).

For those who failed (i.e., those rearrested or reincarcerated), more time in TC treatment also was related to positive treatment outcomes. When the mean time until arrest was compared for the two termination periods, it was found that clients who received treatment for shorter periods were arrested much sooner than those who stayed in the program for 9 to 12 months. Furthermore, the percentage of Stay'n Out male clients who were not reincarcerated after 9 to 12 months of treatment was considerably higher (72 percent within 3 years after release from prison) than for males who resigned or were dismissed earlier (60 percent within 3 years). Indeed, a logistic regression analysis showed that the odds of not being reincarcerated were nearly three times greater for clients who remained in treatment for 9 to 12 months than for clients who spent less than 9 months in treatment.

A related analysis compared clients who completed the program favorably (53 percent) with those who resigned and were dismissed (32 percent). (Neutral terminations, such as transfers for institutional reasons or death, accounted for 15 percent of the terminations.) A significantly higher percentage of clients who completed the program favorably were not reincarcerated (72 percent within 3 years) as compared with clients who terminated negatively (61 percent within 3 years). The positive influence of time in program on outcomes was independent of the effects of background variables. Regression analyses showed that time in program was positively related to time until arrest and reincarceration when other significant background variables (age and criminal history) were held constant. Furthermore, time spent in the Stay'n Out TC reduced reincarceration, whereas time spent in the comparison modalities did not.

Clients who received 9 to 12 months of treatment were not only less likely to recidivate than clients who spent less time in treatment, but they also did better than clients who remained in treatment more than 1 year. This finding was consistent for most of the outcome measures tested (time until arrest, positive parole discharge, reincarceration). Indeed, a multiple-regression analysis confirmed a statistically significant decline in time until arrest for clients who remained in treatment for more than 12 months. It should be noted, however, that the clients in this group are still significantly less likely to recidivate than those who terminate from the treatment in less than 9 months. In addition, assessment of the possible influence of several psychological traits of the clients did not produce significant or systematic associations between measures of psychological traits and treatment outcomes. Furthermore, the research design (utilization of treatment and no-treatment comparison groups) adequately controlled for the subtle effects of motivation, deterrence, and treatment. Thus, the robust central conclusion of the Stay'n Out research is that hard-core drug abusers who remain in the prison-based TC longer are more likely to succeed than those who leave earlier and that 9 to 12 months appears to be the optimal duration for the treatment.

Cornerstone

The Cornerstone program is a highly respected treatment program for alcohol- and drug-dependent offenders (for a detailed description, see Field 1985). The program began in 1976 and is situated on the grounds of the Oregon State Hospital in Salem. It consists of a 32-bed residential unit and a 6-month aftercare program. Cornerstone is jointly administered by the Oregon Divisions of Mental Health and Corrections.

Inmates are referred to the program by prison counselors. Admission criteria require that candidates have a history of substance abuse, do not have a history of psychosis or sex offenses, are at least 6 months but not more than 12 months from their parole, qualify for minimum security, and plan to remain in the State after release. In 1984, Cornerstone clients had an average of about seven felony convictions and had served more than 7 years in prison. The mean age of first substance use was 12 years of age. Ninety-five percent of the clients had histories of polydrug abuse.

Like Stay'n Out, Cornerstone is modeled on the TC concept. Two evaluation studies of the Cornerstone program assessed several treatment outcomes, including recidivism (Field 1985, 1989). The findings of both studies are summarized here because they demonstrate the effectiveness of the program over time. The first study (Field 1985) evaluated all clients who graduated between 1976 and 1979 against three comparison groups: (1) clients who

dropped out in less than 1 month during the same timeframe, (2) all Oregon parolees (from 1974 to 1977) who had a history of substance abuse, and (3) a sample of Michigan parolees. There were no statistical differences between the demographic characteristics of the program graduates (n=144) and the dropouts (n=27). The group of Oregon parolees (n=179) had significantly less severe histories of substance abuse and crime than did the program graduates. The sample of Michigan offenders (n=217) was based on a population similar in background to the Cornerstone groups.

A 3-year followup study compared the groups according to two outcome measures: the percent not returned to prison and the percent not convicted of any crime. The program graduates had a significantly higher success rate for both outcome measures than each of the other groups. Seventy-one percent of the program graduates were not reincarcerated 3 years after release only 26 percent of the dropouts avoided reincarceration. Similarly, although slightly more than half the program graduates were not convicted of any crimes (including minor offenses), less than 15 percent of the dropouts were not convicted of any crimes. As Field (1985) points out, the factors that cause residents to drop out also may influence recidivism; however, the favorable comparison with the other two groups supports the hypothesis that treatment in the Cornerstone program is associated with reduced recidivism. Indeed, Chi-square tests of both outcome measures showed that program graduates had significantly better outcomes ($p < .01$) than the Oregon parole sample. (Sixty-three percent of the parolees were not reincarcerated, and only 36 percent were not convicted of any crimes.) These univariate statistical differences tend to understate the effect of the treatment because the program graduates had significantly more severe criminal histories and substance abuse problems.

Field's second study (1989) produced similar results, using a different research design. A group of program graduates (n=43) with an average stay of 11 months in treatment was compared with three groups of clients who did not graduate: (1) clients who spent more than 6 months in the program (n=43), (2) clients who spent between 2 and 6 months in treatment (n=58), and (3) clients who were in treatment for less than 2 months (n=65). The measures of recidivism that were assessed in the 3-year followup include the percent of each group without arrest, without conviction, and without reincarceration (which included jail terms greater than 6 months as well as prison sentences).

The results for the program graduates in this sample were quite similar to the findings in the earlier evaluation. Slightly more than half the graduates were not convicted and about three-quarters were not reincarcerated; in addition,

37 percent were not arrested. These results compared quite favorably to the three groups that did not graduate. For example, 21 percent of the nongraduates who were in treatment for more than 6 months were not arrested; 28 percent of them were not convicted; and 37 percent were not reincarcerated. The findings for the other dropouts are even more startling. Only 8 percent of the clients who dropped out in less than 2 months were not arrested during the 3-year followup; only 11 percent were not convicted; and only 15 percent were not reincarcerated. These findings are consistent with the findings in the Stay'n Out program, which showed that increased time in program is associated with more positive treatment outcomes.

In addition to comparing the percent in each group that did not recidivate, Field assessed the effect of the treatment on rates of recidivism, that is, the average number of times that clients in each group were arrested, convicted, and incarcerated. (These measures imply an expected probability of the number of times that offenders will recidivate, depending on the amount of time they spend in treatment.) The 3-year posttreatment period was compared with two different 3-year intervals prior to the prison term that involved treatment in the Cornerstone program. These intervals were the 36 months "at risk" prior to the Cornerstone incarceration and the prior 37 to 73 months at risk. (The at-risk intervals represent time in the community; they exclude time spent incarcerated.) Because some subjects were too young to be at risk for 6 years before the Cornerstone incarceration, only about 75 percent of the subjects in each sample were included in this analysis.

The results of the analysis across the three recidivism rate variables were consistent and support the findings on the variables that measured outcome in terms of the percent of each group that did not recidivate. The arrest, conviction, and incarceration rates for the group of program graduates were lower than for each of the comparison groups. Furthermore, as the length of time in treatment increased, recidivism rates declined. Perhaps the most interesting findings pertain to the comparisons between the pretreatment and posttreatment intervals. Whereas the recidivism rates during both pretreatment intervals were about the same for each of the groups, recidivism rates during the posttreatment period were considerably lower among the program graduates. In addition, the decline in recidivism rates between the pretreatment and posttreatment periods was greatest for the program graduates.

These studies of the Stay'n Out program and the Cornerstone program are the first large-scale research evaluations to provide solid evidence that prison-based TC treatment can produce significant reductions in recidivism rates among chronic drug-abusing felons. The cost-effectiveness of the

treatment makes the case for implementing such programs even more imperative. Programs like Stay'n Out cost about \$3,000 to \$4,000 more than the standard correctional cost per inmate per year. Programs such as Cornerstone, with more professional staff and one-fourth the caseload per staff member, cost a little more than twice as much for the same period. The savings produced in crime-related and drug use-associated costs, however, pay for the cost of the treatment in about 2 to 3 years.

Correctional drug treatment costs vary between \$200 and \$4,000 per inmate per year above this (depending on modality form, length, and intensity) (Wexler et al. 1990b). Such treatment is extremely cost-effective. That is, treatment lowers crime and health costs as well as associated social and criminal justice costs. Moreover, the higher the investment in rehabilitating the most severe offender-addicts, the greater the probable impact. The most serious chronic heroin and cocaine users (about 3 to 10 percent of all offenders, depending on jurisdiction) are each responsible for 40 to 50 burglaries/year, 30 to 40 robberies/year, more than 1,000 drug transactions, etc. (Gropper 1985, based on the work of Johnson et al. 1985; Ball et al. 1983; and Inciardi 1979). Any substantial reduction in such criminality among this group immediately has an impact on quality of life. Without intervention, this group will return to crime and drug use 9 times out of 10 after release, and most will be back in custody within 3 years. With appropriate intervention, more than three out of four will succeed (i.e., reenter the community and lead a socially acceptable lifestyle). This highly predatory group is amenable to long-term (9 to 12 months) TC treatment while incarcerated and is unlikely to benefit much from less intensive treatment.

PROSPECTS AND PROBLEMS IN PRISON DRUG TREATMENT

Dissemination of these results already has had an important impact on the field and has generated interest as well as funding to support effective treatment for substance abusers while in prison. In 1987, the Bureau of Justice Assistance (BJA) of the U.S. Department of Justice funded NDRI, in the form of Project REFORM, to provide technical assistance to State departments of correction to help them plan statewide comprehensive drug abuse treatment strategies for correctional inmates and implement the plans that developed. In the 2 years that Project REFORM has been in operation, 11 State departments of corrections (Alabama, California, Connecticut, Delaware, Florida, Hawaii, New Jersey, New Mexico, New York, Oregon, and Washington) have received technical assistance in developing (or enhancing) their comprehensive prison-based drug abuse treatment systems from NDRI's technical assistance and training team. In the States that have completed at least 8 months of project implementation (Alabama, Connecticut, Delaware, Florida, New Mexico, New York, and Oregon), the number of drug abuse treatment system components

now operating as a direct consequence of NDRI's technical assistance are as follows: 39 assessment and referral programs implemented and 33 expanded or improved; 36 drug education programs implemented and 82 expanded or improved; 44 drug abuse resource centers implemented and 27 expanded or improved; 20 in-prison self-help 12-step programs implemented and 62 expanded or improved; 11 urine monitoring programs and 4 expanded or improved; 74 prerelease counseling and/or referral programs implemented and 54 expanded or improved; 39 postrelease treatment programs with parole or work release implemented and 10 expanded or improved; and 77 isolated unit (milieu) treatment programs initiated and/or improved, including 16 brief (less than 6 weeks), 19 short-term (6 to 12 weeks), 34 intermediate (5 to 9 months), and 8 long-term (9 to 15 months) treatment programs based on the Stay'n Out and Cornerstone models (Wexler et al. 1990b).

There have been several TCs in correctional settings over the past two decades. This particular intervention strategy was adopted by the correctional community during the 1970s and several were started in State and Federal prisons. However, most were abandoned after several years of operation and their accomplishments and shortcomings were not documented systematically. Of the 17 (of about 30 in all) TCs that have been closed since the 1970s, 11 were designed to serve drug offenders. Thirteen states are presently operating TCs, and five are bringing them on-line-almost all to serve drug offenders (Camp and Camp 1989).

An examination of TCs no longer in operation shows the earliest Federal program began in 1969 at the Federal Penitentiary at Marion, IL; the oldest State program began about the same time at Fort Grant in Arizona. The closed programs ran for as short a period as 2 years and for as long as 9 years, with an average of 6.5 years-which for correctional treatment programs is a long period. It is revealing to discover the reasons for the demise of these programs. Almost all the reasons for failure (staffing, prison administration, overcrowding, budget cuts, and social conflict) were administratively circumstantial rather than failures inherent in the concept of TCs.

Staffing is one of the keys to successful programing whatever the modality. Motivated enthusiastic staff set the tone for the TC, which is a high-intensity environment with demands put on staff for as long they are on-site. This frequency and intensity of demand can lead to staff burnout and a resultant high turnover rate that, in turn, leads to reduced program consistency and stability, thereby undermining program integrity. This was a stipulated reason for failure in several cases. Indeed, employment gaps require remaining staff to do more, and running the program under these conditions strains the staff, in turn, creating further turnover. Finding replacement staff is sometimes

difficult—recruiting recovered ex-offenders to go back to work in a prison is trying under the best of circumstances. Moreover, they often do not share the enthusiasm and experience of the original staff. Recovered persons, while making excellent role models, are in need of support networks themselves. The geographic isolation of some prisons makes keeping in contact with members of their own support system onerous for recovered former offenders. This also contributes to high turnover.

Another essential factor for a treatment program's very existence and for its success is the support of the prison administration. Changes in warden or deputy administrator in charge of program was sufficient in several instances to terminate well-functioning TCs. Such high-level administrative changes can bring in administrators who are opposed to rehabilitation, view other forms of treatment as more effective or more appropriate, want to use the program space for a different purpose, or hold mistaken and prejudicial views about TCs. When such changes in high-level administration occur, only the massing of sufficient political influence and the weight of successful outcome and cost-effectiveness data can prevent the program's demise.

It is vital for a TC in a prison to have living space and therapeutic areas isolated from the general prison population. Overcrowding seriously impinges on such isolation. Program failures have occurred merely when the increase in the prisoner population led to the need for housing reintegration with the general population and when the increased numbers of addicts in need of treatment led the administration to use the living space for programs that would treat much larger numbers of persons.

Financial considerations often were a decisive factor in closing TCs. Otherwise successful programs as well as only moderately successful programs succumbed to agency-wide budget cuts. Unfortunately, yet typically, when cuts in the correctional budget are required by the State executive, the budget bureau, or the legislature, the first to go is research and planning and the next is treatment programming.

TCs need to operate in a climate that accepts its activities and permits the program a considerable degree of autonomy, while staying within the prison rules. Differences in routine, jealousy about living arrangements or "special privileges," differences in temperament and world view, and the isolation of a TC have contributed to social conflict in some prisons where TCs have existed. For example, in one instance, the regular prison rehabilitation staff members who were not involved with the TC were threatened by the self-help aspects of the TC and sabotaged the program. Allegations of mysterious cult-like activities and devil worship also have been reported where the TC program

failed to educate adequately the administration, staff, and general inmate population about the program's activities. When inmates fail in the TC, they typically return to the general population where they are free to tell stories that undermine the program's reputation. In another instance, the emphasis on open and honest communication in the TC was seen as a threat to the inmate code of silence, resulting in confrontations between members of the general population and members of the TC, which caused the administration to see the TC as a source of problems.

The irony in so many of the failures is that the nature of the program that makes it successful where it continues to operate is the cause of its demise. Its isolation, its prosocial value system, its hierarchical incentive structure, its self-help philosophy, and its open and honest communication seem to threaten the entrenched inmate social system as well as the governance structures, and these in turn can exercise sufficient influence to close a program. Of course, in some instances poor management, poor leadership, inadequate problemsolving, poor communication, bad staffing, and poor training have contributed to program failures in some instances, but the data indicate that these reasons are rare in comparison with budget cuts and administrative changes (Camp and Camp 1989).

CONCLUSION

There are persons in senior policymaking positions as well as academics who could not agree that rehabilitation is or should be one of the key purposes of the postadjudicatory system. They would argue this on two bases: (1) It lies outside the State's responsibility, which is to punish and to deter (Allen 1981; Bartollas 1985; Currie 1985; Van den Haag 1975); and (2) correctional rehabilitation does not work. Opponents of rehabilitation are able to marshal potent quantities of data to support their point of view (Bailey 1966; Martinson 1974; Lipton et al. 1975) and also to blame ineffective rehabilitation for increasing recidivism rates (Regnery 1985). However, there are a growing number of people who hold a contrasting view, that is, that the "nothing works" in corrections viewpoint is untrue and that there is ample evidence to support rehabilitation as an effective crime control strategy (Gendreau and Ross 1979, 1981, 1984, 1987; Ross and Gendreau 1980; Greenwood and Zimring 1985; Halleck and Witte 1977; Palmer 1978, 1986; Cullen et al. 1985; Van Voorhis 1987; Hamm and Schrink 1989; Andrews et al. 1990).

If it comes down to a matter of opinion as to whether the State has a responsibility to undertake correctional rehabilitation, the authors firmly declare for it. Some exponents do surveys of the public, legislators, and policymakers and show that the bulk of concerned people express favorable

attitudes toward rehabilitation for offenders (Berk and Rossi 1977; Cullen and Gilbert 1982) to convince the opposition that they are running counter to public and professional opinion. But the encounter is with belief rather than rationality. The authors assert the belief that the State has a responsibility to encourage and sponsor rehabilitation for offenders.

Lipton (1990) argues that the objectives of the criminal treatment system are to prevent crime and to prevent anomie. These objectives are implemented by the postadjudicatory treatment system by administering sanctions that have a sufficient degree of unpleasantness to demonstrate to the public that the threats annexed to the prohibitions cannot be ignored without consequences (i.e., general deterrence) and to reinforce the confidence of the public that the State is determined to uphold norms through a demonstration of action taken against offenders (i.e., prevention of anomie). A second way these objectives are implemented by postadjudicatory treatment is by (1) preventing recidivism through the use of sanctions as a vehicle for administering rehabilitative techniques to bring offenders to the point where they voluntarily will observe the prohibitions in the criminal law (i.e., rehabilitation), (2) preventive force through incarceration or close community supervision of the offender so as to limit his or her opportunity to offend again (i.e., incapacitation), and (3) punishment to make the threats a reality to the individual offender so that he or she will be more responsive to them in the future (i.e., individual deterrence).

The authors hold further that rehabilitation is part of the social responsibility of the postadjudicatory system as well as its legal responsibility and that this is true particularly for the drug offender for whom custody in the postadjudicatory treatment system provides control and opportunity exercised pursuant to law. Custody is characterized by three factors: (1) restrictions on liberty not applicable to the public at large; (2) coercive power for enforcement of the restrictions; and (3) a tangible instrumentality for execution such as probation or incarceration. Incarceration provides the setting and the opportunity for the administration of rehabilitative programs; and three balanced purposes can and should be effectively and simultaneously served: (1) punishment (individual deterrence), (2) direct preventive force (incapacitation), and (3) retention for prosocial change (rehabilitation).

Just serving time degenerates men and their keepers inexorably. Using time as an opportunity for change values both of them and eventually alters the quality of life for all humankind.

REFERENCES

- Abell, R. Beyond Willie Horton: The battle of the prison bulge. *Corrections Today* 51(2):158-164, 1989.
- Allen, F.A. *The Decline of the Rehabilitative Ideal: Penal Policy and Social Purpose*. New Haven, CT: Yale University Press, 1981.
- Andrews, D.A.; Zinger, I.; Hoge, R.D.; Bonta, J.; Gendreau, P.; and Cullen, F.T. Does correctional treatment work? A clinically-relevant and psychologically-informed meta-analysis. *Criminology* 28(3):369-404, 1990.
- Bailey, W.C. Correctional outcome: An evaluation of 100 reports. *J Crim Law Criminol Pol Sci* 57(2):153-160, 1966.
- Ball, J.C. The hyper-criminal opiate addict. In: Johnson, B.D., and Wish, E., eds. *Crime Rates Among Drug-Abusing Offenders: Final Report to the National Institute of Justice*. New York: Narcotic and Drug Research, Inc., 1986. pp. 81-104.
- Ball, J.C.; Rosen, L.; Flueck, S.A.; and Nurco, D.N. The criminality of heroin addicts when addicted and when off opiates. In: Inciardi, J.A., ed. *The Drugs-Crime Connection*. Beverly Hills, CA: Sage, 1981. pp. 39-65.
- Ball, J.C.; Shaffer, J.W.; and Nurco, D.N. Day-to-day criminality of heroin addicts in Baltimore--A study in the continuity of offense rates. *Drug Alcohol Depend* 12:119-142, 1983.
- Bartollas, C. *Correctional Treatment* Englewood Cliffs, NJ: Prentice-Hall, Inc., 1985.
- Berk, R.A., and Rossi, P.H. *Prison Reform and State Elites*. Cambridge, MA: Ballinger, 1977.
- Camp, G.M., and Camp, C.G. *Building on Prior Experiences: Therapeutic Communities in Prisons*. Internal Report to Project REFORM. South Salem, NY: Criminal Justice Institute, 1989.
- Chaiken, M.R. Crime rates and substance abuse among types of offenders. In: Johnson, B.D., and Wish, E.D., eds. *Crime Rates Among Drug-Abusing Offenders: Final Report to the National Institute of Justice*. New York: Narcotic and Drug Research, Inc., 1986.
- Chaiken, M.R. *Prison Programs for Drug-Involved Offenders*. Washington, DC: National Institute of Justice, July 1989.
- Chaiken, M.R., and Johnson, B.D. *Issues and Practices: Characteristics of Different Types of Drug-Involved Offenders*. NIJ Research in Brief. Washington, DC: National Institute of Justice, 1988.
- Cullen, F.T.; Bynum, T.S.; Garrett, K.M.; and Greene, J.R. Legislative ideology and criminal justice policy. In: Fairchild, E., and Webb, V., eds. *The Politics of Crime and Criminal Justice*. Beverly Hills, CA: Sage, 1985.
- Cullen, F.T., and Gilbert, K.E. *Reaffirming Rehabilitation*. Cincinnati, OH: Anderson, 1982.
- Currie, E. *Confronting Crime: An American Challenge*. New York: Pantheon, 1985.

- De Leon, G. "Therapeutic Community Research Facts: What We Know."
Paper presented at the What Works Conference, New York, October 25-27, 1989.
- Des Jarlais, D.C., and Wexler, H.K. "A Reanalysis of Nash's Findings." Internal report to the New York State Division of Substance Abuse Services, 1979.
- Fagan, J.; Belenko, S.; Johnson, B.D.; Chin, K.L.; and Dunlap, E. *Changing Patterns of Drug Abuse and Criminality Among Crack Cocaine Users*. Summary Final Report. New York: New York Criminal Justice Agency, January 1990.
- Falkin, G.P.; Wexler, H.K.; and Lipton, D.S. *Drug Treatment in State Prisons. Report to the National Academy of Sciences*. New York: Narcotic and Drug Research, Inc., May 18, 1990. 33 pp.
- Field, G. The Cornerstone program: A client outcome study. *Fed Probation* 49(2):50-55, 1985.
- Field, G. The effects of intensive treatment on reducing the criminal recidivism of addicted offenders. *Fed Probation* 63:51-56, 1989.
- Frohling, R. *Promising Approaches to Drug Treatment in Correctional Settings*. Criminal Justice Paper No. 7. Denver, CO: National Conference of State Legislatures, 1989.
- Gendreau, P., and Ross, R.R. Effective correctional treatment: Bibliography for cynics. *Crime Delinq* 25(4):463-489, 1979.
- Gendreau, P., and Ross, R.R. Correctional potency: Treatment and deterrence on trial. In: Roesch, R., and Corrado, R., eds. *Evaluation Research and Policy in Criminal Justice*. Beverly Hills, CA: Sage, 1981.
- Gendreau, P., and Ross, R.R. Correctional treatment: Some recommendations for effective intervention. *Juvenile Family Court J* 34(Winter):31-39, 1984.
- Gendreau, P., and Ross, R.R. Revivification of rehabilitation: Evidence from the 1980s. *Justice Q* 4(3):349-407, 1987.
- Greenwood, P.W., and Zimring, F.E. *One More Chance: The Pursuit of Promising Strategies for Chronic Juvenile Offenders*. Santa Monica, CA: Rand, 1985.
- Gropper, B.A. *Probing the Links Between Drugs and Crime*. NIJ Research in Brief. Washington, DC: National Institute of Justice, 1985.
- Halleck, S.L., and Witte, A.D. Is rehabilitation dead? *Crime Delinq* 23:379-382, 1977.
- Hamm, M.S., and Schrink, J.L. The conditions of effective implementation: A guide to accomplishing rehabilitative objectives in corrections. *Crim Just Behav* 16(2):166-182, 1989.
- Inciardi, J.A. Heroin use and street crime. *Crime Delinq* 26(July):335-346, 1979.
- Johnson, B.D.; Goldstein, P.G.; Preble, E.; Schmeidler, J.; Lipton, D.S.; Spunt, B.; and Miller, T. *Taking Care of Business: The Economics of Crime by Heroin Abusers*. Lexington, MA: Lexington Books, 1985.

- Johnson, B.D.; Lipton, D.S.; and Wish, E.D. *Facts About the Criminality of Heroin and Cocaine Abusers and Some New Alternatives to Incarceration*. New York: Narcotic and Drug Research, Inc., 1986.
- Lipton, D.S. *The Prevention of Recidivism: A Manifesto Regarding the Role of Rehabilitation for Drug-Abusing Offenders*. New York: Narcotic and Drug Research, Inc., 1990.
- Lipton, D.S.; Marlinton, R.; and Wilks, J. *The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies*. New York: Praeger, 1975.
- Martinson, R. What works?—Questions and answers about prison reform. *Public Interest* 35:22-54, 1974.
- Nash, G. *The Impact of Drug Abuse Treatment Upon Criminality: A Look at 19 Programs*. (Mimeographed report.) Upper Montclair, NJ: Montclair State College, 1973.
- National Institute of Justice. Drug use forecasting update. *NIJ Reports* July/August, 1989.
- Office of National Drug Control Policy. *National Drug Control Strategy*. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1989.
- Palmer, T. *Correctional Intervention and Research*. Lexington, MA: Lexington Books, 1978.
- Palmer, T. The effectiveness issue today: An overview. In: Haas, K.C., and Alpert, G.P., eds. *The Dilemmas of Punishment*. Prospect Heights, IL: Waveland, 1986.
- Regnery, A.S. Getting away with murder—why the juvenile system needs an overhaul. *Policy Rev* 34(1):1-4, 1985.
- Ross, R.R., and Gendreau, P. *Effective Correctional Treatment*. Toronto: Butterworth Publishers, 1980.
- Tims, F.M., ed. *Drug Abuse Treatment in Prisons*. National Institute on Drug Abuse Treatment Research Report Series. DHHS Pub. No. (ADM)81-1149. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1981.
- Van den Haag, E. *Punishing Criminals*. New York: Basic Books, 1975.
- Van Voorhis, P. Correctional effectiveness: The high cost of ignoring success. *Fed Prob* 51(1):56-62, 1987.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. *A Mode/ Prison Rehabilitation Program: An Evaluation of the "Stay'n Out" Therapeutic Community. Final Report to the National Institute on Drug Abuse*. New York: Narcotic and Drug Research, Inc., 1988b.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Crim Just Behav* 17(1):71-92, 1990a.
- Wexler, H.K.; Lipton, D.S.; and Blackmore, J. Cost of treatment in reform. Project REFORM Final Report. New York: Narcotic and Drug Research, Inc.. 1990b.

Wexler, H.K.; Lipton, D.S.; and Johnson, B.D. *A Criminal Justice System Strategy for Treating Cocaine-Heroin Abusing Offenders in Custody. Issues and Practices in Criminal Justice*. DOJ Pub. No. NCJ-108560. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988a.

Wexler, H.K., and Williams, R. The Stay'n Out therapeutic community: Prison treatment for substance abusers. *J Psychoactive Drugs* 18(3):221-230, 1986.

Wish, E.D., and O'Neil, J.A. *Drug Use Forecasting (DUF) Research Update, January to March, 1989*. Washington, DC: National Institute of Justice, September 1989.

ACKNOWLEDGMENTS

The authors acknowledge the contributions of Nicholas Demos, Office of Treatment Improvement, Alcohol, Drug Abuse and Mental Health Administration, and John Gregrich and Kim Rendleson, BJA, U.S. Department of Justice, for assistance in obtaining grant funding. This work was partially supported by BJA, Office of Justice Programs, U.S. Department of Justice grants 87-DD-CX-K060 and 88-DD-CX-008.

AUTHORS

Douglas S. Lipton, Ph.D
Director of Research

Gregory P. Falkin, Ph.D
Principal Investigator

Harry K. Wexler. Ph.D
Principal Investigator

Narcotic and Drug Research, Inc
11 Beach Street
New York, NY 10013

Program Models

Barry S. Brown

INTRODUCTION

There are five types of program models available for drug abusers in correctional settings: (1) incarceration without specialized services, (2) incarceration with drug education and/or drug abuse counseling, (3) incarceration with residential units dedicated to drug abuse treatment, (4) incarceration with client-initiated and/or client-maintained services, and (5) incarceration with specialized services that do not directly target users' drug abuse problems.

Although this chapter focuses on these five models, three additional alternatives also target the drug-abusing offender: (1) routine probation, (2) surveillance-only initiatives, and (3) use of Treatment Alternatives to Street Crime (TASC).

MODELS IN CORRECTIONAL SETTINGS

Incarceration Without Specialized Services

The model most commonly available to the imprisoned drug abuser is incarceration without a specialized program. A 1987 survey (Chaiken 1989) of correctional program directors in the 50 States suggests that only 11.1 percent of inmates in State institutions were enrolled in specialized drug programs in that year, up from the 4.4 percent reported in a National Institute on Drug Abuse survey (National Institute on Drug Abuse 1981)—hardly a figure that gives comfort to those who see treatment interventions as important in containing recidivism in this population. A very conservative approach would target only those 140,000 individuals in State correctional facilities who, in a 1986 survey (Innes 1988) were reported to be frequent users of heroin, street methadone, cocaine, phencyclidine (PCP), or LSD immediately before arrest. Even with this conservative approach, the 51,500 people reportedly seen in some form of drug abuse treatment in 1987 would represent little more than a third of the population in need.

The lack of specialized drug abuse treatment does not translate into a lack of rehabilitative services. Depending on institutional resources, such initiatives as educational programming, vocational counseling, casework services, release planning, and individual and/or group counseling may be available. To the extent these services are available, they typically are provided by institutional personnel, although some workers (e.g., teachers) may be contracted through the local community. Services are available through staff direction or at the instigation of the correctional client.

Incarceration With Drug Education and/or Drug Abuse Counseling

The second most common model of drug abuse treatment involves drug education and/or targeted counseling, including (as above) the range of traditional rehabilitative services that a correctional facility's resources permit. In addition, efforts are made to make drug-abusing offenders more aware of the consequences of their drug-taking behaviors and the risks thereof. The sudden and dramatic emergence of acquired immunodeficiency syndrome (AIDS) as a threat to life among intravenous (IV) drug users lends new, if unwelcome, weight to these arguments. Institutional settings are focusing more attention on this aspect of drug use and, in some instances, developing innovative educational strategies to arouse concern and encourage behavioral change. In this model, individual and/or group counseling also is used to focus on drug abuse issues. According to Chaiken (1989), group counseling has become the favored approach. Counseling strategies involve usual efforts at uncovering resistances and lending support to behavior change initiatives. In addition, group efforts may make substantial use of confrontational strategies, derived in part from the experience of the therapeutic community, while also employing the group to provide encouragement and assistance to correctional clients' efforts to modify their thinking and behaviors. Thus, the group operates as a spur and a support to behavior change.

Treatment services in this model are provided by institutional staff—caseworkers or psychologists—and are funded through departmental budgets. These programs and all other treatment and rehabilitative programs provided on institutional grounds operate at the sufferance of security personnel. This is not to say that support for treatment and rehabilitation is lacking, particularly as one moves along the continuum from maximum to minimum security, but that all service providers in institutional settings eventually come to understand the dominance of and the need to pay sufficient attention to security issues to guarantee support for service initiatives.

Incarceration With Dedicated Residential Units

The third model involves incarceration with use of residential units dedicated to drug abuse treatment. These units may exist as distinct programs within the larger correctional facilities, such as New York's Stay'n Out therapeutic community (TC) program, Wisconsin's Drug Abuse Treatment Unit, and Florida's Lantana program; or they may be organized as secure units outside the correctional complex, such as the Cornerstone program located on the grounds of the Oregon State Hospital made infamous in the movie "One Flew Over the Cuckoo's Nest" (Chaiken 1989; Bureau of Justice Assistance, unpublished manuscript). Arguably, the use of alternative secure sites for treating drug abusers has its historical roots in the Lexington (Kentucky) U.S. Public Health Service Hospital, which opened in 1935.

Current residential units are modeled on the structure and functioning of TCs. Some units, such as Wisconsin's Drug Abuse Treatment Unit, closely resemble the traditional version of the TC, employing "pull-ups" (verbal reprimands) by fellow residents or staff, as well as wearing signs or carrying oversize items that serve as negative reinforcers. TCs use the group and the setting to stimulate and reward growth, as evidenced by taking increased responsibility. The resident is expected to play an increasing role in the maintenance of the environment, in the behaviors and functioning of fellow residents, and in the adoption of changed and more mature behaviors on his or her part. In addition to use of the milieu and group as stimuli to change, there is some mix of encounter sessions, group counseling, large group (community) sessions, individual counseling, and traditional rehabilitative programs (such as educational efforts and vocational counseling). Status in the community is associated with the degree to which the individual undertakes change and accepts responsibility for stimulating change in others.

Staff may be drawn from the ranks of the corrections department (e.g., Lantana and Wisconsin's Drug Abuse Treatment Unit) or from outside the correctional setting (e.g., Stay'n Out and Cornerstone). Whether they are service providers or correctional personnel, staff persons attached to these programs appear to regard themselves as special, pursuing a kind of mission separate from the initiatives of their correctional colleagues. The staff may represent backgrounds that are different from those of other corrections service providers. Most dramatically, the Stay'n Out program employs recovering addicts on its staff, whereas convicted felons are frequently unable to gain employment in other correctional settings.

Funding also may come from diverse sources—from the corrections department alone or from a mix of corrections, drug abuse, and/or mental health programs.

Federal funding, as seed money to help initiate a combined research and services initiative, may be a possibility through demonstration grant money

Incarceration With Client-Initiated and/or Client-Maintained Services

The fourth model involves programs initiated and/or maintained by clients. In this model, clients take primary responsibility for initiating drug-oriented behavior change programs within the institution. Narcotics Anonymous (NA), for example, is organized within correctional settings, often with the assistance of interested correctional staff. Pamphlets and materials are available from NA headquarters, which can help guide the planning, implementation, and maintenance of an NA program. The NA headquarters also maintains a list of all NA programs organized by location.

NA's 12-step program is designed to lead to a drug-free lifestyle and to the addicts becoming acceptable, responsible, and productive members of society. Institutional NA programs frequently draw on sympathetic NA members of the neighboring community who share aspects of correctional clients' backgrounds and can be enlisted to speak at NA meetings as well as provide links to the community and evidence of support and concern within that community.

Little is known about the structure and functioning of NA programs in correctional settings, perhaps because professionals are less likely to develop them or to be an integral part of them. Nonetheless, they offer an inexpensive support to a changed, drug-free lifestyle that seems worthy of attention from the drug abuse and criminal justice fields.

Another "program" that significantly targets drug use and is entirely "client-driven" is adoption of the Muslim faith and its practices. Again, relatively little information exists on the role and influence of Muslims vis-a-vis drug abuse and behavior change. Only anecdotal data exist with regard to in-prison conversions and group influence; this issue also merits closer attention.

These client-driven programs make minimal demands on staff and resources, although the correctional staff may undertake some coordinating responsibilities with both NA headquarters and the local free community on behalf of the NA chapter. According to some reports, both NA and Muslim activities are viewed positively by correctional staff, at least in part because of the capacities of both groups-particularly the Muslim followers-to maintain peace in the correctional community.

Incarceration With Specialized Services for Problems Other Than Drug Abuse

The fifth model involves the use of specialized services for drug abusers that do not directly target drug abuse problems. The Simon Fraser Prison Education Program organized by Simon Fraser University in Vancouver, British Columbia, is located in four correctional institutions (Chaiken 1989). The program provides college-level study in a degree program to offenders who are willing to commit to the self-discipline required to undertake a course of study. Most, but not all, of the prisoner student body have histories of long-term drug abuse. A part of the Simon Fraser program involves the award of certificates in literacy training, enabling program students to teach reading and writing to their illiterate peers in the correctional institutions.

As in the case of earlier college training programs for prisoners and the Daytop Village's TC college program targeting drug abusers (Biase 1989) the success of the Simon Fraser program in containing client recidivism is due in part to the personal resources and capabilities of those clients eligible for a college program. Nonetheless, the importance of providing programs to channel and support individuals' capacities should not be denigrated, especially when those programs achieve their objectives. Staff and resources for the Simon Fraser program are derived from sources outside the correctional department and institutions.

MODELS OUTSIDE CORRECTIONAL SETTINGS

Whereas the foregoing five models provide drug abuse treatment for clients within institutions, three other models of service delivery involve alternatives to incarceration.

Probation

The most typical model of service delivery to correctional clients is probation, a mix of counseling, support, and surveillance. Nearly two-thirds of all adjudicated offenders are placed on probation; and the probation population is growing even more rapidly than the incarcerated population, albeit without comparable growth in human and material resources (Byrne et al. 1989).

Surveillance

To meet the challenge of increasing numbers of offenders, there also is an increasing interest in and use of surveillance-only mechanisms to deliver services to nonincarcerated offenders. Although house arrest and electronic

monitoring, for example, are unconcerned with providing rehabilitative services (and in the case of 24-hour house arrest would appear inimical to rehabilitative ends), these strategies are appealing as appropriate techniques for monitoring and controlling client movement outside correctional settings. About 10,000 offenders have been placed under house arrest (Byrne et al. 1989) and 2,300 on electronic monitoring (Schmidt 1989), although the latter technology is reportedly gaining attention.

Treatment Alternatives to Street Crime

A third model of service delivery as an alternative to criminal justice programming is TASC (Weinman, this volume), which involves diversion from criminal justice processing into a program that provides a mix of supervision and treatment services.

As do probation and surveillance-only programs, TASC has one objective (and selling point): relief of jail and prison overcrowding. Unlike the other two programs, TASC is vitally concerned with providing linkages to community treatment programming and, through those linkages, with making rehabilitative opportunities available to drug-involved offenders (Bureau of Justice Assistance 1988).

CONCLUSION

These efforts to contain drug use—specifically IV drug use—have received increased impetus by virtue of their significance in containing the spread of AIDS. Given the role and potential of the IV drug-using population in the spread of that disease, efforts taken to encourage the use of effective models can be central to the survival of thousands and perhaps tens of thousands of persons. At the same time, these models must be refined and tested, and additional effective models must be encouraged. Although corrections professionals generally are good at conducting studies, they are sadly deficient in encouraging and supporting the use of study findings. With respect to AIDS, such a deficiency could be tragic.

REFERENCES

- Biase, V. "Daytop's College Education Program." Paper presented at the What Works Conference, New York, 1989.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime, TASC Programs*. Washington, DC: Department of Justice, 1988.
- Byrne, J.M.; Lurigio, A.J.; and Baird, C. The effectiveness of the new intensive supervision programs. *Res Corrections* 2:1-48, 1989.

- Chaiken, M.R. *In-Prison Programs for Drug-Involved Offenders*. Washington, DC: National Institute of Justice, 1989.
- Innes, CA. *Profile of State Prison Inmates*, 1986. Washington, DC: Bureau of Justice Statistics, National Institute of Justice, 1988.
- National Institute on Drug Abuse. *Drug Abuse Treatment in Prisons*. DHHS Pub. No. (ADM)81-1149. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, 1981.
- Schmidt, A.K. Electronic monitoring of offenders increases. In: *NIJ Reports*. Washington, DC: National Institute of Justice, 1989. pp. 2-5.

AUTHOR

Barry S. Brown, Ph.D.
Chief
Community Research Branch
Division of Applied Research
National Institute on Drug Abuse
Parklawn Building, Room 9A-42
5600 Fishers Lane
Rockville, MD 20857

Drug Treatment Services in Jails

Roger H. Peters and Robert May II

INTRODUCTION

Jail and prison populations have grown considerably in the past several years as a result of an influx of new arrestees who are involved with drugs. Sixty-two percent of State and Federal prisoners report regular drug use prior to incarceration (Frohling 1989). The proportion of drug-dependent jail inmates also has risen steadily. Information from the Drug Use Forecasting (DUF) system reveals that over 70 percent of arrestees in many metropolitan areas test positive for drugs (U.S. Department of Justice 1989).

Treatment resources for drug-dependent jail and prison inmates have not kept pace with the demand for services. State correctional administrators report that from 70 to 80 percent of inmates are currently in need of drug treatment (Frohling 1989). Despite evidence that participation in State correctional drug treatment programs is increasing (Chaiken 1989), only 6 percent of State prison inmates sampled in a recent survey reported that they were currently enrolled in drug treatment (U.S. Department of Justice 1988). For inmates referred to in-jail drug treatment, only 11 percent reported prior treatment for alcohol abuse and 31 percent for other drug abuse (Peters and Dolente, unpublished data).

Treatment in a correctional setting provides an important opportunity to engage offenders in a therapeutic environment who otherwise would not seek treatment on a voluntary basis or who have a poor record of treatment participation (Wexler et al. 1988). For many offenders, incarceration is the first lengthy period of abstinence since initiation of regular drug use and provides an enforced removal from drug-using peers, family conflict, or other cues that often precipitate drug use. For incarcerated offenders, motivation to participate in treatment is enhanced by the immediacy of negative consequences of past drug use. Correctional drug treatment enables offenders to begin developing life skills and drug coping skills, and it serves as a foundation for subsequent involvement in community-based treatment.

Drug treatment in a correctional setting provides an effective vehicle to prevent offenders from returning to chronic patterns of drug abuse and crime. Within

this setting, court-ordered treatment programs have been shown to encourage involvement in drug treatment for offenders who are unlikely to attend such programs on their own (Anglin 1988). Offenders who are court-ordered to drug treatment experience short-term treatment outcomes that are comparable to those of voluntary clients (Maddux 1988; Simpson and Marsh 1988), and they often remain in treatment longer than clients without criminal justice sanctions (Hubbard et al. 1988). Treatment retention among offenders released from correctional treatment programs is strengthened by ongoing supervision and monitoring provided by Treatment Alternatives to Street Crime (TASC) programs (Collins and Allison 1983; Hubbard et al. 1988). Increasing retention in community-based treatment tends to reduce daily drug use and involvement in criminal activity among drug-dependent offenders. Several studies indicate that involvement in correctional drug treatment reduces the likelihood of criminal recidivism. Findings from a followup of offenders participating in the Stay'n Out program in New York (Wexler et al. 1990) indicate that inmates who completed the treatment program had significantly fewer parole violations than those who dropped out before completing treatment or those who participated in less intensive programs. A similar followup of participants in the Cornerstone Program in Oregon (Field, this volume) found that, over a 3-year postrelease period, program graduates were significantly less likely than other participants who did not complete the program to be arrested, convicted, or placed in prison. For inmates treated in the Wisconsin Department of Corrections' Drug Abuse Treatment Unit (DATU), only 6 percent of program participants returned to State prison during a 2-year followup period, compared with 33 percent of untreated inmates (U.S. Department of Justice 1990).

This chapter examines the scope of drug treatment services in jails across the country, as addressed by a recent survey conducted by the American Jail Association. Several innovative treatment approaches implemented by in-jail model demonstration programs also are reviewed. The success of these approaches is discussed within the context of preliminary evaluation findings, including indications of progress during treatment and of recidivism following release from in-jail programs.

NATIONWIDE SURVEY OF IN-JAIL DRUG TREATMENT PROGRAMS

Although several studies (U.S. Department of Justice 1989; Peters and Dolente, unpublished data) have documented the prevalence of drug abuse among jail inmates and the low proportion of inmates who have received treatment, program-level survey data addressing the quantity and quality (e.g., content) of in-jail drug treatment programs have not been systematically collected. The Drug Treatment Program Survey, conducted by the American Jail Association, has provided the first comprehensive examination of in-jail drug treatment

programs in this country. The survey was conducted as part of a larger initiative funded by the U.S. Department of Justice, Bureau of Justice Assistance (BJA), entitled "Drug Treatment in the Jail Setting: A National Demonstration Program." The American Jail Association was selected to administer this grant program and also has assisted in the development of three model demonstration in-jail drug treatment projects.

The Drug Treatment Program Survey examined important aspects of the jail facility and population and identified key components of drug treatment programs, including staffing patterns, number of inmates served, length of stay in the program, and type of treatment offered. Survey respondents were asked to describe the status of existing in-jail drug treatment programs in 1987. Survey results were based on a total of 1,737 respondents from 48 States and the District of Columbia, representing 57 percent of all jails in the country. Each geographical region of the country was adequately represented in the survey, with respondents about evenly split between Eastern and Western States.

Only 28 percent of jails responding to the survey offered drug treatment services other than detoxification. As indicated by table 1, jails with fewer than 50 inmates were particularly underrepresented among facilities with drug treatment programs, with only 15 percent currently providing such services. For jails with drug treatment programs, 33 percent reported that services were provided by volunteers. Thus, funded drug treatment programs were present in only 19 percent of jails surveyed. An additional 116 jails (9 percent) planned to implement a drug treatment program within 6 months. For jails without a drug treatment program (n=1,186) and with no plans to implement a program in the following 6 months, 65 percent indicated that development of services was hindered by a lack of funds. Another 29 percent reported a lack of need for drug treatment services. Jails with fewer than 250 inmates accounted for 93 percent of all respondents that indicated difficulties in funding drug treatment services and 97 percent of respondents that indicated a lack of need for these services.

Characteristics of Drug Treatment Programs

Drug treatment programs were isolated from the general inmate population in only 12 percent of jails, including fewer than 4 percent of all programs in jails with fewer than 250 inmates. Forty-two percent of drug treatment programs were located in jails using the direct supervision model of inmate management. Only 30 percent of jails without treatment programs used the direct supervision concept. Jails with drug treatment programs were substantially larger (average daily nonpeak population=327 inmates) than jails without programs (average=68 inmates). The average drug treatment program size was 42

TABLE 1. Drug treatment services by size of jail for all survey respondents

Drug Treatment Services	Number of Inmates (Percent)						Total (n=1,647)
	Fewer than (n=1,014)	50-250 (n=440)	251-499 (n=103)	500-999 (n=57)	1,000-2,000 (n=32)	More than 2,000 (n=15)	
Drug treatment program*	15	41	60	67	72	67	26
Group counseling	6	20	43	47	58	60	15
Transition planning	2	11	31	32	33	53	8
Drug education	6	19	42	46	55	60	14
Comprehensive program†	2	9	28	32	35	53	7
Volunteer services only	6	15	13	16	9	27	10
Program planned within 6 months	5	14	20	22	39	20	9

*Other than detoxification services

†Program includes group counseling, drug education, transition planning, and referral to outside treatment agencies.

inmates (SD=69) but varied considerably according to the size of the jail system. In general, larger jails had a larger drug treatment population. For the 56 drug treatment programs in jails of over 500 inmates, the average program size exceeded 70 inmates. Inmate requests to participate in drug treatment programs exceeded the number of slots available for all categories of jail size. Survey respondents indicated that only 39 percent of inmates who participated in an in-jail drug treatment program during 1987 actually completed the program, although it was unclear what proportion of this total had been discharged involuntarily.

Inmates enrolled in drug treatment programs averaged 26 years of age. For all programs surveyed, 66 percent of participants were white, 23 percent black, 8 percent Hispanic, and 3 percent of other ethnic backgrounds. Programs in larger jails tended to have greater numbers of black and Hispanic participants. The proportion of sentenced inmates in jails with drug treatment programs (48 percent) did not differ significantly from jails without programs.

In-jail drug treatment programs employed an average of three staff members, with a range of two employees for jails of fewer than 50 inmates (average program size=17) to a high of six staff members for jails with more than 2,000 inmates (average program size=171). The ratio of paid program staff members to inmates enrolled in drug treatment averaged 1:12 for all jails responding to the survey. The most favorable staff to inmate ratio (1:6) was reported by jails of fewer than 50 inmates. The least favorable ratio (1:25) was reported for jails of over 2,000 inmates. More than 80 percent of programs used community volunteer services. The number of volunteer staff members exceeded the number of paid personnel across all categories of jail size. In-jail drug treatment programs averaged 6.5 volunteers, or more than twice the number of paid staff. Use of volunteers increased according to the size of the jail population. Of all programs surveyed, jails of over 500 inmates were the most reliant on volunteers, with an average of at least two volunteers for every paid staff member. In-jail drug treatment program coordinators were from a wide range of mental health and social services backgrounds, including psychologists (19 percent), psychiatrists (8 percent), social workers (31 percent), and drug specialists (30 percent).

Treatment Interventions

For the 28 percent of jails (responding to the survey) that had drug treatment programs other than detoxification services, the most common treatment interventions were group counseling (78 percent), individual counseling (78 percent), drug education (76 percent), and referral to outside agencies (84 percent). Only 44 percent of in-jail programs provided transition planning prior to release. For jails of fewer than 50 inmates, only 26 percent provided transition planning. Existing in-jail drug treatment programs included approximately 6 hours of therapeutic activities per week for each inmate. The number of hours of programming increased as a function of jail size, with treatment programs in jails of over 1,000 inmates averaging over 13 hours of treatment activities per week.

Attempts were made to identify in-jail drug treatment programs that provided a comprehensive level of services. A criterion measure for comprehensive treatment was established that included provision of each of the following services: (1) group counseling, (2) drug education, (3) transition planning, and (4) referral to outside treatment agencies. According to this measure, only 107 (7 percent) of all jails surveyed provided a comprehensive level of drug treatment services. Comprehensive drug treatment programs averaged 6.8 hours of inmate activities per week compared with 3.8 hours per week provided by noncomprehensive programs. However, only 19 of the jails with comprehensive drug treatment programs (17 percent) and only 11 jails without

comprehensive programs (6 percent) provided more than 10 hours per week of treatment activities. The number of hours of treatment programming appeared to increase according to the size of the jail for both comprehensive and noncomprehensive programs. Drug treatment programs within larger jails also appeared to be more comprehensive with respect to provision of group and individual counseling, drug education, and transition planning.

In Jail Drug Treatment Program Costs

Program costs varied enormously, even within jails of approximately the same size. It is unclear to what extent these differences are attributable to the use of different methods for determining costs. Fewer than one-third of jails with drug treatment programs reported actual program costs. For these jails, costs per year averaged \$74,450, with a range of \$13,042 for jails with less than 50 inmates to \$233,080 for jails housing from 1,000 to 2,000 inmates. Expenditures for each inmate enrolled in drug treatment programs averaged \$4.90 per day in addition to normal incarceration costs. This figure was derived using average yearly program costs and average program capacity, and it is based on the assumption that in-jail programs operated at 100-percent capacity during the reporting period. Average daily inmate costs ranged from \$2.30 for jails of 500 to 999 inmates to \$9 for jails of 1,000 to 2,000 inmates. Program costs varied as a function of jail size, the number of hours of treatment activities provided per week, and the number of treatment interventions provided. Over 70 percent of jails surveyed received funding for drug treatment programs from the county government. More than 40 percent of jails received State funding.

Adjunctive Drug Treatment Services

Survey results indicate that several adjunctive drug treatment program activities are provided in jails. For all jails sampled, 22 percent provided detoxification services, 77 percent provided intake screening for drug abuse, and 76 percent provided intake medical screening. Only 3 percent of all jails conducted drug testing at the time of intake, and 13 percent provided random urinalysis during incarceration. Six percent of respondents indicated that acquired immunodeficiency syndrome (AIDS) screening was provided at intake. A larger proportion (37 percent) of jails provided AIDS testing after intake, although this was presumably done on a selective basis according to need. Almost two-thirds of jails reported specialized training for correctional officers in substance abuse-related topics, and 57 percent provided training in AIDS screening. In general, large jails were more likely to report the availability of adjunct drug treatment services.

MODEL DEMONSTRATION PROGRAMS

Several comprehensive in-jail drug treatment programs have been developed through a 1987 grant from BJA and administered by the American Jail Association. Three model demonstration projects were developed in Hillsborough County (Tampa), FL; in Cook County (Chicago), IL; and in Pima County (Tucson), AZ. These programs were developed to disseminate information regarding strategies for implementing treatment programs in a jail setting, effective treatment approaches, and evaluation of treatment effectiveness. The model demonstration programs have hosted several training sessions and provided consultation for jail staff interested in developing similar drug treatment programs.

Treatment Approaches

Although the treatment approaches vary, each program provides comprehensive assessment, drug education, group and individual counseling, vocational and educational activities, and case management services, including work to develop a followup treatment plan and linkage with the courts and with community drug treatment providers. The in-jail program in Florida provides services to 70 inmates, most of whom are sentenced. Treatment services are provided to both male and female inmates. The 6-week treatment curriculum includes an emphasis on the development of cognitive-behavioral and relapse prevention skills. Inmates remaining in jail for more than 6 weeks are enrolled in an advanced skills group. Relapse prevention efforts focus on identification of specific antecedents to relapse and of high-risk situations, on rehearsal of coping skills to manage high-risk situations, and on returning to abstinence following a single lapse to drug use. Other interventions address need to restore lifestyle balance, to manage anger and stress, to develop communications skills, and to build a long-term plan for recovery.

The programs in Arizona and Illinois use therapeutic community (TC) approaches. The program in Arizona treats approximately 50 sentenced inmates in a modified TC setting within a direct supervision pod. The average length of stay in the drug treatment unit is 6 months. The treatment unit recently admitted female inmates, which has encouraged more open communication among group members and more rapid changes in prosocial attitudes and behaviors. Following release from jail, most inmates are referred to a full-time residential facility or to other less intensive levels of community treatment. The program in Illinois is based on the principles of Alcoholics Anonymous/Narcotics Anonymous 12-step approach programs and provides services to pretrial inmates in four (40-bed) direct supervision dormitories. The program relies significantly on inmate leadership and monitoring of treatment activities.

A major objective of each of the model demonstration programs is to provide a graduated reentry to the community, with the goal of assisting the offender to remain abstinent from drugs during the critical first several months following release from jail. The programs in Florida and Illinois are assisted by TASC counselors who work with inmates to develop a followup treatment plan, to ensure that an initial appointment for community treatment is made, and to monitor offender participation in followup treatment. TASC programs also provide key linkages to assist the court in designating appropriate followup treatment as a condition of probation. In the Florida program, the TASC counselor provides an intake assessment for the community treatment provider during the last week of participation in the jail program, thus streamlining the process of enrollment in community treatment. In the Arizona program, where treatment services are subcontracted to a community agency, coordination of followup care is provided by the primary treatment counselor.

Evaluation Results

Preliminary evaluation results from the model demonstration programs indicate that offenders involved in drug treatment show marked improvements in knowledge of key aspects of the treatment curriculum, in abilities to use drug coping skills, and in psychological functioning. Several repeated measures administered in the Florida program provide evidence of progress over the course of treatment in use of skills to manage high-risk situations for drug relapse. A sample of 207 inmates were administered the Problem Situation Inventory (PSI) (Hawkins et al. 1986), a situational competency test designed to examine coping skills in high-risk situations. Evaluation results demonstrated a significant increase in PSI test scores at the time of program completion. The mean pretreatment PSI score was 42.3 compared with a posttreatment mean of 63.5 ($t[207]=13.49$, $p<.001$). Results indicated significant improvements in abilities to respond (albeit in a simulated setting) to situations that frequently lead to drug use following release from treatment.

Inmates in the Florida program also are administered a substance abuse test to evaluate knowledge gained over the course of treatment, including relapse prevention principles, information regarding the stages of recovery, and coping skills for use in high-risk situations. Test scores were found to improve significantly over the course of treatment. The mean pretreatment test score was 57.4 compared with posttreatment score of 82.3 ($t[232]=23.17$, $p<.001$). Particular improvement was noted in areas related to identification of personal high-risk situations, abilities to identify urge coping skills, and identification of methods for disputing irrational beliefs related to drug use. Repeated evaluation measures administered in the Arizona program indicate substantial improvement in psychological functioning over the course of drug treatment as measured by reductions in anxiety and depression.

Preliminary results from a 1-year followup of program participants released from the model demonstration program in Florida indicate that the length of involvement in treatment is inversely related to the likelihood of rearrest. Inmates successfully completing the 6-week treatment program in Florida (n=31) were about half as likely to be rearrested during the first 3 months after release compared with offenders who had been terminated from the program. For inmates completing the program, 23 percent were rearrested within 3 months, 42 percent within 6 months, and 61 percent 1 year after release from jail. In other words, 39 percent of program completers were not rearrested within 1 year. In contrast, 70 percent of inmates prematurely released from treatment (due to release on bond or recognizance; n=23) and 79 percent of inmates terminated from the treatment program (n=24) were rearrested during the 1-year followup period. Inmates completing the program averaged one arrest during the followup period, a slight reduction compared with the rate of arrest in the year prior to their last incarceration (mean=1.6 arrests). Inmates who were released prematurely or who were terminated from the program were arrested at about the same rate during pretreatment and followup periods.

Several caveats should be addressed before interpreting followup results: (1) A primary consideration is the extremely small sample size. Continued efforts to track program participants will enhance generalizability of these results. (2) This sample includes offenders who are at extremely high risk for reinvolvement with drugs and criminal activity due to considerable prior contact with the criminal justice system and who have had little prior involvement in treatment. Offenders in the Florida program averaged 6.3 prior arrests and 1.2 years of incarceration; they also had an average of less than one prior episode in drug treatment. (3) It also should be noted that the Florida sample received treatment within 6 months of program startup, at a time of considerable change in the treatment curriculum and of staff turnover. Within 6 months after this first sample of participants was released from jail, daily group counseling sessions were expanded from 1 to 2 hours per day; the treatment curriculum was revised to include several new interventions; and a TASC counselor was assigned to assist in placing inmates in community drug treatment programs. Additional tracking efforts will be required to determine whether these programmatic changes are related to improvement in psychosocial functioning during treatment and to reductions in rearrest following completion of the program.

CONCLUSION

Despite the high prevalence of drug abuse among inmate populations, and a growing awareness that untreated drug abusers have a negative impact on all segments of society, most jails do not have adequate drug treatment services. For the 1,687 jails that provided information regarding inmate census, only

12,894 inmates (7 percent) of an average daily inmate population of 192,461 were enrolled in drug treatment programs. Even for jails with drug treatment programs, only 12,894 (13 percent) of 100,389 inmates were involved in treatment. The absence of drug treatment services is particularly striking in smaller jails. The survey identified a clear need for smaller jails to begin forging linkages with community drug treatment providers or to hire in-house staff to provide at least minimal treatment interventions such as drug education and group counseling. Survey findings point strongly to the conclusion that only a small fraction of inmates needing drug treatment in 1987 actually received these services.

Drug treatment programs were more likely to be reported in large jails, in jails with a continuum of adjunctive support services (e.g., screening, urinalysis, training, collection of assessment data), in jails with an orientation toward development of inmate and staff (e.g., employee assistance) programs, and in jails with an orientation toward innovative approaches to inmate management (e.g., direct supervision). Only 19 percent of all jails surveyed reported a drug treatment program supported by paid staff. Many of these programs do not appear to provide an adequate level of drug treatment services: (1) 75 percent do not provide group therapy, drug education, transition planning, and referral to community drug treatment agencies; (2) only 30 programs (2 percent of all survey respondents) provide more than 10 hours per week of treatment activities; (3) programs average only three paid staff members; and (4) only 12 percent of drug treatment programs presently isolate participants from the general inmate population. A significant concern is the absence of transition planning/case management services, available in only 8 percent of jails surveyed. Without strong efforts to place offenders in followup care in the community, it appears unlikely that in-jail programs will be effective.

The absence of in-jail drug treatment services represents a neglected opportunity to assist offenders in developing skills to prevent further relapse to drug use. Jail inmates spend a considerable number of idle hours that would be spent more productively in drug treatment. Survey results indicated that over half of all sentenced offenders (representing an average of 47 percent of jail populations sampled) were incarcerated for at least a month and that 32 percent were incarcerated for over 3 months. Evaluation results from jail and prison programs indicated that treatment of incarcerated inmates was an effective means to develop skills critical to the recovery process and to reduce subsequent drug use and rearrest.

In comparison with residential treatment in the community, the costs of developing and operating an in-jail drug treatment program are quite modest. Survey results indicated that jails rated as having comprehensive programs

provided drug treatment services for 7 hours a week (per inmate) for an average of 65 inmates, at an average cost of \$83,574 per year. This average program cost translates to \$3.50 per day, per inmate, beyond the ordinary cost of incarceration.

Technical assistance and consultation in staff training, treatment curriculum development, and assessment and evaluation are critically important in developing new in-jail drug treatment programs, particularly in jails with no services. Without this support, it appears likely that jails will continue to take a disjointed approach in program development and to rely on volunteers and may neglect key program components such as thorough screening and assessment, group counseling, and transition planning.

Preliminary findings from model demonstration drug treatment programs in jails indicate that even relatively short-term interventions (6 to 8 weeks) can provide inmates with important coping skills to manage high-risk situations and can increase the fund of knowledge regarding the recovery process, health-related consequences of drug abuse, and relapse prevention principles. In-jail programs based on development of cognitive-behavioral skills appear to hold considerable promise in reducing the rate of rearrest following release from jail. Further research is needed to explore (1) the long-term impact of in-jail drug treatment programs, (2) specific interventions that are most effective for drug-dependent inmates, (3) the effect of varying lengths of in-jail treatment, (4) innovative community-based followup interventions such as use of employment incentives, and (5) predictors of success in jail drug treatment programs.

REFERENCES

- Anglin, M.D. The efficacy of civil commitment in treating narcotic addiction. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)88-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 8-34.
- Chaiken, M.R. *In-Prison Programs for Drug-Involved Offenders*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 1989. 87 pp.
- Collins, J.J., and Allison, M. Legal coercion and retention in drug abuse treatment. *Hosp Commun Psychiatry* 34(12):1145-1149, 1983.
- Frohling, R. *Promising Approaches to Drug Treatment in Correctional Settings*. National Conference of State Legislatures. Criminal Justice Paper #7. Washington, DC: U.S. Department of Justice, Bureau of Justice Assistance, 1989. 9 pp.

- Hawkins, J.D.; Catalano, R.F.; and Wells, E.A. Measuring effects of a skills training intervention for drug abusers. *J Consult Clin Psychol* 54(5):661-664, 1986.
- Hubbard, R.L.; Collins, J.J.; Rachal, J.V.; and Cavanaugh, E.R. The criminal justice client in drug abuse treatment. In: Leukefeld, C.G., and Tims, F.M, eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)88-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 57-80.
- Maddux, J.F. Clinical experience with civil commitment. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)88-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 35-56.
- Simpson, D.D., and Marsh, K.L. Relapse and recovery among opioid addicts 12 years after treatment. In: Tims, F.M., and Leukefeld, C.G., eds. *Relapse and Recovery in Drug Abuse*. National Institute on Drug Abuse Research Monograph 72. DHHS Pub. No. (ADM)88-1473. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 86-103.
- U.S. Department of Justice, Bureau of Justice Statistics. *Report to the Nation on Crime and Justice*. 2d ed. Washington, DC, 1988.
- U.S. Department of Justice, National Institute of Justice. *Drug Use Forecasting: January to March 1989*. Washington, DC, 1989.
- U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance. *Wisconsin's Drug Abuse Treatment Unit*. Bureau of Justice Assistance monograph. Washington, DC, 1990.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Crim Just Behav* 17(1):71-92, 1990.
- Wexler, H.K.; Lipton, D.S.; and Johnson, B.D. *A Criminal Justice System Strategy for Treating Cocaine-Heroin Abusing Offenders in Custody*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 1988.

ACKNOWLEDGMENTS

Preparation of this manuscript was supported by U.S. Department of Justice, Bureau of Justice Assistance, grant 87-DD-CX-0005.

The authors acknowledge the assistance of William Kearns, Ph.D., in compiling and analyzing evaluation data from the drug treatment program survey and from the model demonstration project in Tampa, FL. Assistance also was provided by Peggy Glider, Ph.D., who compiled evaluation data

from the model demonstration project in Tucson, AZ. Drug treatment program survey results also are described in "A Report of the Findings of a Survey of the Nation's Jails Regarding Jail Drug Treatment Programs" (May, B.; Peters, R.; and Kearns, B., 1990), printed by the American Jail Association, Hagerstown, MD, May 1990.

AUTHORS

Roger H. Peters, Ph.D.
Assistant Professor
Florida Mental Health Institute
Department of Law and Mental Health
University of South Florida
Tampa, FL 33612-3899

Robert May II, B.S.
Project Manager
American Jail Association
1000 Day Road, Suite 100
Hagerstown, MD 21740

HIV-1 Infection in the Correctional Setting

David Vlahov

INTRODUCTION

Infection with human immunodeficiency virus type 1 (HIV-1), the cause of acquired immunodeficiency syndrome (AIDS), is a major public health problem in prisons and jails. Through October 1989, 5,411 cases of AIDS had been reported from prisons and jails throughout the United States (Hammett 1990). In several correctional systems, AIDS has become the leading cause of death (New York State Commission of Corrections 1986; Salive et al. 1990a; CDC Weekly 1989). The occurrence of AIDS in prisons and jails has stimulated multiple serosurveys to identify the magnitude and scope of HIV-1 infection.

From the large number of HIV-1 seroprevalence surveys that have been conducted in the United States, as reported elsewhere (Hammett 1990; Centers for Disease Control 1987, 1989a), several trends can be identified. In the United States and Europe, HIV-1 seroprevalence varies considerably by geographic region. U.S. seroprevalence rates have been lowest among entrants to prisons in the Midwest region, with none in Idaho, 0.1 percent in South Dakota, 0.2 percent in Nebraska, 0.3 percent in Wisconsin, 0.4 percent in Oklahoma, 0.4 percent in Missouri, 0.4 percent in Iowa, and 0.8 percent in Colorado. Conversely, rates have been highest in the mid-Atlantic States, with 17.4 percent in New York and 7.0 percent in Maryland (Hammett 1990; Truman et al. 1988). In Europe, rates among prisoners ranged from none in Cyprus to 16.8 percent in Italy (Harding 1987).

Prevalence of HIV-1 infection in the correctional setting tends to exceed prevalence in the general population. For example, the 1-percent prevalence of HIV-1 antibody among entrants to a military maximum-security prison (Kelley et al. 1986) contrasts with the 0.15-percent prevalence among applicants to U.S. military service (Burke et al. 1987). Although these two groups are not strictly comparable because the samples were drawn at separate times in the subjects' respective military careers, these data highlight the need to focus attention on HIV-1 in the correctional setting.

Despite geographical variation in HIV-1 seroprevalence among correctional facilities, similarities have been noted across systems. The National Institute of Justice (NIJ) recently supported an HIV-1 seroprevalence survey of male and female entrants to 10 correctional systems within the continental United States (Vlahov et al. 1991). The results from this study indicated geographic variation but noted that HIV-1 seroprevalence was significantly higher among females compared to males, among racial/ethnic minorities compared to whites, and among inmates over 25 years of age compared to inmates under 25 years of age. A comparison of two pairs of jails and prisons located in the same State identified a similar HIV-1 prevalence among females and males, suggesting no important difference between jails vs. prisons after accounting for geographic variation.

The major risk factor for HIV-1 infection and AIDS in the correctional setting is intravenous (IV) drug use prior to incarceration. Within the New York State prison system, which conducts risk factor investigations on diagnosed cases of AIDS, approximately 95 percent of inmates with AIDS reported a history of IV drug use in comparison with 3 percent who acquired AIDS by homosexual contact and were not IV drug users (Bureau of Communicable Disease Control 1989). Among 1,488 male entrants to the Maryland Division of Corrections between April and June 1987, 7 percent were HIV-1 seropositive; 85 percent of the seropositives were identified as IV drug users by history or observation of needle tracks (Vlahov et al. 1989). Although IV drug use and homosexual activity are acknowledged as continuing among a nontrivial proportion of inmates (Decker et al. 1984; Nacci and Kane 1982), intraprisn transmission of HIV-1 has been found infrequently (Brewer et al. 1988; Kelley et al. 1986; Horsburgh et al. 1990). This infrequent transmission of HIV-1 supports the conclusion that IV drug use prior to incarceration is the predominant risk factor for HIV-1 infection and AIDS among incarcerated populations.

The ability to project temporal trends of HIV-1 infection in the correctional setting is of obvious value to correctional administrators, but its value has been limited because most published serosurveys typically report prevalence for a single year. Given that preincarceration IV drug use is the major risk factor for HIV-1 infection in the correctional setting, early reports of temporal trends of HIV-1 infection among nonincarcerated IV drug users raised concerns that the prevalence of HIV-1 infection might increase dramatically. In particular, these reports noted that once HIV-1 entered a community of IV drug users in New York City, Milan (Italy), and Edinburgh (Scotland), dramatic increases in HIV-1 seroprevalence in the IV drug user population were observed within 2 to 4 years (Novick et al. 1985; Angarano et al. 1986; Robertson et al. 1986). However, other reports of nonincarcerated IV drug users noted a subsequent stabilization of HIV-1 seroprevalence in IV drug user populations (Des Jarlais et al. 1989; Moss et al. 1988; Brown et al. 1988; Peterson et al. 1988).

With respect to incarcerated populations, HIV-1 data are limited. In the Maryland State prisons, data obtained over 3 years (1985 to 1987) showed stable prevalence among males entering prison; this stability persisted in multivariate analyses (Vlahov et al. 1989). Additional data for 1988 were analysed and showed persistence of stability for HIV-1 antibody among male entrants to Maryland State prisons (Vlahov et al. 1990). Similarly, stable prevalence has been observed in a 1-year period in two other correctional systems (Prendergast et al. 1989; Davis et al. 1989). Failure to detect an increase in HIV-1 seroprevalence may be due to a variety of factors that have been discussed in detail elsewhere (Vlahov et al. 1989; Des Jarlais et al. 1989). Briefly, these include random variation in sampling; an effect of active risk reduction in response to the AIDS epidemic; and achievement of an equilibrium among three variables: (1) the influx of uninfected individuals, (2) the incidence of new infection, and (3) the exit of infected individuals through death and migration. The extent to which these and possibly other factors may help produce stabilization of prevalence among inmates entering prison requires further investigation. Although these data may be reassuring to correctional and public health officials, ongoing surveillance is prudent.

Intraprison transmission is related to the temporal trends of HIV-1 infection in the correctional setting. Since homosexual activity and IV drug use are acknowledged to occur in prison (Nacci and Kane 1982; Decker et al. 1984) and the median length of incarceration is usually 2 to 3 years, concern exists over the potential for correctional facilities to serve as an amplifying reservoir of HIV-1 infection into the surrounding community. Transmitting HIV-1 during incarceration was suggested by a Maryland Division of Corrections study (Vlahov and Polk 1988). This study involved approaching 338 inmates who had been incarcerated for at least 7 years prior to 1985. Of the 137 volunteers in the study who were tested, the two found to be seropositive had each been incarcerated for 9 years, and the estimated infection rate was 2.1 per 1,000 prison-years. Although no baseline specimens were available, the extended duration of incarceration suggests that infection probably was acquired in prison. Because the response rate was low and restricted to long-term inmates, bias cannot be excluded. Subsequently, at a military maximum-security prison that reported an HIV-1 seroprevalence of 1 percent at baseline, serologic followup was performed on 567 inmates for whom negative baseline specimens were available, and no seroconversions were identified (Kelley et al. 1986). In the Nevada State prisons, which reported a baseline prevalence of 2.4 percent, the intraprison transmission rate was calculated as 1.7 per 1,000 prison-years (Horsburgh et al. 1990). In Maryland, which reported a baseline prevalence of 7.0 percent, the intraprison transmission rate was calculated as 4.2 per 1,000 prison-years (Brewer et al. 1988). Although these study samples included only those inmates who were still incarcerated at the time of followup, the data

suggest that the risk of intraprisn transmission is low. This documentation of infrequent transmission and the observation of an apparent direct relationship between HIV-1 seroprevalence at intake and risk of transmission (table 1) suggest that, for most correctional facilities in the United States, intraprisn transmission is likely to be rare.

TABLE 1. *Point estimates for prevalence and incidence of HIV-1 seropositivity among prison inmates, United States*

Prison System	Prevalence on Entry (Percent)	Incidence per 1,000 Prison-Years
Military maximum security	1.0	0
Nevada	2.4	1.7
Maryland	7.0	4.2

To summarize, although available data on the geographical variation and temporal stability in seroprevalence in combination with data suggesting infrequent intraprisn transmission appear reassuring, HIV-1 infection remains a major prison health problem. Large numbers of persons either at risk for infection or already infected continue to enter correctional facilities. However, prudent policies are needed to continue monitoring, treating, and intervening with this population and, thus, to efficiently prevent and control HIV-1 infection in the correctional setting.

RESPONSE TO HIV-1 IN THE CORRECTIONAL SETTING

Responses to HIV-1 infection in the correctional setting have included inmate risk education; screening for antibody to HIV-1 infection and segregation of seropositive inmates; and, to a lesser extent, treatment for drug abuse. Options and constraints for each of these approaches are discussed below.

Inmate Risk Education

In the third annual NIJ survey of U.S. correctional facilities, virtually all jurisdictions reported offering or developing some AIDS training or educational material for staff (97 percent) and inmates (96 percent) (Hammett 1990). Despite this near universal application of education about risks, sparse data are available on the preexisting level of knowledge about HIV/AIDS among incoming inmates. Recently, Celentano and coworkers (1990) administered the

AIDS Awareness Questionnaire—developed by the National Center for Health Statistics (NCHS) and given periodically to a random sample of the U.S. population—to a sample of 210 consecutive male entrants to the Maryland State prison system. These investigators reported that, within this sample, knowledge about HIV/AIDS and the established routes of transmission and prevention of transmission was high before receiving in-service education. These results were similar to a random sample of U.S. males interviewed during the same calendar period, with more than 95 percent correctly responding that HIV was transmitted by sexual intercourse and sharing needles. However, knowledge about casual contact transmission was lower, with 57 percent incorrectly reporting that HIV is transmitted by sharing eating utensils with someone who has AIDS. The findings led Celentano and coworkers (1990) to conclude that knowledge about established routes of transmission and prevention of HIV-1 probably had been disseminated adequately prior to incarceration but that clarification of unlikely transmission sources would seem prudent.

More recently, Zimmerman and colleagues (1991) surveyed HIV-1 knowledge and perceptions among 108 inmates from a Pennsylvania prison who volunteered to participate. The same NCHS AIDS Awareness Questionnaire was used. Their findings were similar with respect to knowledge, but they noted a strong inverse association between knowledge about unlikely routes of transmission and perception of risk while in prison. This inverse association suggests that faulty knowledge about unlikely routes of transmission (e.g., through casual contact) might lead to a high perception of risk for acquiring infection while in prison. Although the extent to which perception of risk as associated with fear and concern was not measured, studies that have identified intraprisson transmission as infrequent (Brewer et al. 1988; Kelley et al. 1986; Horsburgh et al. 1990) suggest that the risk perceptions reported by these inmates may be unnecessarily high. These findings combined with the data from Celentano and coworkers (1990) suggest that education programs in the correctional setting should focus on clarifying unlikely routes of transmission. Zimmerman and colleagues (1991) further noted that, among the inmates surveyed, the most trusted sources of AIDS information were television, newspapers, and the Division of Corrections' programs and the least trusted sources were correctional officers and other inmates. These findings suggest strategies for focusing attention on educational interventions.

In summary, cost-effective planning for AIDS education programs should recognize that fundamental concepts of HIV-1 transmission and prevention are likely already to have been disseminated to inmates. A current focus for such programs should include clarification of unlikely transmission sources, with the objective of minimizing unnecessary fears and concerns.

In addition to clarifying concerns that arise during incarceration, HIV/AIDS education in correctional settings has been discussed as having a second objective. Prisons provide a high concentration of IV drug users. Surveys have reported preincarceration drug use among 27 to 41 percent of prison inmates (Anda et al. 1985; Decker et al. 1984; Hull et al. 1985; Vlahov et al. 1989). Also, samples of incoming inmates to a regional prison system involve many IV drug users from a wide geographic area (e.g., approximately 1,500 IV drug users per year in the Maryland Division of Corrections enter through a single facility), and similar numbers are released each year. This access to large numbers of IV drug users, many of whom have no history of drug abuse treatment (Barton 1980) suggests an opportunity to reach efficiently an otherwise difficult-to-access population. However, a recent survey of 1,580 active drug users in Baltimore, recruited through extensive community outreach techniques, indicated that information about AIDS had been disseminated adequately (Celentano et al. 1991). Therefore, education programs confined to fundamental concepts about HIV transmission and prevention are likely to be redundant. Although the correctional setting provides a unique opportunity to efficiently reach many IV drug users, the most cost-effective approach to facilitate desired behavioral change requires further work.

Serological Screening of Inmates

As a discrete public health policy, much discussion has surrounded the issue of screening inmates for antibody to HIV-1 and segregation of seropositives. In a survey of U.S. correctional systems in 1987 and 1988, Hammett (1990) summarized the position of proponents and opponents. Briefly, proponents argued that screening would permit identification of infected individuals and segregation would permit closer monitoring of infected individuals to reduce risk of transmission and to initiate treatment for complications of HIV-1 infection. Opponents argued that, for most correctional systems, the risk of HIV-1 transmission was low, so that mass screening was not cost-effective. In addition, opponents argued that treatment of HIV-1 for asymptomatics was not available. With the multitude of logistical problems surrounding mass screening and segregation in the correctional setting, it was argued that such basic issues as confidentiality of test results and the potential for positive test results to lead to inmate victimization had not been addressed adequately.

More recently, recommendations and guidelines for the early treatment of HIV-1 infection have been published (Centers for Disease Control 1989b; Salive et al. 1990b; Volberding et al. 1990). These guidelines call for identifying HIV-1 infection and monitoring immune parameters to start chemotherapy in asymptomatic individuals, with the goal of delaying onset of HIV-1 related disease.

With the advent of multiple chemotherapeutic protocols for asymptomatic HIV-1 infected individuals, the issue of serological inmate screening shifts dramatically. Rather than debating the merits of mass screening, the issue now shifts toward defining efficient and cost-effective identification of HIV-1 seropositive inmates with adequate safeguards for protecting their confidentiality. Cost estimates for implementing recommendations to perform serological screening with appropriate confirmatory testing, measuring immune parameters on a semiannual basis for HIV-1 infected individuals, and administering chemotherapy are beyond the scope of this discussion. However, crude calculations suggest that many prison systems might need to consider supplemental budgets of hundreds of thousands of dollars per year.

Two factors can be considered as potentially offsetting the costs of implementing the recent recommendations for treating HIV-1 infection. First, careful attention to ethical and confidentiality considerations suggest that voluntary rather than mandatory serological screening may be the preferred approach. The proportion of inmates who might volunteer for screening is difficult to predict, but it would probably be lower than the prison population because of inmate concerns about maintaining confidentiality of test results in the correctional setting. Nevertheless, prior to publishing treatment recommendations for asymptotically HIV-1 infected individuals (Centers for Disease Control 1989b), data from Wisconsin prisons indicated that 71 percent of inmates volunteered for confidential HIV-1 testing (Davis et al. 1989). If treatment protocols were available, an increase in participation is conceivable. Based on these limited data, the economic impact of nonparticipation in voluntary testing on budget projections for a comprehensive HIV-1 screening and treatment program probably should be estimated as minimal.

A second factor that potentially may offset costs for implementing a comprehensive HIV-1 screening and treatment program is the ability to identify and target subgroups most likely to benefit from intervention. Although several studies have been published that identify IV drug users, minorities, women, and those older than 25 as significant independent risk factors for being HIV-1 infected upon entry into prison (Vlahov et al. 1989, 1990; Truman et al. 1988), more research is needed to refine categories and examine generalizability. These data also require detailed discussion by correctional and public health officials to weigh their policy implications for targeting interventions.

Treatment for Drug Abuse

Another HIV-1 related intervention to promote in correctional settings is drug abuse treatment. Large numbers of IV drug users, a major risk group for HIV-1 infection, are found in the correctional setting and a substantial proportion report no history of drug abuse treatment (Barton 1980). Facilitating abstinence through treatment is important to prevent acquisition of HIV-1 infection. Treatment also may be important for HIV-1 infected drug users because of an observed inverse association between rate of decline in CD4 cell levels by frequency of continued injections (Des Jarlais et al. 1987). This inverse association suggests that abstinence may slow progression to clinical disease. Although another group of investigators (Schoenbaum et al. 1989) did not replicate this finding, promoting abstinence among HIV-1 seropositive IV drug users is likely to reduce the possible reservoir for parenteral transmission.

SUMMARY

The correctional setting provides an opportunity to serve IV drug users who might otherwise be difficult to access. Interventions—including education, counseling, treatment for HIV-1 infection, and treatment for drug abuse—conducted in the correctional setting could have benefits for individual inmates and the surrounding community.

REFERENCES

- Anda, R.F.; Perlmon, S.B.; D'Allesio, D.J.; Davis, J.P.; and Dodson, J.N. Hepatitis B in Wisconsin male prisoners: Considerations for serologic screening and vaccination. *Am J Public Health* 75:1182-1185, 1985.
- Angarano, G.; Pastore, G.; Monno, L.; Tirelli, U.; Lazzarin, A.; and Rezza, G. Rapid spread of HIV-III antibody in drug abusers in the West of Scotland: The Edinburgh connection. *Lancet* 1:446-447, 1986.
- Barton, W.I. Drug histories and criminality: Survey of inmates of state correctional facilities, January, 1974. *Int J Addict* 15:233-258, 1980.
- Brewer, T.F.; Vlahov, D.; Taylor, E.; Hall, D.; Muñoz, A.; and Polk, B.F. Transmission of human immunodeficiency virus infection in a statewide prison system. *AIDS* 2:363-367, 1988.
- Brown, L.S.; Battjes, R.; Primm, B.J.; Foster, K.; and Chu, A. "Trends of HIV Infection Among Intravenous Drug Users." Paper presented at the 4th International Conference on AIDS, Stockholm, June 12-16, 1988.
- Bureau of Communicable Disease Control. *AIDS Surveillance Monthly Update*. Albany, NY: New York State Department of Health, 1989.
- Burke, D.S.; Brundage, J.F.; Herbold, J.R.; Barner, W.; Gardner, L.I.; Gunzenhauser, J.D.; Voskovitch, J.; and Redfield, R.R. Human

- immunodeficiency virus infections among civilian applicants to United States military service, October 1985 to March 1986. *N Eng J Med* 317:131-136, 1987.
- Celentano, D.D.; Brewer, T.F.; Sonnega, J.; and Vlahov, D. Maryland inmates' knowledge of HIV-1 transmission and prevention: A comparison with the U.S. general population. *J Prison Jail Health* 9:45-54, 1990.
- Celentano, D.D.; Vlahov, D.; Menon, AS.; and Polk, B.F. HIV knowledge and attitudes among intravenous drug users-Comparisons to the U.S. population and by drug use behaviors. *J Drug Iss* 21:635-649, 1991.
- Centers for Disease Control. Human immunodeficiency virus infection in the United States: A review of current knowledge. *MMWR* 36[Suppl S-6]:801-804.1987.
- Centers for Disease Control. AIDS and human immunodeficiency virus infection in the United States, 1988 update. *MMWR* 38[Suppl S-4]:1-38, 1989a.
- Centers for Disease Control. Guidelines for prophylaxis against *Pneumocystis carinii* pneumonia for persons infected with human immunodeficiency virus. *MMWR* 38[Suppl S-51]:1-9, 1989b.
- CDC Weekly. "Florida: AIDS Primary Cause of Death in Prison." *CDC Weekly*, November 6, 1989.
- Davis, J.P.; Vergemont, J.M.; Frisby, H.F.; Hoxie, N.J.; Golubjatnikov, R.; and Pfister, J. "HIV Seroprevalence and the Efficacy of Voluntary HIV Testing Among Male Prison Inmates in Wisconsin." Paper presented at the 5th International Conference on AIDS, Montreal, June 4-9, 1989.
- Decker, M.D.; Vaughn, W.K.; Brodie, J.S.; Hutcheson, R.H.; and Shaffner, W. Seroprevalence of hepatitis B in Tennessee prisoners. *J Infect Dis* 150:450-459, 1984.
- Des Jarlais, D.C.; Friedman, S.R.; Marmor, M.; Cohen, H.; Mildvan, D.; Yancovitz, S.; Mathew, U.; El-Sadr, W.; Spira, T.J.; Garber, J.; Beatrice, S.T.; Abdul-Quador, AS.; and Sotheran, J.L. Development of AIDS, HIV seroconversion, and potential co-factors for T4 cell loss in a cohort of intravenous drug users. *AIDS* 1:105-111, 1987.
- Des Jarlais, D.C.; Friedman, S.R.; Novick, D.M.; Sotheran, J.L.; Thomas, P.; Yancovitz, S.R.; Mildvan, D.; Weber, J.; Kreek, M.J.; Maslansky, R.; Bartolme, S.; Spira, T.; and Marmor, M. HIV-1 infection among intravenous drug users in Manhattan, New York City, from 1977 through 1987. *JAMA* 261:1008-1012, 1989.
- Hammett, T.M. *Update 7989: AIDS in Correctional Facilities*. Washington, DC: National Institute of Justice, 1990.
- Harding, T.W. AIDS in prison. *Lancet* 2:1260-1263, 1987.
- Horsburgh, C.R.; Jarvs, J.Q.; McArthur, T.; Ignacio, T.; and Stock, P. Seroconversion to human immunodeficiency virus in prison inmates. *Am J Public Health* 80:209-210, 1990.

- Hull, H.F.; Lyons, L.H.; Mann, J.M.; Hadler, S.C.; Steece, R.; and Skeels, M.R. Incidence of hepatitis B in the penitentiary of New Mexico. *Am J Public Health* 75:1213-1214, 1985.
- Kelley, P.W.; Redfield, R.R.; and Ward, D.L. Prevalence and incidence of HTLV-III infection in a prison. *JAMA* 256:2198-2199, 1986.
- Moss, A.R.; Chaisson, R.; Osmond, D.; Bacheti, P.; and Meakin, R. "Control of HIV Infection in Intravenous Drug Users in San Francisco." Paper presented at the 4th International Conference on AIDS, Stockholm, June 12-16, 1988.
- Nacci, P.L., and Kane, T.R. *Sex and Sexual Aggression in Prisons: Progress Reports*. Washington, DC: U.S. Department of Justice, 1982.
- New York State Commission of Corrections. *Acquired Immunodeficiency Syndrome: A Demographic Profile of New York State; Mortalities 1982-1985*. Albany, NY: New York State Commission of Corrections, 1986.
- Novick, D.M.; Kreek, M.J.; Des Jarlais, D.C.; Spira, T.J.; Khuri, E.T.; Ragunath, J.; Kalyanaraman, V.S.; Gelb, A.M.; and Miescher, A. Antibody to LAV, the putative agent of AIDS, in parenteral drug abusers and methadone-maintained patients: Therapeutic, historical, and ethical aspects. In: Harris, L.S., ed. *Problems of Drug Dependence, 1985: Proceedings of the 47th Annual Scientific Meeting, The Committee on Problems of Drug Dependence, Inc.* National Institute on Drug Abuse Research Monograph 67. DHHS Pub. No. (ADM)86-1448. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1986. pp. 318-320.
- Peterson, L.R.; Cartter, M.; D'Aquila, R.; and Williams, A. "HIV Seroprevalence in Connecticut IV Drug Abusers: A Prototype Seroprevalence Monitoring System for the U.S." Paper presented at the 4th International Conference on AIDS, Stockholm, June 12-16, 1988.
- Prendergast, T.J.; Maxwell, R.; Greenwood, J.R.; Burrell, P.; and Swatzel, C. 'Incidence and Prevalence of HIV Infection During 44 Months of Testing Prostitutes/IVDU's in the Women's Jail, Orange County, California." Paper presented at the 5th International Conference on AIDS, Montreal, June 4-9, 1989.
- Robertson, J.R.; Backnall, A.B.V.; Welsby, P.D.; Roberts, J.J.; Inglis, J.M.; Peutherer, J.F.; and Brettell, R.P. Epidemic of AIDS related virus (HTLV-III/LAV) infection among intravenous drug users. *Br Med J* 292:527-529, 1986.
- Salive, M.E.; Smith, G.S.; and Brewer, T.F. Death in prison: Changing mortality patterns among male prisoners in Maryland. *Am J Public Health* 80:1479-1480, 1990a.
- Salive, M.E.; Vlahov, D.; and Brewer, T.F. Co-infection with tuberculosis and human immunodeficiency virus type 1 (HIV-1) in male prison inmates. *Public Health Rep* 105:307-310, 1990b.
- Schoenbaum, E.E.; Hartel, D.; Selwyn, P.A.; Davenny, K.; Friedland, G.; and Klein, R.S. "Lack of Association of T-Cell Subsets With Continuing Intravenous Drug Use and High Risk Heterosexual Sex, Independent of HIV

- Infection and Diseases." Paper presented at the 5th International Conference on AIDS, Montreal, June 4-9, 1989.
- Truman, B.I.; Morse, D.; Mikl, J.; Lehman, S.; Forte, A.; Broaddus, R.; and Stevens, R. "HIV Seroprevalence and Risk Factors Among Prison Inmates Entering New York State Prisons." Paper presented at the 4th International Conference on AIDS, Stockholm, June 12-16, 1988.
- Vlahov, D.; Brewer, T.F.; Castro, K.G.; Narkunas, J.P.; Salive, M.E.; Ullrich, J.; and Muñoz, A. Prevalence of antibody to HIV-1 among entrants to U.S. correctional facilities. *JAMA* 265:1129-1132, 1991.
- Vlahov, D.; Brewer, F.; Muñoz, A.; Hall, D.; Taylor, E.; and Polk, B.F. Temporal trends of human immunodeficiency virus type 1 (HIV-1) infection among inmates entering a statewide prison system 1985-1987. *J Acquir Immune Defic Syndr* 2:283-290, 1989.
- Vlahov, D.; Muñoz, A.; Brewer, F.; Taylor, E.; Canner, C.; and Polk, B.F. Seasonal and annual variation of antibody to the human immunodeficiency virus type 1 (HIV-1) among male inmates entering Maryland prisons: Update. *AIDS* 4:345-350, 1990.
- Vlahov, D., and Polk, B.F. Intravenous drug use and human immunodeficiency virus (HIV) infection in prison. *AIDS Public Policy J* 3(2):42-46, 1988.
- Volberding, P.A.; Lagakos, S.W.; Koch, M.A.; Pettinelli, C.; Myers, M.W.; Booth, P.A.; and Balfour, H.H. Zidovudine in asymptomatic human immunodeficiency virus infection: A controlled trial in persons with fewer than 500 CD4-positive cells per cubic millimeter. *N Engl J Med* 322:941-949, 1990.
- Zimmerman, C.; Martin, C.; and Vlahov, D. AIDS knowledge and risk perceptions among Pennsylvania prisoners. *J Crim Justice* 19(3):239-256, 1991.

ACKNOWLEDGMENT

The work described in this chapter was supported by National Institute on Drug Abuse grants DA-04323, DA-04334, and DA-05664 and by NIJ grant 88-IJ-CX-0010.

AUTHOR

David Vlahov, Ph.D.
Assistant Professor of Epidemiology
The Johns Hopkins University School of Hygiene and Public Health
Room 897
624 North Broadway
Baltimore, MD 21205

Drug Abuse Treatment Programs in the Federal Bureau of Prisons: Initiatives for the 1990s

Donald W. Murray, Jr.

INTRODUCTION

Interest in providing quality drug abuse treatment programs to incarcerated Federal offenders within the Federal Bureau of Prisons (BOP) is not a recent development. BOP has, in fact, provided treatment services to offenders with significant drug abuse problems over the past quarter century (Wallace et al. 1990). Although program offerings within the agency generally have been consistent with the broader social views regarding treatment and rehabilitation as a function of prisons (Wallace et al., in press), the agency historically has perceived opportunities for treatment of drug-abusing or addicted offenders as an important part of its mission.

Not unlike most State correctional systems, BOP has experienced a rapid and dramatic increase in population. Currently, there are approximately 56,500 individuals incarcerated in more than 60 facilities throughout the country. Nearly 50 percent of all offenders are serving time for a drug-related offense. It is projected that the total offender population will reach 95,000 by 1995, and nearly 69 percent will be incarcerated for drug offenses-more than the total current BOP population (Federal Bureau of Prisons 1989).

Although the exact percentage of individuals with drug abuse problems who are serving time for a drug-related offense is unknown, it is known that a significant number have substantial drug problems and histories. In addition, significant numbers of individuals commit crimes that are not specifically drug offenses under Federal law but may be motivated by drug use. More precise data in these areas, as well as type and duration of substance abuse, motivation for treatment, and selected demographic characteristics, await the outcome of the Comprehensive Substance Abuse Assessment Project (Whittenberger, in press).

Available data suggest that approximately 46 percent of all incarcerated Federal offenders have moderate to severe drug abuse problems. About 47 percent of male offenders and 30 percent of female offenders report moderate to severe substance abuse problems on admission to the system. This is generally consistent with, yet somewhat lower than, the findings of several State systems.

In 1986 the Bureau of Justice Statistics reported that 62 percent of State inmates reported using illicit drugs on a regular basis, and 43 percent reported drug use on a daily basis during the 30-day period prior to committing the offense for which they were imprisoned (Innes 1988). Study data from some jails in New York City are more ominous, indicating that up to 85 percent of arrestees reported prior drug use on at least a weekly basis prior to arrest (Coughlin 1989).

Chaiken (1989) has noted that more than 50 percent of all inmates in the United States were using illegal drugs routinely prior to their last arrest but were not receiving treatment while incarcerated. The lack of effective treatment programs within the correctional setting and the reasons underlying this unavailability have been noted by several authors, perhaps most articulately by Gendreau and Ross (1987), Wexler and Williams (1985) and Van Voorhis (1987).

Although some controversy remains regarding the manner in which drug abuse may result in criminal behavior, recent longitudinal research findings indicate that addiction serves as a "multiplier" of crime. Despite the fact that criminal behavior frequently occurs prior to addictive behavior, addictive behavior leads to greater criminal behavior (Nurco et al. 1985). Clearly, the need exists to develop new program efforts in correctional settings. As numerous studies have demonstrated, treatment is effective in reducing posttreatment drug use (Tims 1984; Tims and Ludford 1984; Wexler et al. 1985; Simpson 1984; Hubbard et al. 1984; Anglin and McGlothlin 1984; Bureau of Justice Assistance 1988) and reduces future criminal behavior following both prison-based and community-based programs (De Leon 1985; Gendreau and Ross 1987; Anglin and McGlothlin 1984; Simpson and Friend 1988).

The recent findings involving long-term outcome studies of offenders who have received treatment while incarcerated are among the forces that have placed renewed emphasis on providing drug-impaired individuals with expanded treatment opportunities within BOP. In addition, as a part of an overall National Drug Control Strategy (Office of National Drug Control Strategy 1989, 1990) there has been increased emphasis on the serious consequences of drug abuse for the country as a whole and its impact on the criminal justice system specifically.

BOP provided additional impetus to enhanced treatment initiatives by sponsoring a National Drug Treatment Issues Forum in Washington, DC, in September 1988. The conference explored drug treatment strategies for Federal offenders and the increase in awareness of treatment issues and initiatives across the country. The conference was attended by researchers, administrators, program staff, practitioners, and representatives from the judiciary and legislature. Several recommendations resulted from the conference, which have facilitated the development of current BOP comprehensive strategy.

Before reviewing current treatment program developments, this chapter gives a summary and overview of drug programs implemented over the past 2 1/2 decades that will provide a perspective for BOP's new strategy.

HISTORICAL REVIEW OF BOP DRUG PROGRAMS

BOP historically has provided drug treatment programs for inmates with drug abuse problems. Since the mid-1960s BOP has offered drug treatment programs based on individual needs. This commitment to treatment and education has continued over the past 2 1/2 decades, consistent with resources allocated to the agency. The following list reflects BOP's efforts toward treatment and education in a chronology of drug abuse treatment programming from 1966 through 1989.

- 1966-71
 - Narcotic Addict Rehabilitation Act (NARA).
 - Established Public Health Service programs at several institutions (e.g., Ft. Worth, TX, and Lexington, KY).
 - Research on NARA programs indicated they were “moderately” successful and that some treatment is better than none.
- 1971-78
 - BOP began establishing Drug Abuse Programs (DAPs) intended to “expand” on the apparent success of NARA programs and reinforce the development of “Functional Unit Management.”
 - In 1978, 33 DAP units in 24 institutions (some institutions had one program for alcoholics and another for “drug” abusers).

- 1978-84
 - First Task Force on DAPs (credibility/accountability of Drug/Alcohol Unit programs of concern).
 - Drug Abuse Incare Manual published—26 recommendations; all programs had to be “certified.”
 - A brief (approximately 2 years) improvement in drug programming followed publication of the Incare Manual. Beginning about 1980, a decline in quality began (apparent deemphasis on certification process; erosion of resources, etc.).
- 1984-86
 - Second Task Force on DAPs.
 - Insufficient data for evaluation of existing programs.
 - 40 to 50 percent of new inmate admissions with histories of drug abuse in 1984.
 - 4,500 inmates in 22 programs.
 - 162 total positions (staff/inmate ratio of 6 per 170).
 - Executive Staff recommended new program direction with “education emphasis.”
- 1986-88
 - National Chemical Abuse Program Statement mandated “low-intensity” programs at all institutions.
 - Standards written to enable all institutions to meet “minimum criteria.”
 - Three unit-based (residential) programs remained at the end of 1987; remainder centralized (inmates housed throughout the institution and attended programs at a central location).
 - Enrollment at the institution is voluntary and averages 3,000 per month.

- Higher quality programs at lower security levels.
- Work groups formed to consider the development of prerelease community drug treatment programs.

1988-89

- Total DAP enrollment of about 1,800.
- Development of Comprehensive Drug Abuse Treatment Strategy for Federal inmates.
- Establishment of a Central Office Coordinator of DAPs
- Approval by Executive Staff of three “high-intensity” research programs.
- Development of ongoing research and data collection component to add to knowledge guide in decisionmaking and assist with quality control.
- Ongoing development of community-based drug treatment programs to provide aftercare following release from the high-intensity programs.

1990

- Refinement of Comprehensive Drug Abuse Treatment Strategy.
- Mandatory Drug Education Programs implemented throughout all BOP facilities.
- Drug Abuse Counseling Programs (outpatient) put into effect in all BOP facilities.
- Five Comprehensive Drug Abuse Treatment Program Unit sites selected and funded.
- Three Pilot Research Program Units became fully operational.
- Transitional Services Programs enhanced for offenders completing treatment.
- Drug Abuse Program Evaluation Strategy completed by Office of Research and Evaluation.

—Agreement with National Institute on Drug Abuse (NIDA) to provide funding for long-term outcome studies of program effectiveness.

—Program enrollment reaches 3,800 participants.

Prior to the enactment of NARA in 1966, selected Federal inmates with narcotic abuse histories received assistance and supervision in one of two U.S. Public Health Service hospitals located in Lexington, KY, and Fort Worth, TX. NARA mandated in-prison drug treatment for narcotic addicts who were convicted of violating Federal laws. It called for the creation of unit-based programs (i.e., inmates assigned to live in specific housing units that were separate from the general inmate population and were staffed by a team that included treatment professionals) and for aftercare services (postrelease counseling and urinalysis). The first such drug treatment unit was opened in March 1968 at the Federal institution in Danbury, CT. Additional NARA units opened during 1969 and 1970 at institutions in Terminal Island, CA, Alderson, WV, Milan, MI, and LaTuna, TX.

These drug treatment units were based on the therapeutic community (TC) model (a 24-hour learning environment using both peers and staff as role models), with an emphasis on group therapy. All NARA participants were required to participate in postrelease aftercare, which usually consisted of frequent drug urinalyses and community-based counseling programs.

Evaluations (Breen et al. 1982; CONSAD Research Corporation 1974) were conducted on the effectiveness of the NARA drug treatment programs in decreasing criminal behavior and drug use among releasees. General findings from the above studies indicated the following:

1. NARA graduates showed less frequent drug usage and involvement in drug sales after release than comparison subjects.
2. NARA graduates showed lower recidivism rates (20 to 30 percent) than inmates, matched for frequency of drug use prior to incarceration, not placed in drug programs (65 percent).
3. Inmates who were more involved in the programs were more successful in terms of decreased criminal behavior and drug use after release.
4. Women who graduated from the NARA program tended to be more successful on outcome measures than men who completed the program.

5. Inmates felt that group and individual counseling was the most helpful element of the treatment programs.

With the successful operation of NARA drug treatment units, it soon became evident that there was a large population of inmates who could benefit from such drug treatment programs but who were not sentenced under the restrictive NARA statutes. For example, repeat offenders and inmates whose current offense involved violence were excluded from NARA sentencing. Beginning in July 1971, drug treatment units were opened to serve inmates with a demonstrated need for drug treatment programming who were not sentenced under NARA. By 1972 all these programs were authorized to provide aftercare services for program participants. By 1978 there were 33 drug treatment units in Federal institutions.

A typical drug treatment unit at that time housed 100 to 125 participants and was staffed by one unit manager, one psychologist, one or two caseworkers, and one or two correctional counselors. Outside consultants (sometimes ex-addicts) and education staff also provided services to the participants. Although the elements of these treatment programs were not standardized, they generally included an orientation period, unit-based programming (such as group therapy sessions and individual counseling), eventual participation in institution programs (educational, vocational, recreational), prerelease counseling, and postrelease aftercare.

By 1979 BOP required all drug treatment programs to meet the standards applied to NARA programs with the authority to conduct NARA study evaluations. Thus, NARA commitments could be designated to any institution, rather than restricted to facilities with NARA programs. This resulted in the decline of 'NARA-only' drug units and the publication of the system-wide Drug Abuse Incare Manual.

The Drug Abuse Incare Manual, a program statement released by BOP in July 1979, called for the establishment of unit-based drug treatment programs in all institutions. It also specified minimum standards for certification of each drug treatment program, staff qualifications, staff program involvement, treatment phases, inmate certification for completion of program, aftercare arrangements, and data collection for evaluation purposes.

Although the publication of the Incare Manual led to an improvement in BOP's drug treatment programs for several years, the quality of these programs began to decline in the early to middle 1980s. Correspondingly, drug treatment evaluation efforts during this period were less intensive than during the early and middle 1970s. Evaluation techniques (e.g., controlling

for severity of addiction, motivation for selection, and quality of program participation) were not built into the design of these programs, and researchers had difficulty in retrospectively reconstructing the data required for evaluation purposes. Thus, the possibility for a thorough evaluation of these programs was restricted severely.

Because well-designed evaluations of program effectiveness were lacking, a task force was assigned in 1985 to review BOP drug treatment programs. The task force members concluded that the programs had begun to erode due to diminished resources that were diverted for other high-priority purposes, including the pressures of an increasing inmate population, a lack of centralized leadership and coordination within BOP, and a shortage of qualified and properly trained staff. As a result of these findings, a program statement was issued in 1986 calling for the establishment of a chemical abuse program coordinator in each institution. Each institution's warden was to decide on the type of program to be offered and the number of staff members to be devoted to drug treatment efforts. Most institutions chose centralized programs. Thus, inmates housed throughout the institution participated in program activities at a central location. By 1987 only three unit-based drug treatment programs remained in BOP.

Currently, and during 1987 through 1989, the majority of BOP substance abuse programs are considered "low intensity," with an emphasis on drug education. The program techniques are varied. Approximately one-third of the institutions have self-help groups such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). Other available programs include group psychotherapy and training in communication skills, personal development, values clarification, stress management, positive thinking, and assertiveness. Some programs also offer individualized counseling, vocational planning, and prerelease planning. Many group programs are of specific length, running from 6 to 12 weeks. However, some institutions, such as Federal Correctional Institution (FCI) Tallahassee and FCI Fort Worth, offer multistage programing, allowing inmate participation over a longer period. With the greater influx of Hispanic inmates, a few initiatives have been taken to provide programs for inmates who are not fluent in English. FCI Fort Worth provides a 12-week program led by Spanish-speaking staff and an AA group led by a Hispanic volunteer.

In BOP, inmates generally enroll in drug treatment programs at the beginning of their incarceration. During their orientation to the institution, new inmates receive information about available programs. In addition to self-referral, inmates often are recommended for program participation by their unit team during their initial classification. Although program enrollment is voluntary,

priority is given to inmates with court orders to receive treatment as well as to inmates with severe substance abuse problems. Recent monthly participation rates show that nearly 3,800 inmates, or about 7 percent of the total inmate population, currently are enrolled in a substance abuse treatment or education program.

In 1988 a national DAP coordinator position was established in Washington, DC, to oversee the development and implementation of the new drug treatment strategies for Federal inmates. In addition to continuing but enhancing the established low-intensity drug treatment programs, plans are well under way for revising drug education programs and for developing new unit-based intensive drug treatment programs.

NEW DRUG ABUSE TREATMENT STRATEGY INITIATIVES

The comprehensive drug abuse treatment strategy for BOP calls for the development of a layered, multitiered approach to programing. There is one level for the delivery of drug education services, three treatment levels, and one level of transitional services. They are as follows:

1. Drug Education Programs
2. Drug Abuse Counseling Services (outpatient)
3. Comprehensive DAPs (residential)
4. Pilot DAPs (residential/research)
5. Transitional Services (aftercare/community reentry)

A comparison of the elements of these five program types is provided in table 1.

Drug Education Programs

The Drug Education Program will be mandatory for inmates with a substance abuse history who meet the following criteria: (1) all inmates for whom there is evidence in the presentence investigation that alcohol or other drug abuse contributed to the commission of the current offense, (2) individuals whose alcohol or other drug abuse was a reason for a violation of parole or probation supervision for which the subject is now incarcerated, and (3) inmates for whom there is a court recommendation for drug programing. The program also will be available to volunteers; however, priority will be given to inmates with alcohol and other drug abuse histories.

Drug abuse treatment specialists will be employed under the supervision of the Psychology Department in all facilities. Students will be required to complete a standardized course during their first 6 months of incarceration. The criteria for

TABLE 1. *Comparative analysis of BOP's drug education and treatment programs—1990*

Program Characteristics	Drug Education Programs	Drug Abuse Counseling Services	Comprehensive DAPs	Pilot DAPs	Transitional Services
Duration	4-10 hr/wk until completion	Continuously available	9 months plus supervised aftercare	12 months plus supervised aftercare	6 months CCC plus 6 months supervision
Hours required	40	Variable	500	1,000	Variable
Staff/inmate ratio	N/A	Variable	1:24	1:12	To be determined
Participants	Required ii drug/crime history; volunteers	Volunteers	Volunteers	Randomly assigned volunteers	Inmates who have completed a drug program
Point in incarceration	First 6 months	Anytime during incarceration	Preference to those inmates 15-24 months prior to release	Preference to those inmates 15-24 months prior to release	CCC placement and postrelease
Completion criteria	Attendance, pass test	Attendance	Attendance, review by treatment staff	Attendance, review by treatment staff	To be determined
Urinalysis	same as inmates in general population	Same as inmates in general population	More often than inmates in general population	More often than inmates in general population	Variable, more often in early months of CCC placement

KEY: CCC=community correction center

program completion include class attendance and a passing score on an objective standardized written test. As an incentive to stay in the program, inmates who are required to complete the program but fail to do so will be restricted to the lowest inmate pay grade. In addition, they will be ineligible for halfway house placement and other community activities that are available to carefully screened individuals during the latter portions of their sentences.

The primary objectives of the course are (1) to promote an understanding as to how and why individuals abuse substances or become addicted, (2) to facilitate understanding of the effects that continued abuse can have on one's health and life, (3) to assist the student in understanding the difficulties in the treatment of

abuse, (4) to demonstrate that treatment can be successful, (5) to convey the understanding that programs are available to individuals while incarcerated and in the community, and (6) to develop a sense of trust and cohesion in small group settings, which motivates a desire for further treatment for those who need it.

Specific content of the course includes chapters on the following topics:

- Overview of Drug Education Program
- Models of addiction
- Explaining addiction
- A general overview of drugs and drug terminology
- Alcohol and other sedatives
- Narcotics
- Cocaine (and crack)
- Stimulants other than cocaine
- Tobacco
- Hallucinogens
- Cannabis (marijuana)
- Human immunodeficiency virus infection and acquired immunodeficiency syndrome
- The impact of alcohol and other drug abuse on the family
- Relapse prevention

The text and materials were prepared by psychologists within BOP. Small groups will undergo the course 4 to 10 hours per week, at the institution's prerogative, until it is completed. Students who do not meet the mandatory criteria for successful completion will be given specific feedback regarding deficit areas and given an opportunity to remediate. A minimum score of 70-percent mastery on field-tested exams, with specific norms and valid items, is required to complete the course successfully.

Roth English and Spanish versions of the course will be available, and all exemptions by reason of cognitive impairment or other disabilities will be provided by a mental health professional. A standardized Certificate of Completion will be awarded to all who successfully complete the course.

Drug Abuse Counseling Services

Centralized outpatient drug abuse counseling services will be available to volunteers at all institutions at any time during their incarceration. (Outpatients in a prison setting are inmates who participate in day-to-day activities with other inmates and receive treatment services by appointment.) These services will include individual counseling with a drug abuse treatment specialist or a psychologist, group therapy sessions on drug-related topics, self-help groups such as AA and NA, stress management and personal development training, vocational training, and prerelease planning. Some programs will have specific lengths and completion criteria, whereas others will allow inmates to participate in ongoing therapy.

All individuals enrolled on an outpatient basis will have a treatment plan for the specific group or individual sessions in which they are involved, with the exception of self-help groups. These programs may be recommended, however, as a part of the individual's treatment needs, and participation will be monitored by the treatment staff. The frequency and duration of each inmate's participation in outpatient counseling services will be tracked using BOP's computerized Psychological Information Management System.

The Drug Abuse Counseling Program is intended to provide maximum flexibility to the needs of the offender, particularly those individuals who have a relatively minor or low-level substance abuse impairment. Such offenders do not require the intensive levels of treatment needed by individuals with moderate-to-severe addictive behavioral problems.

A second purpose of the program is to provide those offenders who do have moderate to severe drug abuse problems with supportive program opportunities during the time they are waiting to participate in the highly structured Comprehensive Residential Drug Treatment Units. As discussed in the next section, individuals are not permitted to participate in the residential program units until they are within 15 to 24 months of release.

The reasons for this are threefold: First, the limitations on available resources preclude the development of sufficient numbers of units to meet the needs of the total drug-abusing population, many of whom are serving quite extended sentences as a result of the Comprehensive Crime Control Act of 1994 and

other criminal statutes enacted by the 98th Congress. Second, there is also the question of treatment motivation for many such individuals. Data from the Substance Abuse Assessment Project, which was conducted within BOP during June and July 1990, should assist in refining knowledge in this area and facilitate program planning. Third, some research suggests that individuals who participate in a prison-based TC for longer than a year do not have outcomes that are as successful as those who participated for 9 to 12 months and then are discharged from the program to the community. Wexler and colleagues (1985) found that individuals who participated in a prison-based TC for longer than 12 months, due to negative Parole Board decisions, had poorer outcomes than those who were discharged to the community after participating between 9 and 12 months in the TC. Hence, an intensive residential treatment period of between 9 and 12 months near the end of an offender's sentence, coupled with an individually tailored community transitional services program, may provide the best clinical outcomes and optimal resource utilization. Caution must be exercised with this interpretation, however, as factors such as length of treatment and timing of the intervention with prison populations have yet to be more fully investigated.

Comprehensive Residential Drug Abuse Treatment Programs

Comprehensive Residential Drug Treatment Units will be developed throughout BOP. Currently, five units have been approved with staffing and funding allocations. These five units were operational by January 1, 1991. Additional units are planned for 1991 and 1992. Each unit is capable of handling between 100 and 125 offenders during a 9-month program. Planning for the projected growth in the population of substance-abusing offenders is ongoing.

Comprehensive residential treatment programs accept volunteers only. Inmates apply for admission through their case managers who will determine if the following criteria are met:

- Between 18 and 24 months remaining to serve until release date
- No detainers, pending charges, State commitment obligations, or negative behaviors that could interfere with placement in a prerelease or aftercare program
- No history of violence/assaultive behavior
- Fluency in English

- No serious medical problems or other limitations that would prevent program participation
- Not a State boarder

Inmates meeting these basic criteria then will be referred to an institution psychologist for assessment of drug abuse problems through a self-report survey, Inventory of Substance Use Patterns (ISUP) (Whittenberger 1991), and a record review. Inmates with a moderate-to-severe substance abuse problem (DSM-III-R) who meet the above criteria will be considered eligible for program assignment.

All Comprehensive Residential Drug Treatment Units will include the following components:

1. Unit-based programs
2. Treatment staff-to-inmate ratio of 1:24
3. Program participation of 9 months and 500 program hours minimum
4. Individualized treatment plans based on comprehensive assessment
5. A prerequisite of 40 hours of drug education
6. Approximately 3 hours of drug treatment programming per day
7. Comprehensive assessment, 40 hours
8. Core group/individual treatment, 280 hours
9. Wellness lifestyle training, 100 hours
10. Transitional living issues, 40 hours
11. Full team reviews every 90 days
12. Treatment reviews every 30 days
13. Increased frequency of random urinalysis surveillance
14. Preference to inmates who are within 15 to 24 months of release
15. Comprehensive transitional services

Group and individual treatment focuses on a variety of skills development issues, both cognitive and behavioral in nature. Criminal thinking confrontation and prosocial values development are included whenever indicated. Family issues, vocational/educational issues, relapse prevention, self-help, personal development, and support groups are a routine part of the individual's program.

The focus on the individual hopefully will assist in avoiding a "uniformity myth" (Donovan 1988)—that all addictions are the same, common to many traditional programs, both in prison and in the community. Indeed, there are marked differences among substance abusers in age, gender, socioeconomic background, family and social support resources, culture, ethnicity, personality, cognitive functioning, attributional styles, belief systems, and medical conditions.

It is the heterogeneity of the substance-abusing population, rather than its uniformity, which is of increasing interest in the community (Lawson and Lawson 1989) and in prison settings (National Institute of Corrections 1991).

As such, it seems only prudent that DAPs incorporate comprehensive assessments in these areas for individualized treatment plans. This is not to say, however, that many drug-impaired individuals do not have common needs, which can be met effectively in a group format. It seems, however, in reviewing the history of treatment programs, particularly those in correctional settings, that there is more interest in treating addictive behavior based on pharmacologic classification (i.e., alcoholics, heroin addicts, cocaine or crack addicts) rather than according to variables that have greater relationship to the development and maintenance of the behavior. With this in mind, it seems unremarkable that some previous programs and some contemporary ones achieve the low to modest "success rates" that have been reported.

BOP's comprehensive residential programs will be based on a biopsychosocial model of substance abuse. Treatment will include a strong relapse prevention emphasis. The goal of relapse prevention treatment is to provide individuals with the behavioral and cognitive skills necessary to cope effectively with high-risk situations (Marlatt and George 1984; Marlatt and Gordon 1980, 1985). Individuals are taught how to respond to a lapse (i.e., a single incidence of return to drug use) and how to achieve a positive lifestyle characterized by a balance between work and recreation and by healthy habits, such as exercise, to reduce stress. It is in this latter regard that a strong commitment to a rigorous wellness lifestyle schedule will be maintained and integrated into the community. Indeed, daily wellness program activities are expected of participants to help them modify their abusive and addictive lifestyles. This will be an interesting area of future research, comparing the relative effectiveness of programs with and without wellness program components.

On successful program completion, the offender is prepared for release to the community through a community treatment center facility, operated or contracted by BOP. A tremendous amount of readiness preparation, however, occurs during the last 3 months, particularly in the relapse prevention area. High-risk situations are discussed, including family issues, job issues, and supervision concerns. A specific relapse prevention plan is prepared for the individual. Individuals also will have an opportunity to be gradually phased into the community for up to a 6-month period, with support services provided by BOP.

Pilot Drug Abuse Treatment Programs

By June 1990 three pilot drug abuse treatment units were partially operational at FCIs located in Butner, NC, Tallahassee, FL, and Lexington, KY. They were fully functional by the end of 1990. These residential pilot programs have a strong research emphasis and will involve larger investments of staff and fiscal resources. They will remain pilot programs until an outcome evaluation indicates whether the additional resources produce more positive postrelease outcomes. Table 2 describes these three Pilot Drug Abuse Treatment Programs for Federal offenders,

These pilot programs are very similar to the comprehensive programs with the following exceptions:

1. Treatment staff-to-inmate ratios of 1:12
2. Program length of 12 months
3. 1,000 hours of treatment
4. Random assignment to program from a volunteer pool
5. Extended participation in outcome studies

Although most pilot and comprehensive programs are based on a biopsychosocial model, there are some treatment differences among each of the programs. The following are examples of these differences:

1. The programs at FCI Tallahassee and FCI Butner emphasize a social learning philosophy, whereas the program at FCI Lexington uses the more traditional AA or NA 12-step approach model.
2. The number of treatment hours per day differs between the FCI Tallahassee and Butner programs (4 hours treatment, 4 hours work) and the Lexington program (10.5 hours treatment).
3. FCI Tallahassee and FCI Lexington are both security-level-two institutions and serve primarily security-level-two inmates. FCI Butner is an administrative facility; thus, its program will serve inmates of all security levels.
4. FCI Lexington serves female offenders only; FCI Butner and FCI Tallahassee serve males only.

It is hoped that research will provide additional information regarding factors related to treatment process and outcomes that will enhance future treatment

TABLE 2. Comparison of the three Pilot Drug Abuse Treatment Programs for drug-involved Federal offenders

Program Characteristics	Site Location		
	FCI Tallahassee	FCI Butner	FCI Lexington
Primary approach of program	Social learning treatment philosophy with major emphasis on relapse prevention. Skills training, attack on criminal habits. enhancement of positive feelings. reduction of negative feelings. TC organization for inmates before release and during aftercare.	Development of adaptive self-management coping skills leading to a constructive lifestyle free of drugs and crime. rewarding leisure and recreational activities, constructive work habits. and realistic release plans conducive to a successful drug-free community adjustment.	Traditional 12-step model used in AA/NA treatment. Addiction is viewed as a disease that leads to physical deterioration, emotional instability, and spiritual bankruptcy. Relapse prevention and educational components.
In-prison program activities	Academic/vocational/ UNICOR training: Group and individual counseling, wellness program, special seminars, general meetings. Up to 8 cohorts, with 12 or 13 subjects in each cohort. Four hours of introduction; 10 hours of preprogram assessment; 4 hours of habit modification; 32 hours of goal development; 68 hours of reduction of negative feelings; 82 hours on motivations to change.	Five program stages operating on a 4-month cycle with 21 subjects in each stage. Stage one includes evaluation/ orientation. Stages two, three, and four include components of education, relapse prevention, skills training, wellness training, academic/ vocational training, and personal counseling. Stage five is the prerelease phase focusing on development of aftercare plan.	Large-group therapy dealing with 12-step philosophy. denial, recovering, cognitive coping strategies, and relapse prevention skills. Small general psychotherapy groups. Personal counseling minimum of 1 hour per week. Academic/ vocational/UNICOR training. Peer counseling for advanced students.
Type of program setting	Residential unit within a security-level-two FCI, including dormitories and dayrooms. Staff offices located within the unit. Unit is not separate from general population inmates. Male inmates only.	Residential unit within an administrative FCI housing all security-level inmates. Not separate from general population inmates. Treatment stall located within unit. Male inmates only.	Residential unit within a security-level-two FCI with single and multiple occupancy cells, dayrooms, meeting rooms, exercise area, and laundry facilities. Staff offices located within unit. Separate from general population inmates. Female inmates only.
Hours inmates are in program area each day	4 hours treatment. 4 hours work	4 hours treatment, 4 hours work	10.5 hours treatment

Activities outside program area	Education, vocational training, or UNICOW institutional job. AA/NA meetings available several times a week. Meals and recreational activities same as other inmates.	Education, vocational training, or UNICOW institutional job. AA/NA meetings available several times a week. Meals and recreational activities same as other inmates.	Education, vocational training, or UNICOW institutional job. AA/NA meetings available several times a week. Meals and recreational activities same as other inmates.
Number of full-time program staff	12	10	12
Number of total program 'slots'	90	105	150
Criteria for selection	-Randomly selected from list of volunteers. -Meets clinical criteria determined by ISUP score. -20 to 26 months until release. -Approved for release to SE region. -No outstanding legal matters conflicting with halfway house stay. No serious medical, psychiatric, or psychological problems. -No violent institution infractions within 12 months.	-Randomly selected from list of volunteers. -Meets clinical criteria determined by ISUP score. -20 to 26 months until release. -Approved for release to SE region. -No outstanding legal matters conflicting with halfway house stay. -No serious medical, psychiatric, or psychological problems. -No violent institution infractions within 12 months.	-Randomly selected from list of volunteers. -Meets clinical criteria determined by ISUP score. -20 to 26 months until release. -No outstanding legal matters conflicting with halfway house stay. -No serious medical, psychiatric, or psychological problems. -No violent institution infractions within 12 months.
Urinalysis monitoring	Yes	Yes	Yes
Program duration	12 months	12 months	12 months
Time in BOP-supervised aftercare	Up to 6 months	Up to 6 months	Up to 6 months

KEY: UNICOR=Federal Prison Industries

efforts. A description of the planned research can be found in Pelissier and McCarthy (this volume).

Transitional Services (Community Reentry Phase)

Transitional services are provided after release from the prison environment to both comprehensive and pilot residential program participants who successfully complete the programs. (See table 1 for additional details.) The transitional services delivery component consists of two phases. The first, prerelease services, includes up to 6 months in a CCC, with specialized drug treatment programming either contracted out or provided directly by BOP staff. The second phase, aftercare services, consists of up to 6 months of community services coordinated jointly by BOP and the Administrative Office of the U.S. Courts, U.S. Probation Office. Several recommendations for service delivery have been adopted for the transitional phase:

1. Individual and group counseling sessions for varying timeframes throughout the 12-month period
2. Treatment focus on family/work adjustment, residential issues, and relapse prevention planning (coping with high-risk events) through written assignments and group discussions
3. Assistance in identifying and obtaining employment
4. Random urinalysis occurring with decreasing frequency over the 12-month program duration
5. Documentation of all contacts by all service providers who are certified or appropriately licensed
6. Transitional Care coordinators in each facility who arrange and monitor service delivery

Inmates who successfully complete any residential program and who have a good record of institutional conduct (no serious rule infractions) receive priority for postrelease transitional services. These services are contracted in several communities or operated directly by BOP personnel around the country in those locations where inmates from the pilot and the comprehensive programs are to be released.

SUMMARY

Developing high-quality treatment programs is a foreboding challenge in any setting, particularly within a correctional setting. The groundwork has been established for one of the most comprehensive, longitudinal evaluations ever conducted with correctional populations regarding the effectiveness of professionally managed treatment programs. The long-term outcome evaluations should provide information regarding the effectiveness of a multitiered intervention strategy within the correctional setting. This kind of evaluation is reflected in the proposal for the evaluation of the BOP Drug Abuse Treatment Programs, submitted to NIDA (Federal Bureau of Prisons 1990). In the months and years ahead the study is expected to yield important information that will advance knowledge of substance abuse treatment.

REFERENCES

- Anglin, M.D., and McGlothlin, W.H. Outcome of narcotic addict treatment in California. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 106-128.
- Breen, D.; Carpenter, G.; Maloff, D.; and Schnaider, P. *The NARA II Program After Four Years: Some Variables Related to Outcome*. Washington, DC: Federal Bureau of Prisons, 1982.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime: TASC Programs*. Washington, DC: U.S. Department of Justice, Bureau of Justice Assistance, 1988.
- Chaiken, M.R. *In-Prison Programs for Drug-Involved Offenders*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 1989.
- CONSAD Research Corporation. "Bureau of Prisons Addict Commitment Client Outcome Evaluation and NARA I/II/III Comparisons." Pittsburgh, PA: CONSAD Research Corporation, 1974.
- Coughlin, T.A. Statement of the Commissioner Thomas A. Coughlin III, New York State Department of Correctional Services, before the House Select Committee on Narcotics Abuse and Control. Washington, DC, July 25, 1989.
- De Leon, G. The therapeutic community: Status and evolution. *Int J Addict* 20:823-844, 1985.
- Donovan, D.J. Assessment of addictive behaviors: Implications of an emerging biopsychosocial model. In: Donovan, D.M., and Marlatt, G.A., eds. *Assessment of Addictive Behavior*. New York: Guilford Press, 1988. pp. 3-48.
- Federal Bureau of Prisons. *Projecting The Bureau of Prisons Population Through 1995*. Washington, DC: Office of Research and Evaluation, 1989.

- Gendreau, P., and Ross, R. Revivification of rehabilitation: Evidence from the 1980's. *Justice Q* 3(3):349-407, 1987.
- Hubbard, R.L.; Rachal, J.V.; Craddock, S.G.; and Cavanaugh, E.R. Treatment Outcome Prospective Study (TOPS): Client characteristics and behaviors before, during, and after treatment. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 42-68.
- Innes, C.A. *State Prison Inmate Survey, 1986: Drug Use and Crime*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, 1988.
- Lawson, G.W., and Lawson, A.W., eds. *Alcoholism and Substance Abuse in Special Populations*. Rockville, MD: Aspen Publishers, 1989.
- Marlatt, G.A., and George, W.J. Relapse prevention: Introduction and overview of the model. *Br J Addict* 79:261-275, 1984.
- Marlatt, G.A., and Gordon, J.R. Determinants of relapse: Implications for the maintenance of behavior change. In: Davidson, P.O., and Davidson, S.M., eds. *Behavioral Medicine: Changing Health Lifestyles*. New York: Bruner/Mazel, 1980. pp. 410-452.
- Marlatt, G.A., and Gordon, J.R., eds. *Relapse Prevention: Maintenance Strategies in the Treatment of Addictive Behaviors*. New York: Guilford Press, 1985.
- National Institute of Corrections. *Interviewing With Substance Abusing Offenders. The Report of the National Task Force on Correctional Substance Abuse Strategies*. Washington, DC: U.S. Department of Justice, National Institute of Corrections, June 1991.
- Nurco, D.N.; Ball, J.C.; Shaffer, J.W.; and Hanlon, T.E. The criminality of narcotic addicts. *J Nerv Ment Dis* 173(2):94-102, 1985.
- Office of National Drug Control Strategy. *National Drug Control Strategy*. Report no. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., September 1989.
- Office of National Drug Control Strategy. *National Drug Control Strategy*. Report no. S/N 040-000-00543-9. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., January 1990.
- Office of Research and Evaluation. "Proposal for the Evaluation of the Federal Bureau of Prisons Drug Abuse Treatment Programs." Unpublished manuscript, 1990.
- Simpson, D.D. National treatment system evaluation based on the Drug Abuse Reporting Program (DARP) followup research. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51.

- DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 29-41.
- Simpson, D.D., and Friend, H.J. Legal status and long-term outcomes for addicts in the DARP followup project. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 81-98.
- Tims, F.M. *Effectiveness of Drug Abuse Treatment Programs*. National Institute on Drug Abuse Treatment Research Report. DHHS Pub. No. (ADM)84-1143. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.
- Tims, F.M., and Ludford, J.P. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.
- Van Voorhis, P. Correctional effectiveness: The high cost of ignoring success. *Fed Probation* 1(3):56-61, 1987.
- Wallace, S.; Pelissier, B.; and McCarthy, D. Historical perspectives and current initiatives in Bureau of Prisons drug treatment programs. *Fed Prisons J*, in press.
- Wallace, S.; Pelissier, B.; McCarthy, D.; and Murray, D. Beyond 'nothing works': Drug abuse treatment in the Federal Bureau of Prisons. *Fed Prisons J* 1(4):23-26, 1990.
- Wexler, H.K.; Lipton, D.S.; and Foster, K. "Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment: Preliminary Results." Paper presented at the American Society of Criminology annual meeting, San Diego, CA, 1985.
- Wexler, H.K., and Williams, R. The Stay'n Out therapeutic community: Prison treatment for substance abusers. *J Psychoactive Drugs* 18(3):221-230, 1985.
- Whittenberger, G.J. *Inventory of Substance Use Patterns*. 3d ed. Tallahassee, FL: Federal Bureau of Prisons, 1991.
- Whittenberger, G.J. The findings of the substance abuse assessment project in the Federal Bureau of Prisons, *Fed Prisons J*, in press.

AUTHOR

Donald W. Murray, Jr., Ed.D.
 National Drug Abuse Program Coordinator
 Federal Bureau of Prisons
 NALC Building, Suite 301
 320 First Street, NW
 Washington, DC 20534

Amity Righturn: A Demonstration Drug Abuse Treatment Program for Inmates and Parolees

David L. Winett, Rod Mullen, Lois L. Lowe, and Elizabeth A. Missaklan

INTRODUCTION

In October 1990 inmates at the R.J. Donovan Correctional Facility (RJD) near San Diego, CA, began the most ambitious prison and community-based treatment program the California Department of Corrections (CDC) has undertaken since the Civil Addict Program (CAP) was established 25 years ago. Two hundred medium-security male inmates are participating in a 9- to 12-month prison-based therapeutic community (TC) called Amity Righturn. Upon parole, approximately 60 program graduates continue receiving treatment services in a 4-month community aftercare component. This chapter focuses on developing the Righturn program as a CDC pilot project to determine the effectiveness of a TC-based treatment program in reducing drug and alcohol abuse and related problems among California's inmates and parolees. Also discussed are the rationale and planning process for the Righturn program. As yet, no outcome evaluation data are available to support the policies and strategies.

Given the severe increase in drug-related admissions to CDC, there may be considerable value in examining the early development of this effort and in reviewing the context in which Righturn has been undertaken. The impact of increases in California's inmate and parolee populations, changes in administrative priorities within CDC, and a gradual shift in attitudes and perceptions of "what works" for drug-involved offenders all contributed to the decision to initiate the project. This chapter presents the basic components of the Righturn program, both prison and community settings, along with a preliminary description of accompanying research being developed to evaluate this demonstration project.

The recency of California's experience in developing this type of drug abuse program may strike a resonant chord with others who are embarking on a

similar strategy, and this information may be relevant. Other State correctional systems that are a step or two further along in analogous program development and operations may be stimulated to share their experiences with CDC. In addition, there may be opportunities for scientists and practitioners in the field of corrections to learn about the short- and long-term effects of this program through evaluations and careful analyses of findings.

SETTING THE STAGE

On September 27, 1987, California Governor George Deukmejian approved legislation establishing a Blue Ribbon Commission on Inmate Population Management. On January 29, 1990, a final report containing the Commission's analysis, findings, and recommendations was sent to the Governor and the leadership of the State Legislature. Significant in the Commission's findings was that drug abuse is a major contributor to the increase in new commitments and parole violators coming into California's State prisons. In this regard, the data provided in the report were striking.

The number of commitments to CDC with drugs as a primary offense had grown from 3,890 in 1984 to 19,909 in 1988. As a percentage of all new felon admissions, drug offenders increased from 11.1 percent in 1983 to 35.4 percent in 1988. In 1988, drug offense commitments became the largest single category of felony commitments to CDC.

Drug use also has had a significant influence on parolees returned to prison. According to the California Board of Prison Terms, in fiscal year 1988-89, drug charges (illicit drug use) were a known factor in 58 percent of all revocation actions, with substance abuse (illicit drugs) a contributing factor in more than 64 percent of parolees returned to custody for parole violations. The number of parolees returned for drug or drug-related offenses grew from 850 in 1980 to 18,700 in 1988.

Such drug-related conditions have contributed to California's current status with regard to adult corrections programs. On August 1, 1990, more than 94,000 men and women were incarcerated in California's State prisons, camps, and community-based facilities, and another 65,000 were on parole. In 1994, California's prison inmate population is projected to reach more than 130,000, with almost 84,000 parole violators being returned to prison annually. When CDC's current prison construction phase was completed in 1990, more than 37,000 beds were added system wide; but California's prisons continue to be overcrowded. In addition, CDC's annual operations budget increased from approximately \$300 million in 1980 to about \$1.8 billion in 1990 and is projected to exceed \$4 billion by fiscal year 1994-95. These large increases in CDC's

populations and the growing costs of prison operations and construction, as well as concerns about public safety and the secure management of inmates and parolees, clearly argue that other options and program policies must be explored to effectively manage drug-abusing offenders.

In the field of corrections, public safety and security of staff and inmates come first. Therefore, until recently, prison construction and staff training have been primary CDC priorities. In 1984 the first new beds constructed in the Nation's largest prison-building program came on line, thus helping to relieve unsafe and overcrowded conditions in California's older prisons, which were in desperate need of repair and renovation. Between 1984 and 1994, more than 44,000 new prison beds-costing \$3.2 billion-will have been built in California. This rapid growth has required that thousands of new correction personnel be hired and trained. There are almost 26,000 staff members in the CDC, an increase of more than 100 percent since 1984. Major resources have been allocated by CDC to ensure that line staff, supervisors, and managers are appropriately trained for their difficult assignments. For many new staff members, this training must take the place of valuable experience usually gained from several years working on the "main line."

Improving staff performance and constructing new prisons and renovating older ones have helped. Since 1984, CDC records indicate that rates of inmate assaults, staff assaulted by inmates, and serious incidents and inmate escapes from prisons have decreased. CDC staff turnover has significantly decreased. In 1984 staff turnover (staff who voluntarily left the Department) exceeded 14 percent of the work force. Today the number is 6.6 percent.

But rapidly expanding numbers of offenders, new prison construction, and an increasing professionalism among corrections staff members were not sufficient reasons to launch CDC into a new drug abuse treatment effort. What was still lacking was a proven theoretical framework for drug abuse treatment that could serve as an alternative to current conditions. Evaluations of correctional drug abuse treatment in the 1960s and 1970s were not encouraging. They were found to be limited and generally of poor quality (Lipton et al. 1975). Criticism and calls for the rejection of correctional treatment programs peaked when Robert Martinson's article, "What Works? Questions and Answers About Prison Reform," was published in 1974. At the same time, common opinion held that many prison drug treatment programs were poorly implemented and lacked the essential principles of effective treatment (Camp and Camp 1989).

In the late 1980s CDC began to review studies and evaluations that presented evidence that successful offender rehabilitation had been accomplished (Gendreau and Ross 1987). Long-term studies of California's CAP also

showed significant positive effects of the program during its period of full operation in the mid-1980s (Anglin et al. 1987). Several studies suggested that alternative approaches did exist for handling drug-dependent offenders in the criminal justice system (Gendreau and Ross 1987; Leukefeld and Tims 1988).

In early 1989 CDC reviewed a promising program model in the work done through Project REFORM. Project REFORM was established by a New York-based research firm, Narcotic Drug Research, Inc. (NDR); with funding support from the Department of Justice, Bureau of Justice Assistance (BJA), several programs were developed and/or supported. Chief among the Project REFORM models is the Stay'n Out program in New York. This program was the subject of a large-scale study that confirmed that a prison-based TC can reduce recidivism. An 8-year evaluation study examined the progress of more than 2,000 inmates who participated in the program and highlighted different outcomes based on the type and duration of services received by inmates (Wexler et al. 1985).

The Cornerstone program, located at the Oregon State Hospital, is another excellent model. Although evaluated without an experimental design, findings showed that the Cornerstone program successfully affected the lives of chemically dependent recidivist offenders (Field, this volume; 1985). Cornerstone, Stay'n Out, the Lantana Program in Florida, and the Simon Fraser University Program in British Columbia were highlighted as four promising approaches for working with drug-involved offenders (Chaiken 1989).

Another program that influenced CDC in the development of the Rightturn program was the Amity/Pima County Jail Project in Tucson, AZ. Through work with jail inmates, Amity adapted the treatment components and methods used in residential TCs to the correctional setting. This program has demonstrated that a strong, productive working relationship can be developed between treatment professionals (some of whom were ex-addicts/offenders) and correctional personnel (Arbiter 1988). There are no outcome studies of the program, although evaluations are planned. Chaiken, in her 1989 review of prison programs for drug-involved offenders, identified noteworthy characteristics among the four programs she studied. These included special and earmarked funding, comprehensive approaches, use of staff from other professions besides corrections, clear statements of program rules, obvious concerns by program staff about the welfare of participants, staff as positive role models, postprison preparation, and utilization of community resources (Chaiken 1989).

Douglas Lipton (Chief of Research for NDRI) listed, in addition to the items noted by Chaiken, other necessary ingredients of a successful offender drug treatment effort. These include treatment units isolated from the general prison population, motivated participants, adequate treatment duration, frequent urine testing, and continuity of postprison care (Lipton, this volume; 1983). Promising results from other Project REFORM prison-based programs in Delaware (the Key Program) and Alabama (New Outlook) also have provided support for CDC's development efforts.

In addition to these promising intervention programs, public opinion began to focus again on the need for prisons to assist inmates in learning academic and vocational skills and values that would help them reestablish themselves as law-abiding citizens. The 1989 National Drug Control Strategy (Office of National Drug Control Policy 1989) emphasized the importance of providing treatment for drug-abusing offenders. Survey research reported in the corrections literature also suggests that support for rehabilitation remains strong among citizens (Cullen et al. 1988). And California's Blue Ribbon Commission strongly recommended the need for drug abuse treatment for inmates and parolees (Blue Ribbon Commission on Inmate Population Management 1990).

GETTING STARTED

CDC established an Office for Substance Abuse Programs (OSAP) in May 1989 to develop and coordinate departmental substance abuse programs. Assisted by a BJA-funded invited review of CDC drug abuse treatment needs (Rupp and Beck 1989) and a BJA planning grant, OSAP developed a comprehensive treatment plan that was submitted to the State Legislature in December 1989. Paramount in this plan is the Rightturn demonstration project at RJD.

RJD, located about 35 minutes from downtown San Diego (California's second largest city), was selected as a demonstration site because of the large number of inmates committed from (and paroled back to) the San Diego area. This localized flow will allow a sufficient number of inmates to continue their corrections-based program participation in the community. Also, the Rightturn project will be able to include a specially trained group of parole agents in the San Diego area to supervise the community component. Furthermore, the local availability of a well-established community treatment network ensures access to treatment personnel who can work inside the prison and in the community. Finally, the choice of RJD was influenced by the willingness of the prison warden, regional parole administrator, and their staffs to work with OSAP and develop the demonstration project.

Four overall principles have guided program development. First, the program must address the individual characteristics or “impedimenta” (D. Lipton, personal communication, June 1989) or “criminogenic needs” (Andrews et al. 1989) of the participants. This principle is addressed through the careful conduct (and ongoing review) of individual needs assessments. Second, the program must be comprehensive enough to address the issues identified in the initial needs assessment. This requirement means that the program duration must be of sufficient length and the content flexible enough to meet inmate and parolee needs. “One size fits all” doesn’t work in drug abuse treatment. Third, treatment efforts must be sustained. Treatment continuity from prison to parole and, if necessary, again in prison and back to parole is essential. To facilitate the ability to sustain and continue treatment services from one correctional environment to another requires that well-documented records or treatment plans be maintained. To ensure this, the Rightturn project uses a Corrections Management Plan to chart inmate needs, assignment of services, and treatment progress. Fourth, treatment efforts must be carefully monitored and evaluated. Good evaluations must include a clear understanding of program policies and procedures as well as agreement on the importance of accurate, reliable, and relevant information systems.

Custody staff from RJD, parole agents from San Diego, and OSAP staff have worked together to develop the prison and community program components. At the same time, the proposed evaluation model (discussed below) is part of the program development. The delivery of drug abuse treatment services is provided by a community treatment agency that, when selected, will finalize the program protocol.

Program Promotion and Inmate Selection

Because Rightturn will be a voluntary program for inmates, the RJD staff uses a Rightturn video along with posters and announcements in classrooms, housing units, and other areas to inform inmates about the project. Inmates interested in participating in the demonstration project fill out an initial application form and are screened by custody staff. Conditions that would exclude an inmate include serious prison management problems, less than 9 months to parole, and less than a fifth grade reading ability. Volunteers sign commitment contracts to complete the whole program.

Length of Treatment

Based on the Stay’n Out experience, an appropriate length of participation in a prison TC appears to be around 9 months (Wexler et al. 1985). Participants in the prison program move through three different phases of treatment. The

first phase (approximately 2 to 3 months) begins assimilating the inmate into the project and into full participation in all activities: vocational, therapeutic, and social. Inmates begin to gain an understanding of their underlying problems and learn the use of encounter groups, peer structure, and other TC basics. They are assigned to their prison industry job as well as other unit duties. More experienced inmates (those in the project for a longer period) are assigned to function in a supportive role for the new inmate who is experiencing adjustment difficulty.

The second phase (5 to 6 months) focuses on objectives of personal growth, socialization, and psychological awareness. Inmates are expected to improve in their understanding of self and others and to work consistently and productively, taking on additional program responsibilities by functioning as role models and surrogate “big brothers” for newer inmates. As the inmate progresses, he should become more accomplished as an encounter group participant and facilitator and more self-disclosing, thereby helping himself and others in the project. During the exit and community reentry phase (1 to 2 months), inmates strengthen skills for autonomous decisionmaking and self-management. Inmates participate in intensive relapse prevention training and participate with correctional and treatment staff in developing their individualized exit plan (Mullen 1990).

Treatment Components

Treatment components for the three phases include individual counseling, vocational training, group sessions, video playback, special topic workshops, expressive therapy, leisure planning, assistance with academic programs, and transition planning for community reentry.

In addition to these components, and in keeping with the idea of isolating program participants from the general prison population, Rightturn inmates are assigned to work in a single prison industry. The inmate’s industry work assignments increase in responsibility and accountability as he or she progresses through the program phases. Because much of the TC model is founded on the 12 steps to recovery programs of Alcoholics Anonymous, Narcotics Anonymous, and Cocaine Anonymous, meetings of these three groups are included throughout the duration of treatment.

Staff Selection and Training

Most of the staff designing the program will work in the program when it starts. RJD also has received many requests from custody staff for assignment to the Rightturn project. All RJD staff members are instructed in the overall program

aspects, and those assigned to the project receive special training from the treatment provider. The treatment staff also receives intensive instruction in the custody and security policies and procedures of the institution.

SUSTAINING THE EFFORT

Without consistent treatment, research has shown that as many as two-thirds of drug-dependent offenders can be expected to return to patterns of chronic drug use and associated crime within the first 3 months of release from jail (Wexler et al. 1988). The revocation numbers discussed earlier in this chapter attest to the high rate of recidivism experienced by CDC. The Rightturn project is attempting to successfully intervene during this critical period by including a 4-month community treatment component for program participants paroling to San Diego (approximately 60 inmates). The project's community treatment phase starts in a residential TC and continues the treatment strategies begun in prison. Participation in this treatment phase is included as one of the parolee's conditions of parole and actively involves the participant, his or her parole agent, and the treatment program staff. There is considerable evidence that closely linking participation with legal sanctions (a condition of parole) is effective in keeping the offender in treatment (Anglin and McGlothlin 1984) and that increased time in treatment is associated with successful outcomes (Hubbard et al. 1988, 1989). Both public safety and individual benefits occur by keeping drug-using offenders in treatment. A policy that focuses on applying appropriate interventions has the potential to reduce the offender's criminal activity and to reduce the likelihood of subsequent incarceration (Wish 1988).

PROGRAM EVALUATION

Chaiken (1989) has pointed out that none of the four programs she studied used designs incorporating random assignment or adequate statistical techniques, and she has stressed a need for more rigorous program evaluations. The Rightturn demonstration project proposes a rigorous evaluation. A quasi-experimental design for outcome evaluation is planned to examine the effectiveness of the Rightturn program. The basic question to be answered by the evaluation is: "Is the project, with and without a continuation of community treatment, effective in reducing drug use by offenders, resulting in fewer parole revocations?" To answer this question, data are being collected from three research groups: (1) inmates who participate in the in-prison program and also in San Diego community services after prison parole, (2) inmates who participate in the in-prison program only, and (3) a group of inmates who are eligible for the program but are not selected to participate. The third group serves as a comparison group.

The original research question is separated into five major areas:

1. What effect does the Rightturn drug treatment program have on parole outcome (e.g., arrests, technical violations, and length of time to revocation)? To answer this question, findings for each of the three outcome variables for the program participants will be compared with these of the control group.
2. What effect does the postprison (community) drug treatment component have on parole outcome (arrests, technical violations, and length of time to revocation)? To determine the effect of Rightturn on participants who continue treatment services in community drug treatment, outcome for those who receive community services will be compared with that of participants who do not receive postprison treatment services.
3. What effect does the Rightturn in-prison TC and postprison community drug treatment have on long-term outcomes (1 to 3 years postprison) in terms of parole revocations and of returns to prison for a new offense? This question attempts to determine the lasting effect of the program for the three primary research groups and will rely on data from standard CDC and Board of Prison Terms data files.
4. Are there cost savings attributable to the in-prison and postprison community substance abuse treatment program?

It is anticipated that program participants will remain drug-free and crime-free on parole far more days than parolees who do not participate in drug treatment. Associated costs include reduced numbers of parole revocations, fewer prison days due to revocation, and reduced criminal activity. Cost comparisons will be made for each of the three research groups.

5. Are there in-prison management benefits for program participants, such as fewer serious disciplinary incidents and fewer good time credit days lost? It is expected that the semi-isolation and highly structured program environment will reduce prison management problems among the participants.

Study Sample

It is expected that 250 to 400 inmate volunteers will be eligible to participate in the project. Of the total, 200 will be assigned to the Rightturn program; the balance will participate as control subjects. Of the 200 participants,

approximately half will parole to San Diego County; the rest will parole elsewhere within the State.

The selection of project participants will ensure that the ethnic composition of the treatment and control groups will approximate that of the RJD inmate population. Inmates who will parole to San Diego are divided almost equally into three ethnic groups: black, Hispanic, and white. The ethnic composition of those paroling elsewhere in the State is different, with a slightly higher percentage of blacks and Hispanics and a noticeably smaller percentage of whites. Efforts will be made to correct this by stratified sampling.

Subject Identification and Recruitment

RJD staff will identify inmates who meet the following selection criteria: volunteer to participate in substance abuse treatment, have a substance abuse problem, have no history of violence, have at least a fifth grade reading ability, are nearing the end of confinement, and have sufficient time to complete the program.

Since community services will be provided in San Diego County, an additional requirement is that about half of the eligible volunteers must have been committed from, and plan to return to, San Diego County. When interested inmates are identified, RJD staff will invite them to attend a group meeting describing the Rightturn program. Those who attend will be invited to volunteer for the program. Recognizing that inmates may be reluctant to volunteer in the presence of a group, inmates also will be interviewed individually. Inmates who volunteer will be considered for participation in the evaluation study, either as a program participant or as a control subject.

Research subjects will be selected from two pools of inmates potentially eligible for participation in the in-prison program: those who parole to San Diego County vs. the balance who parole outside San Diego. Research subjects will be assigned to each of the three comparative groups.

Sampling

Early evaluation plans for the Rightturn project called for an experimental design using random assignment of participants to treatment and control groups. This design is recommended by Campbell and Stanley (1966) since it provides control for both internal and external validity. Hubbard and colleagues (1989) found random assignment inappropriate for the national long-term Treatment Outcome Prospective Study (TOPS) because it would create artificial selection conditions not typical of treatment atmospheres, thereby limiting generalizability

to community treatments. A large number of community programs nationwide were represented in TOPS, which reported that, although it is difficult to separate treatment effect from the effect of self-selection without a randomly assigned comparison group, causality can be inferred through careful statistical analysis (Hubbard et al. 1989).

In contrast to the multitude of programs represented in TOPS, the Rightturn study will examine only one in-prison program and a few community programs. Therefore, the randomized groups experimental design was considered more suitable for this evaluation study.

However, as planning moved closer to actual implementation, changes became necessary, and a quasi-experimental design has been developed instead. Two significant issues contributed to the development of this design. The first issue was the insufficient number of eligible program volunteers to establish random assignment to treatment and control groups. After a careful review of inmate files, it was determined that only 350 to 400 of the inmates at RJD (10 to 15 percent of the general population) met the project criteria regarding time remaining in prison prior to parole, no history of violence, a history of substance abuse problems, and at least a fifth grade reading level. When the "volunteer" criterion was applied, many otherwise eligible inmates decided not to enter the program, thus revealing an interesting phenomenon of prison inmate life (and reducing the pool of program participants).

During initial Rightturn program orientations, prison staff observed that some inmates, upon learning about the program and its possible benefits, were unwilling to change their daily routines. In many cases, participation in Rightturn will result in an inmate changing his housing unit and job or education assignments and also may require socialization with other inmates. Prison officials believe that many inmates probably will adopt a wait-and-see attitude about this new program before accepting these major disruptions in their prison life.

The second issue concerns the possibility of assigning to a program inmates who, in the opinion of the treatment staff, lack the essential qualities for program success. Because of this, the first assignment of project participants will be done through a careful screening of program applicants by the institution and treatment staff.

An initial comparison group of 200 inmates will be composed of eligible inmates who did not volunteer for the program as well as those who were screened out of the treatment group. It is expected that, by the sixth or

seventh month of project operation, randomized assignment will be used for new project participants.

It is also important to note that the evaluation model proposed for this project is being developed at the same time as the project. Because custody and treatment staffs are involved with the design, it is hoped that many problems identified in other correctional programs' field experiments will be avoided (Petersilia 1989).

CONCLUSION

The Rightturn project offers the State of California as well as the corrections field in general an excellent opportunity to learn about the effectiveness of a corrections-based, drug-abusing offender treatment program. The CDC recognizes the complexities associated with this demonstration project. However, the knowledge gained from the successful REFORM projects and other efforts as well as work on why similar programs failed (Camp and Camp 1989) should greatly assist CDC with its present effort.

Numerous implementation problems exist, one of which is the availability of treatment resources needed for continuity of care in the San Diego area. CDC and San Diego County representatives will have to work carefully together to ensure sufficient treatment opportunities. Even with additional funding for the demonstration project participants, failure to develop new treatment services in San Diego, particularly residential treatment beds, will seriously affect the project. Potential conflict may develop if competition occurs for treatment beds between non-criminal justice clients and "ex-cons."

Another concern is the need for patience. Public safety and the protection of staff and inmates remain the primary mission of the CDC. To ensure this, the conduct of drug abuse treatment for inmates and parolees must be carried out very carefully, in a well-planned way with specially trained and supervised custody and treatment personnel. Thus, extensive and time-consuming program development and training efforts are required. There are no quick fixes or miracle cures in dealing with this difficult population. The drug abuse-involved offender is an extremely high risk to society as well as an individual who is very reluctant to enter, remain, and succeed in drug abuse treatment. Because of this, funding decisions by State legislatures and administrators must be of sufficient amount and duration to achieve the desired outcome.

But no matter how difficult, and at times discouraging, the program development seems, competent attempts must be made. At a presentation

in San Diego to CDC wardens and parole administrators at an OSAP-sponsored substance abuse conference on June 15, 1989, Lipton summed up the importance of implementing these kinds of programs: "Just serving time degenerates men and their keepers inexorably. Use time as an opportunity for change. It values both of them and eventually alters the quality of life for all humankind" (Lipton 1989).

REFERENCES

- Andrews, D.A.; Zinger, I.; Hoge, R.D.; Bonta, J.; Gendreau, P.; and Cullen, F.T. "Does Correctional Treatment Work? A Clinically-Relevant and Psychologically Informed Meta Analysis." Paper presented at the Research Seminar of Natural Associations ACRIVE in Criminal Justice, Ottawa, Canada, 1989.
- Anglin, D.; Deschenes, E.; and Speckart, G. "The Effect of Narcotic Addiction and Criminal Behavior." Paper presented at the American Society of Criminology Annual Meeting, Montreal, Canada, November 1987.
- Anglin, M.D., and McGlothlin, W.H. Outcome of narcotic addict treatment in California. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 106-128.
- Arbiter, N. Drug treatment in a direct supervision jail: Pima County's Amity Jail Project. *Am Jails* 2(2):35-36, 39-40, 1988.
- Blue Ribbon Commission on Inmate Population Management. "Blue Ribbon Commission on Inmate Population Management: Final Report." Report submitted to the Office of the Governor of California, Sacramento, CA, 1990.
- Camp, G.M., and Camp, C.G. *Building On Prior Experience: Therapeutic Communities in Prisons*. South Salem, NY: Criminal Justice Institute, 1989.
- Campbell, D.T., and Stanley, J.C. *Experimental and Quasi-Experimental Designs for Research*. Boston: Houghton Mifflin, 1966.
- Chaiken, M. *In-Prison Programs for Drug-Involved Offenders*. Washington, DC: National Institute of Justice, U.S. Department of Justice, 1989.
- Cullen, F.; Cullen, J.; and Wozniak, J. Is rehabilitation dead? The myth of the punitive public. *J Crim Justice* 16:303-317, 1988.
- Field, G. The Cornerstone program: A client outcome study. *fed Probation* 49:50-55, 1985.
- Gendreau, P., and Ross, R. Revivification of rehabilitation: Evidence from the 1980s. *Justice Q* 4(3):349-407, 1987.
- Hubbard, R.L.; Collins, J.J.; Rachal, J.V.; and Cavanaugh, E.R. The criminal justice client in drug abuse treatment. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No.

- (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 57-80.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Harwood, H.J.; and Cavanaugh, E.R. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989.
- Leukefeld, C.G., and Tims, F.M. Compulsory treatment: A review of findings. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 236-251.
- Lipton, D. "Important Conditions for Successful Rehabilitation." Paper presented at the 1983 Bellevue Forensic Psychiatric Conference, New York, 1983.
- Lipton, D. "Continuity of Care." Paper presented at the California Department of Corrections "Creating a Sense of Optimism: A Substance Abuse Seminar," San Diego, CA, June 15, 1989.
- Lipton, D.; Martinson, R.; and Wilks, J. *The Effectiveness of Correctional Treatment*. New York: Praeger, 1975.
- Martinson, R. What works? Questions and answers about prison reform. *Public Interest* 35:22-54, 1974.
- Mullen, R. "Drug Abuse Offender Demonstration Project." Proposal submitted to the Department of Corrections, Sacramento, CA, 1990.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., September 1989.
- Petersilia, J. Implementing randomized experiments. *Eval Rev* 13(5):435-458, 1989.
- Rupp, L.G., and Beck, A.R. *Invited Review: California Department of Corrections Substance Abuse Programming*. Washington, DC: Bureau of Justice Assistance, 1989.
- Wexler, H.K.; Lipton, D.S.; and Foster, K. "Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment: Preliminary Results." Paper presented at the American Society of Criminology Annual Meeting, San Diego, CA, November 1985.
- Wexler, H.K.; Lipton, D.S.; and Johnson, B.D. *A Criminal Justice System Strategy for Treating Cocaine-Heroin Abusing Offenders in Custody*. Washington, DC: National Institute of Justice, 1988.
- Wish, E.D. Identifying drug-abusing criminals. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 139-159.

AUTHORS

David L. Winett, B.A.
Assistant Director

Lois L. Lowe, Ph.D.
Research Specialist
Off ice of Substance Abuse Programs

California Department of Corrections
P.O. Box 942883
Sacramento, CA 94283-0001

Rod Mullen
Executive Director
Amity, Inc.
P.O. Box 60520
Tucson, AZ 85751-6520

Elizabeth A. Missakian, Ph.D., L.L.B.
Program Director
Amity/Rightturn
Suite 160
444 West C Street
San Diego, CA 92101

Substance Abuse Services in Juvenile Justice: The Washington Experience

David Brenna

INTRODUCTION

In 1984, the Division of Juvenile Rehabilitation (DJR) in Washington State issued a report that dramatically changed the way the agency viewed its client population. By 1985, a full range of services for clients involved with alcohol and other drugs began operating. In late 1989, DJR conducted an agency-wide needs assessment that provided the opportunity for line staff members to report their opinions of division programming. Among the results: Alcohol and other drug services were ranked first in importance and effectiveness when compared to all other programming offered by the agency.

This chapter describes the substance abuse programs in Washington State, the DJR, and a system perspective on the development of such programming that supports its replication in other juvenile justice systems. Research findings in the field of adolescent and/or youthful offender substance abuse treatment conducted by DJR are discussed. Finally, existing service gaps are identified and recommendations for future direction are proposed.

Substance abuse treatment within juvenile justice systems is a natural evolution of the demands of the dual goals of offender accountability and rehabilitation. From 1984 to the present, the "Washington experience" has been one of growth, change, and discovery.

STATEMENT OF THE PROBLEM

Substance abuse problems are prevalent in the juvenile justice client population, including those in training schools, detention facilities, and day treatment programs. Many studies have established the link between substance abuse and delinquency (Clayton 1981; Jessor 1976; Leukefeld and Clayton 1979; Simonds and Kashani 1979). In a study of adult criminal offenders, Chaiken and Chaiken (1982) found serious and dangerous offenders

were most typically addicted to alcohol and/or illicit drugs. Frequency of criminal behavior also is linked to drug use (Ball et al. 1983; Gropper 1985). In juvenile studies, significant findings include the link between violent offenses and substance use (Hartstone and Hansen 1984), drug abuse rate and predicting offense type (Simonds and Kashani 1979), extensive alcohol use in juvenile correction populations (Dawkins and Dawkins 1983), and high rates of toxicity in juveniles at time of arrest (Wish 1988). Juvenile offender populations typically show 70 percent or more having a serious alcohol or illicit drug problem (Inciardi 1981; Santo et al. 1980). Client use is identified as a major issue in rehabilitation effectiveness, group control, and staff security (Fagan and Hartstone 1984). Finally, within the Washington experience, studies have demonstrated high rates of assessed chemical dependency among the delinquent, incarcerated population (Guthmann and Brenna 1990). A further discussion of the studies conducted in Washington State can be found later in this chapter in the section on research and evaluation.

Given current knowledge about criminality and alcohol/other drug abuse, it is clear that little of the existing empirical knowledge is based on adolescents (Catalano et al., unpublished manuscript). While some outcome studies suggest optimism in treating substance abuse (Hubbard et al. 1985), there is a limited literature that adequately describes treatment approaches or outcomes with a juvenile offender client population. The drug/crime link, though well established, remains undefined. Assumptions about the value of treatment to this offender population presumes a semicausal relationship. Washington State answered this challenge with a "best practices" approach leading to the current configuration of services.

A most important issue concerns the impact of juvenile justice systems on the treatment of the substance abuser. Juvenile justice programs typically are reluctant to develop new approaches. In addition, members of the juvenile justice profession tend to reflect the attitudes and values of the larger society—a disturbing thought when contemplating substance abuse. DJR had experienced difficulty in contracting for substance abuse services and had canceled service contracts. The 1983-84 Task Force found ample evidence to recommend (1) ownership of the "problem" by juvenile justice professionals and (2) internal system change to reflect new attitudes and values about substance abuse. Presuming that rates of substance problems among employees would mirror those in the general population, these changes would have ramifications exceeding the staffs professional role. Finally, adolescent denial demands a total investment in drug-free environments if treatment is to be effective.

PROGRAM DESCRIPTION

The Washington experience began with the development of a mode. The most significant and difficult service implementation barriers involved attitudes and values, as well as the interplay of two philosophical perspectives, substance abuse treatment and juvenile justice, which are often at odds. The treatment perspective presumes juvenile corrections to be punitive. The justice perspective presumes treatment to be unaccountable. The great irony, and the story of change in DJR, is how the two views complement each other. Substance abuse treatment, when applied effectively, is based on the ultimate accountability of the client to manage his or her disease. Juvenile justice, when managed proactively, strives to rehabilitate offenders. When trained in the use of substance abuse treatment interventions, juvenile justice professionals become quite adept at offender accountability-directed recovery. Treatment professionals find an entire system capable of monitoring and supporting the client's recovery.

However, system changes were slow to develop, and they continue to evolve now. A key philosophical position, adopted in 1986 and supported by DJR leadership, is important:

All research based data currently available shows positive correlation between delinquency and substance abuse. This correlation is unclear in nature. As study continues, the correlation strongly suggests that without addressing both behaviors (criminality and substance abuse) the likelihood of alleviating either behavior is low. Additionally, the subjective analysis of working professionals points to the need for substance abuse treatment for their clients. The correlation data and subjective analysis both indicate promise for a reduction in recidivism through treatment of substance abuse (Division of Juvenile Rehabilitation 1986).

The statement is important in the adoption of juvenile justice goals for the DJR program components. The agency rationale for operating treatment services remains congruent with the DJR stated mission. If a youth continues drug use but ceases criminal behavior, the pure justice goal of treatment would be met. However, if a youth remains in recovery from chemical dependency but continues criminal activity, the justice goal of treatment has not been met.

The relationship of juvenile justice goals to the system's specialized treatment approaches is critically important in meeting agency goals. By indicating their position, the DJR leadership settled the fundamental question: Why are treatment services offered? They created an expectation for future research to support or refute the effectiveness of treatment in reducing criminal recidivism. Furthermore, the philosophical position established the direction for system change. Two important concepts emerged: (1) The model was to be an "integrated services" approach, and (2) the model would be a "case find" approach instead of a "gate keep" approach. The "case find" approach differs from "gate keep" because treatment clients are actively sought rather than client levels being determined by budget limitations. Based on the philosophy of "case find," all youth in need of service are identified. Resource limitations are answered by tailoring certain low-cost alternatives to clients who might respond, while identifying most-in-need clients for the most intensive services.

As the term implies, integrated services ensure ownership of the substance abuse problem by the host agency. In the Washington experience, juvenile justice staff members are designated to perform various case management and treatment functions. Integrated services mean that (1) individual cottages on institution campuses have been converted to free-standing, inpatient chemical dependency programs; (2) specialist staff personnel were hired and assigned to coordinate and provide treatment services to the entire client population; (3) education specific to offender substance abusers was developed and delivered by institution school programs; (4) assessment for chemical dependency is conducted by juvenile justice diagnostic staff; and (5) onsite drug detection is managed by DJR. Contracted services are provided in many community locations; however, the bulk of services are funded and operated by DJR. Alcohol and illicit drug programs in DJR are viewed as a component of the system, not as an ancillary service.

COMPONENTS

The model incorporates a continuum of services based on client dysfunction level. Service components were applied to each category of abuser, based on assessment, and layered to the next, more dysfunctional level of abuser, from nonuse through chemical dependence. Assessment, education, and residential chemically free environments were the nonuser components. The casual or situational user received all the previous components plus urinalysis monitoring, information groups, and referral. Intensive services, including intervention, outpatient treatment, inpatient treatment, and aftercare are available for clients seriously involved with substances.

Describing service components was perhaps the easiest task, but implementation began slowly and encountered numerous obstacles. Many problems were resource issues; some were policy issues. The substance abuse program in Washington's juvenile system is best described by its component parts: assessment, education, intervention, treatment, and continuing care.

Assessment occurs at each DJR level and is supported by an offense-specific case management approach that predates the development of the substance abuse program. At 18 diagnostic centers throughout the State, the Personal Experience Screen Questionnaire (PESQ) (Winters and Henly 1989) is administered to each youth committed to the State Division of Juvenile Rehabilitation. The PESQ is a 38-item screening instrument that "flags" clients who might be experiencing difficulty with substances. It supports the Personal Experience Inventory (PEI) developed by Winters and Henly (1987). A youth identified for further assessment by the PESQ receives the full PEI at or shortly after admission in one of five State institutions. Assessment and interpretation are conducted by specialists located at the institutions. These chemical dependency coordinators play a critical service delivery and case management role throughout the division. Information from the PESQ and the PEI is compiled in individual case files and excerpted in Initial Treatment Reports and ongoing treatment updates. At their request, youth can be reassessed at request at any time during their stay. The PEI provides an indepth, validated analysis of responses by youth, pinpointing their level of chemical involvement and a variety of treatment issues, including social and psychological functioning

Education is provided to each youth within DJR's school programs. In 1985 DJR began the development of the Innervisions curriculum. Innervisions evolved as a result of teacher frustration with mainstream prevention curricula; a heavily involved delinquent population did not respond to material designed for "normal" youth. Innervisions focuses both the teacher and the youth on an exploration of family and chemical dependency issues. Close working relationships are required between teachers and counseling staff members to make the curricula viable. DJR recently has contracted with a private concern to market the Innervisions package. Keys to Excellence, Inc., will publish and distribute the Innervisions curriculum and provide training support.

Intervention is an important and challenging system issue for juvenile justice. A key element of the successful alcohol/other drug program is the imposition of values and expectations on all clientele. As staff members in authority and as adult role models, staff attitudes and their expression are essential to consistent care. The concept of continuum of care is facilitated directly by intervention methods applied evenly throughout the system. Intervention includes the following approaches:

1. Clarification of attitudes about drugs by all staff
2. Written policy that outlines conformance with those attitudes
3. Natural and logical consequences for client misbehavior
4. Provision of a drug-free environment for youth

Staff attitudes and societal attitudes greatly affect adolescent attitudes and values toward alcohol and other drug consumption. Consuming substances is a choice that must be made responsibly, with the full understanding of the consequences of that choice. A consequence of adolescent consumption of illicit substances includes punitive measures applied by staff representing DJR. Clients are not protected from these consequences. Attitudes about illicit drugs and alcohol also are subjected to consequences within this system, making it imperative that staff attitudes are explored and honestly addressed by supervisors and coworkers. Written guidelines ensure that sanctions are applied evenly so that use and drug/alcohol values are addressed with action.

DJR's treatment programs consist of two essential components. Outpatient models are provided at each residential program by in-house counseling staff, specially trained in group treatment for chemical dependency clients. Chemical dependency coordinators organize, schedule, and implement treatment groups that are cofacilitated by regular counseling staff. The following is a partial list of groups offered by institution programs:

- Drug Use Consequences Group
- Intervention Group
- Information Group
- Responsibility Group
- Family Group-Children of Alcoholics
- Family Workshop
- Intervention/Return to Use
- 12-Step Groups
- 12-Step Information Group
- Aftercare, Recovery
- Continuing Care, Relapse
- Relapse Prevention
- Recreational/Therapy Group
- Spirituality
- Chemical Dependency Treatment Group
- Pretreatment Group
- "Dual Diagnosis"
- Codependency/Relationships
- Young Entrepreneurs Group

Inpatient treatment is the focal point for much of what occurs in DJR's programming. Three separate centers-Exodus, Omni, and Parke Creek-are short-term, multistrategy intensive treatment units. Exodus and Omni are located on institution campuses, whereas Parke Creek is community based and is located in rural central Washington. Omni and Exodus have virtually identical programming except that Exodus is co-ed. Parke Creek is shorter term and works with community commitment from the juvenile court system, as well as with State-committed youth. Each program has 16 beds. Sixty days of treatment are offered at Omni and Exodus and 30 days at Parke Creek. Treatment approaches are based on the Hazeldon model, following the 12-step approaches of Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). All three programs are State certified. The programs were developed by taking an existing cottage program off line, enriching the staff complement, providing extensive training, and reopening as resources for DJR's clients. Youth must be serving a sentence for a juvenile court commitment and be referred by their assigned counselor. Following treatment, youth are returned to the sending institution or transferred to a recovery-based group home for aftercare.

Aftercare or continuing care is provided by institution programs for long-term offenders or by community residential programs operated or contracted by DJR. Programming consists of the AA/NA 12-step approaches with access to community meetings, treatment groups, and individual counseling in addition to regular programming for preparing youth for release. Regular urinalysis is an important component of the DJR continuing care model. DJR utilizes fluorescence polarization immunoassay as its testing methodology, with onsite testing labs at every State residential facility, including some parole offices. Parole offers some continuing care to the recovering youth, including access to treatment groups, AA, NA, and case monitoring. Linkage to available local services is critical for the youth finishing his or her commitment.

An important development occurred in Washington State in 1989 when the legislature, through the Omnibus Alcohol and Controlled Substances Act, provided funds to replicate inpatient service components in the State's 18 county juvenile detention centers. Programs vary greatly, from assessment and referral centers to complete, short-term inpatient programs, segregating treatment clients from the general population. It is too early to ascertain the viability of these programs developed in late 1989; however, current information suggests that, with some fine tuning, detention programming offers exciting opportunities for treatment of a client population otherwise difficult to serve.

Program administration is the responsibility of a central office administrator. To support system changes and to respond to technical and policy questions, the

Substance Abuse Oversight Committee was developed. This committee plays an advisory role, making policy and program recommendations for needed change.

RESEARCH AND EVALUATION

DJR has participated in two important studies in the area of substance abuse treatment and juvenile corrections. In 1985, DJR contracted with the University of Washington to conduct a literature review on substance abuse treatment in the criminal justice system. At the same time, Hawkins and colleagues (1986) were conducting a study called project ADAPT (Adolescent Drug Abuse Treatment and Early Intervention Project), providing a model for transition services with DJR clients. ADAPT was part of a series of efforts by Hawkins and coworkers that culminated in a model of risk-based approaches for identification and treatment of adolescent substance abusers (Hawkins et al. 1986).

In 1988, DJR completed a study of the PEI to determine the validity of the instrument when used with a chronic delinquent population (Guthmann and Brenna 1990). That same study led to an analysis of the same data sets that disclosed valuable information on the extent and nature of substance abuse among a juvenile offender client group (Brenna and Steiger, unpublished manuscript). The initial study found the PEI to be valid with a delinquent population, with the clinical norms for the offenders ranging as high as seven standard deviations more than an adolescent drug treatment population. Subsequent analysis revealed that 80 percent of the incarcerated population exhibited serious drug/alcohol impairment. Although this information did not surprise practitioners in the Washington juvenile justice system, the implications for further program development are significant. Although all substance-abusing adolescents may not be delinquent, it appears that most delinquents are substance abusers, suggesting that failure to address substance abuse in this population almost ensures minimum impact on recidivism.

It also should be noted that DJR is seeking support from the National Institute of Justice to conduct a study, using an experimental design, to examine the effectiveness of drug testing and treatment on a juvenile probation population. Court-ordered youths will be assigned randomly to one of four interventions: traditional probation, probation with treatment, probation with drug testing and sanctions, and probation with drug testing, sanctions, and treatment. Washington has been selected as the study site. It is expected that this study will produce results previously unavailable to the field.

FUTURE DIRECTIONS

In 5 years of the Washington experience, each change in the State's Juvenile Justice Substance Abuse Programs has multiplied the areas of concern and interest on the part of professionals working in these programs. As a result, several important issues demand future attention, including those identified below. County-based treatment services in detention currently being implemented will answer significant questions about the amenability of the youthful offender to early intervention, with the hope of using treatment to reduce further criminality and subsequent, more serious involvement with the criminal justice system. The adolescent treatment field generally is plagued by the question of the relative value of outpatient treatment in light of soaring costs for inpatient care. Urinalysis monitoring raises interesting questions, as does the use of other forms of detection in combination with new technologies such as electronic monitoring.

Another major focus of concern is providing culturally relevant services. The substance abuse treatment field generally has reflected the cultural bias of the majority culture. In juvenile corrections, minority groups comprise large segments of the client population in need of treatment. Recognizing this, the Washington State Substance Abuse Oversight Committee commissioned a work group to examine current practice and research on culturally specific treatment modalities and to produce recommendations for changes.

The Washington experience has produced a surprisingly straightforward model that has been accepted by the entire system. Second-generation issues and outcome-based research are playing a role in advancing these programs and are providing a model for other systems.

REFERENCES

- Ball, J.C.; Shaffer, J.W.; and Nurco, D.N. Day-to-day criminality of heroin addicts in Baltimore: A study in the continuity of offense rates. *Drug Alcohol Depend* 12:119-142, 1983.
- Brenna, D., and Steiger, J. "The Impact of Substance Abuse on a Delinquent Population." Unpublished manuscript.
- Catalano, R.F.; Hawkins, J.D.; Wells, E.A.; Miller, J.; and Brewer, D. "Evaluation of the Effectiveness of Adolescent Drug Abuse Treatment, Assessment of Risks for Relapse, and Promising Approaches for Relapse Prevention." Unpublished manuscript.
- Chaiken, J.M., and Chaiken, M.R. *Varieties of Criminal Behavior*. Santa Monica, CA: Rand Report, 1982.

- Clayton, R.R. The delinquency and drug use relationship among adolescents: A critical review. In: Lierler, D., and Ludford, J., eds. *Drug Abuse and the American Adolescent*. National Institute on Drug Abuse Research Monograph 38. DHHS Pub. No. (ADM)81-1166. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1981. pp. 82-103.
- Dawkins, R.L., and Dawkins, M.P. Alcohol use among black, white and Hispanic adolescent offenders. *Adolescence* 18(72):799-810, 1983.
- Division of Juvenile Rehabilitation. "Substance Abuse Task Force Report." Olympia, WA: Division of Juvenile Rehabilitation, April 1986.
- Fagan, J.A., and Hartstone, E. "Dilemmas in Juvenile Corrections: Treatment Interventions for Youth With Alcohol, Drug Abuse, and Mental Health Problems." Paper presented at ADAMHA Conference on State-of-the-Art Research on Juvenile Offenders With Drug Abuse, Alcohol, and Mental Health Problems, Rockville, MD, 1984.
- Gropper, B. *Probing the Links Between Drugs and Crime*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 1985.
- Guthmann, D., and Brenna, D. The Personal Experience Inventory: An assessment of the instrument's validity among a delinquent population in Washington State. *J Adolesc Chem Depend* 1(2):15-24, 1990.
- Hartstone, E., and Hansen, K.V. The violent juvenile offender: An empirical portrait. In: Mathias, R.A.; DeMuro, P.; and Allinson, R.S., eds. *Violent Juvenile Offenders: An Anthology*. San Francisco: National Council on Crime and Delinquency, 1984. pp. 83-112.
- Hawkins, J.D.; Lishner, D.M.; Catalano, R.F.; and Howard, M.O. Childhood predictors of adolescent substance abuse: Toward an empirically grounded theory. *J Child Contemp Soc* 8(1):11-48, 1986.
- Hubbard, R.L.; Cavanaugh, E.R.; Craddock, S.G.; and Rachal, J.V. Outpatient treatment for adolescent drug abuse. In: Friedman, A.S., and Beschner, G.M., eds. *Treatment Services for Adolescent Substance Abusers*. National Institute on Drug Abuse Treatment Research Monograph Series, DHHS Pub. No. (ADM)85-1342. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1985.
- Inciardi, J.A. *The Drugs-Crime Connection*. Beverly Hills, CA: Sage, 1981.
- Jessor, R. Predicting time of onset of marijuana use: A developmental study of high school youth. *J Consult Clin Psychol* 44(1):125-134, 1976.
- Leukefeld, C.G., and Clayton, R.R. Drug abuse and delinquency: A study of youths in treatment. In: Beschner, G.M., and Friedman, A.S., eds. *Youth Drug Abuse*. Lexington, MA: D.C. Heath & Co., 1979. pp. 22-43.
- Santo, Y.; Hooper, H.E.; Feldman, A.S.; and Conner, W. Criminal behavior of adolescent non-heroin polydrug abusers in drug treatment programs. *Contemp Drug Prob* 9(3):301-325, 1980.
- Simonds, J.F., and Kashani, J. Drug abuse and criminal behavior in delinquent boys committed to a training school. *Am J Psychiatry* 136(11):18-39, 1979.

Winters, K.C., and Henly, G.A. Advances in the assessment of adolescent chemical dependency: Development of a chemical use problem severity scale. *Psychol Addict Behav* 1:146-153, 1987.

Winters, K.C., and Henly, G.A. *Personal Experience Inventory (PEI): Manual*. Los Angeles: Western Psychological Services, 1989.

Wish, E.D. Drug testing. In: *Crime File Study Guide*. National Institute of Justice. NCJ-104559. Washington, DC: U.S. Department of Justice, 1988.

AUTHOR

David Brenna, M.S.
Administrator for Special Projects
Division of Alcohol and Substance Abuse
Department of Social Health Services
OB21W
12th and Franklin Streets
Olympia, WA 98504-0095

Florida Department of Corrections' Substance Abuse Programs

Wilson C. Bell, James G. Mitchell, Jennifer Bevino, Abbas Darabi, and Richard Nimer

INTRODUCTION

The increased use and abuse of chemical substances within society, combined with more effective law enforcement initiatives to address escalating criminal behavior(s) associated with drug addiction, has focused attention on the need for correctional systems to enact treatment programming. It is no longer acceptable for offenders to enter the correctional system with addiction problems and be released without treatment opportunities being offered.

For many years, Florida, by virtue of its global location and extensive shoreline, has been widely viewed as the principal importation point for the majority of cocaine introduced into the United States. Contributing to this are the diverse cultural population, rapid economic growth, and great mobility. The result has been widespread abuse of crack cocaine, and this has greatly affected prison admissions.

The Florida Department of Corrections has launched a significant effort in the area of substance abuse treatment programming services designed for members of the inmate population identified as having histories of substance abuse and/or addiction problems. This programming effort addresses the substance abuse treatment needs of identified members of Florida's inmate population through the use of a model encompassing a comprehensive battery of substance abuse treatment services. The program provides linkages between institutional and community resources and has created new services with the support of Florida's Governor and Legislature.

BACKGROUND

In the early 1970s Law Enforcement Assistance Act (LEAA) funds allowed the department to employ at least one drug counselor in each of its major

institutions. The LEAA also provided seed money for the development of a 250-bed therapeutic community (TC) for young male offenders and a 20-bed TC program for female inmates. Unfortunately, even though the percentage of inmates newly committed to the department who admitted to drug problems increased at a steady rate to above 50 percent, various financial shortfalls within State government and the collapse of the LEAA funding source led to the general dissolution of the department's drug treatment program. However, the two TCs mentioned above and a strong outpatient treatment program at one large youthful offender institution were maintained.

In the intervening years prior to 1987, drug treatment primarily was in the form of a close association with two community support groups, Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). Eventually, a skeleton counseling staff began to emerge. It consisted of one or two professional counselors principally assigned to the department's mental health office, but with ancillary duties involving coordinating or providing counseling services for addicted inmates. In 1988 there were nearly 100 employees whose duties included responsibility for drug counseling within Florida's correctional institutions. The prison population meanwhile had expanded to about 46,000 in more than 50 major institutions (Florida Department of Corrections 1988).

The recent increase in admissions to prisons in the State of Florida has been primarily the result of drug offenders. These offenders accounted for 13 percent of the total admissions in fiscal year (FY) 1983-84 compared with 33 percent in FY 1990-91. With an inmate population of 46,233 at the end of FY 1990-91, up from 26,471 inmates 7 years earlier in FY 1983-84 (an increase of 74.7 percent), the department has noted an alarming increase in the number of drug and drug-related offenders entering the system (Florida Department of Corrections 1991).

Data from FY 1990-91 (Florida Department of Corrections 1991) indicate that the majority of drug offenders were incarcerated for possession of cocaine (34.2 percent), sale of cocaine (43.5 percent), and trafficking in cocaine (9.4 percent). By comparison, the next largest category among specific drug offender types was those convicted of selling marijuana (4.4 percent). Cocaine offenders accounted for 87 percent of all drug offenders admitted to Florida prisons in FY 1990-91. During FY 1990-91 one of three persons committed to the Florida Department of Corrections was incarcerated directly as a result of drugs. This ratio considered only the offender's primary offense and did not reflect those persons being incarcerated for property crimes committed to support a drug habit. If these factors were computed into the equation, it is

estimated that the percentage of drug-related admissions would approach 85 percent. In addition, the department's data (Florida Department of Corrections 1989) indicate that the adult inmate population's primary drug of choice is crack cocaine, with alcohol running a close second. Youthful offenders' drugs of choice are alcohol and marijuana. It should be noted that the department's treatment efforts are geared toward chemical dependency/addictions and not toward a drug of choice.

Probation and community control admissions for FY 1983-84 totaled 38,948, with drug offenders accounting for 22 percent (8,667) of these admissions. In FY 1990-91 total admissions for probation and community control were 77,844, and drug offenders accounted for 29 percent (22,598) of that total. The most recent major trend in drug abuse is, by all accounts, attributable to the appearance of crack cocaine (Florida Department of Law Enforcement 1990).

ASSESSMENT PROCEDURE AND THE TIER SYSTEM

Below is a summary of the comprehensive statewide Substance Abuse Programs that includes an initial assessment phase and a Tier system offering varying degrees of treatment for identified substance abusers (Florida Department of Corrections 1990). The department is attempting to provide the addicted offender with a continuum of care through the Tier treatment programs. This continuum can result in the offender's going from Tier I to Tier IV in a process of successive and successful treatment experiences. However, in many cases due to sentencing constraints, offenders will experience only part(s) of the treatment continuum.

Although more than 50 percent of inmates admit to a serious problem with one or more substances of abuse, it is clear that intensive therapy is not possible for all. Therefore, an assessment procedure has been implemented at all reception locations. Inmates sentenced to the Department of Corrections undergo an assessment to determine the severity of their substance abuse addiction as well as their readiness for treatment. Through the classification process, an appropriate level of treatment is recommended.

Treatment programs provided within correctional facilities are identified by four varying levels of intensity. In concept, inmates would enter the treatment continuum at the appropriate level for their particular need. However, due to a variety of factors, such as limited program space and denial (resistance to treatment), initial placements may sometimes be at a lower level of intensity than would be required individually. In such instances, one of the treatment program objectives would be to encourage more intensive followup therapy.

Each level of treatment in the Tier system has a finite timeframe, and each focuses on clearcut objectives within those constraints.

Tier I

Tier I is a 40-hour program specifically designed to address the needs of offenders who (1) have a less-than-severe substance abuse problem, (2) are believed to have a severe problem but are denying the problem exists and therefore are not considered ready for treatment, or (3) will not have the opportunity to go through a longer program due to a very short sentence. Although primarily designed to provide information as an educational component, Tier I also introduces group counseling techniques. In addition, and more importantly, it serves as the beginning point to essential followup treatment consisting of continuing group counseling; encouragement to participate in AA, NA, and other support groups; and referral as appropriate to a more intensive level of treatment. The Tier I program is provided either by the department staff or through contractual arrangements with private providers.

Tier II

Tier II is an intensive 8-week residential modified TC program housed within a correctional institution designed for inmates with serious substance abuse problems. This treatment level is aimed at those inmates who will not be in the correctional system long enough to participate in a more extensive program. Tier II also serves as a referral mechanism to other levels of treatment such as long-term community-based treatment, referral to Tier III, and participation in AA or NA. This Tier is characterized by frequent individual and group counseling.

Tier II consists of three phases. In Phase 1, Orientation, the stage is set for effective participation in the recovery process. In Phase 2, Treatment, four major learning themes are addressed: addiction education, life management, skill building, and relapse prevention. Phase 3, Reentry, involves preparation for reintegration into either the prison setting or the outside community or some combination thereof. The process of closure with the treatment program is completed. To meet program objectives without compromising security, isolation from the greater institutional population is necessary to the most practical extent possible. Tier II services are delivered by department staff and contracted private providers.

Drug Treatment Centers

Drug Treatment Centers (DTCs) are the newest component in the Department of Corrections' Substance Abuse Programs. This is a statewide system of regional DTCs for treating minimum- and/or medium-custody inmates. Emphasis is on those convicted of drug offenses, theft, or burglary and those who have a cumulative sentence of 5 years or less. New inmates assessed as being in need of drug treatment have a shortened reception process and movement is made directly to the DTC in 3 to 7 days.

The entire DTC facility revolves around providing drug treatment services. Inmates are involved in the TC process 24 hours a day, 7 days a week. The format is an intensive 4- to 5-month treatment program using phases similar to those of Tier II. A structured fitness regimen and nutritional training are incorporated into the program. The physical training gradually builds fitness and endurance while emphasizing personal discipline and self- and mutual-help principles, building team/group cohesion, and improving mental alertness and relaxation.

Tier III

Tier III is a full-service residential TC program. This treatment component is 6 to 12 months long and is currently provided in a female institution, a male youthful offender institution, and an adult male institution. Additionally, the department has contracts with community-based drug treatment programs throughout the State to provide this service for eligible inmates approaching the end of their sentences. These contract facilities are designated as Community Tier III TCs. Currently, the department utilizes six such facilities throughout the State and contracts for a total of 54 beds within those facilities. For placement at such a facility an inmate must be classified as eligible for community work release. As an inmate nears his or her release date, recommendations may be forwarded to the Community Release Unit in the department's Central Office for an inmate to be placed at one of the Community Tier III facilities.

Description of Therapeutic Community Design

The Tier II, DTC, and Tier III programs are based on the TC model. The TC treatment regimen uses self- and mutual-help approaches, peer pressure, and role modeling in a structured environment to achieve the recovery goal. Peer pressure is seen as the catalyst that converts criticism and personal insight into positive change. High expectations and high commitment from both offenders and staff support this positive change. TCs provide a 24-hour-a-day learning experience in which individual changes in conduct, attitudes, and emotions are

monitored and mutually reinforced in the daily regimen. TCs also offer a systematic approach to achieve their main rehabilitative objective, which is guided by an explicit perspective on the drug abuse disorder, the client, and recovery.

The goals of a residential TC include producing a change in lifestyle, abstinence from substance abuse, elimination of antisocial activity, increased employability, and prosocial attitudes and values. The TC approach reinforces anticriminal modeling, promotes the understanding of social vs. didactic learning, and stresses the developmental process that occurs in a social learning context. The TC approach to treating substance-abusing offenders has produced positive research findings in the areas of outcomes, treatment retention, and special populations (De Leon 1984; Hubbard et al. 1988).

Day or Night Treatment

A new concept within the department, this program provides a structured schedule of treatment services that includes a minimum of 16 hours of activities per week, 6 of which occur in individual, group, or family therapeutic sessions. Services provided in this structured outpatient setting are consistent with the services provided in the residential programs, except that the outpatient program is conducted during the day, evening, or weekend hours to accommodate the inmates' institutional work schedule. Day or night treatment serves approximately 40 inmates every 4 to 6 months and requires two contracted counselors for staffing each program.

Tier IV

Tier IV is designed specifically to provide counseling services to inmates assigned to Community Correctional Centers by means of contracted services. This outpatient/aftercare treatment strategy focuses on relapse prevention and supportive therapy. This 10-week program involves inmates during the afternoon and/or evening prior to or after work and includes 8 weeks of counseling, group attendance at AA or NA meetings, and educational groups. During the final 2 weeks, inmates are prepared for community reentry. The relapse prevention program is essential for this reentry process. Group, individual, and family counseling sessions are held, and relapse prevention plans are completed. Emphasis also is placed on developing and cementing connections with community-based drug treatment programs, self-help support groups, and other aftercare services.

Substance-Abusing Offender Treatment Information Network

The Substance-Abusing Offender Treatment Information Network is not a specified criminal justice or treatment program; rather, it is an information system. The Network is a prescribed mechanism for transferring information on drug offenders from one agency serving the drug-involved offender to another so that a treatment intervention history can be developed. The goals of the Network are (1) to channel information on drug treatment and other drug interventions from one system component to the next, (2) to encourage continuity of treatment and structured intervention with the drug-involved offender, (3) to link all system components to ensure continuity of care, (4) to define what action each unit will take to pass on intervention or treatment information and what action will be taken once information is received, and (5) to support research and evaluation on the effectiveness of offender treatment. All criminal justice and treatment programs that provide specialized services to the substance-abusing offender are participants of the Network. Each program is encouraged to establish formal procedures that define how the Network will be implemented in the respective agencies.

This information system is built on the premise that length of treatment with the drug-involved offender correlates with a favorable treatment outcome (Hubbard et al. 1988; Leukefeld and Tims 1988). The system is a structured method to enhance the time an offender spends in treatment and to link components of treatment in a systematic mode. Programs involved in the Network, in addition to the Tier programs, include Treatment Alternatives to Street Crime (TASC), jail treatment programs, postrelease supervision programs, community-based treatment agencies, probation, parole, and community control. Brief descriptions of these programs follow.

Treatment Alternatives to Street Crime. TASC programs provide screening, assessment, treatment referral, and case management services. TASC staff members serve as brokers to ensure that treatment placement is secured and that progress in treatment is reported to the referring criminal justice agency.

Jail Treatment Programs. Across the State, these programs provide in-jail substance abuse education and treatment services. These services are usually provided by local TASC or community treatment programs under contract with the local county corrections authority. Offenders may be linked with probation upon completion of their jail sentence. They may be referred to TASC or to community treatment programs.

Postrelease Supervision Programs. In FY 1990-91 more than 35,000 inmates were released from the Department of Corrections (Florida Department of Corrections 1990). Upon completion of their sentences, offenders were either released on parole or released under one of several programs that provide for supervision once back in the community. These programs include the following:

- Provisional release. This program provides released offenders with up to 90 days of supervision by a probation officer. Treatment can be required as a condition of granting release.
- Control release. This program operates like parole. The control release agreement can require treatment and other performance conditions.
- Conditional release. The parole commission controls access to this program and can require involvement of up to 2 years. This program usually is used for violent or sex offenders.
- Community Correctional Centers (Tier IV). Offenders in this program are still serving their sentences while living and working in the community. In the Tier IV program, offenders are required to participate in specialized treatment.

Community-Based Treatment Agencies. Florida has an established network of community-based prevention and treatment agencies. These agencies provide a variety of treatment modalities, including detoxification, methadone treatment, short- and long-term residential programs, halfway houses, day treatment, drug-free outpatient services, and support groups. The courts, probation services, and institutions have a history of making referrals to these programs. A recent survey of treatment agencies offering residential services revealed that at least 50 percent of the clients being served had some form of criminal justice involvement (Hubbard et al. 1988).

PROBATION AND PAROLE SERVICES

In the realm of Florida's supervised population, substance abuse also has increased. In FY 1988-89, a total of 34.3 percent of all offenders in community supervision programs carried a primary offense in the category of narcotic sales, manufacture, or possession. More significantly, 54.6 percent of offenders on community supervision during that same period admitted their involvement with substance use and abuse. Probation officers reported that 7 out of 10 offenders on their caseloads in FY 1990-91 have some degree of problem with substance abuse, which amounts to 70 percent of the daily population of 100,000 offenders supervised by Probation and Parole Services.

It has become apparent to Florida lawmakers and the criminal justice community that building more prisons cannot be the cure-all for this problem. The focus is now on community-based alternative methods that impose a range of sanctions to hold the substance-abusing offender accountable and that serves to divert this population from limited prison beds. Strategies such as front-end, early intervention and a well-defined system of Intermediate sanctions seem to offer possible solutions.

Florida Probation and Parole Services launched a program in 1988 to address the problem. Since that time, the program has continued to experience rapid growth and is now considered to be a comprehensive effort that is an integral component of the community-based supervision mission.

The major goal of the substance abuse programs continues to be the identification, intervention, and affording of treatment opportunities when warranted for offenders who have a substance abuse problem and addiction. The major components of the program remain unchanged: staff training, drug testing, and substance abuse treatment and evaluation through data collection and analysis.

An intense effort has taken place in the past 2 years to develop mutual strategies on how to deal effectively with the substance-abusing offender. Much of that effort can be attributed to the Probation and Parole Services drug specialist staff as well as community-based treatment providers assigned to the courts who are responsible for educating and informing the major players in the criminal justice system about drug testing and the continuum of treatment services available.

In 1988 an initial appropriation of \$500,000 was earmarked for the effort. Program implementation was affected most significantly by the mandate, providing that all offenders convicted of controlled substance violation would receive random substance abuse testing intermittently throughout their term of supervision. Thus, Probation and Parole Services was challenged with designing and implementing a substance abuse program that was to focus on two primary areas, testing and treatment.

State funding for substance abuse jumped to \$2.1 million the second year, which allowed further enhancements to the program. However, mandated budget cuts reduced allocated funds by half. Sixty additional residential treatment beds were brought online, helping to alleviate a critical shortage of inpatient services available to offenders. In addition, five specialized staff positions were established in each of the geographical regions of the State. These regional drug specialists serve as coordinators and managers of an expanding substance abuse program.

During FY 1990-91 the program received an infusion of Federal block grant funds to supplement State funds. Total funding for the program was \$3 million. This enabled the department to establish circuit drug specialists in each of the 20 judicial circuits, which further localized and facilitated the day-to-day operation of the substance abuse programs. Additional funds were provided for more residential treatment beds as well as an increase in outpatient services. It was no longer acceptable for a substance-abusing offender to be placed on community supervision and not be afforded opportunities for treatment to deal successfully with his or her substance abuse addiction.

During FY 1988-89 when the testing initiative began, 15,000 offenders were drug tested. The statewide results presented a 33-percent positive rate. The following year (FY 1989-90), the number of offenders tested had risen to nearly 50,000, with the positive rate dropping to 25 percent.

The most recent statewide data (FY 1990-91) show that more than 145,000 drug tests were administered to offenders. Although the number of tests continued to rise, the positive rate decreased to 18 percent, its current level.

The department considers the program to be an unqualified success. Countless line probation officers have detailed the significant change in behavior demonstrated by some of the offenders who successfully completed the various substance abuse programs. The successful completion rate of offenders placed in nonresidential/outpatient programs was up 10 percent over FY 1989-90. The successful completion rate for offenders sentenced to residential treatment programs was 62.2 percent. This exceeds the rate of 50 percent for FY 1989-90. The overall success/completion rate of all treatment programs exceeded 60 percent.

Because of the apparent success of both prison-based and community-based treatment programs, the Governor and legislature made a commitment through legislation and appropriations to radically increase the number of community-based treatment beds for substance-abusing offenders. During the 1991 legislative session, the centerpiece of Florida Governor Lawton Chiles' legislative package was a new initiative called the "Community Corrections Partnership Act." The Partnership Act has been designed to create additional and more effective intermediate sanctions for an identified portion of the offender population that could best be served and sanctioned in the community. The thrust of this act binds the State and individual counties in an effort to develop a range of credible interventions for this targeted group of offenders, while allowing violent, more serious, or chronic offenders to remain in prison for longer periods.

This new legislation appropriated \$150,000 as a grant award for the first year. Additionally and more significantly, \$4.2 million has been assigned to establish 570 nonsecure treatment beds for the drug offender. Startup funds also were appropriated for the construction and operation of another 90-bed secure drug facility, as well as a 256-bed work camp to divert offenders from incarceration in State prisons. Part of this act also creates an additional supervision sanction, Drug Offender Probation, that is designed to blend certain features of the Community Control Program with regular probation. In this program, individual offender drug treatment is emphasized, drug testing is mandatory, and reduced caseloads of 50 offenders to 1 officer are utilized.

Florida has learned that along with Federal and State sanctions and funding there is also oversight and accountability. This requires a reporting system that is capable of producing timely, complete, and credible information. As Probation and Parole Services substance abuse programs have continued to expand, so has the volume of data that must be collected, analyzed, and reported to various entities.

A new automated system is in place that allows capability for two vital functions. First, offenders participating in substance abuse services can be tracked by probation and parole. In conjunction with this, a treatment history is established on the database for each offender, which is useful in individualized treatment planning. Second, the system is capable of producing batch reports that compile and format the data required by various funding entities. The system's ability to store information allows the department to conduct dispositional studies, monitor program objectives, and review performance of contracted treatment vendors.

During FY 1990-91 a total of 9,018 offenders were provided grant-funded treatment services. In addition to this figure, a significant number of other offenders received treatment through personal payment, county-funded programs, and third-party insurance reimbursements. Noting that available treatment resources in Florida are limited, additional offenders would have been placed in treatment had additional funding and appropriate referral sources been available.

These are exciting times of change and growth in the area of substance abuse programing for Florida's community supervision programs. Further expansion of services is now on the horizon through the enactment of the Community Corrections Partnership Act. This new challenge is certain to provide enhanced opportunities for the agency to continue its past success in "making a difference" through effective substance abuse programing.

DRUG ABUSE TREATMENT RESOURCE CENTER

The department also has implemented a Drug Abuse Treatment Resource Center, which is responsible for the accumulation, distribution, and publication of various materials regarding substance abuse for counseling staff and for inmate use. A monthly newsletter is used to exchange innovative information and to list new films, tapes, and publications. This creates a network for the best use of resources.

RESEARCH

Treatment programs are only as effective as the evaluation of those programs. Evaluation produces specific data without which any generalization, revision, or improvement effort is guesswork and the results are not always those intended. Evaluation is usually a process that is planned along with initial program stages and continues long after the program is implemented. An effective evaluation produces an ongoing report on the program's implementation, operation, and accomplishment of its objectives.

Given this premise, the Florida Department of Corrections' Substance Abuse Programs recognizes three components of the evaluation of its drug abuse treatment (Tier) programs: screening and assessment, process evaluation, and outcome evaluation. The significance of these components' interaction also is recognized. Therefore, in its evaluation plan, the department has made every effort to establish the proper professional settings for developing and implementing these three components.

Screening and Assessment

The program's main objectives are to identify substance abusers, to assess the severity of their problems, to measure their readiness for treatment, and finally, to recommend them to an appropriate treatment program. These objectives are accomplished through inmate testing and interviewing at the time they enter reception centers for classification.

The purpose of the screening is to identify substance abusers. Given the number of inmates entering reception centers (more than 40,000 annually) and the length of time they stay (usually 10 days) before being assigned to other institutions, this identification must be done quickly to have time for assessment. A Modified Addiction Severity Index (MASI) is used for this purpose. This four-item test is administered to groups of inmates and scored shortly after the session. Inmates scoring 3 to 8 on this test will automatically become candidates for assessment.

An indepth interview by a clinical social worker (CSW) is the major component of the assessment procedure. During this interview, two assessment instruments are used: the ASI and the Readiness for Treatment Scale. Other factors considered in the assessment process include documented history of substance use, referral or recommendation for treatment from other sources, type of offense, and inmate's request for treatment. Test results, combined with the CSW's overall knowledge of inmate status, determine the type of treatment recommended for the inmate.

Process Evaluation

Process evaluation usually is conducted to establish and maintain program integrity. It ensures that the program is implemented according to the intended criteria and is achieving its objectives. Process evaluation consists of an ongoing review of the program's operational procedures, which are adjusted according to evaluation outcomes. Procedures used in the process evaluation include site visits, group meetings, training programs and workshops, data collection and analysis, and program adjustments.

Outcome Evaluation

The department's evaluation plan includes measuring the following indicators: inmates' participation and their rate of completion of the treatment program; changes in inmates' psychology, specifically their attitudes toward drug abuse; inmates' rate of recidivism; and employment stability. An improvement in any one of these outcomes will be studied further for relationships to the treatment provided through Tier programs.

It is to be noted that alcohol and other drug abuse is not used as an outcome measure because the vast majority of inmates released from Florida prisons either have no postrelease constraints or minimal day constraints. Thus, any alcohol or other drug followup testing would require volunteers, and it is believed that this would invalidate any research results since only those least likely to relapse would voluntarily participate.

The following instruments are among those used in the outcome evaluation.

Knowledge Test (Tier I). Based on the content and objectives of Tier I, a general knowledge test has been developed. Using a pretest-posttest comparison, this test measures inmates' knowledge about drugs and their physiological and psychological effects. The results also can be compared against test scores from a control group selected from the same population

Psychological Measures (Tiers II-III). Inmates' knowledge gain, although encouraging, would not be sufficient to justify the resources allocated for an elaborate treatment program. Considering the therapeutic approach of the Tier programs and their anticipated effects on inmates' personalities, fundamental psychological changes are expected. These changes are examined using the Brief Symptoms Inventory (BSI), which is given to all incoming program participants and to all program graduates. The BSI is a 53-item test extracted from the SR-90 that was developed by Leonard R. Derogatis, Director of the Division of Medical Psychology, Johns Hopkins University. The BSI measures nine psychological indices: somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The results of the first round of BSI testing indicated significant improvement in these indices for inmates who participated in treatment programs (Darabi 1991 a).

Followup Measures (Tiers I-IV). To collect demographic inmate information, the Florida Department of Corrections' database is used for followup studies. Variables such as reincarceration are obtained and examined in light of the inmates' participation in and completion of the treatment programs. As a part of ongoing evaluation of the programs, the initial recommitment study for Tier programs was conducted in July 1991 (Darabi 1991 b). The results of this study showed a significant reduction in recommitment rates for inmates who have been through the Tier programs.

SUMMARY

The Florida Department of Corrections has worked diligently to plan and implement a system of comprehensive institutional and community-based programs. These programs strive to establish a functional, cost-effective continuum of care for incarcerated individuals while providing necessary linkages essential to transferring inmates back into society with the knowledge and social skills necessary to lead a drug-free life. It is believed that a viable working model has been developed that will offer inmate services and, ultimately, afford them the opportunity and appropriate linkages to continue treatment as needed after incarceration.

REFERENCES

- Darabi, G.A. *Psychological Impact of Tier Programs: An Outcome Evaluation.* Program Report. Florida Department of Corrections, Bureau of Planning, Research and Statistics. Tallahassee, FL, March 1991a.
- Darabi, G.A. *Tier Programs Outcome Evaluation: A Recommitment Study.* Program Report. Florida Department of Corrections, Bureau of Planning, Research and Statistics. Tallahassee, FL, July 1991b.

- De Leon, G., ed. *The Therapeutic Community: Study of Effectiveness*. National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)85-1286. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.
- Florida Department of Corrections. *Annual Report*. Tallahassee, FL, 1988.
- Florida Department of Corrections. *Probation and Parole Testing and Treatment Update*. Tallahassee, FL, 1990.
- Florida Department of Corrections, Bureau of Planning, Research and Statistics. Tallahassee, FL, 1991.
- Florida Department of Corrections, Substance Abuse Programs. *Inmate Assessment Annual Report*. Tallahassee, FL, 1989.
- Florida Department of Law Enforcement. *Crime in Florida: Uniform Crime Report. 7989 Annual Report*. Tallahassee, FL, January 1990.
- Hubbard, R.L.; Collins, J.J.; Rachal, J.V.; and Cavanaugh, E.R. The criminal justice client in drug abuse treatment. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 57-80.
- Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 96. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988.

AUTHORS

Wilson C. Bell, M.E.D.
Assistant Secretary for Programs

James G. Mitchell, B.S.
Director
Adult Services Programs Office

Jennifer Bevino, M.A.
Director
Substance Abuse Programs

Abbas Darabi, Ph.D.
Research Associate
Bureau of Planning, Research and Statistics

Richard Nimer, M.A.
Correctional Program Administrator
Probation and Parole Service

Florida Department of Corrections
2601 Blairstone Road
Tallahassee, FL 32399-2500

Comprehensive System Development in Corrections for Drug-Abusing Offenders: The Wisconsin Department of Corrections

Gerald L. Vidgal and Donald W. Stadler

INTRODUCTION

One of the salient facts of the late 1980s has been the reemergence of public awareness and concern over drug abuse and, in particular, its relationship to crime. After more than a decade of neglect and attempts to deal with crime by an ever-increasing rate of incarceration, a new consensus has developed that the resolution of the crime problem in society is intertwined with the solution to problems of drug abuse and addiction. The relationship between crime and drugs has been well researched (Ball et al. 1983; Chaikin and Chaikin 1982; Elliott and Huizinga 1984; Gandossy et al. 1980; Johnson et al. 1985, 1988; McGlothlin et al. 1978), leaving little doubt regarding the association. Research on arrestees with the Drug Use Forecasting system (Bureau of Justice Assistance 1989) and on incarcerated offenders (Bureau of Justice Statistics 1988) clearly points to drug use at much higher rates compared to those of the general public. It also has been documented that as an offender's drug use declines there is a concomitant reduction of criminal activity (Ball et al. 1987; Nurco et al. 1985, 1989; Shaffer et al. 1987).

The impact of drug-related crime and the resultant societal frustration have placed an overwhelming burden on the criminal justice system. Police, courts, prisons, and probation caseloads have become clogged as drug offenders are arrested, prosecuted, and sentenced to supervision or incarcerated in a correctional facility. A variety of technological coping strategies have been employed that earlier might have met with considerable resistance: widespread urine testing, electronic monitoring of offenders, and various furlough and early release programs. Along with the increase in correctional populations has come a renewed interest in treatment. Research from the Drug Abuse Reporting Program (Simpson and Sells 1982) and the Treatment Outcome Prospective Study (Hubbard et al. 1989) provides strong evidence that

treatment can be effective with drug abusers. Studies of particular programs or specific treatment modalities (De Leon 1984; McLellan et al. 1986) also have documented success with drug-abusing offenders.

Even with these areas of demonstrated success, there is agreement within the corrections profession that more needs to be done if the criminal justice system is to survive. It is clear, for example, even to the most casual observer that under current conditions offenders retain wide latitude to avoid treatment or use treatment as a bargaining chip to evade responsibility for criminal behavior. Due to these "cracks" in the system, there are substantial numbers of offenders whose exposure to treatment has been largely superficial and clearly insufficient to effect meaningful change. In addition to earlier identification, more effort is required to place and retain offenders in treatment if the benefits of treatment are to be realized (Bureau of Justice Assistance 1989).

To achieve these benefits a more systematic approach is required to meet the challenges posed by the drug-taking offender. The National Drug Control Strategies (Office of National Drug Control Policy 1989, 1990) have called for an approach that incorporates various elements of treatment, prevention, and supply and demand reduction. Critics have criticized the Federal plan primarily on the basis of overemphasis on enforcement, but the overall strategy appears sound. If an element is missing, it is the role that criminal justice, particularly corrections, can play in focusing the overall effort. Correctional agencies are in many ways ideally suited for developing a comprehensive approach that can enhance the effectiveness of courts, police, and treatment providers. This is particularly true of those correctional agencies that incorporate the functions of incarceration along with probation and parole supervision within a single administrative structure. The experience of the Wisconsin Department of Corrections (DOC) in adopting a system-wide approach indicates the potential of such systems.

THE WISCONSIN EXPERIENCE

Wisconsin's specialized substance abuse programing began in 1975 with the opening of a treatment unit for alcohol abusers. A 6-week, social skills-based program was designed to treat these offenders just before release. Emphasis was on alerting the parole agent to the offender's participation in the program and involving the agent in planning when possible. A final assessment memo summarizing progress and problems was delivered immediately upon completion of the program so that the agent could follow through. Followup research comparing program admissions to an untreated group of similarly selected offenders documented program effectiveness (Vigdal et al. 1980).

Early in this program's existence the positive response from parole agents led to the establishment of an Alternative to Revocation (ATR) component that remains today. The ATR component began when a parole officer proposed placing an offender, whose supervision was being revoked because of a series of alcohol-related violations, into the program. Recognizing that a successful revocation would mean that this offender would have to spend longer than a year in prison before receiving the needed social skills program, the agent requested and received permission to place the offender in the prison program and then return him directly to community supervision. Thus, considerable prison time/bed savings were realized, the program was completed, and the offender finished his community supervision. Recent data (D.W. Stadler, personal communication, March 1990) on ATR placements show that approximately 50 percent of offenders placed in ATR status complete the program and return to community supervision. Currently, in spite of severe overcrowding, 10 percent of treatment beds are reserved for ATR clients who are unable to secure appropriate community treatment, and one-half of a 40-bed minimum-security residential facility has been converted to an ATR center specifically for the provision of substance abuse treatment to those offenders facing revocation.

Success with the initial alcohol treatment program spurred development of two other special treatment programs, which were created for inmates whose drug of choice was primarily a drug other than alcohol. In 1981, for administrative purposes, all three programs were consolidated into a single treatment center. Today, the center is a 150-bed facility with 600 to 700 admissions annually; each treatment program maintains a separate identity while serving a different subpopulation of inmates. The original alcohol program was lengthened to 8 weeks but retained its focus on skills training and relapse prevention. A 9- to 12-month residential therapeutic community (TC) also was developed for drug addicts that coupled traditional confrontation techniques with Yochelson and Samenow's theories on criminal thinking and the "criminal personality" (Yochelson and Samenow 1975, 1977). The third drug program was added to target younger, nondependent drug abusers with a more cognitively oriented approach. Thus, a range of programming was offered that forced attention on assessment procedures to match the needs of offenders to the treatment programs. The desirability for assessment standardization quickly led to a major effort to develop a unified substance abuse screening instrument.

THE SCREENING BATTERY

An early success involved the discrimination of treatment program subpopulations on the easily administered self-report instruments of alcohol dependence symptoms (the Alcohol Dependence Scale [ADS])

and involvement with other drugs (the Offender Drug Use History [ODUH]). These instruments were dimensional-based and appeared to capture best the distinction between those in need of the alcohol program and those in need of the TC program. Differentiating the populations for the two drug programs proved more difficult and grew more acute when it became necessary to assess all needs at reception to the prison system. The solution was to expand the battery to include other offender characteristics that research had shown to be related to the treatment outcome of substance abusers (McLellan et al. 1983; Woody et al. 1985; Svanum and McAdoo 1989; Kosten et al. 1989). The resulting multifaceted assessment battery is a marriage of dimensional and categorical measurement approaches that utilizes both substance use and abuse and other client features to rapidly identify offenders with similar behavior and need profiles. Thus, clients can be assigned to the type of substance abuse programing that most effectively addresses their problems, which represents a commitment to the philosophy that treatment is more effective when program content/techniques are most closely matched to client characteristics (Glaser 1980).

The “matching” with this battery is achieved by assessing the offender on four major dimensions: alcohol dependence, other drug involvement, psychiatric impairment (Gawin and Kleber 1986; Khantzian and Treece 1985; Marsh et al. 1988; Mirin et al. 1988; Rounsaville et al. 1985; Weiss et al. 1988), and psychopathic tendencies (Gertsley et al. 1990; Woody et al. 1985). These dimensions are viewed as a continuum, but cutting points were identified through an iterative process of clinical experience, review of research on assessment and treatment effectiveness, and field testing.

The battery currently includes four instruments to measure these critical dimensions: the ADS, the ODUH, the Client Management Classification Interview (CMC), and the Megargee offender typology derived from the Minnesota Multiphasic Personality Inventory (MMPI).

Alcohol Dependence Scale

The ADS (Skinner and Horn 1984) is a 25-item, self-report instrument that assesses the severity of alcohol dependence (Edwards and Gross 1976) as defined in the World Health Organization’s International Classification of Diseases-Release Nine (World Health Organization 1977). Items for the ADS were culled from a longer parent instrument, the Alcohol Use Inventory (Horn et al. 1977), which the Wisconsin DOC used in the developmental phase of the battery. Research using the Alcohol Use Inventory (Berglund et al. 1988; Skinner 1981; Wanberg and Horn 1985, 1987) and experience with that instrument strongly support the ADS as the primary discriminator among clinical

- 3) You used marijuana (pot, grass).
- a) never.
 - b) a small number of times (1-3) and stopped.
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 4) You used amphetamines (speed, pep pills) *without a prescription*.
- a) never.
 - b) small number of times (1-3) and stopped.
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 5) You used cocaine (coke).
- a) never.
 - b) a small number of times (1-3) and stopped
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 6) You used barbiturates (downers, sleeping pills) *without a prescription*.
- a) never.
 - b) small number of times (1-3) and stopped.
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 7) You used narcotics (heroin, codeine, morphine, Dilaudid) *without a prescription*.
- a) never.
 - b) small number of times (1-3) and stopped.
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 8) You used CHD (freak-out).
- a) never.
 - b) small number of times (1-3) and stopped
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.

- 9) You used LSD (acid), peyote, mescaline, or mushrooms
- a) never.
 - b) small number of times (1-3) and stopped.
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.
- 10) You used PCP (angel dust).
- a) never.
 - b) small number of times (1-3) and stopped
 - c) no more than once a week.
 - d) more than once a week, but not daily.
 - e) daily.

Scoring Inmate Drug Use Scale

- 1) For items 3 (marijuana), 4 (amphetamines), 5 (cocaine), 6 (barbituates), and 7 (narcotics) assign values as follows:

Response	Value
a	= 0
b	= 1
c-e	= 2

- 2) Take the higher score from item 4 or 5 and sum it with the derived scores from items 3, 6, and 7.
- 3) Record the total score on the line to right of letter S on the upper right of page one.

NOTE: The raw score total should never be greater than eight.

Client Management Classification Interview

Assessing psychological impairment and psychopathic tendencies is accomplished with a CMC interview (Lerner et al. 1986) or the MMPI offender classification (Megargee and Bohn 1979), depending on resource availability. The CMC is a semistructured interview with forced choices that categorize an offender in one of five distinct areas requiring different methods of supervision and treatment.

Megargee Offender Typology

The MMPI is a 566-item, self-report inventory that measures major dimensions of psychopathology. Megargee's system assigns the offender to 1 of 10 groups through profile analysis of the 13 traditional MMPI scales. The almost parallel development of both systems reflects the historical separation of institutions from community corrections. The Megargee system was developed in an institutional setting (a Federal prison) to meet institutional needs, whereas the CMC originated as an instrument to guide probation and parole agents in the use of different supervision strategies. Although the intention is to move toward adoption of the CMC across DOC, this process is incomplete; therefore, both assessments remain in the battery. However, the two methods are viewed as sufficiently congruent for the purposes of the battery.

PROCEDURES

Procedurally, the need for substance abuse treatment is first determined through ADS and ODUH scores. Those not in need of treatment may receive educational approaches. Offenders needing treatment are further differentiated either by the CMC or the MMPI into a subpopulation requiring either long-term, intensive treatment or short-term treatment. Long-term treatment includes the CMC limit setter (LS) or the three MMPI subtypes (Foxtrot, Able, and Delta). These are seen as the functional equivalent of Yochelson and Samenow's "criminal personality" (1975, 1977). Prominent in the description of these types is the lack of prosocial values and criminal lifestyles (i.e., psychopathic tendencies). Typically, there is not only the absence of significant psychiatric impairment but also what might be regarded as normal anxieties or concerns. Treatment techniques for substance abusers without this clinical picture generally have proven to be ineffective. Those identified by the ADS/ODUH as needing substance abuse treatment can be assigned to a TC that provides both the structure and the necessary confrontation to their criminal value system. Finally, substance-abusing offenders who do not meet this profile are differentiated, based on the salience of their alcohol dependence, and assigned to separate programs, one primarily for alcohol-dependent offenders and another for abusers of other drugs.

The procedure described above is intended to create a strong presumption as to the best match between the offender's substance abuse problems and the program most likely to be beneficial. Special circumstances, however, may abrogate such an assumption (e.g., LS offenders do not have a grant of immunity to either psychiatric or organic problems, which makes placement in a TC questionable). As such, the process is a guide, not a replacement for informed, sensitive, clinical decisionmaking.

TREATMENT METHODS

After providing treatment to drug abusers, it became evident that drug use did not stop at the prison gate; rather, it was widespread and had to be curtailed. Reports of such activity had circulated, but a urine testing program begun on all intakes after the consolidation into a single treatment center proved particularly revealing. Inmates arriving at the center from institutions throughout the State were showing 25- to 30-percent positive rates. In 1984, a receptive administration agreed to do a blind random sample across the entire inmate population. Nearly 13 percent of all inmates were tested, with a system-wide positive rate of 26.9 percent. Institutions ranged from as low as 14 percent to as high as 43 percent. Once baseline data had been collected, a system-wide urinalysis program was implemented, and the rate of positive urines has been reduced to less than 4 percent (Vigdal and Stadler 1989).

Drug Education

In a further effort to reduce demand beyond treatment and urine testing, drug education courses have been offered at three major institutions over the past several years for those who are assessed as having either no or minimal substance abuse treatment needs. The DOC is revising and broadening the scope of these services. Drug education soon will be offered to every inmate at both reception and release. Drug education at reception will focus on self-assessment of how drugs have caused difficulties in the inmates' lives, what they can do about it while incarcerated, and the necessity for a drug-free prison environment. The drug education for all offenders being released will focus on relapse prevention, services offered in home communities, and the importance of relationships with parole agents.

Female Offenders

The treatment of drug-abusing female offenders has presented unique difficulties. Attempts to adopt the male-oriented programs described above proved both ineffective and problematic. Placements in a community-operated TC, after legislative changes made it possible, were met with dropouts and failures. Programing coeducationally with male inmates at the treatment center on a day basis was equally unsuccessful. In 1985, a program was initiated at the women's prison, which departed from prior treatment efforts by using a feminist model, based on empowerment and consciousness-raising and focused on women's issues. In 1988, a similar program was established under a Bureau of Justice Assistance grant (87-DD-CX-0008) at a minimum security facility for female offenders. This program is being evaluated as one of six model State programs.

Continuity of Care

A comprehensive system requires continuity of care with a majority of inmates involved in treatment just before release. However, the absence of meaningful community drug abuse treatment has been a tremendous liability. Generally, lacking funds to purchase services and encountering a treatment model to which they cannot relate, many offenders find themselves without treatment even when they are willing to accept it. The parole agent often has been the single link the offender has to the treatment system. However, access to continuing community care has been impeded by lack of training for prison personnel in supervising and treating drug-abusing offenders as well as by limited funding. In the past, agents could confer with treatment staff and the inmate to develop preparole plans or make contact by telephone; but without training and resources, these efforts often were "paper" exercises. With the recent availability of the "war on drugs" money, corrections in Wisconsin moved decisively to address both areas of weakness and enhance continuity of care.

Intensive Supervision Specialists

In April 1988, 10 Intensive Supervision Program (ISP) positions were authorized to supervise the most serious drug offenders. These specialists began operating in teams of two with a combined caseload of 40. Supervision standards were developed to hold probationers accountable for their drug use, either through a series of escalating sanctions or to ensure the delivery of treatment services. Contacts were made as often as necessary with the assurance of two contacts per week. Urinalysis was done twice per week to avoid continued use while on intensive supervision. Initial data indicate that even within this serious drug-using population, drug use is declining.

Year-end data for 1989 (Wisconsin Correctional Service, unpublished data, May 1990) in the Milwaukee metropolitan area showed that 25.3 percent of new probationers tested positive, whereas only 12.8 percent of ISP clients were positive. Since its inception, five additional ISP drug agents have been added.

Day Treatment

To develop programs that are compatible with institutional programs and specifically designed for offenders, the DOC opened its first full-time day treatment program in early 1988. Day treatment is a 90-day program, contracted to a nonprofit corporation with previous experience working with offenders. This program was modeled after institutional programs with a dual focus on drug use and criminal thinking. Monitored by local probation and parole staff who are immediately involved in its direction, this program has

become a catalyst for community action. The program recently provided training for the entire staff onsite at a minimum security prison on drug abuse and criminal thinking. That minimum facility now serves both as an aftercare facility for inmates who have completed the institution program but are not yet released and as a pretreatment facility for offenders who are to enter day treatment after release.

Since the establishment of the first day treatment program, 12 others have been created. Each program will operate with a similar model and eventually will coordinate activities with a minimum security facility in its area. One facility is devoted to female offenders. This model will create the final step in "closing the loop" with drug-abusing offenders. If an offender is using drugs in the area where this coordinated approach is in place, a referral can be made to a community-operated, corrections-based treatment program. If failure occurs or offenses continue and the client is incarcerated, continued institutional programming is assigned. If the inmate refuses treatment while incarcerated, treatment is mandated upon release after placement in the minimum security facility where treatment then begins. Other release options include 15 halfway houses, also under contract for offender treatment; the majority are directed at drug abusers. Currently, there are four facilities for females and two exclusively for Native Americans. To ensure communication and continuity across the system, joint meetings are held between ISP agents and institutional treatment staff and day treatment providers and institutional treatment staff.

As additional funding is secured, more components are being added to the system. A bill passed in a special session of the Wisconsin State Legislature in December 1989 not only funded the new day treatment programs described above but also funded, as of July 1, 1990, an expansion of the original women's program, a shock incarceration program for young offenders, a 50-bed preprogram in medium security for inmates entering the TC, and a 50-bed unit for low-functioning offenders. The same bill supported electronic monitoring for offenders in the community who repeatedly test positive for drugs and the initial implementation of the assessment process for all new probationers upon reception from the courts-the first step in making the assessment process uniform across the entire DOC.

FUTURE PLANS

Future plans include full implementation of the assessment process across DOC, the development of an aftercare specialist in each day treatment program to conduct support groups and assist in social service needs, evening/weekend treatment for offenders who relapse and are employed, and additional and enlarged programming to selected initiatives as appropriate based on needs.

As these elements are put in place, DOC's substance abuse treatment programing will continue to take on most of the four features identified by Giuliani and Schnoll (1985) as being characteristic of a comprehensive treatment system: (1) uniform assessment (centralized for institutions), (2) focus on relevant patient characteristics beyond substance severity, (3) treatment modalities that are applied differentially, and (4) different levels of care or intensity of treatment. Up to now, most of the progress has been made on the first three features; more emphasis is needed to address treatment intensity. Greater sophistication will develop in addressing other areas related to treatment outcome (Fowles 1988; Meek et al. 1989; Skinner et al. 1984). In so doing, DOC will be more effective in addressing the needs of offenders and thereby better contributing to the solution of these problems of crime and drug abuse.

NOTE

1. Copies may be obtained from the Addiction Research Foundation, Marketing Services, Department 417, 33 Russell Street, Toronto, Ontario M5S 2S1 CANADA.

REFERENCES

- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (Third Edition)*. Washington, DC: American Psychiatric Association, 1980.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders: Third Edition-Revised*. Washington, DC: American Psychiatric Association, 1987.
- Ball, J.; Carty, E.; Bond, H.; Myers, C.; and Tomasello, A. The reduction of intravenous heroin use, non-opiate abuse and crime during methadone maintenance treatment: Further findings. In: Harris, L.S., ed. *Problems of Drug Dependence, 1987: Proceedings of the 49th Annual Scientific Meeting, The Committee on Problems of Drug Dependence, Inc.* National Institute on Drug Abuse Research Monograph 81. DHHS Pub. No. (ADM)88-1564. Washington, DC: Supt. of Docs., US. Govt. Print. Off., 1987. pp. 224-230.
- Ball, J.C.; Shaffer, J.W.; and Nurco, D.N. The day-to-day criminality of heroin addicts in Baltimore: A study in the continuity of offense rates. *Drug Alcohol Depend* 12:119-142, 1983.
- Berglund, M.; Bergman, M.; and Swenelius, T. The Swedish Alcohol Use Inventory (AUI): A self-report inventory for differentiated diagnosis in alcoholism. *Alcohol Alcoholism* 23(2):193-198, 1988.

- Bureau of Justice Assistance, U.S. Department of Justice. Report II *Implications of Drug Use Forecasting Data for TASC Programs*. Washington, DC: National Consortium of TASC Programs, 1989.
- Bureau of Justice Statistics, US. Department of Justice. *Report to the Nation on Crime and Justice*. 2d ed. NCJ-105506. Washington, DC: U.S. Department of Justice, 1988.
- Chaikin, J.M., and Chaikin, M.R. *Varieties of Criminal Behavior*. Santa Monica, CA: Rand, 1982.
- De Leon, G. *The Therapeutic Community: Study of Effectiveness*. National Institute on Drug Abuse Treatment Research Monograph Series. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.
- Donovan, J.E., and Jessor, R. Problem drinking and the dimension of involvement with drugs: A Guttman scalogram analysis of adolescent drug use. *Am J Public Health* 73(5):543-552, 1983.
- Edwards, E., and Gross, M. Alcohol dependence: Provisional description of a clinical syndrome. *Br Med J* 1:1058-1061, 1976.
- Elliott, D.S., and Huizinga, D. The relationship between delinquent behavior and ADM problems. In: *The National Youth Survey Project #28*. Boulder, CO: Behavioral Research Institute, 1984.
- Fowles, G.P. Neuropsychologically impaired offenders: Considerations for assessment and treatment. *Psychiatr Ann* 18(12):692-697, 1988.
- Gandossy, R.P.; Williams, J.R.; Cohen, J.; and Hat-wood, H.J. *Drugs and Crime: A Survey and Analysis of the Literature*. Washington, DC: U.S. Department of Justice, 1980.
- Gawin, F.H., and Kleber, H.D. Abstinence symptomatology and psychiatric diagnosis in cocaine abusers. *Arch Gen Psychiatry* 43:107-113, 1986.
- Gertsley, L.J.; Alterman, A.I.; McLellan, A.T.; and Woody, G.E. Antisocial personality disorder in patients with substance abuse disorders: A problematic diagnosis? *Am J Psychiatry* 147(2):173-178, 1990.
- Giuliani, D., and Schnoll, S.H. Clinical decision making in chemical dependence treatment: A programmatic model. *J Subst Abuse Treat* 2:203-208, 1985.
- Glaser, F.B. Anybody got a match? Treatment research and the matching hypothesis. In: Gottheil, E.; McLellan, A.T.; and Druley, K.A., eds. *Matching Patient Needs and Treatment Methods in Alcoholism and Drug Abuse*. Springfield, IL: Charles C Thomas, 1980. pp. 178-196.
- Horn, J.L.; Wanberg, K.W.; and Foster, F.M. A differential assessment model for alcoholism: The scales of the alcohol use inventory. *J Stud Alcohol* 38(3):512-543, 1977.
- Hubbard, R.L.; Marsden, M.E.; Rachel, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzberg, H.M. *Drug Abuse Treatment: National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989.

- Johnson, B.; Anderson, K.; and Wish, E.D. Day in the life of 105 drug addicts and abusers: Crimes committed and how the money was spent. *Social Soc Res* 72(3):185-191, 1988.
- Johnson, B.D.; Goldstein, P.J.; Preble, E.; Schmeidler, J.; Lipton, D.S.; Spunt, B.; and Miller, T. *Taking Care of Business: The Economics of Crime by Heroin Abusers*. Lexington, MA: Lexington Books, 1985.
- Kessler, R.C.; Paton, S.M.; and Kandel, D. Reconciling unidimensional and multidimensional models of patterns of drug use. *J Stud Alcohol* 37(5):632-647, 1976.
- Khanzian, E.J., and Treece, C. DSM III psychiatric diagnosis of narcotic addicts: Recent findings. *Arch Gen Psychiatry* 42:1067-1071, 1985.
- Kosten, T.A.; Kosten, T.R.; and Rounsaville, B.J. Personality disorders in opiate addicts show diagnostic specificity. *J Subst Abuse Treat* 6:163-168, 1989.
- Lerner, K.; Arling, G.; and Baird, C. Client management classification strategies for case supervision. *Crime Delinquency* 32(3):254-271, 1986.
- Lettieri, D.J.; Nelson, J.E.; and Sayers, M.A., eds. *Alcoholism Treatment Assessment Research Instruments*. National Institute on Alcohol Abuse and Alcoholism (NIAAA) Treatment Handbook, Series 2. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, 1985. pp. 91-95.
- Marsh, D.T.; Stile, S.A.; Stoughton, N.L.; and Trout-Landen, B.L. Psychopathology of opiate addiction: Comparative data from the MMPI and MCMI. *Am J Drug Alcohol Abuse* 14(1):17-27, 1988.
- McGlothlin, W.H.; Anglin, M.D.; and Wilson, B.D. Narcotic addiction and crime. *Criminology* 16:293-316, 1978.
- McLellan, A.T.; Luborsky, L.; O'Brien, C.P.; Barr, H.L.; and Evans, F. Alcohol and drug abuse treatment in three different populations: Is there improvement and is it predictable? *Am J Drug Alcohol Abuse* 12(1,2):101-120, 1986.
- McLellan, A.T.; Woody, G.E.; Luborsky, L.; O'Brien, C.P.; and Druley, K.A. Increased effectiveness of substance abuse treatment: A prospective study of patient-treatment "matching." *J Nerv Ment Dis* 171(10):597-605, 1983.
- Meek, P.S.; Clark, H.W.; and Solana, V.L. Neurocognitive impairment: The unrecognized component of dual diagnosis in substance abuse treatment. *J Psychoactive Drugs* 21(2):153-160, 1989.
- Megargee, E.I., and Bohn, M.J., Jr. *Classifying Criminal Offenders: A New System Based on the MMPI*. Beverly Hills, CA: Sage, 1979.
- Mirin, S.M.; Weiss, R.D.; and Michael, J. Psychopathology in substance abusers: Diagnosis and treatment. *Am J Drug Alcohol Abuse* 14(2):139-157, 1988.
- Nurco, D.N.; Ball, J.C.; Shaffer, J.W.; and Hanlon, T.E. The criminality of narcotic addicts. *J Nerv Ment Dis* 173(2):94-102, 1985.

- Nurco, D.N.; Hanlon, T.E.; Kinlock, T.W.; and Duszynski, K.R. The consistency of types of criminal behavior over preaddiction, addiction, and nonaddiction status periods. *Compr Psychiatry* 30(5):391-402, 1989.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report no. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1989.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report no. S/N 040-000-00543-9. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1990.
- Rounsaville, B.J.; Kosten, T.R.; Weissman, M.M.; and Kleber, H.D. *Evaluating and Treating Depressive Disorders in Opiate Addicts*. National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)85-1406. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1985.
- Shaffer, J.W.; Nurco, D.N.; Kinlock, T.W.; Duszynski, T.R.; and Langrud, J. The relationship of pre-addiction characteristics to the types and amounts of crimes committed by narcotic addicts. *Int J Addict* 22(2):153-165, 1987.
- Simpson, D.D., and Sells, S.B. *Evaluation of Drug Abuse Treatment Effectiveness: Summary of the DARP Follow-Up Research*. National Institute on Drug Abuse Treatment Research Report. DHHS Pub. No. (ADM)82-1194. Washington, DC: Supt. of Docs, U.S. Govt. Print. Off., 1982.
- Skinner, H.A. Comparison of clients assigned to inpatient and outpatient treatment for alcoholism and drug addiction. *Br J Psychiatry* 138:312-380, 1981.
- Skinner, H.A.; Holt, S.; Schuller, R.; Roy, J.; and Israel, Y. Identification of alcohol abuse using laboratory tests and a history of trauma. *Ann Intern Med* 101:847-851, 1984.
- Skinner, H.A., and Horn, J.H. *Alcohol Dependence Scale User's Guide*. Toronto: Addiction Research Foundation, 1984.
- Svanum, S., and McAdoo, W.G. Predicting rapid relapse following treatment for chemical dependence: A matched subjects design. *J Consult Clin Psychol* 57(2):222-226, 1989.
- Vigdal, G.L., and Stadler, D.W. Controlling inmate drug use: Cut consumption by reducing demand. *Corrections Today* 51(3):96-97, 1989.
- Vigdal, G.L.; Stadler, D.W.; Goodrick, D.D.; and Sutton, D.J. Skills training in a program for problem-drinking offenders: A one-year follow-up evaluation. *J Offender Counsel Serv Rehab* 5(2):61-73, 1980.
- Wanberg, K.W., and Horn, J.L. *The Alcohol Use Inventory (AUI): A Guide to the Use of the Paper and Pencil Version*. Hunt Valley, MD: Fastest Systems, 1985.

Wanberg, K.W., and Horn, J.L. Assessment of multiple conditions in persons with alcohol problems. in: Cox, M., ed. *Treatment and Prevention of Alcohol Problems: A Resource Manual*. New York: Academy Press, 1987.

Weiss, R.D.; Mirin, S.M.; Griffin, M.L.; and Michael, J.L. Psychopathology in cocaine abusers: Changing trends. *J Nerv Ment Dis* 176(12):719-725, 1988

Woody, G.E.; McLellan, A.T.; Luborsky, L.; and O'Brien, C.P. Sociopathy and psychotherapy outcome. *Arch Gen Psychiatry* 42:1081-1086, 1985.

World Health Organization. *International Classification of Diseases*. 9th ed. Geneva: World Health Organization, 1977.

Yochelson, S., and Samenow, S.E. *The Criminal Personality: A Profile for Change*. Vol. 1. New York: Aronson, 1975.

Yochelson, S., and Samenow, S.E. *The Criminal Personality: The Change Process*. Vol. 2. New York: Aronson. 1977.

AUTHORS

Gerald L. Vigdal, B.C.D
Director

Donald W. Stadler, B.A.
Psychological Services Associate

Office of Drug Programs
Wisconsin Department of Corrections
One West Wilson Street
Madison, WI 53707

Oregon Prison Drug Treatment Programs

Gary Field

INTRODUCTION

Oregon has more than a decade of experience providing innovative drug treatment services to inmates. In 1975 the Oregon Legislature authorized an increase in beer and wine taxes and dedicated part of those tax receipts to create what became known as the Cornerstone program. Located on the grounds of Oregon State Hospital, Cornerstone is a 32-bed therapeutic community (TC) program for alcohol- and drug-abusing inmates. In 1977, the Corrections Department began funding what has become known as the Correctional Institution Treatment Services (CITS). The CITS program consists of contracts with community treatment professionals and agencies to come into the institutions to provide alcohol, other drug, and mental health services to inmates on a part-time basis.

The Oregon Legislature provided funding for three additional residential treatment programs for inmates that began in 1979. These programs also operate as TC models and are located on the grounds of the State hospital: the Sex Offender program, the Mentally or Emotionally Disabled program, and the Social Skills program (for mentally or socially retarded inmates). Each of these programs includes specific drug treatment components. To facilitate coordination among the mental health, alcohol, and drug agencies and the corrections agencies, the legislature created the Mental Health in Corrections Policy Board to oversee the programs, all of which were combined to form the Correctional Treatment Programs in 1979.

In 1988 Oregon received a grant from the Bureau of Justice Assistance (BJA) to develop a comprehensive plan to improve and develop drug services for inmates. The creation of this comprehensive plan has been accompanied by recent rapid growth in Oregon prison drug treatment programs.

CURRENT PROGRAMS

Cornerstone

Cornerstone is the most intensive substance abuse treatment program available for Oregon inmates. Most Cornerstone residents have long criminal histories. The primary objective of Cornerstone is to intervene with chronic addicts with long criminal histories to significantly reduce their rate of crime. Cornerstone serves about 80 people per year.

Correctional Residential Treatment (CORT) Programs

The 50-bed Powder River Alcohol and Drug Program began accepting inmates in February 1990. Based roughly on the Cornerstone model, this program serves younger inmates with less recidivistic criminal histories. A second program with 100 beds, half of which will be for female inmates, opened at the Columbia River Correctional Center in Portland in November 1990. The primary objective of CORT is to reduce the rate of criminal recidivism among addicted offenders. These programs began serving about 450 inmates per year in 1991.

CITS Counseling

The CITS program consists of part-time contracts with community treatment professionals and agencies to provide once-per-week group counseling. Culture-specific services are offered to black, Hispanic, and Native American inmates. The primary objective of CITS counseling is to help inmates begin to develop a sense of responsibility for their behavior by accepting and learning to manage their addiction. CITS counseling currently has 222 slots and serves about 444 people per year.

CITS Cooperative Agreements: State Alcohol and Drug Slots

Agencies in Marion and Multnomah Counties (Salem and Portland) are using a few State-funded community drug treatment slots to begin seeing individuals in prison settings who will be returning shortly to those communities. These services are much like CITS counseling services except they add the element of continuity once the offender leaves prison. The primary objective is to begin counseling services before the offender paroles and to continue services during parole to reduce relapse and recidivism. Cooperative agreement programs have 20 slots, serving 60 offenders per year.

CITS Cooperative Agreements: Corrections Release Subsidy

The Department of Corrections is piloting a program of CITS cooperative agreements with release subsidy funds for individuals who are a poor risk to make use of subsidy money for housing and food (e.g., people who are likely to sublet their housing to purchase drugs). The operation and the primary objective of this program are the same as those outlined in the previous section. This program has 55 slots and is serving about 165 offenders per year.

Parole Transition Demonstration Project (Washington County)

The Parole Transition Demonstration Project (PTDP) builds on the cooperative agreement concept. Federal grant funds are being used on a pilot basis to answer the following question: "What is the effectiveness of providing a tightly coordinated, thorough transition service for addicted inmates?" The hypothesis is that this service will reduce criminal recidivism by maintaining these people in community alcohol and drug programs. This program has 60 slots and serves about 100 people per year.

Alcoholics Anonymous (AA)/Narcotics Anonymous (NA)

The fellowships of AA and NA are perhaps the most effective self-help organizations in the world. Many addicts and alcoholics have begun or continued their recovery because of what they received at the fellowships. About 350 inmates per week attend institution AA or NA group meetings.

Alcohol and Drug Education Classes

These classes are offered in the institutions through Chemeketa Community College in Salem and Blue Mountain Community College in Pendleton. The classes typically meet once per week for 3 months. The primary objectives are to educate alcoholics and other addicts about their disorder and to provide a secondary prevention service for substance abusers. There are currently 185 education slots serving 740 people per year.

Information Centers

Located in all institutions, these centers provide books, brochures, films, and a self-exploration manual. The primary objective is to be a broad-based, frontline intervention to steer substance-abusing and addicted inmates toward the ladder of recovery services identified above.

The Cornerstone and the CORT programs actively recruit recovering addicts and offenders as program staff to serve as positive role models. All staff members must have a specified number of years of drug- and crime-free community living to be considered for employment. College degrees are not required for entry-level employment at these programs, but as a matter of practice, all new hires have prior relevant experience to prepare them for this difficult work. CITS program staff are independent contractors who are selected on the basis of their training and experience in delivering outpatient drug treatment services to offenders.

A 9- to 10-percent sample of all Oregon inmates are subject to random urinalysis testing monthly. Each inmate in the intensive programs receives urinalysis testing once to twice per week on a random basis. A positive urinalysis by one of these program participants results in immediate removal from the program. However, the individual may reapply after 2 weeks, and he or she usually is allowed to return to the program shortly after completing a writing assignment. This immediate sanction has led to a positive test rate of a small fraction of 1 percent from the addicted offenders in treatment. All positive tests are confirmed by a separate urinalysis technology.

The Oregon Department of Corrections is attempting to organize these services into a balanced service system wherein a coordinated range of services is available, varying in intensity, to match the service needs of the population.

CORNERSTONE: PROGRAM DESCRIPTION

Program Population

Prospective clients are referred to Cornerstone by prison counselors. Admission criteria require that each candidate has an extensive history of alcohol or other drug abuse, is willing to make a commitment for at least 6 months of community followup treatment after release from the residential part of the program, has not less than 6 nor more than 18 months before parole date, and is granted minimum security status by the prison institution superintendent. The program also tends to deny admission to candidates who have a history of psychosis or sex offenses because the State provides other specialized programs for these populations. Most referrals who meet the basic criteria are admitted to the program. Referrals to Cornerstone usually have histories of chronic substance abuse and chronic criminal behavior. Table 1 highlights some of the critical demographic characteristics of the Cornerstone treatment population in 1984. The mean number of adult felony convictions, the mean total time incarcerated as an adult, and the age of first substance abuse document the extreme chronicity of this group of inmates.

TABLE 1. *Characteristics of the Cornerstone treatment population given in group means*

Characteristic	Group Mean
Age	31.0
Age at time of first arrest	13.6
Number of adult arrests	13.7
Number of adult felony convictions	6.9
Total time incarcerated as an adult	7 years, 7 months
Age at time of first substance abuse	12.5

Treatment Program

Cornerstone is a modified TC with a varied schedule of groups and classes. Residents at Cornerstone give and receive strong and honest feedback to assist with self-examination of destructive, irresponsible behavior and lifestyles. They are regularly tested for alcohol and other drug use. Threats or acts of violence, use or possession of drugs or alcohol, or sexual behavior result in an inmate's immediate return to prison. Demonstrated lack of responsibility or personal commitment leads to consequences-determined by the treatment community (staff and residents)-that are designed to aid the treatment process.

Treatment at Cornerstone occurs in four phases, with roughly half the time spent in the two inpatient phases and half in the two transition phases. Treatment addresses the three interlocking issues of addiction, criminality, and institutionalization (Warren, unpublished manuscript).

Orientation Phase. In the orientation phase, lasting approximately 30 days, residents have a highly structured schedule of classes and activities. The classes are designed to teach the skills and concepts needed to most effectively use their time in treatment and to relax the rigid defenses that were necessary for survival in prison. Classes include assertiveness training, self-talk, group membership skills, values clarification, and wellness. Residents begin AA/NA 12-step work and attend onunit self-help group meetings during the orientation phase.

Intensive Phase. During the next 4 to 8 months, the resident enters the intensive inpatient phase of treatment. With an increase in privileges comes an increase in accountability. Residents begin to see how their criminality and

their substance abuse are mutually interdependent. There are classes in criminal thinking and criminal cycles or patterns. Cognitive and behavioral interventions are designed and practiced.

Residents learn the value of a commitment to honesty, responsibility, and self-discipline within a caring and supportive environment in which a peer is as likely to insist on accountability as an authority figure. An elected resident council is responsible for the day-to-day business of the community, including identifying and addressing “problem” issues, attitudes, or resident behaviors. This responsibility allows residents to try on new roles and breaks down the traditional “we-they” attitude that supports a criminal value system. Clients in this phase focus on all personality characteristics, skill deficits, relationships, or attitudes that present a barrier to recovery. They participate in groups and classes using writing assignments, reading, role-play, video, art, music, or any other available medium to break down defenses and consolidate learning.

Residents write their own treatment contracts (plans), with the assistance of their primary counselor and approval by the treatment team. During this phase, 8- to 12-week classes include Anger Management, Human Sexuality, Parenting, Living Skills, and Relapse Prevention.

Roughly halfway through the intensive inpatient phase, residents begin attending two weekly community 12-step meetings. They are encouraged to find and use a sponsor and to attend recreational activities with other recovering people. Once the recovery support system is in place, residents may take passes with family members who have been attending family group or with each other. Thus begins the process of transition to community living and the application of skills learned in treatment to the outside community.

Transition Phase. After some initial personal preparation time in transition, residents complete 40 to 80 hours of community volunteer work. They then seek and begin community employment while continuing groups and classes at Cornerstone and regular community 12-step participation. The Cornerstone groups during this time focus on stress management, relationship building, adult children of alcoholics issues, and recovery planning. Substantial effort is put into counseling and support around the many real-life issues that arise during transition. The Cornerstone work-skills trainer assists with employment issues, including job searches and job adjustment. The transition staff personnel, who also work with family members throughout the treatment phase, assist them in this phase with family adjustment issues.

As parole nears and the resident achieves treatment and support system stability, the resident seeks an apartment, and his or her pass time is gradually

increased. Since new recovery-focused habit patterns still have a primarily institutional context at this point, this is the most difficult and most important time in treatment. As residents encounter real-life problems and practice productive coping skills, many need at least one period of reimmersion in the program before being paroled. This helps the resident to refocus on relapse signs, redesign interventions, and start again with an improved base of experience.

Aftercare Phase. The fourth phase of treatment at Cornerstone is aftercare. For those being paroled to a distant community, aftercare is arranged with a local treatment provider. Transition staff members assist the resident by meeting with the local provider, parole officer, family members, and the new AA/NA sponsor to establish an effective *recovery* plan. If paroling locally, the client continues weekly group and one-to-one counseling, spends time on the Cornerstone unit giving and receiving peer support, and meets regularly with other Cornerstone graduates. Residents become provisional members of the Cornerstone Alumni Association when they begin their transition and become full members upon completing parole.

Research Results-Cornerstone Program¹

In an earlier study (Field 1985) Cornerstone clients showed, as a function of the treatment program, enhanced self-esteem, reduced psychiatric symptomology, increased knowledge in critical treatment areas, reduced criminal activity, and reduced criminal recidivism. In a 1989 study (Field 1989), the Law Enforcement Data System (LEDS) was used to take a closer look at the effect of the program on criminal activity. LEDS is a computerized telecommunications and information system for Oregon law enforcement agencies that lists criminal activity for Oregon and accesses the Federal criminal justice data system.

The 220 unduplicated program discharges from January 1, 1983, through December 31, 1985, were sorted into four experimental groups: program graduates (Graduates) (n=43); nongraduates (NG) who spent more than 6 months in the program (NG>6 months) (n=43); nongraduates who spent more than 2 but less than 6 months in the program (NG 2-6 months) (n=58); and nongraduates who spent between 1 day and 2 months in the program (NG 0-2 months) (n=65). Six members of the potential NG 2-6 month group had to be eliminated from the study because four were deceased and two had failed to be released from prison since leaving the program. Five potential NG 0-2 month group members had to be eliminated because they were in the program so short a time (less than 1 day) that adequate identifying information had not been collected by program staff. The remaining 209 subjects were distributed throughout the four experimental groups as noted above.

The dependent variables in this study were arrests, convictions, and prison incarcerations. Arrests were tabulated as ‘arrest events’ as reported in LEDS. These “arrest events” may have included multiple arrest “counts” at the time of arrest. Similarly, convictions were tabulated on the basis of each “arrest event” and did not consider convictions on multiple “counts.” Therefore, only one tabulated conviction was possible for each “arrest event.” Arrests and convictions included all recorded arrests and convictions-misdemeanors as well as felonies. County jail time spent (as opposed to suspended sentences) that exceeded 6 months (more than 179 days) on one conviction was counted as equivalent to a State prison incarceration. County jail time of less than 6 months duration along with fines and probation was considered as a conviction without prison incarceration.

In the first part of the study, absences of any arrests, convictions, and prison time for 3 years after the beginning of parole were compared across all four experimental groups.

in the second part of the study, rates of arrest, conviction, and prison incarceration were compared across the groups for a “3-year” interval after parole and for two “3-year” intervals before incarceration for the offense that led them to the Cornerstone program. The 3-year intervals are “36-month at-risk intervals” because each of these periods included a complete 36 months without incarceration time. So if, for example, after 12 months into an interval, an individual was incarcerated for 4 months, the interval would be extended for 4 months (from 36 to 40). This method creates a full 36-month at-risk time interval of study and is a more accurate measure of frequency of criminal activity.

Results and Discussion

Table 2 presents absence of arrests, convictions, and prison incarcerations for 3 years after parole for Cornerstone graduates (average stay of 11 months), nongraduates who stayed in the program for more than 6 months (180 days), nongraduates who stayed 2 to 6 months (60 to 179 days), and nongraduates who stayed less than 60 days.

The order of success as measured by no arrests, convictions, or prison incarcerations in table 2 consistently favors time in treatment. Program graduates consistently do much better than nongraduate groups, even though many graduates continue to have some contact with the criminal justice system. The two “partial treatment” groups (2-to 6-month and more than 6-month groups) show results that are similar to one another but, again, consistently favor time in treatment. The less-than-60-day group comes close

TABLE 2. *Rates of avoiding any arrest, conviction, or prison time for 3 years after parole for Corners tone participants from 1983 through 1985 (percent)*

	No Arrests	No Convictions	No Prison Time
Graduates (n=43)	37	51	74
Nongraduates who completed at least 6 months (NG>6 mo.) (n=43)	21	28	37
Nongraduates who completed 2 through 5 months (NG 2-6 mo.) (n=58)	12	24	33
Nongraduates who left before 60 days (NG 0-2 mo.) (n=65)	8	11	15

to being a no-treatment comparison group. The poor results shown by this group without significant treatment are noteworthy

The consistent ordering of success rates and the constancy of relative success among the groups across arrest, conviction, and prison incarceration data suggest that any of these three dependent variables is an equally usable outcome measure.

Because simple presence of absence of arrests, convictions, or prison incarcerations over a lengthy period hides much of the criminal activity that is occurring, it was decided to measure rates of each of these outcome variables. By comparing posttreatment rates with pretreatment rates, it was hoped that a clearer picture of the effects of intensive treatment would be gained.

Figure 1 presents arrest rates for the four experimental groups over pretreatment and posttreatment 3-year at-risk intervals. Figures 2 and 3 present the same data for convictions and prison incarcerations. The data presented in all three figures are remarkably similar. In each case the four experimental groups are virtually identical at the pretreatment intervals.

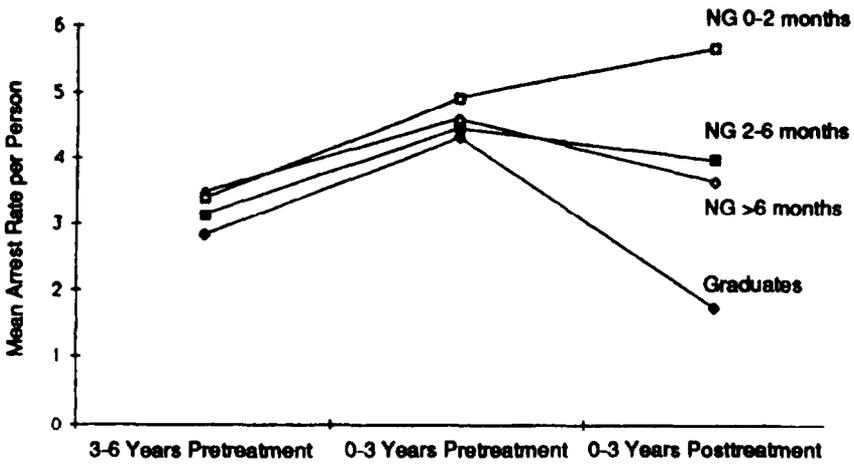


FIGURE 1. Group mean arrest rates overpretreatment and posttreatment 3-year at-risk intervals (NG=nongraduates)

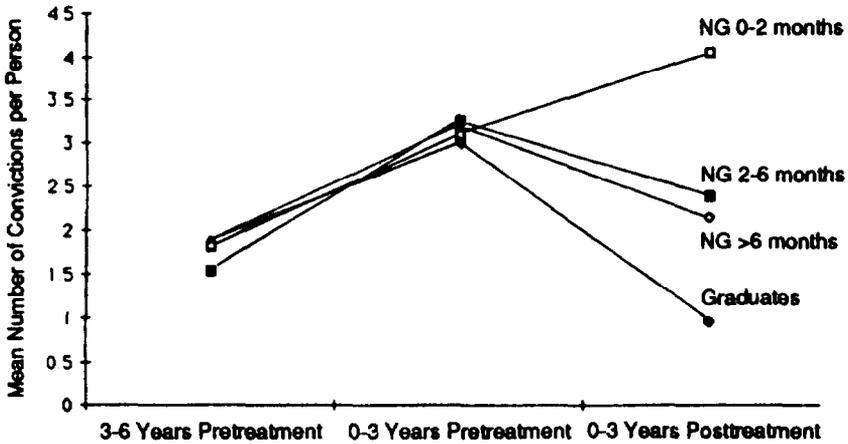


FIGURE 2. Group mean conviction rates over pretreatment and posttreatment 3-year at-risk intervals (NG=nongraduates)

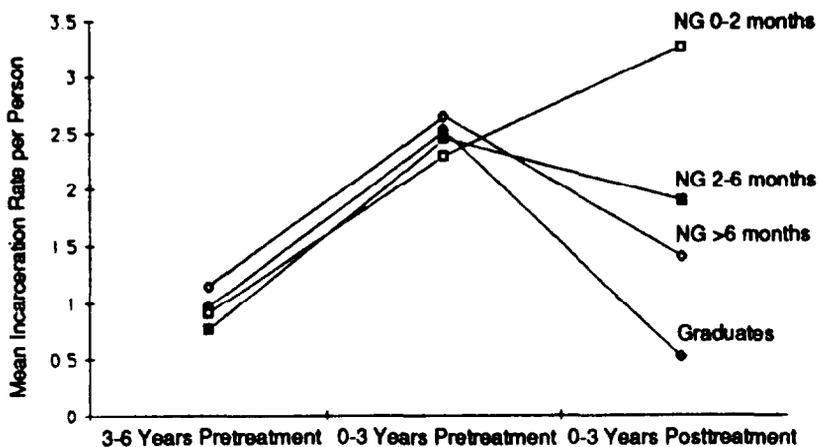


FIGURE 3. *Group mean incarceration rates over pretreatment and posttreatment 3-year at-risk intervals (NG=nongraduates)*

In each case, all four groups show accelerating criminal activity across the pretreatment intervals. Also in each case, the relatively untreated group (NG 0-2 month) shows a continuation of accelerating criminal activity following their brief exposure to intensive treatment. Finally, in each case, the treated groups show a decrease in criminal activity that correlates positively with time in treatment. As in the first part of the study, program graduates do significantly better than nongraduates.

These results present a more thorough and graphic display of the effects of intensive treatment on reducing criminal recidivism among addicted offenders than is possible from the data in table 2.

This study has two limitations. First, subject motivation for change is not controlled for across the experimental groups. Some of the positive effects may have occurred because those inmates who stayed in treatment were more motivated rather than the results being due to specific treatment effects. There are two counterbalances to this study limitation: (1) Subject motivation at some point is always a part of successful treatment and (2) no motivational differences between the groups are apparent in the pretreatment data in figures 1, 2, or 3.

Second, the complexity and requirements of measuring pretreatment and posttreatment arrest, conviction, and prison incarceration rates necessitated that significant numbers of subjects in some of the groups be dropped from

part of the study. The question is, What biasing factor occurred by dropping those subjects from the second part of the study? That question cannot be answered with any certainty at this time. However, the subjects who were dropped from the nongraduate groups were dropped largely because they had recidivated at such a rate that they had not yet achieved 12 full months of community time in the 3 to 5 years since their parole. These individuals, therefore, probably represent the “worst cases” in the nongraduate groups and would likely push the arrest, conviction, and incarceration rates at posttreatment even further apart, creating even more separation between the experimental groups.

CONCLUSIONS

The following conclusions are drawn from the results of this study:

1. The Cornerstone program continues to demonstrate a positive effect on decreasing the criminal activity of program participants.
2. Addicted offenders who receive little or no treatment show an accelerating pattern of criminal activity over time.
3. Time in treatment in an intensive treatment program for addicted offenders correlates positively with measured decreases in criminal activity.
4. Many successfully treated addicted recidivist offenders continue to show at least some involvement with the criminal justice system after treatment, even though their involvement is reduced.
5. Arrests, convictions, or prison incarcerations all seem to be approximately equally accurate measures of criminal activity.

COMMUNITY REENTRY EFFORTS

Community reentry is a critical component of all of Oregon’s prison-based programs. Cornerstone has an active aftercare phase that continues at least 6 months into the individual’s parole. The new CORT programs have funds to purchase service in their clients’ home community as part of each aftercare plan. The State-local cooperative agreement programs involve close and contractual working agreements between the institution release center and the local drug treatment providers.

However, the vanguard of community reentry programming for drug-involved offenders in Oregon is the PTDP in Washington County (suburban west

Portland). This project is funded with BJA grant funds. The essential ingredients of the program are as follows:

1. *Service providers “reach in” to the institution.* Drug treatment services begin while the individual is still incarcerated, usually several months before parole. Washington County inmates have their own group run by county drug treatment providers.
2. *Joint institution-community release planning.* Release center staff develop the inmates' release plan cooperatively with the inmate and the project coordinator. Inmates are included in the planning process, and they sign an agreement of program participation that includes a listing of graduated program incentives and sanctions.
3. *Intensive supervision.* Once the drug-involved offender paroled, he or she is placed on an intensive supervision caseload.
4. *Continuity of treatment.* Group treatment continues into the community, usually with the same group leader and with many of the same members of the individual's institution group. Peer support for abstinence and recovery is an important theme of these groups.
5. *Careful management of incentives and sanctions.* Throughout the process, offenders are provided with incentives for program participation and sanctions for noncompliance or relapse. In the release center, participating inmates are given desirable housing (as a group), may earn extra pass time, are provided with special job skills counseling, and are given special consideration for release subsidy funding. They are monitored more closely, including urinalysis, and lose privileges according to a graduated schedule. In the community, program participants also are monitored more closely, experience graduated sanctions, and have the incentives of housing, employment, and other specialized services.

NOTE

1. The studies described in this section have been completed on the Cornerstone program. Similar studies are under way for the new programs described in the preceding Current Programs section.

REFERENCES

Field, G. The Cornerstone program: A client outcome study. *Fed Prob* 49:50-55, 1985.

Field, G. The effects of intensive treatment on reducing the criminal recidivism of addicted offenders. *Fed Prob* 63:51-56, 1989.

Warren, G. "Cornerstone Drug and Alcohol Treatment Program. Oregon Correctional Treatment Programs." Unpublished manuscript, 1989.

AUTHOR

Gary Field, Ph.D.
Manager
Alcohol and Drug Services
Oregon Department of Corrections
2575 Center Street, N.E.
Salem, OR 97310

Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment*

Harry K. Wexler, Gregory P. Falkin, Douglas S. Lipton, and Andrew B. Rosenblum

INTRODUCTION

A summary of the extensive research on the relationship between drug abuse and crime (Gropper 1985, based on the work of Johnson et al. 1985; Ball et al. 1983; Inciardi 1979) provides convincing evidence that relatively few severe substance abusers are responsible for an extraordinary amount of crime. The need for effective prison-based drug treatment is obvious; however, the difficult problem is to provide treatment that works. Several therapeutic communities (TCs) have been established in State and Federal prisons (Tims 1981), but unfortunately, there has been almost no outcome research conducted. This chapter summarizes a large-scale evaluation of the Stay'n Out TC, which has operated programs for male and female inmates in the New York State correctional system for more than 12 years.

There is an obvious need for effective, prison-based drug treatment programs, particularly given the high incidence of severe drug problems among State prison inmates (Kalish and Masumura 1983). According to the Bureau of Justice Survey of 12,000 State prison inmates, more than three-quarters of the inmates had used illicit drugs; 56 percent reported using drugs within the month just prior to committing the crime for which they were incarcerated; and 33 percent admitted using drugs at the time of the crime. Comparisons with drug abuse within the general population show that inmates were twice as likely to have ever used illicit drugs and three times as likely to have used drugs during the past month.

One of the most widely accepted types of treatment for substance abusers has been the TC. Within the community, TCs have been shown to be effective

SOURCE: Adapted from Wexler et al. 1990, copyright 1990, American Association for Correctional Psychology; reprinted by permission of Sage Publications, Inc

with clients who have extensive criminal histories (De Leon et al. 1972, 1979, 1982; Nash 1973; System Sciences, Inc., 1973; Sells et al. 1976; Wilson and Mandelbrot 1977; Holland 1978; De Leon 1984). The positive results of a 5-year followup evaluation of Phoenix House (De Leon et al. 1979; De Leon 1984) is of special importance because the Stay'n Out correctional TC program is in part based on the Phoenix House model.

The rationale for the establishment of the Stay'n Out prison TC derived from outcome research on community-based TCs. An important finding was that successful outcomes (reduced crime and substance abuse and increased employment) were related to the time spent in treatment (De Leon et al. 1972, 1979; Simpson 1978, 1980). In fact, residents who were sent to the program by the courts had a better success rate than volunteers. However, community TCs produce excessively high dropout rates that limit their effectiveness to the relatively few clients who remained at least 3 months in the program (De Leon 1979). One of the justifications for the establishment of the Stay'n Out program was to test the efficacy of the time-in-program (TIP) variable within an environment where residents are likely to stay longer than 3 months. It was expected that inmates would find the program unit, which is isolated from the general prison population of inmates, considerably more desirable than regular prison units.

Preliminary research on Stay'n Out has shown that this program was successful in implementing and maintaining positive TC treatment environments capable of retaining inmates for optimal treatment durations (9 to 12 months). The program also facilitated positive personality changes as assessed by standard psychological measures (Wexler and Chin 1981). A preliminary report on recidivism data also indicated that the program produced positive outcomes (Wexler et al. 1985). The major objectives of the study described in this chapter were to rigorously evaluate the effectiveness of prison-based TC treatment and assess the TIP hypothesis.

RESEARCH DESIGN

This study employs a quasi-experimental design that compares the Stay'n Out program with two types of comparison groups: (1) inmates who volunteered for the TC program but never participated (i.e., the no-treatment control group) and (2) inmates who participated in other types of prison-based drug abuse treatment programs (counseling and milieu therapy) located in different prisons. Evaluation studies of treatment programs are sometimes criticized on the basis that the effects of the treatment are biased because subjects are self-selected in the experimental group. In this study, it is assumed that the quasi-experimental design controls for self-selection bias because the subjects in

the no-treatment control group initially volunteered to join the experimental treatment group.

The sampling pool for the treatment groups included all clients who had terminated from the programs from 1977 through 1984, and the no-treatment group consisted of subjects who were placed on waiting lists to enter the prison TC. Names of subjects were given to the Division of Parole, and a computer tape was returned with information on men and women who were under its jurisdiction. The data set includes three types of variables: (1) background characteristics of the groups (e.g., demographics, prior criminal records); (2) several time variables, with TIP being of greatest interest; and (3) outcome variables (arrests, time until arrest, and parole discharge/revocation). Parole outcome status was obtained as of February 8, 1985. Arrest data were obtained for all active and discharged parole clients. Hypotheses relating each of the parole outcome variables to program treatment and TIP are tested statistically for the male and female groups separately.

Male Study Groups

Parole outcomes are compared among four groups of males. The TC group is compared with two other treatment groups (milieu therapy and counseling) and a no-treatment control group. The following paragraphs describe each of the treatment modalities and their basic differences. Sample sizes are reported for each group.

Male TC Treatment (n=435). The Stay'n Out program is a modified classical hierarchical TC that began in July 1977. Program capacity at the time this research was conducted was 120 inmates. Residents lived in two housing units segregated from the rest of the prison population. They had contact with prisoners in the general population only when off the TC unit (e.g., at the cafeteria, infirmary, library). The staff primarily comprised ex-addicts with TC experience who served as role models.

The TC program is highly structured. Clients are responsible for maintaining the program unit. They are given jobs ranging from menial chores, such as cleaning the latrine, to enforcing house rules for proper conduct. A major reward for good conduct is promotion to a higher job level with increasing responsibilities and status. Misconduct is viewed as an opportunity for a "learning experience" to develop—often to learn for the first time—appropriate ways to relate to others. Group activities include encounters (therapy), seminars (education), and special groups to deal with various unit management problems. Individual counseling and referrals to community TCs also are provided (see Wexler and Williams 1986 for a detailed description of the program).

Male Milieu Treatment (n=573). This program is a non-TC milieu drug treatment program that was established in November 1978. It had a capacity of 124 and was located in a separate unit from the general prison population. The program provided residents with individual, group, and vocational counseling and referral services.

The main differences between milieu therapy and the TC approach are that in the milieu modality (1) time is less structured, and activities are less regimented; (2) jobs and social roles are not hierarchically ordered; (3) good conduct is not rewarded by giving residents greater responsibilities; and (4) interaction with community TCs is not as extensive. In milieu therapy, clients are treated by program staff (professional drug abuse treatment counselors), whereas TC counselors are typically ex-offenders or ex-addicts who serve as role models. Furthermore, TC clients tend to play a more active role in their own treatment and in maintaining order within the program. These differences affect all aspects of life and treatment in these programs.

Male Counseling Treatment (n=261). The counseling drug treatment program that was established in April 1980 had a capacity of 50 clients. The clients received counseling (either individual or group) once a week and were given referral services at termination. The treatment was short term, usually not lasting more than a few months.

Male No-Treatment (n=159). This group is composed of inmates who volunteered for the TC but never entered the program. They were placed on a waiting list but were not admitted to the program because they did not meet the time eligibility criterion that inmates can be no more than 12 months nor less than 7 months away from parole eligibility. This group is used as a control to test explicitly whether the TC program is better than no treatment (implicitly holding constant differences in initial motivation to join the program).

Female Study Groups

Parole outcomes are compared among three groups of females, The TC group is compared with a counseling group and a no-treatment control group. There was no milieu therapy program for the women available for this study.

Female TC Treatment (n=247). The female Stay'n Out program is a modified classical hierarchical TC that began in January 1978. Its operation and the therapeutic process is highly similar to the male TC described above. Program capacity at the time of this research was 32 inmates in a segregated housing unit.

Female Counseling Treatment (n=113). A drug counseling program was established in April 1980 for 50 females. It ceased operating in November 1982. The program provided individual or group counseling once a week on a short-term basis.

Female No-Treatment (n=38). This group is composed of inmates who volunteered for the female TC program but never entered the program because they changed their minds before admission. (There was no time eligibility criteria for the female TC program.) This group is used as a control to test explicitly whether the TC program is better for females than no treatment (controlling for initial motivation).

BACKGROUND CHARACTERISTICS

This section describes the background characteristics of the comparison samples. Table 1 shows the sample sizes and selected background information for each group. The ages of all groups were quite similar, with the average for most of the programs being roughly 29 to 30 years of age. The milieu therapy program had a slightly higher (statistically significant) mean age of 31.3.

Race was also generally similar for most groups (about 50 percent black, 25 percent white, 25 percent Hispanic) with the exception of the female no-treatment group, which had a significantly larger proportion of black inmates. Among the males, approximately two-fifths of the inmates had received no more than an eighth-grade education. The female counseling and female no-treatment groups were somewhat more educated. More than 90 percent had more than an eighth-grade education. This was significantly greater than the female TC group, in which less than 80 percent of the sample went beyond the eighth grade. Marital status for the groups was similar. For the most part, the majority of the subjects were single, divorced, or separated. Although the male counseling group had more married men, overall, there were no statistically significant differences among the groups.

Composite scores for the severity of prior criminal history and the current offense (for which the inmate was incarcerated) were obtained from parole records. The crime history score is a weighted average of prior arrests, jail and prison terms, felony convictions, probation sentences, and parole revocations. Scores between 0 and 1 are considered less serious, scores between 2 and 5 are moderately serious, and scores between 6 and 11 are very serious. The offense score is a sum of the felony class, if weapons were involved, and if there was forcible contact in the current offense.

TABLE 1. Background information

Comparison Groups	N ^a	Age ^b	Race			Education	
			Black	White	Hispanic	<=8	>=9
Male Groups							
TC treatment	435	29.8	52.2	21.0	26.8	20.3	79.7
Milieu therapy	576	31.3 ^c	52.4	24.2	23.5	21.9	78.1
Counseling	261	29.6	51.6	22.5	26.0	20.7	79.3
No treatment	159	28.9	49.7	23.9	26.4	22.9	77.1
Statistic ^d		F=7.63	Chi-square=2.61			Chi-square=0.62	
Probability		<.001	NS			NS	
Female Groups							
TC treatment	247	30.1	53.4	17.4	29.1	21.2	78.8
Counseling	113	29.6	53.1	27.4	19.5	9.0	91.0
No treatment	38	28.8	78.9	7.9	13.3		92.1
Statistic ^d		F=0.72	Chi-square=16.16			Chi-square=10.19	
Probability		NS	<.005			<.10	
Comparison Groups	Marital Status ^e			Crime Scores			
	Single	Div/Sep	Married	History	Offense		
Male Groups							
TC treatment	39.5	16.3	44.2	2.47	4.06		
Milieu therapy	39.1	13.6	47.4	3.43 ^f	4.26		
Counseling	31.5	11.2	57.3	2.75	4.31		
No treatment	41.2	14.7	44.1	2.94	4.08		
Statistic ^d		Chi-square=2.61		F=10.15	F=1.52		
Probability		NS		<.001	NS		
Female Groups							
TC treatment	33.0	20.0	47.0	1.42	4.2		
Counseling	34.6						
No treatment	38.9	25.0	40.0	1.72	4.0		
Statistic ^d		Chi-square=1.12		F=1.54	F=0.88		
Probability		NS		NS	NS		

^aN represents the total sample size for each of the study groups. Sample size may vary for individual variables.

^bAge was calculated at the time subjects were released from prison.

^cMilieu males are significantly older than males in each of the other groups.

^dComparisons of pairs of group means were done using the Student-Newman-Keuls range test (p=.05).

^eMarital status excludes approximately 800 cases.

^fMale milieu group has a higher criminal history score than all the other male groups.

KEY: NS=not significant

As one can see from table 1, the male groups generally showed higher crime history scores than the female groups. The average male scores were in the moderately serious range. Statistical analysis revealed that the male milieu treatment group score was significantly higher. The female groups had scores that were in the less serious range, and there were no significant differences among the groups. The offense scores were similar for all male and female groups, with no significant differences.

There are several important time variables in this research. Of primary concern is the effect of the TIP on outcome. Table 2 shows the background time variables for all the male and female groups. The variables include months in program, months in prison (current sentence), months in prison postprogram (i.e., the time between program termination and release from prison), and months on parole supervision (i.e., time from prison release to expiration of parole). To the extent that there are statistically significant differences in these variables between the groups, variations in time could confound the relationship between program treatment and outcome.

The average TIP ranged from 5 to 8 months across the program groups. Among males, the TC and milieu treatment clients' average TIP was significantly greater than for the counseling treatment group. TIP for the male milieu treatment clients was also significantly greater than TIP for the male TC residents (7.2 months). Among the female program groups, the female TC clients had significantly more TIP than the female counseling treatment clients.

Total time in prison for the current sentence was generally longer for males than females. The male groups' average time in prison varied between 31 and 38 months. The male milieu treatment group's average prison time was significantly greater than the other male groups. The female groups ranged from 19 to 32 months in prison, with the female counseling group spending significantly more time in prison than the TC group and the no-treatment group.

Some of the treatment residents returned to the general prison population after they terminated from the program. The time clients spend in prison *after* treatment may affect parole outcomes if the TC treatment effect is undermined while they are under more punitive prison conditions. The average time in prison after program termination was approximately 6 months for most of the male and female program groups. Among the male groups, the TC clients spent significantly more time in the prison after release from the program than the counseling program clients did. The differences between the female treatment groups were not significant.

TABLE 2. *Time variables (mean number of months)*

Comparison Groups	In Program	In Prison	Prison Postprogram	On Parole Supervision
Male Groups				
TC treatment	7.2 ^a	30.5	6.8 ^d	34.7
Milieu treatment	8.2 ^b	37.8 ^c	5.9	40.6 ^e
Counseling treatment	5.3	31.5	4.8	41.3
No treatment	NA	34.5	NA	41.2
F statistic	21.6	10.6	5.0	3.2
Significance	<.001	<.001	<.01	<.05
Female Groups				
TC treatment	6.5	24.0	6.5	33.4
Counseling treatment	5.3	31.7 ^f	6.2	34.5
No treatment	NA	19.1	NA	30.5
F statistic	4.8	11.3	0.2	0.2
Significance	<.05	<.001		

^aTC group had significantly more TIP than counseling group.

^bMilieu group had significantly more TIP than counseling or TC group

^cMilieu group spent significantly more time in prison than counseling or TC group.

^dTC group spent significantly more months in prison after treatment than the counseling group.

^eMilieu group had significantly more months on parole supervision than TC group.

^fFemale counseling group spent significantly more months in prison than female TC groups and no-treatment female group.

KEY: NA=not applicable

Months on parole supervision is a measure of “time at risk”; it is the observation period in which outcomes were recorded. The male groups generally had longer durations on parole supervision than the female groups. Table 2 shows that the male groups ranged between 35 and 41 months on parole supervision. The male milieu treatment group had a significantly longer duration of parole supervision than the TC treatment group. Months on parole supervision for the female groups ranged between 30 and 35 months, with no significant differences between the groups,

PAROLE OUTCOME FINDINGS

The effects of the TC treatment and other treatment modalities on three parole outcome variables were analyzed: (1) the percent of the group arrested, (2) the mean time until first arrest (for those arrested in each group), and (3) the percent of the group positively discharged from parole. The percent arrested

is the proportion of the group that was arrested at least once while on parole. The time until arrest is calculated as the number of months between the time offenders are released from prison and the time they are arrested for the first time. This variable is used to measure how effective the programs are at delaying criminality among offenders who recidivate. Positive parole discharge is the completion of parole without rule violations, arrests, or revocation. This variable measures the long-term effects of treatment because the average time on parole supervision (i.e., "time at risk") was 3 years.

The evaluation of parole outcomes consists of three analyses. First, differences between the treatment and no-treatment groups are compared with respect to the three parole outcome measures. This analysis does not control for differences in time in treatment or other background variables. The second analysis assesses the effects of different lengths of time in the TC on the three outcome variables. Finally, a multivariate analysis of the effect of time in TC treatment on time until arrest, controlling for background variables and "time at risk," is reported.

Comparisons of Overall Treatment Effects

This section presents findings of tests of the hypothesis that treatment in the TC is more effective than other prison treatment modalities and no treatment. The analyses relating the study groups to each of the parole outcomes are discussed by first describing the overall differences between the groups and then statistically comparing the effects of the groups on each of the dependent variables.

Overall Differences. Table 3 shows the three parole outcomes for each of the comparison groups. The pattern of arrests for the males is as hypothesized, namely, the percent arrested is lowest for the TC (26.9 percent) and increases as the intensity of treatment decreases (to a high of 40.9 percent for the no-treatment group). The time-until-arrest variable ranges from a mean of 11.4 months for the male milieu group to 15 months for the no-treatment group. Approximately 60 percent of the TC group received positive parole discharges, but this rate was not significantly different from the rates for the other male groups.

Overall, there were no significant differences among the female groups. Table 3 shows that the female TC group had the lowest percent arrested (17.8 percent) and the highest percent positively discharged from parole (77.2 percent), and the group differences approached significance ($p < .10$). Although the mean time until arrest for the no-treatment group (8.6 months) was several months less than for the TC group (12.4 months) and the counseling group (14.6), these differences were not statistically significant.

TABLE 3. Parole outcomes

Comparison Groups	Arrested		Mean Months Until Arrest ^a	Positive Parole Discharge ^b	
	N	Percent		N	Percent
Male Groups					
TC treatment	117	26.9	13.1	157	58.1
Milieu	198	34.6	11.4	164	52.6
Counseling	104	39.8	12.0	69	52.7
No treatment	65	40.9	15.0	66	60.6
Statistic	Chi-square=17.2		F=2.32	F=3.40	
Significance	p<.001		p=.07	NS	
Female Groups					
TC treatment	44	17.8	12.4	98	77.2
Counseling	33	29.2	14.6	58	68.2
No treatment	9	23.7	8.6	9	52.9
Statistic	Chi-square=5.37		F=1.03	Chi-square=5.35	
Significance	p=.07		NS	p=.07	

^aRepresents time until arrested for prisoners who were arrested after their release from prison

^bFor parole discharge data, 401 cases are missing for males, and 169 cases are missing for females because these subjects had not been discharged by the time the data set was prepared for analysis.

KEY: NS=not significant

Percent Arrested. Table 4 shows the results of statistical tests comparing the percent arrested (and the percent positively discharged from parole) between the TC and other groups. Among the male study groups, the TC was substantially more effective in reducing the percent arrested than the comparison treatment groups and the no-treatment group.

The female TC was also significantly more effective in reducing the percent arrested in comparison with the counseling group (p<.05). However, there was no statistical difference between the percent arrested in the female TC group (17.8 percent) and the no-treatment group (23.7 percent, table 3). The small sample size for the no-treatment group (n=38) may have attenuated the chi-square statistic even though the direction of the relationship is as hypothesized.

Percent Positively Discharged From Parole. The percent positively discharged for the male TC was somewhat higher than for the alternative

TABLE 4. Paired comparisons of parole outcomes

Comparison Groups	Arrested			Positive Parole Discharge		
	N	Percent	Chi-square	N	Percent	Chi-square
Male Groups						
TC group	117	26.9		157	58.1	
Milieu	198	34.5	6.71*	164	52.6	1.82
TC group	117	26.9		157	58.1	
Counseling	104	39.8	12.6**	69	52.7	1.08
TC group	117	26.9		157	58.1	
All comparison groups ^a	367	37.0	13.7**	229	54.2	1.16
Female Groups						
TC group	44	17.8		98	77.2	
Counseling	33	29.2	6.0 ^{***}	58	68.2	2.1
TC group	44	17.8		98	77.2	
All comparison groups ^b	42	27.8	5.4 ^{***}	67	65.7	3.7

^aIncludes milieu, counseling, and no treatment

^bIncludes counseling and no treatment

*p<.01

**p<.001

***p<.05

treatments. Although the male no-treatment group had the highest percent positively discharged, it was not statistically significant compared with the TC group.

The data in table 4 show that the percent positively discharged from parole among the female groups was in the direction hypothesized; that is, the TC program had the highest percent (77.2 percent), followed by the counseling group (68.2 percent), and then the no-treatment group (52.9 percent, table 3). Although the female TC group had a significantly higher percent positively discharged from parole than the no-treatment group (p<.05), the difference between the TC and the counseling group was not statistically significant.

Time Until Arrest. Time until arrest is used as an indicator of the extent to which treatment *delays* criminal behavior. The relationship between the

study groups and time until arrest, as reported in table 3, does not support the hypothesis that TC treatment delays arrest while on parole. Among the male groups, there is a tendency for the TC treatment to delay arrest more than the other treatment modalities but not more than the no-treatment group. No such tendency was found for the female group. The failure to find a relationship between the study groups and time until arrest may be attributed to the fact that the parolees who were arrested represent a biased sample; that is, they have failed.

Time-in-Program Effects

Program participants were divided into five subgroups according to the amount of time they were in treatment (less than 3 months, 3 to 5.9 months, 6 to 8.9 months, 9 to 11.9 months, and more than 12 months). Extensive analyses were done of the TIP effects on percent arrested, time until arrest, and percent positively discharged from parole. The interested reader may obtain all statistical tables and figures by contacting the senior author. For the purposes of description and sake of parsimony the significant effects are outlined, and a few sample figures are provided that graphically depict the consistent TIP effect.

The general data pattern was that, as time in the Stay'n Out program increased to as much as a year, positive parole outcomes increased, followed by less positive outcomes for those who stayed longer than a year. The basic quadratic pattern that was demonstrated for by males is shown in figure 1.

Time Until Arrest. Figure 1 graphically shows the effect of TIP on time until arrest for each of the male treatment groups. There appears to be a trend for the TC group with the average time until arrest increasing as the time in the program increases. The mean for clients in the program less than 3 months was approximately 9 months; for clients in the program between 9 and 11.9 months, the average time until arrest increased to a peak of 18 months; and for the clients in the program more than 12 months, time until arrest decreased to an average of 14 months. The downward trend in time until arrest after 12 months suggests that for the TC male group there is a quadratic relationship between TIP and time until arrest. That is, as TIP increases, time until arrest rises and then falls.

Regression analyses relating time until arrest to the quadratic form of TIP were conducted for the male TC group. The quadratic term for TIP, which reflects the 9- to 11.9-month peak in time until arrest, provides a significant contribution to time until arrest ($R^2=0.058$, $p=.031$). The relationship between TIP and time until arrest was less defined for the females.

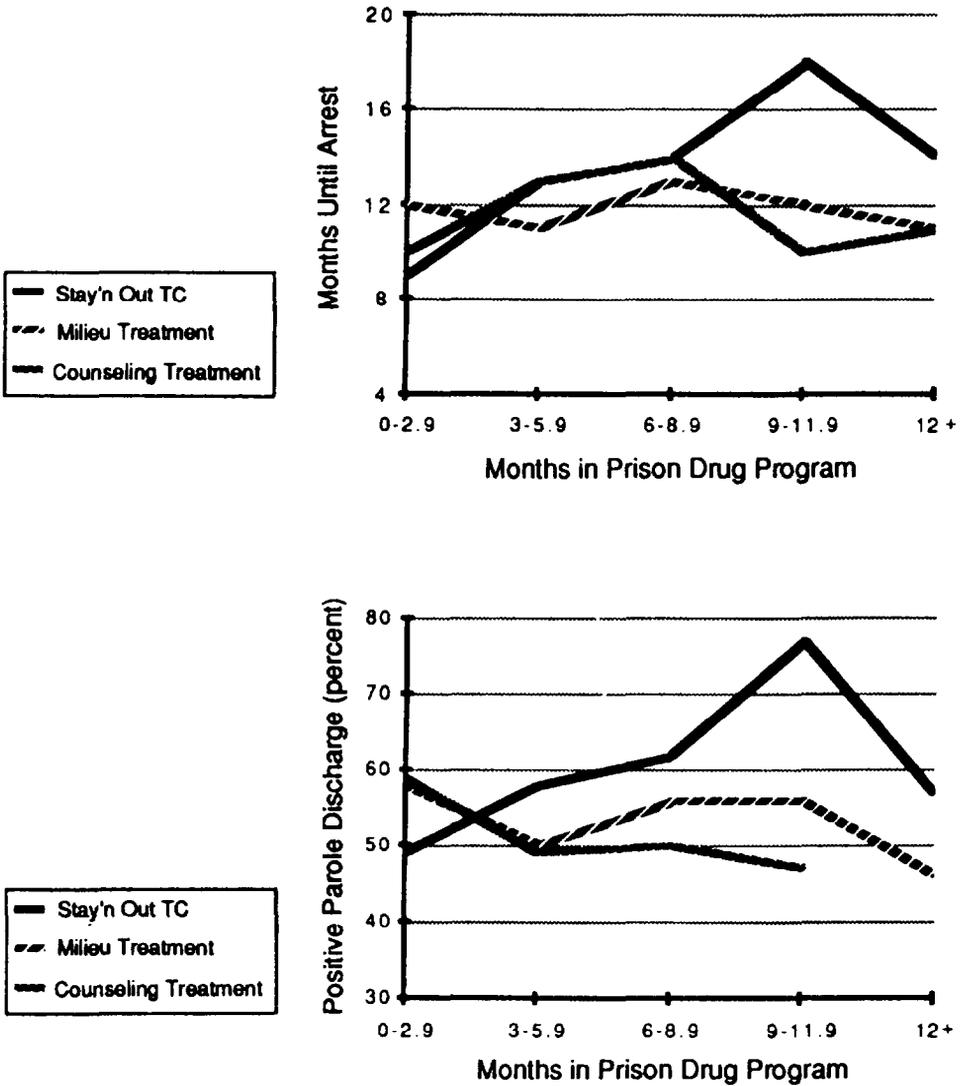


FIGURE 1. Time until arrest and positive parole discharge by program by time in treatment: Males

Percent Positively Discharged From Parole. Analyses of TIP effects on the percent positively discharged from parole revealed impressive findings. The pattern of results resembles the time until arrest data reported above. There appears to be a strong positive relationship between months in program and the percent positively discharged from parole for the male TC group in treatment for up to 12 months. The percent of male TC positive parole discharges increased from 49 percent for the less-than-3-month group to a peak of 77 percent for the 9- to 11.9-month group and then decreased to 57 percent for the more-than-12-month group. The relationship between the percent positively discharged from parole and TIP fluctuates for the other treatment groups.

The female data resemble the male results. Female TIP data show an increase in positive parole outcomes from 79 percent for less than 3 months and to a peak of 92 percent for 9 to 11.9 months. This is followed by a decrease to 77 percent for the clients who remained in the program more than 12 months.

Multivariate Analysis

Multivariate (logistic regression) analyses were conducted to statistically evaluate the TIP results and assess whether the basic TIP findings were independent of or related to other factors (such as age or criminal history).

The dependent variable in the multivariate analysis was time until arrest for TC males after they had been released from prison. (Female clients were excluded because the number of cases was not adequate for statistical analysis.) Multivariate analyses of the percent arrested and the percent positively discharged from parole were conducted; however, the findings are not reported here because tests of the model (relating these outcomes to TIP and client background characteristics) did not prove statistically significant.

Two sets of independent variables were entered in a stepwise multiple regression analysis of time until arrest for TC males. Background factors included age, total criminal history score, and the length of time in prison after treatment. These variables were included in the model because differences in their means were statistically significant. The second set of variables measured time in TC treatment. Because time until arrest appears to increase for those who were in the TC for as much as 1 year and then declines for those who stayed in the program for more than 12 months, the TC TIP variable was entered in its quadratic form (i.e., both as linear and squared functions).

Table 5 shows the results of the multiple regression analyses. Age and criminal history scores are significantly related to time until arrest. The

negative association between time until arrest and prior record may result because more serious offenders are arrested sooner than others. The positive relationship between time until arrest and age indicates that older offenders who are arrested take slightly longer to recidivate.

TABLE 5. *Time until arrest (multiple regression analysis)*

Variable	Statistic	B Coefficient	Beta	F
Age		.483	.323	41.354*
Duration of parole supervision		.078	.220	22.832*
Criminal history score		-.618	-.162	9.994*
Postprogram prison time		-.164	-.128	7.262*
TC treatment		-5.983	-.268	6.814*
Milieu therapy treatment		-3.285	-.157	3.303
Counseling treatment		-3.194	-.120	2.278
Time in TC		.859	.383	5.344**
Time in milieu		-.151	-.085	1.798
Time in counseling		-.128	-.036	.321
Time in TC, squared		-.033	-.279	4.878**
Constant		-1.295		
Multiple R		.434		
R square		.188		
Adjusted R square		.166		
Standard error		9.390		
F		8.600*		

*p<.01

*p<.05

The most important findings are that the TIP variable for TCs is significant and positively related to time until arrest, as hypothesized, and that TIP squared is negatively related to time until arrest. That is, the time until arrest is greater for residents who complete the program in less than 12 months than for those who are released after 12 months. The regression analysis shows that when potentially confounding variables associated with time until arrest are controlled for, the basic results in the univariate analysis are supported. Although the explanatory power of the equation is moderate ($R^2=.21$), the hypothesis that increases in TIP (up to 12 months) would increase time until arrest is supported.

Analyses of reincarceration data for the same groups (up to 9 years after release) provided results that were highly similar to the parole outcome data. A detailed analysis of the reincarceration findings is included in a National Institute on Drug Abuse (NIDA) report (Wexler et al. 1988a).

DISCUSSION

This is the first large-scale, long-term study that provides convincing evidence that prison-based TC treatment can produce significant reductions in recidivism rates. The three propositions examined received empirical support: (1) Stay'n Out was effective in reducing recidivism rates (that is, treatment in Stay'n Out is more effective than no treatment in prison); (2) the TC approach was more effective than other prison treatment modalities (e.g., milieu therapy, counseling) in reducing recidivism; and (3) the longer that Stay'n Out clients remained in the prison TC program, the more successful they were after release.

The major findings are that the TC was effective in reducing recidivism, and this positive effect increased as TIP increased, but it tapered off after 12 months. These findings suggest a dosage model where greater exposure to treatment produces a positive effect up to the point of satiation. Positive completion of parole, no arrest, and time until arrest increased with time spent in Stay'n Out but not in the other treatment modalities. These decreases in recidivism after treatment in Stay'n Out are consistent with earlier studies of the program that showed reductions in parole revocations (Wexler and Chin 1981; Wexler et al. 1985). The TIP findings replicate and support similar findings in outcome studies of community-based TCs (De Leon et al. 1979; Simpson 1980).

Perhaps the most provocative finding was the unexpected decline in positive outcomes for the more-than-12-month TC clients. Discussions with program staff provided a potential explanation for the unexpected TIP result. Stay'n Out is based on the classic hierarchical TC model (e.g., Phoenix House), which engages clients in a highly structured treatment environment that emphasizes personal development, internalization of prosocial values, and a strong sense of responsibility. Upon admission, clients are given low-level jobs and are granted little status. During the early phases of treatment they are provided opportunities to earn higher level positions and increased status through sincere involvement with the program and hard work. When clients have spent 12 months in community TCs, they usually enter the reentry phase, in which they go into the community and try out their TC "tools" under the guidance of program staff.

Within prison, however, the New York State Parole Board controls release into the community. Thus, when some clients who are ready for reentry are denied parole, they are forced to remain in a situation that is disappointing and frustrating. After being in the program for 12 months there are no further status levels in the Stay'n Out program to which they can aspire. Stay'n Out staff report that if the appropriate time for reentry (after approximately 9 to 12 months) is missed, clients become disillusioned and gradually reduce their involvement in the TC. The program staff believes that these disillusioned clients are less likely to benefit from further prison TC treatment and less likely to enter community treatment programs after release.

The important and clear TIP effect found in this research along with the 9- to 12-month optimal treatment durations is not in agreement with some other prison rehabilitation studies (Izzo and Ross 1990). However, these studies did not include substance abusers and used other types of treatment approaches. The TIP effect is well established in the substance abuse literature (De Leon et al. 1979, 1982; Simpson 1980).

Reviews of the prison rehabilitation literature (Gendreau and Ross 1979, 1987; Wexler et al. 1988b) have identified several characteristics that successful treatment programs have in common. They (1) are based on social learning theory; (2) employ authority structures with clear rules and sanctions, anticriminal modeling, and reinforcement of prosocial behavior; (3) train clients in pragmatic personal and social problemsolving; (4) have a program staff that utilizes community resources; (5) encourage empathic relationships between staff and clients that are characterized by open communication and trust; and (6) employ ex-offender and ex-addict counselors to serve as credible role models of successful rehabilitation. Stay'n Out provides an example of a successful program that employs these treatment principles (Wexler and Williams 1986).

REFERENCES

- Ball, J.C.; Shaffer, J.W.; and Nurco, D.N. Day-to-day criminality of heroin addicts in Baltimore—A study in the continuity of offense rates. *Drug Alcohol Depend* 12:119-142, 1983.
- De Leon, G. "The Therapeutic Community: Study of Effectiveness." Internal report submitted to the National Institute on Drug Abuse, 1979.
- De Leon, G. The Therapeutic Community: Study of Effectiveness. National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)84-1286. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984.

- De Leon, G.; Andrews, M.; Wexler, H.K.; Jaffe, J.; and Rosenthal, M.S. Therapeutic community drop-outs: Criminal behavior five years after treatment. *Am J Drug Alcohol Abuse* 6(3):253-271, 1979.
- De Leon, G.; Holland, S.; and Rosenthal, M.S. Phoenix House: Criminal activity of drop-outs. *JAMA* 226(6):686-689, 1972.
- De Leon, G.; Wexler, H.K.; and Jainchill, N. The therapeutic community: Success and improvement rates 5 years after treatment. *Int J Addict* 17(4):703-747, 1982.
- Gendreau, P., and Ross, R.R. Effective correctional treatment: Bibliography for cynics. *Crime Delinquency* 25:463-489, 1979.
- Gendreau, P., and Ross, R.R. Revivification of rehabilitation: Evidence from the 1980s. *Justice Q* 4(3):349-407, 1987.
- Gropper, B.A. *Probing the Links Between Drugs and Crime*. NCJ-096668. Washington, DC: National Institute of Justice, 1985.
- Holland, S. Gateway House: Effectiveness of treatment on criminal behavior. *Int J Addict* 13(5):369-381, 1978.
- Inciardi, J.A. Heroin use and street crime. *Crime Delinquency* 25(3):333-346, 1979.
- Izzo, L.I., and Ross, R.R. Meta-analysis of rehabilitation programs for juvenile delinquents. *Crim Justice Behav* 17(1):134-142, 1990.
- Johnson, B.; Goldstein, P.; Preble, E.; Schmeidler, J.; Lipton, D.S.; Spunt, B.; and Miller, T. *Taking Care of Business: The Economics of Crime by Heroin Abusers*. Lexington, MA: Lexington Books, 1985.
- Kalish, C.B., and Masumura, W.T. Prisoners and drugs. In: *Bureau of Justice Statistics Bulletin*. NCJ-087575. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1983.
- Nash, G. *The Impact of Drug Abuse Treatment Upon Criminality: A Look at 19 Programs*. Upper Montclair, NJ: Montclair State College, 1973.
- Sells, S.B.; Simpson, D.; Joe, G.; Demaree, R.; Savage, L.; and Lloyd, M. A national follow-up study to evaluate the effectiveness of drug abuse treatment: A report of cohort 1 of the DARP five years later. *Am J Drug Alcohol Abuse* 3(4):545-556, 1976.
- Simpson, D.D. The relation of the time in drug abuse treatment to post-treatment outcomes. *IBR Report* 78-12, 1978.
- Simpson, D.D. *follow-up Outcomes and Length of the Time Spent in Treatment for Drug Abuse*. Fort Worth, TX: Institute of Behavioral Research, Texas Christian University, 1980.
- System Sciences, Inc. "A Comparative Analysis of Twenty-Four Therapeutic Communities in New York City." New York: Addiction Services Agency of the City of New York, 1973.
- Tims, F.M., ed. *Drug Abuse Treatment in Prisons*. National Institute on Drug Abuse Treatment Research Report Series. DHHS Pub. No. (ADM)81-1149. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1981.

- Wexler, H.K., and Chin, J. "Evaluation of a System To Evaluate Prison-Based Drug Treatment." Paper presented at the Eastern Evaluation Research Society Conference, Philadelphia, PA, May 1981.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. *A #ode/ Prison Rehabilitation Program: An Evaluation of the Stay'n Out Therapeutic Community. Final Report to the National Institute on Drug Abuse*. NCJ-108560. New York: Narcotic and Drug Research, Inc., 1988a.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Crim Justice Behav* 17(1):71-92, 1990.
- Wexler, H.K.; Lipton, D.S.; and Foster, K. "Prison Drug Treatment: Study of Recidivism." Paper presented at a meeting of the American Society of Criminology, San Diego, CA, November 1985.
- Wexler, H.K.; Lipton, D.S.; and Johnson, B.D. *A Criminal Justice System Strategy for Treating Drug Offenders in Custody. Issues and Practice in Criminal Justice*. National Institute of Justice. Washington, DC: US. Department of Justice, 1988b.
- Wexler, H.K., and Williams, R. The "Stay'n Out" therapeutic community: Prison treatment for substance abusers. *J Psychoactive Drugs* 18(3):221-230, 1986.
- Wilson, S., and Mandelbrot, B. "Criminal Activity After Treatment in a Therapeutic Community for Drug Abusers." Unpublished manuscript, Littlemore Hospital, Oxford, England, 1977.

ACKNOWLEDGMENTS

This report was supported by NIDA grant DA-03310-3 to Narcotic and Drug Research, Inc.

Points of view or opinions in this document do not necessarily represent the official position of the U.S. Government or Narcotic and Drug Research, Inc.

AUTHORS

Harry K. Wexler, Ph.D.
Senior Principal Investigator

Gregory P. Falkin, Ph.D.
Research Scientist

Douglas S. Lipton, Ph.D.
Director of Research

Andrew B. Rosenblum, Ph.D.
Research Scientist

Narcotic and Drug Research, Inc
11 Beach Street
New York, NY 10013

Obstacles to the Implementation and Evaluation of Drug Treatment Programs in Correctional Settings: Reviewing the Delaware KEY Experience

James A. Inciardi, Steven S. Martin, Dorothy Lockwood, Robert M. Hooper, and Bruce M. Wald

INTRODUCTION

Several recurring and linked themes have punctuated the many discussions and debates associated with Federal policy initiatives in the contemporary “war on drugs.”

First, there is the intricate relationship between drug use and crime and the disagreements as to whether drug use should be dealt with as a medical/public health problem or as a criminal problem (Office of National Drug Control Policy 1989, 1990; Hamowy 1987; Musto 1987; Jonas 1989). Often coupled to these arguments is the recommendation, albeit from outside the substance abuse field, that the legalization of drugs is the only logical and pragmatic solution to the violence and other problems associated with a criminalized drug market (Nadelmann 1988; Trebach 1989).

Second, among many of those who are generally supportive of the war on drugs, there is the opinion that far too much emphasis has been placed on the Federal supply-reduction enterprise (enforcement and interdiction), to the overwhelming neglect of the more important demand-reduction initiatives (Inciardi 1986; Inciardi and McBride 1989; Clayton 1989; Senate Judiciary Committee and the International Narcotics Control Caucus 1990).

Third, and perhaps most germane, are the data supportive of compulsory and coerced treatment for drug offenders (Leukefeld and Tims 1988; Hubbard et al. 1989; De Leon 1988; Platt et al. 1988). Evaluation studies have demonstrated

that the key variable most related to success in treatment is length of stay and that offenders who are coerced into treatment tend to remain longer than those who voluntarily commit to treatment.

As an outgrowth of these debated themes, there has been the rediscovery that “treatment works.” This, combined with the dramatic growth in prison populations during the 1980s (in great part a direct result of the war on drugs), has resulted in widespread interest in drug abuse treatment not only as an alternative to incarceration but also as an adjunct to incarceration. Delaware’s KEY therapeutic community (TC) is a direct outgrowth of this renewed interest in rehabilitation within a correctional setting.

PROJECT REFORM

In 1986, encouraged by the growing body of evidence of (1) the relationship between drug use and crime, (2) the value of treatment in reducing the criminality of drug-dependent persons, and (3) the overall pressures on correctional systems brought about by demands for more prison sentences and longer prison sentences for drug offenders, Federal legislators appropriated the first of several special funding packages for demand reduction. More specifically, when the Anti-Drug Abuse Act of 1986 allocated funds for drug enforcement, prevention, education, and treatment, the Bureau of Justice Assistance (BJA) was designated as the lead agency for sponsoring correctional treatment initiatives. The key BJA effort in this regard was the Comprehensive State Department of Corrections Treatment for Drug Abuse program. The program was designated “Project Reform” by Narcotic and Drug Research, Inc. (NDRI), which was selected by BJA as national coordinator for the undertaking. The initial States to participate in the BJA/NDRI venture included Delaware, Alabama, Connecticut, New York, Florida, and New Mexico.

The TC emerged as the primary drug abuse treatment approach by Project Reform for several reasons. First, there is considerable evidence that programs based on social learning theory may be the most effective with drug-involved offenders whose drug-dependent lifestyles evolved over long periods (Wexler et al. 1985; Wexler and Williams 1986; De Leon and Ziegenfuss 1986). Second, and perhaps most important, there are many phenomena in the prison environment that make rehabilitation difficult. Not surprisingly, drugs seem to be readily available in most prisons. In addition, there is the violence associated with inmate gangs, often formed along racial lines for the purposes of establishing and maintaining “turf” and unofficial control over certain sectors of the prison for distributing contraband and providing “protection” for other inmates. Finally, there is the prison subculture—that system of values and norms that, among other things, holds that “people

in treatment are faggots,” as one Delaware inmate put it in 1988. Such an attitude makes providing treatment within the larger inmate population difficult.

By contrast, the TC is a total treatment environment isolated from the rest of the prison population—separated from the drugs, the violence, and the norms and values that militate against treatment and behavioral change. The primary clinical staff members of the TC are typically “recovering addicts,” that is, former substance abusers who also were rehabilitated in TCs. The treatment perspective is that drug abuse is a disorder of the whole person, that the problem is the person and not the drug, and that addiction is a symptom and not the essence of the disorder. In the TC view of recovery, the primary goal is to change the negative patterns of behavior, thinking, and feeling that predispose one to use drugs. As such, the overall goal is a responsible, drug-free lifestyle.

THE KEY

By the middle of 1988 Project Reform had sponsored the establishment of TCs in correctional institutions in several jurisdictions. Delaware’s program, named the “KEY” by its founders, includes many of the traditional aspects of TCs—a hierarchical structure, the morning meeting, seminars, individual counseling, encounter groups, and resident job functions. In addition, the treatment approach includes weekly Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) meetings, branch groups, transactional analysis, and psychodrama. The AA and NA meetings follow the standard 12-step approach and are facilitated by AA/NA chapters from outside the prison. The branch group is a specialized dynamic in which 10 or more residents meet regularly to share thoughts, feelings, and attitudes. Rather than serving as a confrontational group, its purposes are the sharing of innermost feelings and forming bonds of trust and group cohesion. Transactional analysis involves the appraisal of the roles one plays in his or her interactions with others. Psychodrama entails the reliving and exploration of unresolved personal conflicts and bringing them to closure through group facilitation.

The KEY began operations on July 21, 1988, and its experiences represent a case study in the difficulties of implementing a TC in a correctional system, in general, and in a somewhat troubled correctional system, in particular. These difficulties included issues related to initial budget planning, facility location, staff recruitment, client selection, treatment staff/correction staff interaction, program autonomy, aftercare, and evaluation.

IMPLEMENTATION ISSUES

Initial Budget Planning

Although part of the Project Reform effort included technical assistance from NDRI and several research and clinical consultants, the initial planning undertaken prior to the BJA award was done without the benefit of expertise in either drug treatment facility design or TC operations. The result was an implementation budget that did not include funds for a number of items necessary for drug treatment programming, in general, and TC treatment, in particular. This lack of funds extended to program materials, videotaping, books and other educational elements, printing and copying, and resource for educational and vocational programs as well as for public relations and special event activities. Although some of these deficits were overcome through special arrangements with NDRI, the Delaware Department of Correction, and a few private contributors, the KEY operated in an atmosphere of scarce resources during much of its first year.

Choosing the Facility

Not all correctional facilities are appropriate for TC programming. This fact became painfully apparent during the planning phase of the Delaware effort. The State's largest institution, the Delaware Correctional Center (DCC), was the initial choice for the new TC. It appeared to be a logical choice: DCC houses the overwhelming majority of Delaware's felony inmates; the business offices of the Department of Correction are located nearby; and the facility had a vacant building that could be transformed into a somewhat isolated drug treatment program.

When a clinical director and the technical assistance staff were finally retained, it was quickly determined that DCC was unworkable as a program site. The issue was a two-pronged problem of security. DCC is an expansive minimum/medium-security facility with numerous buildings, cell blocks, dormitories, and open spaces. It is characterized by the considerable and relatively unimpeded movement of inmates from one place to another. This freedom of mobility combined with the size of the compound serve to facilitate the use and trafficking of any variety of illegal drugs.

Moreover, the buildings designated as potential sites for the TC were suitable for sleeping and individual counseling activities but for little else. Group activity space was lacking, and program clients would have been required to mix with the general prison population three times a day for meals and for recreation—an unwholesome and unworkable situation for effective TC programming. More

appropriate quarters eventually were found at the Multi-Purpose Criminal Justice Facility, known locally as Gander Hill Prison, in Wilmington, DE. The move to a new location, combined with already crowded conditions at Gander Hill, resulted in a further delay in startup and slow initial growth.

The limited options of facility space and this final decision to place the program at Gander Hill affected the composition of the program. The original intent was to develop a co-ed TC. Due to the strict separation of men and women by the Delaware Department of Correction and the unwillingness to alter this practice, women were excluded from this project. To date, women still are excluded.

Staff Recruitment

The staff recruitment problems that occurred in the Delaware experience also can have a direct impact on the efficient implementation of a TC in a correctional setting.

First, in these days of renewed and rapid program expansion, there is a general lack of experienced drug abuse counseling personnel and an acute lack of experienced TC staff, especially at the leadership levels. In the absence of any TCs in the State of Delaware from which to draw, Project Reform had to recruit a program director from Florida and its initial counseling staff from western Pennsylvania. The associated recruitment, transportation, and moving costs represented additional and unanticipated budget items that had to be absorbed.

Second, there is the matter of the “professional model” of staffing vs. the “recovering addict model.” This is sometimes called “the democratic TC vs. the programmatic TC issue” (Glaser 1981). On a philosophic level, both seek to foster a family identity but with marked differences. One researcher has described it as similar to comparing the Society of Friends with the Church of Rome (Jones 1986). It is true that the programmatic approach—characterized by intensity, a militaristic orientation, a hierarchical social organization, and a recovering addict staff—is more appropriate, because of both the setting (prison) and the problem (drug addiction) for inmates. The recovering addict model also puts virtually all power and authority in the hands of the leader, who authorizes use of coercive methods, within limits, to achieve the desired behavioral changes in clients.

It is in drawing a fine line between a necessarily authoritarian structure in effecting behavior modification while avoiding a totalitarian society that programs such as the KEY may be most challenged. The role of the director takes on great importance. The KEY’s director achieved the necessary authority without abusing power.

Resides philosophy and leadership style, the professional and recovering addict models differ, as their names indicate, in the nature of their staffing. The professional model espouses the use of only professional staff having formal education, training, and experience in one of the behavioral sciences, social work, or counseling. The recovering addict model advocates the use of ex-addicts/ex-offenders in key leadership and clinical positions. It would appear that in a corrections-based TC, the most appropriate course would be a combination model. Recovering addicts are necessary for the positive role models they represent to prison inmates and because of their firsthand experience with the types of “con” games and other manipulations in which drug abuse clients engage. Professionally trained staff members are necessary for their clinical skills and the degree of therapeutic detachment that is often necessary in emotionally explosive settings. Lack of a professionally trained staff also may impede the acceptance of the TC approach by other drug treatment programs that may rely solely on professional staff and have not accepted the role of ex-addicts in the treatment process.

Delaware’s KEY program is primarily a recovering addict model, with some oversight and input from a professional psychologist. Although such partial oversight serves to contain costs, it reduces the control by professionals over all day-to-day activities.

Third, whereas it would be difficult to develop and operate a prison/jail-based TC without recovering addicts, many State departments of correction have regulations that prohibit the hiring of former felons for work in correctional facilities. This is the case in Delaware. This problem was circumvented, however, by directing Project Reform funding not to the Delaware Department of Correction but to Correctional Medical Systems (CMS), a private for-profit firm under contract with the State to provide medical services to all Delaware inmates. As such, counseling staff members at the KEY are actually CMS employees and are not prevented by their past drug use or criminal record from working inside the prison walls.

Client Selection

Prior to implementing a prison-based TC, it is crucial that the TC leadership meet with the prison security, classification, work release, and parole leadership to discuss and obtain written agreements on client selection and release eligibility criteria. This necessary groundwork was undertaken and accomplished only partially by Project Reform, KEY, and CMS staffs. This lapse in communication led to some negative implications for a few inmate-clients and for the KEY program itself.

The initial criteria for admission to the KEY TC required the inmate to satisfy the following conditions:

1. Participate on a voluntary basis
2. Be sentenced and not have any open charges
3. Be in the general prison population (as opposed to segregation or isolation)
4. Be eligible for a parole board appearance within 12 to 18 months (and 18 to 24 months from expiration date for those serving mandatory sentences)
5. Have a history of substance abuse or some indication of involvement in the drug subculture
6. Have no history of aggressive, nonconsensual sexual offenses or arson charges from the community or within the correctional system

Although these criteria were thought to be stringent enough to satisfy institutional and parole authorities, such was not the case. A few of the inmates accepted into the KEY's initial client cohort, who were parole eligible in 1989 and 1990, had short-term release dates (i.e., minimum sentence less good time accumulated) that were beyond the year 2000. The KEY counseling staff felt that, after spending a year or more in treatment, these clients were ready to move out of the institution and into work release or parole. However, the classification boards in the Department of Correction were not convinced. The results were conflict between the KEY and the classification staff and the development of a handful of program clients who were stymied and disillusioned. Since these TC residents were effectively barred from "graduation" (e.g., movement into work release), some left the KEY on bad terms, while some remained as senior counselors in the KEY. In doing so, however, those remaining caused a "dam" at the upper level of the client hierarchy, negatively affecting the TC model.

Treatment Staff/Correction Staff Interaction

The failure to develop close working relationships with the classification board in the Delaware correctional system was not the only gap in treatment staff/correction staff interactions. There was, and continues to be, a drug counseling program known as Greentree within the Delaware Department of Correction that had been operating for years in the State's main facility-DCC. The Project Reform technical assistance team and the CMS staff hoped that Greentree would serve as a feeder to the KEY. However, communication failures

alienated the Greentree staff. The Greentree counselors had extensive contacts with the general inmate population. They reported and exaggerated aspects of the KEY program, resulting in a body of folklore about the KEY that made client recruitment difficult.

Program Autonomy

In several ways, the KEY has had only minimal control over its own fate. Part of the problem is grounded in the differing philosophical orientations of the KEY and the Department of Correction. Whereas KEY staff members have a clinical view of inmates as subjects for rehabilitation, corrections staff persons have an essentially cynical view of inmates as subjects for custody and control. Although there is some understanding and consideration of each other's missions, in many ways the two philosophies remain mutually exclusive.

A direct result of these differences can be seen in KEY expansion. It would appear that, as a consequence of custodial concerns and the crowded conditions at Gander Hill Prison, program growth tends to be at the whim of the Department of Correction and the State legislature. Although this is understandable from political, administrative, and pragmatic points of view, it tends to be frustrating from a clinical standpoint. Expansion of any program involves much more than additional beds and housing. Therefore, the clinical staff should be involved with expansion plans. This has yet to occur in Delaware.

Aftercare

Certainly, the most problematic aspect of the KEY implementation involves aftercare. BJA funding included resources for the planning and realization of the institutional phase of treatment; however, no monies were allocated for a community-based transitional facility. When the State of Delaware assumed responsibility for the continued funding of the KEY, again, only the institutional phase of treatment was supported. The result is the "graduation" of KEY clients into the Plummer Center, a work release facility in Wilmington, DE. Since the Plummer Center accepts work releasees from all the State's institutions, as well as Delaware-resident releasees from Federal institutions, the uncontrolled environment can do much to undo progress in the KEY by throwing the recovering clients abruptly into an environment that is contaminated with the outside influences of the street—the drugs, the violence, and the attitudes and values that militate against rehabilitation. As such, appropriate continuity of care is lacking. Although the KEY recently placed one of its counselors at the Plummer Center on a 40-hour per week basis, TC treatment does not extend to the community-based setting, nor is there any systematic program of transition to the outside.

EVALUATION ISSUES

Since Project Reform was a “treatment-driven” rather than a “research-driven” experiment, funds were not allocated for a formal followup evaluation. The plan was for the technical assistance team to help the participating States develop research proficiency, so that each State eventually could evaluate their BJA-funded programs. In theory, at least, this was a fine idea; putting it into practice in Delaware turned out to be another matter entirely.

Nationally, the research capability, expertise, and resources of State correctional systems exist along a continuum. At one end, there are the States of Wisconsin, California, New York, and Florida; the Federal system; and a few other jurisdictions that have a history of funding and conducting correctional research—all of which are sustained by permanent trained research staffs and sophisticated data systems. At the other end of the continuum is the State of Delaware, which currently has no research staff within the Department of Correction, has never conducted impact or evaluation research, and has a data system that, literally, no one appears able to access and use! As such, even current basic demographic characteristics of the Delaware prison population are unreliable or unobtainable.

Despite all these difficulties and limitations, systematic assessment of the KEY TC has begun. With support from the National Institute on Drug Abuse (NIDA), a long-term field followup evaluation has been initiated. In the short term, the preliminary evaluation efforts suggest that the KEY has a promising future. In terms of numbers, as of April 30, 1990, a total of 97 clients have entered the KEY since it opened its doors on July 21, 1988. For its first 12 months, the KEY was only a 20-bed facility. During August 1989, it expanded to 30 beds; in February 1990 it expanded to a 70-bed facility. At present, 68 of these beds are occupied, and the vacancies are only a matter of scheduling transfers to the program by the Department of Correction. Of the original 20 clients, 12 graduated from the program and moved into work release. Of these, five have successfully completed work release. The average length of stay in work release was 120 days, and random urinalysis found all KEY graduates to be drug free while in work release. Of the graduates who completed work release, however, one reportedly has returned to drug use.

The current KEY residents differ in several ways from the general inmate population. This is undoubtedly largely a function of the selection criteria for admission. KEY residents are more likely to be black, to be older, to have prior treatment experiences, and to have used multiple drugs in the past. Given the nature of the TC experience—an extreme method of treatment for those for whom less intensive procedures have been unsuccessful—only the program’s

high percentage of black participants is surprising. in an assessment of the current KEY program population done in May 1990, 80 percent of the clients were black, 17 percent white, and 3 percent from other ethnic groups. More than 70 percent have never been married. They had an average of 13 arrests, 2 drug arrests, almost 5 years previous time served in prison, and 2 previous attempts at substance abuse treatment before the KEY. Table 1 gives the percentage breakdowns by first drug abused and the primary and secondary drug of abuse before incarceration.

TABLE 1. *Percent of KEY clients in May 1990 reporting on first drug abused and on drugs abused in last 3 months before going to prison*

Drug Type	First Drug Abused	Primary Drug Last 3 Months	Secondary Drug Last 3 Months
Alcohol	36	6	24
Marijuana	36	6	20
Cocaine	13	62	20
Heroin	11	20	7
Other opiates	0	6	2
Amphetamines	0	0	6
Other drugs	4	0	3
Only one drug ever abused	--	--	18

Whereas alcohol and marijuana are the most common first drug used, cocaine predominates as the preincarceration drug of abuse; 82 percent of the KEY clients say it is their primary or secondary drug of abuse. KEY clients who were not dealing cocaine at the time of arrest estimated their per day expenditures on cocaine at more than \$200, on average.

There are some interesting differences between the black and the white KEY clients. Whites have much longer records than blacks; whites average 30 arrests and 12 years in prison, whereas blacks have 10 arrests and less than 4 years in prison, on average. Whites and blacks report similar distributions on first drug abused in their lives; however, whites report more cocaine, less heroin, and more alcohol abuse before incarceration than blacks. Whites also report abusing more different kinds of drugs than blacks. These findings, coupled with the presence of more blacks in the KEY than would be expected, may suggest that blacks are treated more harshly than whites for drug offenses in Delaware.

In all, these data on KEY clients indicate that the program is being directed at a group of inmates with serious substance abuse problems who have not been successful in previous treatment attempts. Efforts in the KEY program at present are more concentrated on minority offenders, where current national statistics suggest that treatment is more needed and less available. In the short term, there is evidence that KEY graduates are resisting a return to drug use.

This does not mean that experience with the KEY has been a success for all clients. Besides the one relapse case among post-work-release graduates, 22 KEY residents left the program prematurely: 14 were voluntary dismissals (5 of whom have returned to the KEY), and 8 were terminated by staff decision. Twelve of the clients who never returned to the KEY were systematically interviewed in May and June 1990. Their general profile is similar to that of current KEY clients. In other words, program dropouts do not differ from those who remain in the KEY by criminal history, drug use, or other demographic characteristics. Those inmates who did not complete the KEY remained in the program for 2 or 3 months, on average. However, three of them left the program after 10 months because the Department would not transfer them to work release; these clients felt that the KEY had done all it could do for them while they were still in prison.

All those interviewed made positive remarks about the KEY. The most satisfaction was expressed about the individual and group counseling sessions, which they found most helpful with their alcohol, other drug, and emotional problems. Similarly, positive opinions were reported by the overwhelming majority of these former clients about the enforcement of program rules and regulations, the fair and equal treatment of clients, staff/client relationships and interactions, and staff understanding of client problems.

On the negative side, almost all these former clients complained about the lack of educational/vocational opportunities offered by the KEY. This situation is the consequence of the KEY's segregation from the rest of the prison and the lack of space and resources to provide these services for KEY residents.

Only three of those interviewed felt they were "picked on" unfairly while at the KEY. Two left the program because they felt it was too confrontational. The remaining seven of those interviewed left due to staff-participant conflicts. Most of these conflicts centered around the authority, power, and lack of professional training of senior residents and the large amount of discretion allowed by the director. Interestingly, most of those interviewed recognized that these conflicts were a result of the Department of Correction barring senior participants from necessary classification to work release. They felt that if residents moved out of the KEY program as designed many of these staff problems would be resolved.

Overall, both those who left voluntarily and those who were expelled from the KEY saw the need and positive effects of such treatment and had good things to say about the program.

RECOMMENDATIONS

In planning for a corrections-based TC, several things are of the utmost importance:

1. Since effective drug treatment cannot be accomplished in the presence of drug use and the other trappings and influences of the prison culture that militate against rehabilitation, the TC must be fully separated from the rest of the penitentiary population. This was eventually accomplished at the KEY. Although the KEY does not have its own kitchen facilities, its residents nevertheless do not mingle with other inmates at meal time. All meals are prepared in institutional kitchens and then delivered to the TC module. Except for serious health problems requiring an infirmary admission, medical care takes place at the KEY. The only time that clients mingle with other inmates is in general equivalency diploma classes.
2. From the KEY experience, it is evident that a combination of the professional and recovering addict models would be most successful for a TC in the prison setting. Integrating professionally trained with recovering-addict staff into a team effort should enhance both the external (corrections officials, politicians, and the media) and the internal (inmates who doubt the credentials of the staff) credibility of the program.
3. Since the prison-based TC should be a "facility within a facility," there should be adequate funding or arrangements for those other activities related to successful community integration (e.g., educational and vocational programs/equipment).
4. Before implementing any prison-based TC program, it is essential that procedures for accepting clients into treatment, as well as acknowledged and accepted requirements for client graduation and movement to work release and/or parole, be agreed on by program staff, corrections officials, and parole authorities.
5. New prison-based TCs should start small and add clientele only after the program is well established. Such delayed expansion allows time for problems with corrections officials to be resolved on a small scale. The concept and tactics of a TC are often difficult for traditional corrections

officers and counselors to accept. More importantly, it provides for training of senior residents and potential staff members from within the early cohort of TC clients. These graduates provide a pool for additional staff recruitment that can be both cost-effective and program-effective,

6. Since aftercare is an established condition of successful drug abuse treatment (Brown 1979), the planning for corrections-based drug treatment must include arrangements for postrelease care, either through purchasing bed space in an existing community-based TC or through directly funding a separate TC transitional facility. The selection procedure should include a mechanism to ensure that clients will “flow” out of the in-prison setting into an appropriate community-based transitional facility.
7. Finally, given the problems of staff recruitment, it is recommended that NIDA, the Office for Treatment Improvement, and the BJA support a mechanism through which people can be recruited into drug counseling careers. The primary missions of this effort should be the identification, training, and accrediting of drug treatment clinicians. A secondary mission should involve working with State departments of correction to bring about changes in personnel practices that bar recovering addicts from working in correctional treatment. It would appear that the most logical place to house these efforts would be the National Association of State Alcohol and Drug Abuse Directors, the Therapeutic Communities of America, or a similar organization. A clearinghouse for corrections-based drug treatment employment opportunities should be established as well, coordinated perhaps by the American Jail Association, the National Academy of Corrections, or the American Correctional Association.

NOTES

1. State prison populations grew by more than 10 percent during 1989. By year's end, after a decade of rapid growth, State prisons housed a record 644,000 inmates, with Federal prison inmates numbering 56,500 (*New York Times*, May 20, 1990, pp. 1, 32).
2. DCC also has a maximum security unit, but this is a small, isolated compound segregated from the rest of the facility.
3. The rumor that was spread throughout the prison grapevine was that, once in the KEY, movement to parole or work release was all but impossible. It also was alleged that violations of the rules of the KEY resulted in shaved heads and loss of “good time” credits. During 1989, the Greentree program was restructured, its counseling staff was changed, and the bad feelings

eventually disappeared. At about the same time, some of the KEY's first residents began their movement into work release. In addition, senior KEY clients networked the general prison population to dispel the negative rumors.

4. The field followup is being conducted as part of NIDA grant DA-06124, "Assertive Community Treatment for High Risk Drug Abusers."
5. The State prison in Patuxent, MD, is a treatment-oriented facility that is self-contained and includes its own parole board that acts to review cases in progress and makes parole decisions on inmates who have completed treatment. The control of release decisions is considered the key to the dramatically lower recidivism rates from the institution vs. the rest of the Maryland system.

REFERENCES

- Brown, B.S., ed. *Addicts and Aftercare: Community Integration of the Former Drug Abuser*. Beverly Hills, CA: Sage, 1979.
- Clayton, R.R. Legalization: An idea whose time has not come. *Am Behav Sci* 32(3):316-332, 1989.
- De Leon, G. Legal pressure in therapeutic communities. *J Drug Iss* 18(4):625-640, 1988.
- De Leon, G., and Ziegenfuss, J.T., eds. *Therapeutic Communities for Addictions: Readings in Theory, Research, and Practice*. Springfield, IL: Charles C Thomas, 1986.
- Glaser, F.B. The origins of the drug-free therapeutic community. *Br J Addict* 76:13-25, 1981.
- Hamowy, R., ed. *Dealing With Drugs: Consequences of Government Control*. Lexington, MA: Lexington Books, 1987.
- Hubbard, R.L.; Marsden, M.E.; Rachel, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989.
- Inciardi, J.A. *The War on Drugs: Heroin, Cocaine, Crime, and Public Policy*. Palo Alto, CA: Mayfield, 1986.
- Inciardi, J.A., and McBride, D.C. Legalization: A high-risk alternative in the war on drugs. *Am Behav Sci* 32(3):259-289, 1989.
- Jonas, S. Is the drug problem soluble? *Am Behav Sci* 32(3):295-315, 1989.
- Jones, M. Democratic therapeutic communities or programmatic therapeutic communities or both? In: De Leon, G., and Ziegenfuss, J.T., eds. *Therapeutic Communities for Addictions: Readings in Theory, Research, and Practice*. Springfield, IL: Charles C Thomas, 1986. pp. 19-28.

- Leukefeld, C.G., and Tims, F.M. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988.
- Musto, D.M. *The American Disease: Origins of Narcotic Control*. New York: Oxford University Press, 1987.
- Nadelmann, E.A. The case for legalization. *Pub Interest* 92:3-31, 1988.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., September 1989.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00543-9. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., January 1990.
- Platt, J.J.; Buhringer, G.; Kaplan, C.D.; Brown, B.B.; and Taube, D.O. The prospects and limitations of compulsory treatment for drug addiction. *J Drug Iss* 18(4):505-525, 1988.
- Senate Judiciary Committee and the International Narcotics Control Caucus. *Fighting Drug Abuse: A National Strategy*. Washington, DC: Committee on the Judiciary, U.S. Senate, January 1990.
- Trebach, A.S. Tough choices: The practical politics of drug policy reform. *Am Behav Sci* 32(3):249-258, 1989.
- Wexler, H.K.; Lipton, D.S.; and Foster, K. "Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment: Preliminary Results." Paper presented at the annual meeting of the American Society of Criminology, San Diego, CA, November 1985.
- Wexler, H.K., and Williams, Ft. The Stay'n Out therapeutic community: Prison treatment for substance abusers. *J Psychoactive Drugs* 18(3):221-230, 1986.

AUTHORS

James A. Inciardi, Ph.D.
Director

Steven S. Martin, M.A.
Associate Scientist

Dorothy Lockwood, M.A.
Associate Scientist

Bruce M. Wald
Treatment Director

Center for Drug and Alcohol Studies
Department of Sociology
Division of Criminal Justice
University of Delaware
Newark, DE 19716

Robert M. Hooper, Ph.D.
Vice President
Correctional Medical Systems
42 Read's Way
New Castle, DE 19720

Evaluation of In-Jail Methadone Maintenance: Preliminary Results

Stephen Magura, Andrew Rosenblum, and Herman Joseph

INTRODUCTION

There are estimated to be 200,000 heroin addicts in New York City, of whom 80 percent are not in any kind of drug abuse treatment (LaPorte 1988). Heroin addicts are primarily intravenous (IV) drug users, who account for 24 percent of new adult and adolescent acquired immunodeficiency syndrome (AIDS) cases in the United States (Centers for Disease Control 1990) and 43 percent of new cases in New York City (New York City Department of Health 1990). Human immunodeficiency virus (HIV) antibody seroprevalence among IV drug users in New York City is between 50 and 60 percent (Lange et al. 1988; Marmor et al. 1987).

There is a strong and well-documented connection between drug use, especially IV use, and criminal activity (e.g., Johnson et al. 1985). A 1986 national survey of State prison inmates found that 36 percent of all inmates reported regular past use of major drugs, including heroin, cocaine, and phencyclidine (PCP) (Innes 1988). Urinalysis surveillance of felony arrestees has found substantial rates of heroin positives for male arrestees in large cities: 13 percent in Los Angeles, 18 percent in Chicago, 18 percent in San Antonio, 21 percent in San Diego, and 24 percent in New York; rates are somewhat higher for females (National Institute of Justice 1990). Twenty-eight percent of a sample of New York State prison admissions from New York City jails from December 1, 1987, through January 31, 1988, had histories of IV drug use, and 44 percent of these were HIV seropositive in anonymous testing (New York State Department of Health 1989). In general, national HIV seroprevalence rates of jail inmates seem to reflect the rates that characterize IV drug users in the respective communities (Hammett 1989).

Most of the criminally involved addicts in New York City eventually pass through the city's central jail facilities on Rikers Island. Since the early 1970s narcotics addicts have been able to receive methadone detoxification at Rikers, in a program initiated by Dr. Vincent P. Dole. Out of a total of 80,000 admissions to

Rikers in 1986, 16,000 detoxifications of heroin addicts were performed.¹ However, once detoxified addicts are released after legal processing or completing short sentences, they almost invariably return to drugs and crime. (Almost all heroin addicts at Rikers have had multiple detoxifications.) A voluntary alternative to rapid detoxification was created at Rikers in March 1987. The Key Extended Entry Program (KEEP) enables addicts charged with misdemeanors to be maintained on a stable dose of methadone during their stay at Rikers (averaging 45 days) and to be referred at release to dedicated slots in participating community methadone programs.

Thirty-five percent of KEEP-eligible heroin addicts admitted to Rikers are enrolled in a methadone program at the time of their arrest; KEEP enables them to continue receiving medication while in jail to encourage return to their community clinic after release. For the 65 percent of addicts who are not in treatment when arrested, KEEP is intended to be a route into long-term community drug treatment. The objective is to break the cycle of illicit drug use and criminal recidivism. KEEP is the only methadone maintenance program in the United States for incarcerated heroin addicts and only one of three known locations in the world where methadone is available to prisoners.² This chapter reports preliminary results from a process and impact evaluation of KEEP.

KEEP BACKGROUND AND DESCRIPTION

Prison and jail administrators traditionally have not been receptive to providing methadone maintenance to incarcerated narcotics addicts. The main reasons appear to be a philosophical opposition to this treatment modality (an opinion not limited to correctional personnel) and concerns about the feasibility of providing methadone in a prison or jail setting (e.g., diversion of medication, violence, security breaches). Nevertheless, a convergence of the following factors made it possible to establish KEEP in New York City in 1987:

- A rapid increase in the New York City jail population, fueled largely by increased numbers of drug-related arrests, leading to jail overcrowding and unrest. This situation heightened awareness among city officials that new measures to treat addicts must be tried, with the goal of reducing recidivism.
- The AIDS epidemic, which also created incentives for city officials to reach out to untreated IV drug users with improved services.
- The efficient operation of the ongoing methadone detoxification program at Rikers.

- The commitment of key drug abuse treatment administrators at the New York State Division of Substance Abuse Services (DSAS), who designed and funded KEEP, and personnel at Montefiore Hospital, who implemented KEEP.
- The willingness of key city correctional administrators to take a risk with a controversial program.

The establishment of KEEP at Rikers required the cooperation of diverse agencies to achieve a common goal despite differences in organizational philosophies and missions. New procedures to accommodate extended maintenance on methadone had to be created, new personnel hired, and facilities made available. The New York City Department of Correction had to modify regulations about managing and housing inmates involved in the program, construct new medication stations, and provide the necessary security. Community methadone programs were enlisted and funded to provide postrelease patient evaluation and continuing treatment. The Chemotherapy Services Bureau of DSAS developed the basic concepts and coordinated the implementation of the program. Montefiore Hospital's Rikers Health Services division accepted the challenge of operating KEEP in a tense and overcrowded urban jail complex. KEEP was piloted in the women's house, where prior experience with maintaining pregnant women on methadone for 30 or more days facilitated the transition from methadone detoxification to methadone maintenance for the eligible population.

To be eligible for KEEP, a new inmate must be diagnosed as a narcotics addict by a Rikers physician and must be either a pretrial detainee charged with a misdemeanor or an offender serving a sentence of up to 1 year at Rikers. These restrictions on legal status are intended to screen out addicts who might be convicted of a felony and thus might receive a sentence of more than 1 year, which would be served in State prison where methadone is not available. KEEP avoids methadone maintenance for inmates who might be transferred to State prison, which renders about 75 percent of addicts at Rikers ineligible for KEEP, although most offenders charged with felonies ultimately are not transferred to prison. In addition, once addicts complete detoxification, they may not be placed in KEEP, further limiting the eligible population.

About 3,000 male (77 percent) and female (23 percent) addicts annually receive methadone maintenance at Rikers through KEEP. KEEP is operated in three separately administered jail facilities at Rikers: The sentenced men's house, the pretrial detainee men's house, and the women's house, which serves all women. Women receiving methadone detoxification or maintenance are housed together, separately from the rest of the population. Male detainees

receiving methadone detoxification or maintenance also are housed together. Sentenced male methadone maintenance patients reside on the general wards.³

Eligible addicts who accept the offer of KEEP (virtually all do) are maintained on 30 mg per day if they were not on methadone when incarcerated and 40 mg per day if they were. (These are also the doses at which detoxification begins.) Inmates remain at Rikers an average of 45 days (ranging from 1 day to 1 year) until their cases are adjudicated, bail is made, or sentences are served. At release KEEP patients who were not on methadone at their arrest receive a referral to a specified community methadone program with a KEEP clinic; patients are instructed to report within 24 hours. At the time of this study there were 12 KEEP clinics in New York City. Outpatient KEEP clinics are operated under Federal regulations as 180-day detoxification programs. During this period the goal is to stabilize patients, to evaluate their longer term needs, and to make a decision for continuance in regular methadone maintenance, transfer to another type of drug abuse treatment, or discharge from treatment.

Experience with KEEP at Rikers has eased the anxieties that corrections personnel have about providing methadone to prisoners. Diversion of medication has not been a problem; the few patients who have attempted "spit-backs" have been detected and dropped from the program. There have been no conflicts between inmates who have access to methadone and those who do not. Moreover, the corrections staff perceives that addicts receiving methadone are less irritable and easier to manage than other inmates. KEEP now is viewed as an integral part of the administration of the jail and is accepted by the wardens as an important program for the treatment of heroin addiction and as an AIDS prevention measure among the jail population.

METHOD

The core of the evaluation study is a longitudinal followup of a cohort of KEEP participants and controls to examine (1) how well KEEP is being implemented and (2) outcomes for participants compared with outcomes of similar nonparticipants. The controls are heroin detoxification patients with characteristics similar to those of KEEP patients but who could not be enrolled in KEEP due to lack of slots or certain technical ineligibilities (e.g., completed detoxification). The study also provides individualized postrelease casework to a randomly selected sample of KEEP participants intended to address some of the transition problems that could interfere with their reporting to or remaining enrolled in a community methadone program. Programmatic and process information is obtained by site visits to a sample of community KEEP clinics. Available data on the KEEP population and on the entire city methadone

population (for comparative purposes) are being obtained through the cooperation of Montefiore Hospital and the DSAS.

This chapter presents data on the characteristics of the KEEP population at Rikers Island and on patients' postrelease reporting rates to methadone programs and treatment retention rates. Process information on the multiple obstacles to retaining this population in treatment also is presented. The 6-month postrelease interview followup of KEEP participants and controls was completed after preparation of this chapter.

The study subjects are 225 randomly selected participants admitted to KEEP at three "houses" (see above) between November 1988 and July 1990 at Rikers Island, *who were not enrolled in methadone treatment at the time of their arrest*. The study focuses on this population because a pilot study indicates that methadone patients who are arrested and placed in KEEP are very likely to return to their community methadone program, which the present research verifies. Study subjects were selected randomly from eligible KEEP admissions to achieve the targeted sample size.

Baseline research interviews were conducted with subjects at admission. Informed consent was obtained, and an incentive of \$10 was deposited in subjects' canteen accounts. Ninety-nine percent of the inmates contacted for the study agreed to participate. All interview information was confidential; the independence of the research project from the correctional system and KEEP methadone program was emphasized.

RESULTS

Table 1 presents the sociodemographic characteristics of the KEEP sample, which closely parallels the characteristics of the inmate population at Rikers. There is substantial instability in living arrangements; few were living in what they described as their own home before incarceration, and two in five men described themselves as homeless. Weekly income figures for the week before arrest represent mainly criminal income from property crimes (i.e., burglaries for men and shoplifting for women).

Table 2 indicates that most of the subjects are daily users of both cocaine and heroin. Intranasal heroin use is significantly greater for women, and 22 percent of women (table 3) report using heroin only intranasally and not injecting any drug; they also may sniff cocaine or use crack, however. Women as a group also report significantly less frequent drug injection. It is notable that, although all subjects said they were using heroin and were medically diagnosed as heroin addicts, about one-third defined their primary drug problem as some form of cocaine use.

TABLE 1. *Sociodemographic characteristics of KEEP participants (n=215)*

Characteristics	Men (n=144)	Women (n=71)
Ethnicity		
Hispanic	38%	27%
Black	47%	62%
White	15%	10%
Other	1%	1%
Age (mean)	34%	33%
Marital Status		
Married or common law	16%	25%
Separated	17%	7%
Divorced	12%	10%
Widowed	2%	4%
Single (never married)	54%	54%
Last Grade Completed		
Grades 3 to 8	5%	6%
Grades 9 to 11	39%	44%
Grade 12	41%	36%
Some college	13%	13%
Associate degree	2%	0%
College graduate	1%	1%
Major Source of Income (Week Before Arrest)		
Stolen cash or goods	69%	77%
Sale of drugs	16%	11%
Prostitution	2%	3%
Legitimate job	4%	2%
Spouse or sex partner	1%	5%
Welfare	1%	0%
Other	6%	2%
Living Arrangement Before Jail		
Own home	13%	16%
Another's home	33%	56%
Homeless	39%	8%
Single room occupancy	10%	11%
Other	4%	8%
Income for the Week Before Jail (mean)	\$1,244	\$1,070

TABLE 2. *Frequency of drug use in past 6 months (percent)*

Type of Use	Men			Women		
	Daily	Weekly	Less Than Weekly	Daily	Weekly	Less Than Weekly
Inject heroin*	78	5	1	56	6	8
Intranasal heroin [†]	25	4	9	44	11	7
Intranasal cocaine	10	5	8	11	8	6
inject cocaine [†]	50	9	6	32	7	6
Inject speedball [‡]	63	7	6	55	6	1
Crack	31	12	12	39	10	7
Illicit methadone	2	33	29	6	32	31
Heavy drinking*	17	12	18	3	3	13

*p<.001

[†]p<.01[‡]mixture of heroin and cocaine**TABLE 3.** *Selected drug use-related AIDS risk behaviors in past 6 months (percent)*

Risk Behaviors	Men			Women		
	Daily	Weekly	Less Than Weekly	Daily	Weekly	Less Than Weekly
Inject (p<.001)	81	4	1	61	6	7
Visit shooting gallery	24	10	11	21	10	12
Shoot with used works	6	10	28	2	8	33
Share cookers	26	17	19	25	10	14

Selected drug use-related AIDS risk behaviors are shown in table 3. Women as a group report significantly less drug injection than men. IV drug users seem to have grown more wary of injecting with “used works.” Nevertheless, 54 percent of the injectors (men and women) continue to report some form of needle/works sharing in the previous 6 months. Among sharers, 53 percent do not clean needles/works consistently or effectively. Sharing cookers is common, and 53 percent said they did not know that sharing cookers, cotton, and rinse water could transmit HIV. Shooting gallery visitors (44 percent of the sample) were more likely to share and reuse equipment and not clean it effectively.

Table 4 indicates that condom use during various sexual activities is infrequent. Of the 18 percent of men who report engaging in heterosexual anal sex, 88 percent report usually using no protection. Anal sex has been established as a relatively efficient route of HIV transmission. Incidentally, almost all of these men classify themselves as heterosexual.

TABLE 4. *Selected sexual AIDS risk behaviors in past 6 months (percent)*

Risk Behaviors	Men	Women
Vaginal Sex	85	69*
No condom use	63	65
Condom use some of the time	25	14
Condom use every time	12	20
Oral Sex	73	39 [†]
No condom use	91	71
Condom use some of the time	8	7
Condom use every time	1	21
Anal Sex	18	4*
No condom use	88	67
Condom use some of the time	4	0
Condom use every time	8	33

*p<.01

[†]p<.001

Property crimes are by far the most frequent arrest charges for both men and women, but this may not be representative of all street addicts, since the KEEP eligibility criteria exclude the more serious or violent felony offenders (unless their charges are downgraded soon after incarceration). Both men and women have extensive criminal histories (table 5). About two out of five subjects report committing a crime to get a place to stay, which is consistent with their reported housing instability. Some also admit inviting arrest at least once to obtain methadone at Rikers, although this does not appear to be a pervasive “problem.”

The types and numbers of self-reported crimes in the 6 months before latest arrest are shown in table 6. Men report more burglaries, robberies, weapons possession, and drug-dealing offenses; women report more prostitution. Prostitution is not a major category, and this is supported by other interview data indicating that most of these women specialize as shoplifters. Addict prostitutes seem to be a separate group whose cases are resolved without detention at Rikers. Note the large number of crimes reported during just 6 months compared with reported lifetime arrests (22 for men, 27 for women); the difference is astounding. This finding replicates previous research by Ball and colleagues (1981), Chaiken and Chaiken (1983) and Johnson and colleagues (1985), which will be confirmed with official arrest records.

TABLE 5. *Criminal history (self-report)*

Criminal History	Men	Women
Age first arrested (mean)	18	21*
Years incarcerated (mean)	7	5†
Number of times at Rikers (mean)	9	8
Lifetime arrests (mean)	22	27
Nondrug arrests (mean)	18	26
Ever arrested to get a place to stay	19%	21%
Ever arrested to get methadone	8%	4%

*p<.001

†p<.05

TABLE 6. *Number of crimes committed in past 6 months*

Type of Crime	Men	Women
Drug possession	165	160
Drug dealing	34	21
Auto theft	7	3
Shoplifting	82	101
Robbery	8	0*
Burglary	28	4*
Weapons possession	17	4*
Prostitution	2	10
Forgery	3	4
Total nondrug crimes	161	127 [†]

* $p < .05$

[†] $p < .01$

Ninety-five percent of addicts who are offered participation in KEEP accept and remain in the program while at Rikers. Fifty percent of the subjects report a previous methadone treatment episode, and 93 percent state that they intend to report to the designated KEEP community methadone program after release. However, only 40 percent expect to be in treatment after a year's time, which reflects the general view that methadone should only be a bridge for them to a drug-free lifestyle. Eighty-six percent expect to be abstinent from illicit drugs at 1 year after release.

Most KEEP participants have considerable anxieties about remaining on long-term methadone maintenance. Sixty percent reported that the "worst thing they had heard about methadone" was that it "eats the bones" (common variant: "rots the teeth"), and 90 percent believed this to be true. Forty percent stated that their "greatest fear" about methadone was that it is "hard to kick" ("too addictive"), and an additional 20 percent mentioned other fears such as overdosing. Significantly fewer women than men reported "no fears" (23 percent vs. 40 percent, $p < .01$). This prevailing folklore about methadone maintenance in the addict subculture has been documented previously by Goldsmith and colleagues (1984). However, there seems to be no basis in the medical literature for fears about these specific long-term side effects (Kreek 1983). It has been suggested that these beliefs may derive from addicts' previous experiences when undergoing rapid methadone detoxification and/or being maintained on inadequate levels of methadone, both of which may cause withdrawal symptomatology (Goldsmith et al. 1984).

Table 7 shows the percentage of KEEP patients reporting to their designated community methadone program after release from Rikers, separately for participants who were and were not in methadone treatment at arrest; the reporting rate is significantly higher for the former. Whether this indicates a differential level of motivation for treatment after release for the two groups is unclear. Returning methadone patients almost always report to their original community program, whereas new patients were limited to 1 of 12 KEEP clinics at the time of the study, whose locations, medication hours, services, and policies were not necessarily as suitable for them. The reporting rate is significantly higher for men.

A fairly high reporting rate may not be surprising, if only because of these subjects' immediate need for an opiate to prevent withdrawal. An addict released from Rikers, often in the small hours of the morning with no money, may have difficulty obtaining heroin on short notice. Thus, a better measure of treatment engagement is the rate of retention in community methadone maintenance. Table 7 shows fairly high attrition rates for those who were not in methadone treatment at arrest; 60 and 67 percent of initially reporting men and women, respectively, on whom at least 5 months of postrelease data are available, are no longer attending the community program. Attrition rates for those who were in methadone treatment at arrest are lower, especially during the first month after release.³

TABLE 7. *Reporting and retention rates (percent)*

	Not in Methadone Treatment at Arrest		In Methadone Treatment at Arrest'	
	Men	Women	Men	Women
Reported to community methadone program	57 (62/108)	42 (27/65) [†]	83 (82/99)	79(30/38)
In program at 5 months after release	23 (25/108)	14 (9/65)	47(47/99)	42 (16/38)
Attrition rates				
1st month	29 (18/62)	44 (12/27)	12 (10/82)	20 (6/30)
2nd, 3rd month	15 (9/62)	19 (5/27)	18 (15/82)	17 (5/30)
4th, 5th month	16 (10/62)	4(1/27)	12 (10/82)	10 (3/30)

*Data based on random samples of 99 men and 38 women whose records were traced

[†]p<.01

DISCUSSION

There are many reasons why KEEP participants do not follow through with their community treatment referrals or do not remain in treatment long after reporting. Some of these reasons are clearly centered in the addicts themselves (e.g., insufficient motivation for treatment or personal disorganization). There are also various administrative and systems obstacles to enrollment and retention that affect the viability of a potentially worthwhile treatment innovation.

Although KEEP participants' intentions to enter community methadone treatment and expectations of remaining abstinent are high, continuation in treatment may be compromised by personal beliefs regarding the nature of addiction and the efficacy of treatment as well as by unrealistic concerns about the side effects of methadone. Improved education concerning methadone—benefits, risks, and outcomes—might reduce addicts' ambivalence, but given the "bad press" this modality has been receiving generally, the possibility of creating a major change in attitudes among the addict population is doubtful.

Another serious barrier to engaging these addicts in community treatment is their level of deprivation. Methadone program administrators have observed that KEEP patients as a group have more severe personal and social deficits than other addicts who apply for treatment. At incarceration almost none hold jobs (or possess usable legitimate job skills), and most are literally "street addicts," without stable living quarters or social supports, heavily involved in property crimes. The women often support paramours through theft and are expected to return to such activity after their release. Illegal incomes are high, but virtually all money is used for drugs, so that most of these addicts are constantly destitute. Certainly, drug abuse treatment can help an addict achieve stability, but some minimal level of security is required to enable the person to comply with outpatient drug abuse treatment program requirements. Again, although drug abuse is instrumental in creating the difficult situations in which these addicts find themselves, merely enrolling in treatment will not automatically result in procuring adequate housing, adequate and legal income, and supportive family and friends. Methadone programs generally have only limited ability to assist KEEP patients in obtaining the social, vocational, housing, medical, and individualized supportive counseling services they may need to break the cycle of addiction and crime.

KEEP's ability to help these addicts is seriously impaired by cocaine abuse. Most KEEP participants use cocaine in some form at arrest about as frequently as they use heroin, and about one-third say that cocaine (including crack) is their primary drug problem. Thus, methadone can constitute only part of their treatment solution. Urinalysis used by community programs shows that the

patients who report after release from Rikers usually also return immediately to cocaine use. Methadone programs generally have no specialized therapies for cocaine use (Kolar et al. 1990). Cocaine use tends to decline the longer addicts remain in methadone treatment (Magura et al. 1991; Hubbard et al. 1989; Chaisson et al. 1989), but KEEP patients drop out early or are involuntarily discharged for various reasons.

Dedicated (guaranteed) community methadone slots for KEEP participants released from Rikers are essential, but during most of the study period only 12 community programs were funded to participate. Addicts who consider entering treatment are likely to be "turned off" by programs far from their homes with limited medication hours. The original concept of KEEP also involved making a full range of long-term drug treatment modalities available to KEEP participants at release. Ready availability of drug-free treatment might have been a more attractive alternative for some participants given the generally negative attitudes toward methadone displayed by this population. Thus far, however, funding and space limitations have restricted community KEEP programs to the methadone modality.

Various administrative, financial, and systems problems have affected the efficiency and effectiveness of KEEP. Due to limited funding, KEEP staffing levels at Rikers have been marginal at best. Counselors have been occupied mainly with recruitment and have had limited time for discharge planning. Difficult working conditions at Rikers—tense, noisy, overcrowded, inadequate office space; summer heat; work delays due to security requirements; long commutes by public transportation—have led to high turnover of KEEP correctional staff, which is also true for most of the noncorrectional staff. Thus, the program usually has been understaffed or staffed with new personnel, many of whom also are persons in recovery for whom the Rikers environment may be particularly stressful. It has not been possible to work intensively with the large majority of KEEP participants to motivate them for long-term treatment and to develop detailed discharge plans. However, there have been individuals for whom intensive referral efforts have resulted in good outcomes, such as admission of clients to community residential programs. In general, however, owing to funding and implementation problems, the potential of KEEP at Rikers probably has not been fully realized.

Funding uncertainties also have affected the establishment and operation of the community KEEP programs. At various times certain KEEP clinics have frozen enrollment, lowered KEEP staffing levels, or limited KEEP clinic hours because of funding delays or reductions. It is difficult to assess the exact effect of these problems on patient retention, but some negative effect is plausible. Unfortunately, these problems have not yet entirely abated. Nevertheless, the number of community KEEP methadone clinics now has increased to 20.

Enrolling patients in Medicaid has been a key issue, because community programs usually need to obtain Medicaid reimbursement for as many patients as possible. This requires acceptable identification, which most KEEP participants do not have and often fail to obtain. There are other steps in the application process that also must be pursued. As one KEEP patient put it, "It's easier to cop drugs." Some community programs have the resources to guide patients through the application process, but others do not and will discharge patients if Medicaid is not obtained.

The KEEP staff is aware of this problem and has been attempting to begin prescreening for Medicaid and public assistance while inmates are still at Rikers. The discharge of inmates before the process can be completed, and the lack of staff to pursue the labor-intensive tasks involved have been hindrances to this effort. The eligibility obtained is temporary, however, and requires the inmate to follow up with the public welfare agency after release. In addition, only inmates who are expected to remain at Rikers at least another 30 days (usually only sentenced inmates) are eligible for this followup (the process requires about 30 days). This makes at least half the KEEP patients at Rikers ineligible for this service.

Various other factors also may affect enrollment and retention in the community programs. First, KEEP participants who report more than 24 hours after release from Rikers are technically ineligible for immediate medication; if not medicated, they usually depart and do not return. However, some clinics try to be flexible about this requirement. Second, patients often will not obtain the required physical examination after admission, which has the immediate effect of precluding an increase in their methadone dose from the 30 mg received at Rikers (average dosage in city programs is 45 to 50 mg) and the later effect of administrative discharge. A special problem is that patients at nonhospital-affiliated programs often must go to an offsite laboratory for blood work, and at least one program requires patients to pay for this workup. Failure to obtain the blood work constitutes an incomplete physical exam and can result in administrative discharge.

Patients attempting to avoid renewed criminality must receive some financial assistance. When public assistance eligibility is established at Rikers, patients will receive an initial check at discharge. Otherwise, patients who report to their community program must wait at least 6 weeks for a check after completing their public assistance application. In the meantime patients may lack subway or bus fare to attend the clinic, especially when it is in a two-fare zone. Medicaid has a provision for issuing "car fare" vouchers for medical visits, but the authorization procedure is tedious. In general, patient noncompliance is a serious barrier to retaining KEEP patients in treatment; in addition, the

institutional structures are not especially conducive to serving addicts who often are ambivalent and disorganized. The less “user-friendly” the system, the more likely addicts are to use red tape as an excuse to “give up.”

PRELIMINARY RECOMMENDATIONS

Adequacy and stability of funding for both the Rikers and the community KEEP components are essential to maximize the potential of the program. Some programmatic reorientation also should be considered. Currently, drug abuse treatment services at Rikers are dichotomized between (1) methadone maintenance for heroin users (minimal counseling support) and (2) fairly intensive therapeutic community-style treatment for primary cocaine users. It would be reasonable to introduce a cocaine treatment component for the heroin addicts as well, since their use of cocaine and heroin are often at similar levels. This should be coordinated with continuing cocaine use treatment in community methadone programs. Clearly, cocaine use is a critical problem for the methadone modality that is not limited to the KEEP population, but exactly how this should be addressed in the absence of well-tested outpatient cocaine treatment models requires more thought, discussion, and research.

Aside from the cocaine issue, the KEEP concept can be made more viable by continuing to increase the “user-friendliness” of the program. This already has begun, for example, through public assistance and Medicaid workups for some KEEP patients at Rikers and community programs to increase supportive services to KEEP patients in response to their demonstrable needs. Unfortunately, increased funding is required to maintain and expand these efforts, but New York State is in a budget crisis. A residential treatment option is especially important because homelessness is a pervasive problem, in addition to the street drug culture that most KEEP participants again encounter after release. Community KEEP originally was envisioned as a limited-service, transitional program leading to regular methadone maintenance or other long-term treatment, but it is now clear that addicts released from jail require more rather than less assistance and support than other applicants for treatment if there is to be any hope of retaining substantial numbers in community treatment.

KEEP patients who receive a complete physical at Rikers within 3 months before admission to a community methadone program are not required under Federal or State regulations to undergo a new physical. If copies of the Rikers KEEP medical records were transmitted routinely to community programs for such patients, one of the main reasons for administrative discharge of KEEP patients would be reduced. This would require clerical assistance at Rikers but

would save reexamination expenses at the community programs. Of course, a program still could require the patient to undergo a new physical.

Finally, an opportunity probably is being lost to use the criminal justice process as leverage to encourage ambivalent addicts to enroll in community drug treatment. Currently, convicted inmates usually serve their full sentences at Rikers with "good time" deducted and are released without conditions. It would seem sensible to consider early release on probation with the condition that KEEP participants report to and remain in long-term drug abuse treatment at least for the duration of their sentences. This would provide programs with an opportunity to engage these addicts; prior research has indicated that compulsory treatment can be useful (Anglin 1988; Maddux 1988; Hubbard et al. 1988).⁴

NOTES

1. Narcotics addicts with multiple incarcerations might be detoxified more than once annually. Addicts who have completed withdrawal before admission to Rikers (e.g., while being held in a borough detention facility) are ineligible for detoxification.
2. New South Wales, Australia, has a prison-based methadone program, and physicians in the Netherlands are allowed to prescribe methadone for inmates. However, KEEP serves by far the largest number of narcotics addicts.
3. At this time the reporting rates do not include individuals who after release may have entered a community methadone program that was not their designated program or a drug-free treatment program. However, a sample of the followup interviews indicates that these are infrequent events. Transfers to another program, whether methadone or drug-free, after reporting to the designated program are included in the retention statistics.
4. A conditional release procedure is being established at the New York City Department of Correction, but it is uncertain whether enrollment in methadone maintenance will constitute an acceptable condition of release.

REFERENCES

Anglin, M.D. The efficacy of civil commitment in treating narcotic addiction. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse

- Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 8-34.
- Ball, J.C.; Rosen, L.; Flueck, J.A.; and Nurco, D.N. The criminality of heroin addicts when addicts and when off opiates. In: Inciardi, J., ed. *Drugs-Crime Connection*. Beverly Hills, CA: Sage Publications, 1981. pp. 39-65.
- Centers for Disease Control. *HIV/AIDS Surveillance*. Rockville, MD: National AIDS Information Clearinghouse, April 1990.
- Chaiken, M.R., and Chaiken, M. Crime rates and the active offender. In: Wilson, J.Q., ed. *Crime and Public Policy*. New Brunswick, NJ: Transaction Books, 1983. pp. 11-29.
- Chaisson, R.E.; Bacchetti, P.; Osmond, D.; Brodie, B.; Sande, M.A.; and Moss, A.R. Cocaine use and HIV infection in intravenous drug users in San Francisco. *JAMA* 261(4):561-565, 1989.
- Goldsmith, D.S.; Hunt, D.E.; Lipton, D.S.; and Strug, D.L. Methadone folklore: Beliefs about side-effects and their impact on treatment. *Human Organization* 43(4):330-340, 1984.
- Hammett, T.R. *1988 Update: AIDS in Correctional Facilities*. Washington, DC: U.S. Department of Justice, June 1989.
- Hubbard, R.L.; Collins, J.J.; Rachal, J.V.; and Cavanaugh, E.R. The criminal justice client in drug abuse treatment. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 57-80.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill and London: The University of North Carolina Press, 1989.
- Innes, C.A. *Profile of State Inmates*. Bureau of Justice Statistics Special Report. Washington, DC: U.S. Department of Justice, 1988.
- Johnson, B.D.; Goldstein, P.J.; Preble, E.; Schmeidler, J.; Lipton, D.S.; Spunt, B.; and Miller, T. *Taking Care of Business: The Economics of Crime by Heroin Abusers*. Lexington, MA: Lexington Books, 1985.
- Kolar, A.F.; Brown, B.S.; Weddington, W.W.; and Ball, J.C. A treatment crisis: Cocaine use by clients in methadone maintenance programs. *J Subst Abuse Treat* 7:101-107, 1990.
- Kreek, M.J. Health consequences associated with the use of methadone. In: Cooper, J.R., ed. *Research on the Treatment of Narcotic Addiction: State of the Art*. National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)83-1281. Rockville, MD: Alcohol, Drug Abuse, and Mental Health Administration, U.S. Public Health Service, U.S. Department of Health and Human Services, 1983. pp. 456-491.

- Lange, W.R.; Snyder, F.R.; Lozovsky, D.; Kaistha, V.; Kaczaniuk, M.A.; and Jaffe, J.H. Geographic distribution of human immunodeficiency virus markers in parenteral drug abusers. *Am J Public Health* 78(4):443-446, 1988.
- LaPorte, C. "Key Extended Entry Program at Rikers Island (KEEP)." Paper presented at the American Correctional Institute Winter Conference, Phoenix, AZ, 1988.
- Maddux, J.F. Clinical experience with civil commitment. In: Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. pp. 35-56.
- Magura, S.; Siddiqi, Q.; Freeman, R.; and Lipton, D.S. Cocaine use and help-seeking among methadone patients. *J Drug Iss* 21:629-645, 1991.
- Marmor, M.; Des Jarlais, D.C.; Cohen, H.; Friedman, S.R.; Beatrice, S.T.; Dubin, N.; El-Sadr, W.; Mildvan, D.; Yancovitz, S.; Mathur, U.; and Holzman, R. Risk factors for infection with human immunodeficiency virus among intravenous drug abusers in New York City. *AIDS* 1:39-44, 1987.
- National Institute of Justice. *DUF: 1988 Drug Use Forecasting Annual Report*. Washington, DC: U.S. Department of Justice, 1990.
- New York City Department of Health. *AIDS Surveillance Update*. New York: Department of Health, March 28, 1990.
- New York State Department of Health. *AIDS in New York State*. Albany, NY: Department of Health, 1989.

ACKNOWLEDGMENTS

The study was funded by National Institute on Drug Abuse grant DA-05606 in cooperation with the New York State Division of Substance Abuse Services.

The points of view or opinions expressed herein do not necessarily reflect the official positions or policies of the U.S. Government, New York State government, Narcotic and Drug Research, Inc., or any cooperating institution.

AUTHORS

Stephen Magura, Ph.D.
Deputy Director of Research for Treatment and Prevention

Andrew Rosenblum, Ph.D.
Senior Project Director

Narcotic and Drug Research, inc.
11 Beach Street
New York, NY 10013

Herman Joseph, B.A.
Senior Research Scientist
Bureau of Research
New York State Division of Substance Abuse Services
55 West 125th Street
New York, NY 10027

Management of the Drug-Abusing Offender

John Gregrich

“The world has not suffered from the absence of noble aims anywhere nearly as much as it has suffered from the absence of means for realizing ends that are prized in an abstract or sentimental way.” —John Dewey

INTRODUCTION

This chapter provides a respite from the formal presentation of findings that generally characterizes National Institute on Drug Abuse (NIDA) publications. Other chapters in this volume cover the relevant research eloquently, whereas this chapter raises rather than answers more questions and draws heavily on the work and ideas of so many others that it is sometimes difficult to determine where one person’s ideas begin and another’s end. Furthermore, as most program managers know, the brief note transmitting a major report often cuts to the real heart of the matter, revealing areas of certitude as well as nagging questions on which the formal methodology is silent.

After numerous futile attempts to organize and speak about this topic, one is reminded of the views of Schumacher (1978) and Percy (1977): Being stuck is a privileged, prehypothesis state in which one’s ideas become visible and are potentially the objects of thought and not merely its instruments. Sorting through case management matters of significance to offender drug treatment starts with a list that would probably differ little from researcher to program developer to program administrator: offender/client assessment, essential treatment services and programs, linkage within the criminal justice system and between it and other social service systems, program development prerequisites and program maintenance requirements, human resources, staff training, performance standards, management information requirements, incentives/sanctions, funding, public information, and evaluation.

Program and case management are the essence of such a list. The irony is that the substantive steps generally identified as important and requiring management seldom bear a direct relationship to performance. Program

developers are inclined to attack measurable problems by creating an “ideal” program concept from which program administrators may immediately excuse themselves, given resource and time constraints. In other words, the “answers” to the perceived problems are drawn from theory and common sense and not from concrete experience. Of corollary significance, the solid information required to garner support for such answers is seldom provided by existing research.

A WORKING DEFINITION

Offender case management exists to inform decisions. To do so, it should include a formally disciplined set of continuing steps by which sufficient, relevant information about a particular individual is gathered, analyzed, revised, employed, and documented and then is made available for use by others. The most specific contribution of offender management is the clear expression of the extent and nature of the individual’s problem at any specific time; the corollary contribution is the response to this understanding, which ideally is the identification of the most appropriate action or set of actions.

Offender case management assumes that there is at least basic consensus that intervention beyond simple retribution has value and that available interventions will have a positive impact. That is, case management assumes that the findings presented in other chapters and summarized below are valid and significant. Offender case management also assumes that there is an infrastructure—that treatment programs exist and that someone is charged to make decisions, apply sanctions, employ threats, and assess progress. Finally, offender intervention management assumes that this basic infrastructure can be built on and refined to handle the growing number of cases and to gather from disparate sources the kinds of relevant, dynamic information required to make, assess, and revise decisions.

To the extent that these assumptions are not warranted in a given jurisdiction, decisions will be episodic and their bases obscure. In such settings, which are not uncommon, offender management efforts, by making information available, may “create” new decision responsibilities. In so doing, offender management agencies risk being ignored or worse. For example, in some jurisdictions, decisionmakers have rejected the development of drug testing programs to avoid being confronted with new information for which they have no established response.

TRENDS AND ATTENTION

For the next decade, offender management programs will be required to address both the impact of drugs on society and the organizational

consequences of various national responses to the impact of drugs on society. Crowding of institutional and community programs is at present the most obvious result of these combined forces. Programs, and their consequences, can be inferred from the forces that are at work.

The recent reports of the Office of National Drug Control Policy (ONDCP) (1989, 1990, 1991) offer a compendium of the problems and approaches on which a degree of consensus is emerging. In offering priorities, this Office has served to predict and to influence public actions for the immediate future.

Enforcement has been the most pervasive priority: street-level enforcement, multijurisdictional task forces, sophisticated investigation techniques, vigorous prosecution, mandatory minimum sentences, increased Federal personnel across branches, and civil commitment. The degree to which these enforcement initiatives are successful is the degree to which institutional, community, and case management programs will experience increases in their caseloads.

Treatment programs also are supported directly within the priorities, albeit with a clear concern regarding their effectiveness. In addition to the call for an increase in treatment resources, which includes treatment for criminal justice populations, there is the repeated call for evaluation of current treatment methods, of user/treatment matching, and of "what works" in programs and approaches. Given this attention and increased resources, treatment programs should be prepared to offer a public accounting of effectiveness at a level of detail not previously required of them.

Offender case management was not addressed as a discrete matter until the third report (Office of National Drug Control Policy 1991), although it was implied in some priorities and required for the accomplishment of others. Initially, drug testing was emphasized, alternative sentencing encouraged, data collection urged, and coordination-including the submission of State treatment plans-recommended. Given the specific inclusion of Treatment Alternatives to Street Crime (TASC) (see Weinman, this volume) in the 1991 "National Drug Control Strategy" report, offender case management will be seen as more important to the disciplined implementation of the national strategy. However, case management programs such as TASC should remain sensitive to their relative organizational visibility (to why they are often an afterthought) and to their challenge to communicate case management principles clearly, early, and continually.

Viewing the published national strategy as a harbinger, case managers working with and within criminal justice agencies can anticipate an increase in drug

testing, an increase in new programs and/or new program titles, an increase in the concern of their colleagues for their own safety while working with serious offenders, and an increase in demands for surveillance, accountability, evaluation, and innovation.

Finally, offender case management programs can anticipate an increase in public attention to and expectations of their efforts, coupled with an increase in budget resources that might bear little relationship to increased expectations. In this regard, it is important to note that certain obstacles to progress will accompany the trends that are taking shape.

TRENDS AND OBSTACLES

Current Window of Importunity

Case management draws episodic and fleeting attention from resource allocators and from line agencies. It is a crisis-related attention, which grows in response to an unacceptable level of anxiety. When there are too many bodies to handle and/or the problems they present are too complex and when the system is not coherent or not in control (perhaps not a system), entities such as ONDCP and TASC programs are created to put the Nation back on track. Now is a time of such attention.

Case managers should seize the opportunity to make some progress and accept the fact that there are systemic and circumstantial forces that mitigate against continued attention. Circumstantially, the intensity of attention will be inversely proportional to the progress made; the attention will last as long as the perceived crisis. Systemically, offender case management cannot command continuing attention and support because it lacks established orthodoxy, effective political organization, effective professional organization, a national perspective, and a natural organizational home. The circumstantial matters are beyond our influence; the systemic matters should be the national agenda for action.

The Systemic Problem of Organization

The drug-abusing offender represents a management problem for the criminal justice system, a problem so basic that it invites reflection on the origin and limits of the term "criminal justice system." An intellectual construct, developed by systems engineers decades ago to invite a comprehensive perspective on the problems of crime and justice, this term is now an unexamined part of the public policy vocabulary. This synthetic, postfact, descriptive term is used as if it were definitive, as if real agencies in real time were formally charged to view

themselves as part of a greater substantive entity, to which they were accountable and for which they share joint social accountability with other system members. In fact, these system members function under separate budgets, have different organizational missions, and in some cases, are part of constitutionally separate branches. So, when public officials speak of the criminal justice system-as they must when addressing offender case management-they are always speaking theoretically or prescriptively. Finally, when case management programs accept the responsibility for making the system work, they are courting disaster.

The Systemic Problem of Authority

“Authentic authority [and its exercise] has three bases: social position, expertise, and love. If any of these bases is missing, what is being exercised is something less than authentic authority.”- Ancient Christian Formulation

When drug czars, TASC programs, and, to some extent, pretrial service agencies and probation and parole agencies get serious about offender case management, they have overstepped their bounds. They are clearly on the turf, and often on the toes, of line administrators. They are free-floating executives without a sense of permanence, without direct line authority, and without control over the quality of the services they would manage. Their authority is subtle and fragile, based in large part on their continued demonstration of expertise and goodwill. Indeed, resistance and competition from their peers are more likely to result from their excellence than is appreciation. TASC is a useful example. Some insight into the most basic requirements of authority for case management can be gained by asking certain questions of this program, which began as Treatment Alternatives to Street Crime and which has evolved into Testing, Assessment, Supervision, and Control.

Is TASC (i.e., drug-dependent offender case management) a discrete and necessary program or an extra safety valve to protect against the underperformance of probation and parole (or pretrial services or institution-to-community transition) functions? Is there so fundamental a difference in the nature of criminal justice agencies (such as probation) and social service agencies (such as drug treatment) that they cannot understand each other or effectively utilize each other's strengths without an intervening agent?

An answer in the affirmative, at least for the foreseeable future, results in additional questions. What is the essential expertise of this agent? What does experience with similar agents reveal about the organizational placement of this agent? For example, does the advocate/architect role of the entry-level family practice physician vis-a-vis medical specialists offer a model?

These are questions worthy of significant reflection on the part of jurisdictions that would take case management seriously. In jurisdictions where TASC or TASC-like programs have been established by statute, they are able to work effectively as peers with probation and other criminal justice agencies. In jurisdictions where they are not so established, they face the requirement of continually pleasing many masters (i.e., funders and funding supporters) and continually demonstrating substantial but nonthreatening expertise.

The Systemic Problem of Shared Understanding

“All but the most naive (or politically inclined) social scientists concede that the scientific study of human behavior cannot replace ethical judgment and political wisdom.” —James R. Kelly

Because there is no unified or unifying professional voice for case management, there is virtually no direct case management research carried out in criminal justice settings and very little synthesis of the relevant findings of other research.

Much of what is said with relative confidence about offender management is borrowed from drug treatment research. It appears to be related. In fact, the problem goes much deeper than the focus of research. By gaining preeminent authority as the means to certitude, scientific methods in general and research/evaluation design in particular have conspired to erode our sense of confidence in our own observation of the content and outcome of offender intervention programs. When researchers and other scientists are at non sequiturs with treatment program providers in attempts to discuss the content and impact of treatment programs, Walker Percy’s essay “The Message in the Bottle” (1977) comes to mind as a bridge to understanding. In this essay, Percy distinguishes the canons of acceptance for “knowledge” from those for “news.”

Knowledge has a timeless quality. To become knowledge, information must be general, repeatable, and affirmable. The hearer accepts it or rejects it. It is most elegant when it is most general. For example, $E=MC^2$ Or, to offer a more pedestrian example, if the statement “lead melts at 300 °C” is to be accepted as knowledge, it must do so for anyone, anywhere, at any time. News is of a different order; it implies a call to action. It is immediate, personal, and not subject to affirmation or refutation at the point that it is delivered. The hearer heeds it or ignores it. The statement “On average in the United States, 35.7 hotel fires involve fatalities each year” can be tested against the canons for acceptance for knowledge. The statement “There is a fire in this hotel; I know the way out, please follow me” invites a different mental process. The canons of acceptance for news, offered by Percy (1977), are three: Is it relevant to me? Is it possible? Does the demeanor of the news-giver invite trust?

This distinction between knowledge and news does not exactly fit a discussion of drug treatment; over time, drug treatment will indeed have a substantial body of irrefutable knowledge. However, successful drug treatment will always involve a very personal conversion process. And, for the interim, treatment providers will be approaching resource allocators for support of programs, in an arena fraught with incomplete and often conflicting outcome information. The demeanor of the “news-giver” in such an environment takes on great importance and may determine whether his or her call will be heeded or ignored.

Related Circumstantial Problems of Episodic Response, Oversell, and “Innovation”

“Government works best when it is a little dull.”-Warren Rudman

Intolerance of crime, limited confidence in the deterrent and rehabilitative effectiveness of nonpunitive interventions, and limited social satisfaction with criminal sentences that appear to fall short of deserved retribution have resulted in a sharp increase in the use of incarceration as the preferred public response to crime. This social preference is reflected by legislatures and judges imposing a variety of sentence enhancements. It has not as yet been reflected in a proportional expansion of prison capacity or in correctional budgets because an extended period of economic uncertainty has resulted in fiscal austerity for virtually all social programs.

In essence, public officials have decided on the face validity of retribution and incapacitation offered by incarceration rather than the promising but less certain approach to rehabilitation and deterrence offered by community programs. Irony creeps into the equation, however, as social conservatism is layered on fiscal conservatism; the least complicated response to crime is also the most expensive response during a period when fiscal growth has been curtailed by choice and circumstance. Crowded prisons and jails as well as increased probation and parole caseloads are among the results, sending program managers scrambling for interim solutions.

A dysfunctional and potentially destructive byproduct of this scramble is the de facto adversarial relationships that can develop among agencies attempting to avoid the consequences of crowding. Probation and parole can be viewed by State correctional authorities as population control devices rather than as sanctions in their own right. (One reflection of this is the tendency to refer to offender “surveillance” rather than to offender “supervision.”) Community caseload capacities are viewed as highly elastic and are used, through pretrial diversion and early release from institutions, to take the pressure off of crowded

institutions. Probation and parole, which have done even less well budgetarily than their institutional counterparts, respond to this growth in size, complexity, and seriousness of caseload population by violating (i.e., returning to the institution due to a technical violation of parole or probation conditions) as many offenders as possible as quickly as possible. Thus, probation and parole condition violators become an increasingly larger proportion of the prison admission population. Offender movement rather than offender management has primary claim on agency attention and creative energies. It has been suggested that some jurisdictions avoid court-ordered population caps by keeping the maximum number of arrestees, defendants, and offenders in transit on buses between police stations, courtrooms, and corrections facilities (Friel 1990).

Other significant byproducts are the oversell of certain programs as comprehensive answers and the promise of innovation-as-solution pursued by policymakers and program managers. An example of the former is found in the growth of so-called intensive supervision programs. It appears that, having been invited to the policy table, advocates of community corrections are attempting to keep their chairs by promising more than can be delivered. As evaluators have noted (Petersilia 1990; Byrne 1990), intensive supervision programs differ considerably from site to site, while the advocates of these programs make general claims for them (e.g., they will reduce prison crowding, increase public protection, rehabilitate the offender, demonstrate the potential of probation, and save money). Data on several programs, in relationship to each of these objectives, are now being collected and reviewed. One can only hope that the effective elements of such programs will be identified and will survive the coming period of evaluation and accountability.

An example of the innovation-as-solution approach is the growing popularity of elusive terms such as "intermediate sanction." A number of researchers and practitioners are proponents of intermediate sanctions. Their position has been expressed recently by Morris and Tonry (1990), who contend that

essentially we are too lenient and too severe with convicted offenders-too lenient with many on probation who should be subject to tighter controls in the community, and too severe with many in prison and jail who, if under adequate supervision, would present communities with no serious threat . . . Between [prison and probation] is a spectrum of intermediate punishments that are hardly used.

The logic of the statement is evident. On a more modest scale, TASC programs have pursued graduated sanctions in the management of offenders for many years. A representative list of the sanctions usually mentioned,

roughly in the order of present utilization, would include drug and/or alcohol monitoring, curfew/house arrest, community service, electronic monitoring, restitution, team supervision, mandatory referrals, probation fees, split sentence/shock incarceration, court costs and fees, day reporting, money fines, day fines, and civil penalties.

Pursuing an intermediate sanctions policy can produce considerable tension, especially among offender case managers. Whether this tension will be creative depends largely on the extent to which disciplined program development will be possible in a political environment seeking quick answers.

The first problem that must be confronted is the tension among the so-called traditional goals that guide the application of sanctions: retribution, deterrence, incapacitation, rehabilitation, and restitution. There is a point at which the focused pursuit of any one of these goals may threaten to erode progress on the others. Failure to distinguish among these goals and establish the preeminent goal(s) up front can only result in dysfunctional conflict. Two major camps are already forming. On the one hand are those who focus primarily on the offender's crime and who view intermediate sanctions as a shopping list of discrete punishments. They tend to favor retribution as a complete and satisfying response and to focus on what society should do in response to criminal acts. This presents no problem of logic or expectation unless or until they begin to attribute deterrent or rehabilitative effect to programs that are retributive.

On the other hand are those who focus primarily on the offender's eligibility for intermediate sanctions as a clear indication that the offender probably will not be incarcerated or be released reasonably soon if incarcerated. They tend to have little faith in the deterrent value of isolated or long-term punishments, and they are inclined to mold intermediate sanctions to ensure intensive monitoring and to attempt behavior change. They tend to focus on what the offender will do upon release if effective intervention has not been employed while the offender was in custody. The intellectual difference between the two camps is more apparent than real; the emotional difference and its impact on their ability to work together are quite real.

The second problem relates to the steps, resources, and time required to develop a program. Some advocates of intermediate sanctions seek a "menu of options" from which the criminal justice system can select sanctions. The implicit assumptions of the "menu" approach are that a selection decision is the only requirement and that sanctions will emerge as effective operating programs in response to that decision. This relates to the first problem addressed. If the only objective is the selection of a discrete act of retribution

for a specific offender at a specific time, then a decision may be sufficient. If the objective is to confound, defeat, and ultimately change the manipulative, recalcitrant, recidivist behavior of the drug-dependent offender, an isolated decision is not sufficient. Program development to provide a highly structured system of graduated sanctions and interventions and an unbroken supervisory contact, with no apparent exits other than acceptable behavior, does not flow from a sentencing decision. Such an infrastructure will take a good deal of time, resources, and hard work.

The third problem relates to the resources required to conduct a program. Because of the inherent logic of their basic position, advocates appear to hold the view that intermediate sanctions should, can, or will be developed independent of considerations of resource constraints. However, even a cursory view of the list presented above indicates that virtually all intermediate sanctions cost more than so-called simple probation; some, such as boot camp, cost more on a per-day basis than traditional incarceration (MacKenzie et al. 1989, 1990; MacKenzie and Parent 1991). If the objective is to increase surveillance and control (and public safety), it will not be accomplished with caseloads of 200. Since current probation budgets often result in caseloads of 200, the choice is between increased spending and decreased expectations. It is incumbent on offender case managers to provide solid information in this regard.

The focus on intermediate sanctions is representative of the growing social demands, which offender case managers cannot avoid or put off with passive resistance. The only responsible approach will be to work with policymakers on these efforts and guide them to distinguish between programs and technologies, to avoid the dangling comparatives of oversell (e.g., “cheaper,” “more intense”), and to avoid the use of undefined terms (e.g., “traditional probation”) as fixed givens and universally understood terms of art.

AN AGENDA FOR AN AGENDA FOR ACTION

“When in doubt, do the right thing.” —Dean Acheson

Although the problems and obstacles are systemic and circumstantial, the response must be systemic. If permanent improvements are to be built in the midst of change, those elements and actions that transcend the polemic tension between punishment and healing must be identified. For the foreseeable future, the responsible course in this regard lies in the use of three available instruments: research and evaluation, technical assistance and training, and management information systems. The most productive foci for these instruments are operational performance standards-for

offender management programs and for the related direct service programs—and program outcome measures.

Research/Evaluation

Abraham Caplan noted that most human beings (and all methodologists) are subject to “the law of the instrument”; that is, you give a small boy a hammer, he will discover that everything within reach requires pounding.

Researchers and, to a greater extent, evaluators will be wielding considerable influence over the next few years. Because of this and because incurable optimism indicates that they will rise to this challenge with the humility of authentic scientists, the bulk of the following recommendations is directed to them.

More Attention to and Discussion of Substantive Program Detail Are Required. In the coming period of accountability, when programs will rise or fall in response to evaluation findings, responsible researchers must take particular care to avoid designing ignorance into their methodology. They can maintain the necessary disinterest and distance, while avoiding this pitfall, by designing efforts that define both the elements of operational performance and the measures of outcome. Terms such as “drug treatment,” “traditional probation,” “probation contact,” and “successful completion” are not terms of art and are subject to a variety of interpretations. Responsible research and evaluation designs will define them in sufficient detail to allow for credible, comparative analysis.

The costs of not defining key terms are significant, in terms of contribution to knowledge and in terms of impact on the programs studied. A couple of examples should serve to illustrate. A major city study compared the impact on drug-using arrestees of drug testing and monitoring with that of drug treatment and found the former to be more effective (Wish and Gropper 1990). The finding appeared significant until it was learned that although the drug treatment provided was designed for opiate abusers, primarily methadone maintenance, the primary drugs of choice of the arrestees were phencyclidine (PCP) and cocaine.

A somewhat more subtle example is found in a recently concluded study (J. Petersilia, personal communication, January 1990) that compares the impact of intensive supervision programs (ISPs) with that of other probation programs. The evaluation presents “number of contacts” as one of the measures in comparing the impact of the programs, although among the evaluator’s caveats is the stated inability, given the data source, to

distinguish between the programs in terms of the nature or quality of the contacts. Among the other caveats and qualifiers in the study is the conclusion that the specific elements of ISPs that are effective have not been established and that the ability to ensure program implementation in accordance with program design is uncertain. Such observations are significant and relatively common; however, they often are viewed as tangential to the substance of the report. In fact, they are the heart of the matter; they are the reasons why evaluations are often inconclusive: and they are most often related to the quality of program design and execution.

To counter this, responsible stubbornness will be an essential characteristic of evaluators, given their potential influence over the next decade. Holding up the promise of credible findings as the incentive, evaluators should demand early access to program design to ensure adequate definitional work and data collection procedures. In this manner, the questions to be addressed will emerge more clearly for the evaluator, the program manager, and those who will use the evaluation findings to inform their decisions. Evaluators should probe, rather than accept, general terms such as "treatment" to make visible their substantive content. Evaluators should make visible the operational standards implied in program elements; if a caseload of 20 or less is essential for the intensive provision of the constituent services of ISPs, this should be stated clearly up front. There is a creative tension in such an iterative process if it is conducted early enough. A program that allows for process and outcome evaluation is, by definition, a well-designed program. A well-designed evaluation can determine early on whether a program can be evaluated. If it cannot be evaluated, there is reason to question whether it is a program and whether it should be conducted at all.

Impressions and Insights Should Be Shared and Sought. The scientific study of human behavior should seek, but not be limited to, statistically significant findings. These often will be few and highly qualified. Indeed, statistical principles will not tell the evaluator where to look or what to count. At times, findings related to groups too small to report on invite disciplined attention, thought, and discussion. The ISP study discussed earlier found lower recidivism rates for a group that had received drug treatment but was too small to influence study statistics (Petersilia 1990). Similarly, some years ago, a National Institute of Justice research utilization committee addressed a study of the short- and long-term impact of crime victimization in New York. One obscure finding, buried in the report, noted a small group who stated that their lives were better after the victimization than before. Additional study of this group indicated that they shared in common the impression that the police had gone out of their way to help them. This information was not statistically significant, indeed it was a small departure from a Many of pain and frustration,

but it was of considerable use to those designing the critical elements of a victim assistance program.

In addition to inviting review and comment on findings, researchers and evaluators would do well to seek other observations and insights from practitioners. For example, in the midst of widespread attention on the importance of assessment and offender-treatment matching, there appears to be an emerging consensus among practitioners that the most important match is that between the individual therapist and the individual offender. Efforts by researchers to provide a disciplined study of this matching would be of immediate assistance to those trying to accomplish it.

Old Methods Need To Be Refined, New Methods Employed, and New and/or Interim Language Embraced. Large-scale, long-term studies of treatment and case management should be conducted as the surest way to avoid methodological pitfalls (Fletcher and Tims, this volume). However, in the interim, researchers and evaluators are faced with the need to extract significant findings from small samples and subsamples and to assess outcomes for programs designed to serve a multiplicity of objectives. Statistical power analysis offers some promise in helping avoid collapsing of subsamples into a heterogeneous hodgepodge to enable us to speak with statistical, if not literal, significance. Survival analysis and related techniques will facilitate the analysis of complex questions with the specificity warranted, adding positive, negative, and interim measures to fixed, flat, and final measures such as recidivism.

In addition to the continued refinement of existing quantitative methods, some attention should be given to the reality that coruscates through the testimonial evidence that is so much a part of drug treatment. To this end, evaluative thinking might be strengthened with the inclusion of some systematic anecdotal research and some ethnographic research to enable evaluators to speak qualitatively with more precision. Successful drug treatment involves a highly personal and individual conversion process and does not yield easily to the instruments of science.

Akin to Percy's distinction between knowledge and news, is the "Birmingham Post-Herald" account of William Bennett's reaction to his site visit with Alabama's prison treatment program participants: "More than what they said was how they said it ..." (Joynt 1990). "They stood up straight and they looked me in the eyes as they spoke. Heck, two-thirds of Congress won't look me in the eyes" (Nation 1990)." Policymakers are moved by such experiences. Researchers ought to help them develop the language to address it and the means to assess its essential content and validity.

Some Practical Findings and Observations

Treatment and Coercion Work Together. Research has concluded that substance abuse is treatable, even for the offender population, and that appropriate actions by the criminal justice system can foster its effectiveness. Major longitudinal evaluations have found drug treatment effectiveness to be directly related to length of stay in treatment. Treatment for drug-dependent offenders has been found to be most effective when there is direct criminal justice involvement. Researchers have found that the threat of criminal justice sanction motivates offenders to enter treatment and, perhaps more important, motivates them to stay in treatment for a period sufficient for behavior change (Leukefeld and Tims 1988).

Thus, compulsory treatment appears to be effective, and the criminal justice system appears to be uniquely equipped to get people into treatment and to keep them there for a period sufficient to allow for positive change. Despite the apparent symbiotic relationship, treatment and criminal justice will remain strange bedfellows.

The criminal justice system is charged very directly by society to fix blame, to prove guilt beyond a reasonable doubt, and to administer the consequences set by society for unacceptable behavior. The judgmental nature of this mandate is, on its face, the antithesis of therapy; yet the threat of criminal justice sanction functions to motivate many to enter and stay in treatment.

Drug-Abusing Offenders Are Harder To Treat Than Mainstream Members of Society. Information from treatment evaluations is essential to management of intervention with the drug-abusing offender, but it is not sufficient. Most offenders lack the attributes on which traditional treatment approaches have relied: stable employment and the skills to maintain it, permanent residence with its sense of place and belonging, significant material possessions and the stake in society that they reflect, strong family ties and the corollary sense of responsibility and support, and the kind of social ties that would offer positive role models and peer pressure. To this must be added an equally significant litany of attributes possessed by most drug-abusing offenders: a set of life patterns and value systems, often called a "criminal mentality," which is based on an orientation to reality that is profoundly different from that of mainstream society, a strong personal stake in maintaining this mentality, a strong personal stake in maintaining contact with peers who reinforce it and glamorize it, and a strong personal stake in resisting information that would question it.

Treatment and/or Intervention Programs for Drug-Abusing Offenders Must Take Full Cognizance of the Overlapping Forces That Are Presented by Offenders. Programs that seek to alter behaviors that constitute the identity of these offenders will invariably be met with hostility and with a deep-seated motivation to maintain this glamorized sense of self as a daring adventurer battling against the victimization visited upon him or her by society. To be effective with a population of chronic, drug-abusing offenders, treatment programs must focus not merely on the drug-abusing behavior but also on the interlocking web of deviant thought and behavior patterns.

Successful Treatment Programs for Drug-Abusing Offenders Share Certain Characteristics With All Successful Treatment Programs. They are based on an established theory, grounded in empirical evidence, and focused on a population assessed as appropriate for the intervention dictated by the theory. Successful programs are specifically designed to implement the adopted theory through steps of sufficient duration and intensity to effect a lasting change in behavior and are supported by periodic drug testing to maintain program integrity. They are conducted by staff members who have received adequate training and who continue to receive adequate supervision, and they provide for the continued collection and analysis of program data to ensure both process and impact evaluation.

Intensive Surveillance Produces Results. Frequent contacts with the offender and collateral contacts with employer, family, and positive peers increase the opportunity for detection of noncompliance and increase the opportunity for preventive or remedial intervention. And, in a related matter, drug testing of institutional and community offender populations-when conducted in accordance with a policy of specific sanctions-will reduce drug use in those populations.

Effective Offender Management Must Be Sufficiently Organized and Orthodox To Counter the Criminal Attitude and Manipulation Skills of the Offender and To Utilize the Disparate Resources of the Community. Research and program experience combine to indicate that effective intervention with the drug-abusing offender is greatly dependent on the extent to which it:

- Occurs early (in the drug/crime career and in the criminal justice process)
- Is based on a thorough assessment of offender characteristics
- Is rigorous, formal, and substantial
- Maintains *unbroken* contact with the offender

The assessment that informs offender referral and management decisions should include the status of the criminal career, the status of the drug-abusing career, and the stakes in social conformity presented by each case.

Measures of Program Effectiveness Can Properly Reflect and Contribute to the Design of the Intervention Employed. Recidivism rate will properly continue to be a basic indicator of program effectiveness with criminal justice populations. However, given the potential impact of even small percentage changes when applied to large populations, more refined measures are needed to maximize program effectiveness. Such measures as drug-free and/or crime-free days while under supervision, relative time to rearrest, and days employed will provide better information on the effect of interventions on chronic behavior. Furthermore, the periodic application of assessment instruments to matters subject to change—dynamic measures such as drug use or intellectual comprehension—are essential to tracking progress.

Interim and Long-Term Measures Have Shown That Relapse Is Relatively Common Among Drug-Dependent Offenders—Its Apparent Sources Related to Emotional Stress, Peer Influence, and Interpersonal Relations. Thus, sound public policy would provide drug-abusing offenders with the analytical tools and behavior techniques required to identify the situations with potential for relapse and to avoid and/or cope with them.

Offender Management and Intervention Program Descriptions and Evaluations Should Consider the Inclusion of Systematic Anecdotal Research and Ethnographic Research To Foster the Ability To Speak Qualitatively With More Precision. Successful drug treatment involves a highly personal and individual conversion process and does not yield easily to the instruments of science. This is probably due as much to the nature of conversion as to the limits of science as a means to human understanding. Honest, experienced, human insight should not be an embarrassment nor be designed out of formal approaches to understanding.

Technical Assistance and Training

“You don’t lead by pointing and telling people some place to go. You lead by going to that place and making a case.” —Ken Kesey

A first responsibility of government is coherence. Given the scale of drug-related research and evaluation activity under way, an annual update of the research base on which programs can be built with some confidence is in order. NIDA would be an appropriate lead agency for such an effort—establishing the report headings in consultation with ONDCP, convening an

annual scholar/practitioner conference to review the state of the art in each established area, and publishing a concise annual update for dissemination to all Federal agencies and their block grantees.

Second, assuming that a periodic update of knowledge is possible and that it will serve as general guidance for all public efforts, an additional responsibility of government is to provide an example. Programs with genuine transfer potential, such as the treatment effort being initiated by the Federal Bureau of Prisons (Murray, this volume; Pelissier and McCarthy, this volume), should be made accessible to State and local agencies through documented program models. Such transfer programs should address the program elements, operational performance standards for those elements, outcome measures utilized, structured site visits, Federal and State personnel exchanges and fellowships, and periodic training sessions and conferences conducted with related Federal grant-in-aid agencies. This will involve the establishment of an adequate transfer staff, separate from the line staff who conduct the program.

Third, government should gather and disseminate information on validated State and local programs. Federal agencies with grant-in-aid responsibilities are in a unique position of oversight regarding examples of State and local excellence. This effort will take the form of documented program models, resource catalogs identifying State and local experts, host site designation and support, and program development assistance and training. This will involve a considerable increase in site monitoring to assess the state of the art rather than only compliance with regulation.

Management Information Systems

“By nature’s kindly disposition, those things beyond a man’s power to understand do not occur to him at all.” —G. Santayana

Information technology is converging, with a well-known computer and clones emerging as the hardware of choice and two software groups and/or emerging **as** the operating systems of choice (Blumstein 1990). The opportunity to gather, utilize, and share information will grow exponentially if a few simple steps are taken. First, begin with the realization that the benefits of progress in information and management technology have not been universally shared. Small- to medium-size agencies, which make up the vast majority of criminal justice and offender management agencies, often lack the resources to identify and employ available technology. Second, realize that the Federal Government has a threefold objective requiring the participation of these agencies: the application of technology to national criminal justice problems, the provision of assistance to State and local operating agencies, and the generation of credible

national information. This mix of technology, practicality, and priority provides a basis for action.

The approach taken by the Bureau of Justice Assistance (BJA) appears sound. Realizing that BJA funding was small in comparison with State and local criminal justice expenditures and that agencies without automation were going to have difficulty gaining funds to purchase and use automation, BJA has adopted an approach that will make automation more accessible—the development of basic, public-domain microsystems. Lacking funds to buy expensive systems, BJA, along with the operating agencies, has created prosecution, jail, and police systems they could afford.

A similar effort is under way for offender case management. A BJA grantee is working in concert with the National Consortium of TASC Programs to develop a public-domain, micro, TASC/Case Management Information System. This basic generic system is intentionally focused on small- to medium-size agencies. It is an introductory system, designed to meet the basic management needs of offender management, to be sufficiently adaptable to allow for local differences, to be inexpensive to purchase and maintain, and to be easy to use.

There is a doubly heuristic value to the dissemination of basic, generic systems. As local agencies employ such systems, they not only learn about the application of technology but also become better able to assess their management practices and their needs as well as to communicate them internally and to local decisionmakers. Their consideration for public treatment agencies is also recommended.

REFERENCES

- Blumstein, A. A retrospective and future challenges. In: Bessette, J.M. *Criminal Justice in the 1990's: The Future of Information Management*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice, April 1990.
- Byrne, J.M. "Assessing What Works in the Adult Community Corrections System." Paper presented at the annual meeting of the Academy of Criminal Justice Sciences, Denver, CO, March 16, 1990.
- Friel, C.M. Intergovernmental relations: Correctional policy and the great American shell game. In: Bessette, J.M. *Criminal Justice in the 1990's: The Future of Information Management*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice, April 1990.
- Joynt, S. Inmates tell Bennett how to quit drugs. *Birmingham Post-Herald*, May 10, 1990.

- Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988.
- MacKenzie, D.L.; Gould, L.A.; Riechers, L.M.; and Shaw, J.W. Shock incarceration: Rehabilitation and retribution? *J Offend Counsel Serv Rehabil* 14:25-40, 1989.
- MacKenzie, D.L., and Parent, D. Shock incarceration and prison crowding in Louisiana. *J Crim Just* 19(3):225-237, 1991.
- MacKenzie, D.L.; Shaw, J.W.; and Gowdy, V.B. "An Evaluation of Shock Incarceration in Louisiana." Final report submitted to the Louisiana Department of Public Safety and Corrections, Baton Rouge, LA, 1990.
- Morris, N., and Tonry, M. *Between Prison and Probation: Intermediate Punishment in a Rational Sentencing System*. New York: Oxford University Press, 1990.
- Nation, L. Put in prison: Best thing that ever happened to inmate. *Birmingham Post-Herald*, May 10, 1990.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00542-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., September 1989.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00543-9. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., January 1990.
- Office of National Drug Control Policy. *National Drug Control Strategy*. Report No. S/N 040-000-00550-1. The White House. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., February 1991.
- Percy, W. *The Message in the Bottle*. New York: Farrar, Straus and Giroux, 1977.
- Petersilia, J. *Intensive Supervision Probation for High-Risk Offenders: Findings from Three California Experiments*. Washington, DC: National Institute of Justice, U.S. Department of Justice, April 1990.
- Schumacher, E.F. *A Guide for the Perplexed*. New York: Harper & Row, 1978.
- Wish, E., and Gropper, B. Drug testing by the criminal justice system: Method, research, and application. *Crime and Justice: An Annual Review of Research*. Vol. 13. Chicago: University of Chicago Press, 1990.

BIBLIOGRAPHY

- Anglin, M.D.; Brecht, M.L.; Woodward, J.A.; and Bennett, D.G. An empirical study of maturing out. *Int J Addict* 21:233-246, 1986.
- Anglin, M.D., and Hser, Y. Treatment of drug abuse. In: Tonry, M., and Wilson, J.Q., eds. *Crime and Justice: An Annual Review of Research*. Vol. 13. Chicago: University of Chicago Press, 1990. pp. 393-460.

- Blumstein, A. *Prison Crowding. Crime File Series Study Guide*. Washington, DC: National Institute of Justice, 1986.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime: Program Brief*. National Association of State Alcohol and Drug Abuse Directors. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, January 1988.
- Bureau of Justice Assistance. *Intensive Supervision Probation and Parole (ISP): Program Brief*. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, November 1988.
- Bureau of Justice Assistance. *Drug Recognition Program*. Monograph. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, April 1989.
- Bureau of Justice Assistance. *Access to Criminal History Records by TASC Programs: A Report on Current Practice and Statutory Authority*. Monograph. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, June 1990.
- Bureau of Justice Assistance. *The Wisconsin Drug Abuse Treatment Unit*. Monograph. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, August 1990.
- Byrne, J.M.; Lurigio, A.J.; and Baird, C. The effectiveness of the new intensive supervision programs. In: Petersilia, J., ed. *Research in Corrections*. Vol. 2, No. 2. Boulder, CO: National Institute of Corrections, 1989.
- De Leon, G. The therapeutic community: Status and evolution. *Int J Addict* 20:823-844, 1985.
- Goldkamp, J.S.; Jones, P.R.; Gottfredson, M.R.; and Weiland, D. "Assessing the Impact of Drug-Related Cases on Community Public Safety, Court Delay, and Jail Crowding: Significant Problems; Possible Strategies." Report on grant 88-DD-CX-K002 submitted to the Bureau of Justice Assistance, U.S. Department of Justice, Washington, DC, March 1990.
- Gottfredson, G.D. "Elements for Developing an Evaluation for a Treatment Alternatives to Street Crime (TASC) Program." Paper presented at National Conference on Drugs and Crime, National Association of State Alcohol and Drug Abuse Directors, Bureau of Justice Assistance, U.S. Department of Justice, Fort Lauderdale, FL, October 31, 1989.
- Inciardi, J.A., and McBride, D.C. *Treatment Alternatives to Street Crime: History, Experiences, and Issues*. National Institute on Drug Abuse. DHHS Pub. No. (ADM)SI-1749. Washington, DC: Supt. of Docs., U.S. Govt. Print. off., 1991.
- Nurco, D.N.; Hanlon, T.E.; and Kinlock, T.W. *Offenders, Drugs, Crime and Treatment: Literature Review*. Prepared under grant 87-DD-CX-K050. Washington, DC: Bureau of Justice Assistance, U.S. Department of Justice, in press.

Office of Justice Programs, National Institute of Corrections, Bureau of Prisons.
A Survey of Intermediate Sanctions. Washington, DC: U.S. Department of
Justice, May 1990.

Rifkin, J., and Howard, T. *Entropy*. New York: Bantam, 1981.

Toborg, M.; Bellassai, J.P.; and Yezer, A.M.J. "The Washington, DC Urine
Testing Program for Arrestees and Defendants Awaiting Trial: A Summary
of Interim Findings." Paper presented at the National Institute of Justice
Conference on Drugs and Crime: Detecting Use and Reducing Risk,
Washington, DC, June 1986.

Weinman, B.A. "Managing the Drug Offender." Paper presented at the annual
meeting of the Academy of Criminal Justice Sciences, Denver, CO, March
1990.

AUTHOR

John Gregrich
Chief
Corrections Branch
Bureau of Justice Assistance
633 Indiana Avenue, N.W.
Washington, DC 20531

A Coordinated Approach for Drug-Abusing Offenders: TASC and Parole

Beth Weinman

INTRODUCTION

Moving the offender from the institution to the community always poses certain risks; with regard to the drug-involved offender, these risks are even more acute. Reintegrating the drug-involved offender into the community from the institution should follow a specific course that monitors the occurrence of drug use and drug-using behaviors. This monitoring should include specific and suitable referrals to treatment and a treatment plan based on a thorough assessment of the offender; a substantial course of supervision contacts that create accountability measurements and include drug testing and the use of graduated sanctions for misbehavior; and unbroken contact and communication between community corrections, specifically parole, and treatment.

In many jurisdictions, parole and TASC (Treatment Alternatives to Street Crime) work in partnership to effect successful intervention with the drug-involved parolee. Through this systems approach, public safety is protected and the individual offender receives the appropriate clinical support to effect and sustain new behaviors.

This chapter examines TASC and parole from a historical perspective and discusses the benefits in managing the drug-involved offender through the development of a solid partnership between TASC and parole.

THE CHANGING CHARACTER OF TASC

The roots of TASC can be found in the major Supreme Court ruling *Robinson v. California*, 370 U.S. 660 (1962), which established that addiction was not in and of itself a crime and that a State could use its coercive power to compel addicts into drug treatment. Following *Robinson*, the Treatment and Rehabilitation Act was passed in 1966, establishing statutory authority for involuntary commitment to both residential and outpatient treatment as an alternative to prosecution. This act was strengthened further in 1970 with the

passage of the Comprehensive Drug Abuse Prevention and Control Act, which authorized, under specific circumstances, that a defendant could be diverted into treatment for nonviolent charges if he or she was found to have a dependence on opiates.

In 1972, the Special Action Office for Drug Abuse Prevention (SAODAP) was created. Discussions among SAODAP, the Law Enforcement Assistance Administration (LEAA), and the National Institute of Mental Health's Division of Narcotic Addiction and Drug Abuse pursued the development of specific program models to provide both diversion and alternative sentencing designs that would effectively break through the cycle of drug use and criminal behavior. Out of these discussions, the original TASC model was created (Bureau of Justice Assistance 1988a).

Originally, TASC programs operated as diversion programs for nonviolent opiate users. The key elements of TASC were to (1) identify the opiate-using defendant through drug testing and jail interviews, (2) refer and escort the identified defendant to the most appropriate treatment modality, and (3) monitor the defendant through his or her course of treatment by communicating with and reporting to both the treatment professional and the criminal justice referral source throughout the defendant's time in treatment.

Early local evaluations of this approach found that TASC programs effectively garnered the support of the criminal justice and treatment systems, intervened with defendants to reduce drug use and criminal activity, linked the criminal justice system with the treatment system, identified previously untreated drug offenders (55 percent), improved defendants' treatment performance, and seemed to reduce rearrest rates-only 8 percent of defendants in all 22 local sites were rearrested for a new offense while in TASC (System Sciences, Inc. 1978; Lazar Institute 1976).

The National Institute on Drug Abuse Treatment Outcome Prospective Study (TOPS) (Hubbard et al. 1989) examined the impact of TASC and TASC-like programs. These 1983 and 1985 studies compared criminal justice-involved clients (in TASC and under other justice system supervision) with a voluntary control group (no legal supervision) and found that TASC clients under legal coercion remained in both residential and outpatient treatment modalities 6 to 7 weeks longer than other criminal justice-referred or voluntary clients-a finding usually associated with better treatment outcomes. TOPS also found that the case management function of TASC seemed to encourage this longer treatment participation.

Federal funding for TASC ended with the demise of LEAA, but TASC programming at the State and local levels continued. TASC programs were expanded and enhanced to provide offender management services for the presentence, postsentence, and postrelease drug offender population. TASC program models also were developed to provide TASC offender management services to juveniles, polydrug users, alcohol abusers, and an array of other special populations, such as the dually diagnosed. As of August 1991 there were 178 TASC programs in 32 States (Bureau of Justice Assistance 1989).

In 1984, the Justice Assistance Act again provided States the option of Federal funding for TASC program implementation, expansion, or enhancement. Through Justice Assistance Act discretionary funding, TASC program development, technical assistance, and training became available to States and local jurisdictions. This discretionary effort also led to the development of a specific TASC program discipline, creating a basic and proven effective infrastructure for TASC program development, implementation, and evaluation. This TASC discipline established the fundamental elements critical to successful TASC programming (figure 1). Within each element, performance indicators are documented, creating a basis upon which TASC funders and program managers are able to measure the strengths and weaknesses of the local TASC program effort, based on each individual element. These elements are further broken down into organizational elements and operational elements and provide a solid design for the management of the drug-involved offender population (Bureau of Justice Assistance 1988a).

Both legislative acts that followed the Justice Assistance Act—the Anti-Drug Abuse Act of 1986 and the Anti-Drug Abuse Act of 1988—also included TASC programming as a model for managing the dependent offender. Although TASC is not cited specifically in these acts, many of the principles that define TASC are cited, such as identifying and meeting the alcohol and other drug treatment needs of the drug-dependent offender (Omnibus Anti-Substance Abuse Act of 1988, State and Local Narcotics Control and Justice Assistance Improvements, Section 1821, 1988).

More recently, a national TASC survey (Tyon 1988) found that more than 80 percent of the TASC programs that follow the critical elements worked with probation and parole populations in addition to pretrial populations. These data may suggest that, during the withdrawal of Federal funding, TASC programs moved to provide necessary services for community and community corrections to sustain local funding and to survive.

Perhaps one of the most significant findings from the Tyon (1988) study is the extent of TASC clients' treatment experiences. For example, in 1986 about

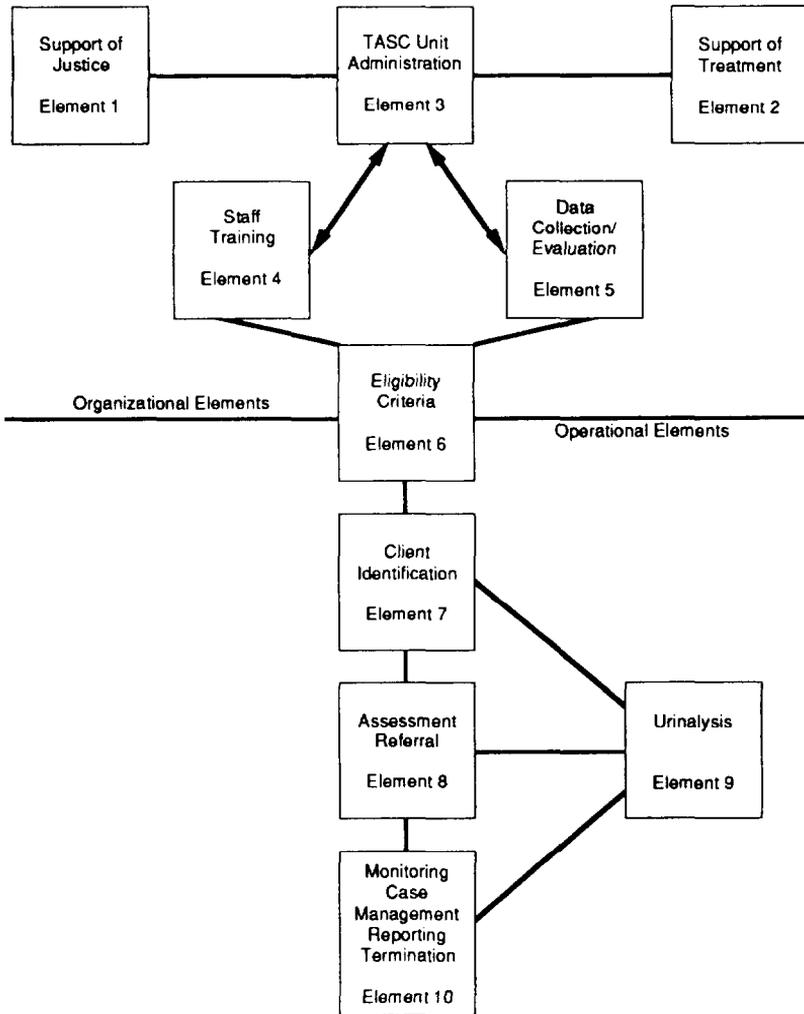


FIGURE 1. TASC system flow by element

SOURCE: Bureau of Justice Assistance 1988a

two-thirds of TASC clients nationwide had never been in any type of alcohol or other drug treatment program before their involvement with TASC. These data suggest that TASC successfully continues to identify and refer to treatment drug-involved offenders who have never received treatment.

THE CHANGING CHARACTER OF PAROLE

The word "parole," from the French word meaning "word of honor" and first used in 1846 by Boston penal reformer Samuel G. Howe (Giardini 1959), currently involves two distinct operations: (1) "parole release," the procedures used to establish the periods of confinement that prisoners serve; and (2) "parole supervision," the conditions and provisions that regulate parolees' postprison lives until final discharge from their sentence.

For almost a century, parole has been an established part of American correctional theory and practice. It has the ostensible purposes of ensuring that imprisonment is tailored to the needs of the individual inmate, ameliorating the harshness of long prison sentences and hastening the offender's reintegration into the community when it appears that he or she is able to function as a law-abiding member of society. In addition, parole has the more subtle intent of alleviating the crowding in correctional institutions and assisting in the social control of prison institutions through the threat of parole denial for instances of misbehavior.

The parole process is grounded in the principles of indeterminate sentencing and "good time" laws. Indeterminate sentencing calls for a period of incarceration with a fixed minimum and a fixed maximum. Sentences of 1 to 5 years, 10 to 20 years, and 15 years to life are indeterminate, with the actual amount of time served determined by the paroling authority. The philosophy behind the indeterminate sentence is based on a purely correctional model of punishment, the underlying premise being that the sentence should meet the needs of the offender. After incarceration, at least in theory, the rehabilitation process is initiated, and the inmate should be confined until there is evidence of "correction." At that point, it becomes the responsibility of the paroling authority to assess the nature and extent of such correction and release the inmate if the evidence so warrants. As such, indeterminate sentencing rests on the notion that the length of imprisonment should be based on progress toward rehabilitation (Carr 1969).

Good time laws evolved to serve a variety of purposes: to assist with the correction of prisoners, to mitigate the severity of penal codes, and to encourage good work and good behavior from inmates (Wines 1868). Such laws specify the amounts of time to be deducted from the period to be served in prison on a given sentence (and/or under correctional agency control). In some jurisdictions good time credits are contingent on good behavior, whereas in others they are awarded automatically. In either case, good time can effect both parole release and parole discharge.

The treatment approach to the management and control of criminal offenders in this country was initiated early in U.S. history, and by the middle of the 20th century the idea of “changing the lawbreaker” had become a dominant force in correctional thinking. Most offenders still were “punished,” but at the same time institutional classification efforts were designed to direct inmates to programs that were designed for community reintegration.

During the mid-1970s criminal justice processing in general, and corrections and parole in particular, began to experience serious challenges on several fronts.

First, the volume of serious crime in the United States had more than tripled from 1960 through 1975. In particular, the rate of crimes against property had increased by 178 percent, and the rate of violent crime had expanded by almost 200 percent (Federal Bureau of Investigation 1976). At the same time, there was growing opposition to the Supreme Court decisions that many politicians and social commentators claimed were “handcuffing” the police and “coddling criminals” (Harris 1969, 1970; Cronin et al. 1981; Curtis 1985).

Second, public concern over the growing crime rate and fear of crime led to more focused attention on the effectiveness of correctional treatment. Throughout the 1950s and most of the 1960s much literature had accumulated that offered testimony to the successes and failures of a variety of therapeutic approaches. The leading notion and projection of this literature was a rather gloomy outlook for the rehabilitative ideal (Bailey 1966; Hood 1967). For the most part, these findings were ignored until the appearance of Robert Martinson’s well-known “What Works?” article (Martinson 1974). Based on a study by the New York State Governor’s Special Committee on Criminal Offenders (Lipton et al. 1975), Martinson’s article implied that, with few isolated exceptions, nothing worked! Although Martinson had overstated his conclusions, this report created a media sensation, and there was a marked loss of faith in the rehabilitative ideal.

Third, growing public concern over the crime problem, spreading acceptance of a “nothing works” philosophy, and greater politicization of criminal justice policy all combined to spark a movement toward determinate sentencing reform. Determinate sentencing, stipulating incarceration for a fixed time period, empowered prosecutors while placing limits on the discretion of judges and parole boards. At the same time, beginning in 1976 there was a movement to abolish parole, resulting in the elimination of parole boards or severe curtailment of their discretionary authority to release in many States and in the Federal jurisdiction (Smith et al. 1989). An overall consequence of these factors was explosive growth in the penitentiary population (table 1).

TABLE 1. *State and Federal prisoners, 1950-88*

Year	Total	Percent Change
1950	166,123	-
1955	185,780	11.8
1960	212,953	14.6
1965	210,895	-1.0
1970	196,429	-6.9
1975	240,593	22.5
1980	329,821	37.1
1985	502,207	52.4
1988	627,402	24.8

SOURCES: Bureau of Justice Statistics 1982, 1989

Fourth, although the trend toward determinate sentencing may have limited the discretion of parole authorities, the number of inmates who were released under the jurisdiction of parole agencies increased significantly. Along with determinate sentencing came a rise in the number of “mandatory release” cases-inmates eligible for early release as the result of accumulated good time credits. Mandatory release inmates are not subject to discretionary parole release; however, they are subject to a period of community supervision equal to the amount of good time deducted from their maximum sentence. Also during this time, the inmates who were released were becoming more volatile, mentally impaired, and drug dependent (Friel 1989). The responsibility for this supervision belonged to the parole agencies that were being asked to do more with fewer resources.

Fifth, and finally, there is an association between drug use and street crime, which has intensified with the “crack” cocaine epidemic and the contemporary ‘war on drugs.’ For more than two decades, research has focused on the relationship between drug use and criminal activity (Johnson et al. 1985; Inciardi 1981, 1986; Nurco et al. 1990). The overwhelming evidence suggests that, although drug use does not necessarily initiate the lawbreaking careers of the majority of drug-involved offenders, it certainly intensifies and perpetuates criminal lifestyles. In addition, the National Institute of Justice’s Drug Use Forecasting (DUF) program offers dramatic documentation of the prevalence of drug use among arrestees. DUF routinely conducts drug testing on a sample of arrestees in major cities across the Nation (Wish 1987a, 1987b). The presence of drug use among arrestees in all the cities surveyed was considerable, clearly documenting the widespread drug abuse among arrestees.

TASC/PAROLE PARTNERSHIP

The partnership between TASC and community corrections continues to strengthen. These two seemingly separate approaches share a common infrastructure that complement and improve each other. TASC and community corrections share the common goal of offender management; TASC's specific goal is drug offender management. TASC and community corrections also share the common dilemma of being perceived as simply an enhancement of the criminal justice system, rather than the basic infrastructure on which the continuity of offender management can be achieved.

Together, TASC and community corrections can move the offender through the components that define the criminal justice system. These components include (1) alleviating such pressures as court and prison crowding; (2) ensuring drug offender identification, assessment, and monitoring that includes swift and certain sanctions; and (3) maintaining unbroken communication with other participants in the criminal justice system.

BENEFITS OF A TASC/PAROLE PARTNERSHIP

Given the increasing proportion of drug-involved offenders entering the justice system, the pressures on crowded correctional institutions, and the changing character of prison release procedures, the benefits of TASC programming to parole and other community corrections agencies are numerous. As both TASC and community corrections have diversified to service the changing political, community, and offender needs, each has developed more expertise in working with and managing offender populations.

When reentering the community, most parolees are confronted with many obstacles. Environmental, familial, social, and peer group pressures may contribute to violations of parole conditions and/or committing crimes. These pressures tend to be especially acute for those with histories of drug involvement. Intervention into the drug-abusing lifestyle is perhaps the most difficult challenge faced by parole officers/agents and treatment practitioners. Moreover, there are systemic communication problems, such as lapses between treatment providers and parole authorities, that exacerbate these difficulties.

Given this pivotal period for parolees with histories of drug involvement, it is critical to develop effective aftercare support systems to foster alternative lifestyles and behaviors. Yet in the majority of jurisdictions, prison crowding, excessively large parole caseloads, and poor communication within the justice system have hindered the efficacy of both preparole and aftercare supervision

services. The establishment of coordinated programming by parole and TASC assists in reducing barriers that hinder success.

The ideal parole/TASC partnership includes agreements among all the primary policymakers within the department of correction, parole authority, and the single State agency that oversees drug abuse treatment services. Although a partnership might be fraught with overlap and problems of dual supervision, TASC programs in association with parole are structured to intensify and complement parole supervision in such ways as those identified below.

Preparole Screening

TASC works with the institutional correctional system as a drug offender specialist to identify and thoroughly assess drug-involved offenders. Preparole screening conducted by TASC can provide more comprehensive background data on drug abuse and related behaviors, including high-risk behavior for acquired immunodeficiency syndrome (AIDS), to make an informed release decision. For the paroling authority and its community supervision staff, this information represents a more thorough appraisal of the severity of the individual offender's drug problem and his or her potential risk to the community. This thorough assessment also allows for more accurate offender/treatment matching, which has been found to provide a better likelihood for retention in treatment (Gottheil et al. 1981).

Service Delivery

TASC offers advantages for both corrections and parole. TASC case managers specialize in developing and implementing aftercare plans for drug-involved offenders. In addition to drug abuse treatment, TASC provides drug testing, employment advocacy, client referral to other segments of the local human service delivery network, and followup reporting to community corrections. As such, treatment and support services can be offered within a "clinical" rather than a "correctional" setting. The parole authority benefits because primary responsibility of supervision is neither limited nor compromised by the parolee's treatment needs. Rather, with TASC and parole working in partnership, communication is increased with TASC as the conduit between the corrections system and the treatment system. This openness helps in ensuring that the offender's needs are met, while at the same time promoting community safety.

This open communication is not to be taken lightly. Historically, the communication between treatment and parole has been fraught with miscommunication due to each system's terminology (table 2). TASC expertise is maintained as drug offender case management by effecting

TABLE 2. *Alternative systems terminology*

Corrections Term	Neutral/TASC Term	Treatment Term
Offender	Subject	Client/patient
Prison	Facility	Residence
Surveillance	Management	Counseling
Sentence	Time	Treatment phase
Criminal behavior	Presenting problem	Disease
Completion of sentence	Goal	Recovery

SOURCE: Bureau of Justice Assistance 1988b

clear communication between the paroling authority and the drug treatment provider.

Clinical Efficacy and Compulsory or Coercive Treatment

The partnership between community corrections and TASC continues to be highlighted in this area. Compulsory treatment for drug abuse has been legally possible for almost three decades, and for almost as long, researchers have examined its effectiveness. Clinical experiences with the California Civil Addict Program, the Federal Narcotic Addict Rehabilitation Act program, and coercion into therapeutic communities have demonstrated more positive results with compulsory than with voluntary treatment (Anglin 1988; De Leon 1988; Leukefeld and Tims 1988).

In this regard, research suggests that TASC represents an effective complement to parole by enhancing the key variable most related to successful outcome in drug treatment—length of stay in treatment; drug abusers who are coerced into treatment tend to remain longer than those admitted voluntarily. The TASC model, as a very specific model of coercive treatment, has proven effective in retaining clients in treatment because TASC clients remain in treatment longer than other criminal justice clients and non-criminal justice system referrals (Hubbard et al. 1989).

Alleviation of Prison Crowding

TASC can assist in two ways. First, by relying on a TASC treatment recommendation, scarce treatment slots will be allocated to drug users most

in need of and responsive to treatment. Again, thorough, accurate assessments increase the chances of treatment success while reducing the chances of relapse and future criminal behavior, arrest, and incarceration. Second, TASC aids the parolee in successfully completing his or her term of supervision. Periodic drug testing, site visits, and case conferences tend to become a useful deterrent and foster program compliance (Inciardi 1990).

THE TASC/PAROLE PARTNERSHIP OF THE 1990s

Legislators and other policymakers are requesting quantitative data to support program effectiveness. As specific program data become the focus of attention, it is critical that accumulated knowledge and accomplishments not be overlooked; they should be considered future building blocks. Professionals know "what works" but are not consistent in documenting what works or specifically how programs work. Effective program approaches must be defined, documented, and disciplined to allow specific research approaches to be put in place for program evaluation. Using the coordinated partnership between TASC and parole as an example, clarity can be achieved by defining the four principles that support this system of drug offender management: (1) early identification of the drug-involved parolee to allow for intervention in to his or her drug-using behavior before release; (2) thorough assessment to match the appropriate treatment with an adequate number of supervision contacts; (3) substantial monitoring to get the offender's attention and, when strengthened by swift and certain sanctions for misbehavior, to retain the offender's attention so that treatment has a chance; and (4) unbroken contact—from prerelease through end of parole—to remove the problems of time delays and breaches in communication that often imply detachment between parole and treatment (Gegrich and Weinman 1990).

These four basic principles define the TASC/parole partnership. However, they must be further defined, documented, evaluated, and promulgated. The systems approach to effecting a successful term of drug offender community reintegration and treatment can be effective in changing behaviors as previously noted. Policymakers can begin to seek funding services as well as evaluations to further strengthen systemwide approaches and to allow for documentation that will ease replication and implementation efforts at the State and local levels. Rather than continuing to seek "new," "snappy," and unproven program titles, it is time to begin to support those program models that have proven effective at the local level. Finally, we should profit from what we have learned over the past 20 years: that treatment and corrections along with TASC can work together effectively—without interruption and without turf agendas.

REFERENCES

- Anglin, M.D. The efficacy of civil commitment in treating narcotics addiction. *J Drug Iss* 18:527-545, 1988.
- Bailey, W.C. Correctional outcome: An evaluation of 100 reports. *J Crim Law Criminol Police Sci* 57: 153-160, 1966.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime: TASC Program Brief*. Washington, DC: U.S. Department of Justice, 1988a.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime: TASC Trainer's Manual*. Washington, DC: US. Department of Justice, 1988b.
- Bureau of Justice Assistance. *Treatment Alternatives to Street Crime.' Resource Catalog*. Washington, DC: U.S. Department of Justice, 1989.
- Bureau of Justice Statistics. *Prisoners 1925-1981*. Washington, DC: U.S. Department of Justice, 1982.
- Bureau of Justice Statistics. *Prisoners in 1988*. Washington, DC: U.S. Department of Justice, 1989.
- Carr, W.S. Sentencing practices, problems, and remedies. *Judicature* 53:14, 1969.
- Cronin, T.C.; Cronin, T.X.; and Milakovich, M.E. *U.S. v. Crime in the Streets*. Bloomington, IN: Indiana University Press, 1981.
- Curtis, L.A., ed. *American Violence and Public Policy*. New Haven, CT: Yale University Press, 1985.
- De Leon, G. Legal pressure in therapeutic communities. *J Drug Iss* 18:625-640,1988.
- Federal Bureau of Investigation. *Crime in the United States—1975*. Washington, DC: U.S. Department of Justice, 1976.
- Friel, C. "Intergovernmental Relations: Correctional Policy and the Great American Shell Game." Paper presented at the Criminal Justice in the 1990s: The Future of Information Management Conference, sponsored by SEARCH Group and the Bureau of Justice Statistics, Washington, DC, 1989.
- Giardini, G.I. *The Parole Process*. Springfield, IL: Charles C Thomas, 1959.
- Gotthel, E.; McLellan, T.A.; and Druley, L.A., eds. *Matching Patient Needs and Treatment Methods in Alcoholism and Drug Abuse*. Springfield, IL: Charles C Thomas, 1981.
- Gregrich, R.J., and Weinman, B.A. "Managing the Drug Offender." Paper presented at the Academy of Criminal Justice Sciences, Denver, CO, March 13, 1990.
- Harris, R. *The fear of Crime*. New York: Frederick A. Praeger, 1969.
- Harris, R. *Justice: The Crisis of Law, Order, and Freedom in America*. New York: E.P. Dutton, 1970.
- Hood, R. Research on the effectiveness of punishments and treatment. In: *European Committee on Crime Problems. Collected Studies in Criminological Research*. Strasbourg, Austria: Council of Europe, 1967.

- Hubbard, R.L.; Marsden, M.E.; Rachel, V.J.; Harwood, H.J.; Cavanaugh, E.R.; and Ginsburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989. pp. 13-17, 130-133.
- Inciardi, J.A., ed. *The Drug-Crime Connection*. Beverly Hills, CA: Sage, 1981.
- Inciardi, J.A. *The War on Drugs: Heroin, Cocaine, Crime, and Public Policy*. Palo Alto, CA: Mayfield, 1986.
- Inciardi, J.A. *Criminal Justice*. San Diego, CA: Harcourt Brace Jovanovich, 1990. pp. 702-703.
- Johnson, B.D.; Goldstein, P.J.; Preble, E.; Schmeidler, J.; Lipton, D.S.; Spunt, B.; and Miller, T. *Taking Care of Business: The Economics of Crime by Heroin Users*. Lexington, MA: Lexington Books, 1985.
- Lazar Institute. *Phase I Report, Treatment Alternatives to Street Crime (TASC) National Evaluation Program*. Washington, DC: Law Enforcement Assistance Administration, 1976.
- Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988.
- Lipton, D.; Martinson, R.; and Wilks, J. *The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies*. New York: Praeger Publishers, 1975.
- Martinson, R. What works? Questions and answers about prison reform. *Public Interest* 35:22-54, 1974.
- Nurco, D.N.; Kinlock, T.N.; and Hanson, T.E. The drug/crime connection. In: Inciardi, J.A., ed. *Handbook of Drug Control in the United States*. Westport, CT: Greenwood Press, 1990.
- Smith, W.R.; Rhing, E.E.; and Jackson, R.W. Parole practices in the United States. *Corrections Today* 51(6):22-28, 1989.
- System Sciences, Inc. *final Report—Evaluation of TASC, Phase II*. Bethesda, MD: Law Enforcement Assistance Administration, 1978.
- Tyon, L. *Baseline Management and Assessment Data Project: Final Report*. Portland, OR: Bureau of Justice Assistance, 1988.
- Wines, E.C. Commutation laws in the United States. In: *Report of the Prison Association of New York*. New York, 1868. pp. 154-170.
- Wish, E.D. *Drug Use Forecasting: New York 1984-1986*. Washington, DC: National Institute of Justice, U.S. Department of Justice, February 1987a.
- Wish, E.D. "Identification of Drug Abusing Offenders: A Guide for Practitioners." Paper presented at the National Academy of Sciences Workshop on Drugs and Crime, Atlanta, GA, December 17, 1987b.

AUTHOR

Beth Weinman, M.A.
Transitional Service Coordinator
Drug Program
Federal Bureau of Prisons
NALC Building, Room 301
320 First Street, N.W.
Washington, DC 20534

Methodological Issues: Drug Abuse Treatment Research in Prisons and Jails

Bennett W. Fletcher and Frank M. Tims

INTRODUCTION

Although many of the methodological issues encountered in drug abuse treatment research for the incarcerated population overlap with those in the nonincarcerated population, the incarcerated population is also unique in many respects. Some of these differences create research opportunities, whereas others complicate the design and implementation of research and may threaten to compromise the investigation or the interpretation of results.

The intention of this chapter is to alert the reader to several methodological pitfalls encountered in designing and conducting treatment evaluation research with incarcerated populations. A thorough review of every methodological issue involved with the evaluation of treatment in the incarcerated population is beyond the scope of this chapter. Issues concerned with statistical and analytic approaches or detailed discussions of what variables and phenomena to measure are not covered here. For a discussion of issues surrounding treatment evaluation, the reader is referred to Sells and colleagues (1977) and Tims (1982). Wells and coworkers (1988a, 1988b) provide an overview of measurement issues. Hubbard and colleagues (1989) review the treatment effectiveness literature and describe findings from a large-scale treatment outcome study.

Research Questions

Evaluation research questions that might be asked of an incarcerated population receiving drug abuse treatment include the following: Does treatment produce behavior change, and if so, how? What treatment approaches and components are optimal, and for whom? How can treatment be improved? How does the prison context influence treatment process and outcome, and how can contextual constraints be overcome?

Do prison-based treatment effects persist beyond the period of incarceration? How well does prison-based treatment prepare individuals for reentry into the community? These questions concern process and outcome, environmental or situational influences in prison-based treatment, and the period of transition from prison-based treatment to community treatment. Needless to say, to answer such questions requires that treatment effects be distinguished from unrelated factors that also may influence treatment outcomes or its process.

Research Design

There is a substantial literature on research design, including experimental (Fisher 1960; Kirk 1982; Winer 1971) quasi-experimental (Campbell and Stanley 1963; Cook and Campbell 1979; Trochim 1984), and nonexperimental research (Duncan 1975; James et al. 1982). Within the context of experimental and quasi-experimental designs, Campbell and Stanley (1963) describe threats to internal validity (whether the results of the research findings are true) and threats to external validity (whether the research findings are representative or generalizable outside the research context). Nine types of threats to internal validity are history, maturation, instability, testing, instrumentation, regression artifacts, selection biases, attrition, and selection-maturation interactions (Campbell 1969). The threats to external validity, which apply equally to experimental and quasi-experimental research, include the interaction effects of testing, the interaction of selection and experimental treatment, the reactive effects of the research, multiple-intervention interference, irrelevant responsiveness of measures, and irrelevant replicability of treatments.

The process of randomization, when properly carried out, controls for most threats to internal validity (Campbell and Stanley 1963). For this reason, experimental research designs that incorporate random assignment of subjects to treatment groups often are regarded as the sine qua non of treatment research and are recommended if feasible (Coyle et al. 1989; Gray-Donald and Kramer 1988). Treatment outcome or evaluation research that does not use a randomized design may be subject to criticism. This criterion is focused largely on the risk that the treatment effects have been confounded with extraneous sources of variation, particularly self-selection bias, which may jeopardize the interpretation of treatment results. However, in treatment evaluation research, characteristics of the population, the environment, and the treatment each may threaten the validity of the randomization process, with the consequence that a randomized design is often not feasible or is compromised during implementation. Many of the pitfalls described in the following sections are particularly problematic within the context of a randomized design because they reintroduce threats to internal validity.

THREATS TO INTERNAL VALIDITY

History

Events that occur concurrently with the treatment or in the time between the treatment and posttreatment measurement may influence the outcome behavior. For example, a change may occur in the level of supervision of a prison inmate, which may change the level of drug use or the motivation to change, independent of treatment participation. Randomization controls for preassignment historical influences but does not control for events that occur during or after treatment (Campbell and Stanley 1963). The potential for extraneous events to influence outcome behaviors is greater with a longer duration of treatment. Given this fact and given that interest in outcomes may extend indefinitely beyond treatment, intervening events should be monitored for the duration of treatment and followup periods. This monitoring will help determine whether significant events have occurred to systematically influence the criterion behaviors, which could result in misattribution of treatment effects.

Maturation

Maturation becomes a threat to the validity of treatment effectiveness attributions when the natural process of change over time influences outcome behaviors. For example, research in the drug-using behavior of juvenile delinquents should take into account developmental changes that predispose that population to use or stop using particular drugs. However, given the long-term nature of drug addiction and treatment, maturation also may be a competing explanation for changes in adult drug use (Winick 1962; Brecht and Anglin 1990).

Testing and Instrumentation

An individual who is to be followed over time typically enters a research study naive to its procedures and goals. As the project continues, a subject learns or infers procedures or goals and may shape his or her responses accordingly. This could have a positive effect if the investigator is able to elicit more accurate and detailed data. However, the subject's perception of the research or the investigator also may produce biased, unreliable, or erroneous data. Particularly with self-reports, data quality depends largely on the participant's belief in the importance of the research and the integrity of the investigator (Homans 1977) as well as his or her confidence that the researcher will prevent the misuse of sensitive or incriminating data (Robins and Smith 1977). Inmates tend to be cynical, manipulative, and resistant to authority (Wexler and Williams 1986). In conducting research in the criminal justice

population, it is of critical importance to establish the interviewer's integrity and credibility.

Statistical Regression

Statistical regression occurs when individuals who exhibit extreme behavior are selected for entry into a study. Extreme behaviors tend to moderate over time, making it difficult to separate treatment effects from a return to more normal behavior. This is a well-recognized problem that is endemic in drug abuse treatment research because individuals typically enter drug treatment as the result of a drug or legal crisis (Simpson and Sells 1982; Wells et al. 1988b). Incarcerated individuals may have fewer options on when and whether to enter prison-based treatment and, thus, may not represent extreme drug-using behavior prior to treatment. On the other hand, it is not uncommon for the prison administration to select its most troublesome inmates for treatment.

Selection and Selection-Maturation Interaction

Threats to validity from selection represent another well-known problem for drug abuse treatment research. Selection biases may occur for several reasons. The assigned treatment may be unavailable; the individual may refuse or be unable to accept the assigned modality; or clinical judgment may override the assignment (Bale et al. 1980; McLellan et al. 1983). Selection-maturation interactions are a threat when subjects predisposed to change selectively enter or stay in a particular type of treatment, thus making the self-selected treatment appear more effective than a comparison treatment. Gray-Donald and Kramer (1988), in discussing a disparity between observational and clinical trial outcomes, suggest that psychologic factors, indication for treatment, and uncertainty regarding precedence of treatment and outcome are important potential confounds in observational studies, which include prison and jail studies.

Attrition

Attrition reintroduces the threat of self-selection bias. Attrition resulting from random, unrelated factors may not jeopardize internal validity (although statistical power is reduced); however, if the reason for dropping out is related to the intervention, bias has been introduced to the sample whether random assignment procedures have or have not been followed. Differential dropout rates are an indication of bias, but similar dropout rates do not guarantee its absence. Attrition occurs for several reasons. Subjects have treatment expectations and may drop out if these expectations are not met, or they may drop out after learning more about the research protocol or the assigned treatment.

Mosteller and coworkers (1983) note that investigators often underestimate subject loss due to inclusion or exclusion criteria, clinical acceptability of the assigned treatment, and subject refusals, resulting in overoptimism about the number of subjects that can be recruited into a clinical study. In an analysis of randomized field experiment implementation in criminal or civil justice evaluation studies, Dennis (1988) found that 13 of 28 studies had overestimated their case flows. Howard and colleagues (1986, 1990) argue that attrition should include not only dropouts but also those who constitute "effective dropouts," since they remain in the study but fail to provide complete data.

Although the restricted range of desirable alternatives to prison-based treatment may reduce dropout rates, it is unlikely that attrition will be eliminated entirely. An assessment of the reasons for discontinued participation may permit the degree of sample bias to be estimated. Such an assessment should be easier in a sample of subjects incarcerated or under legal supervision rather than in a community sample: nevertheless, subject loss to followup should be anticipated.

THREATS TO EXTERNAL VALIDITY

To study treatment, data must be gathered. However, the data collection procedures are often sufficiently intrusive to alter treatment, thereby reducing generalizability beyond the treatment program under study. Threats to external validity may be the most troublesome for treatment evaluation research because they are not susceptible to remedy through such statistical procedures as randomization or covariance analysis.

Interaction of Pretreatment Data Collection

Pretreatment data are often necessary to establish a baseline from which to evaluate behavioral changes during and after treatment, to match subjects, or to control for differences in client characteristics. These data usually are obtained by interviewing the incoming client. However, obtaining pretreatment baseline research data may increase the subject's sensitivity or treatment responsiveness, resulting in outcomes that differ from the treatment delivered without pretreatment data collection.

A solution to this problem is to reduce the intrusive nature of data collection as much as possible. This can be accomplished by using existing data sources, by incorporating data collection into the ongoing treatment process (this changes the nature of treatment and may affect reliability and validity of data), or by using unobtrusive outcome measures.

Interaction of Selection Biases and Treatment

There is evidence that differences exist in the drug patterns, legal involvement, and sociodemographic characteristics of clients or patients entering different treatment modalities (Sells 1974; Hubbard et al. 1989). There is also evidence that individuals with particular characteristics (e.g., level and type of psychopathology, pattern of drug use, or criminal involvement) perform more appropriately in some modalities and more poorly in others (McLellan et al. 1984, 1986). Over time, treatment preference and reason to enter treatment are predictive of treatment outcomes (Lehman et al. 1990). These differences suggest that, in general, treatment findings must be interpreted in the context of client characteristics and preferences.

Reactive Effects of Research Arrangements and Irrelevant Responsiveness of Measures

Introducing research arrangements to measure treatment performance may influence behaviors under observation and confound measuring treatment effects. Even in well-designed studies, obtaining research data is an intrusion and introduces changes in the treatment process that may influence outcomes in unpredictable ways. For example, conducting during-treatment interviews, recording treatment sessions, or taking frequent biological specimens may increase compliance with treatment requirements, thus making the treatment appear more effective. In addition, data collection instruments may contain components that appear to be related to outcome but measure factors specifically related to the particular program being studied (e.g., a singularly effective counselor or program administrator), which compromises the generalization of treatment evaluation results to other settings.

Multiple-Treatment Interference

Depending on the treatment modality, between 34 and 75 percent of the clients in the Treatment Outcome Prospective Study had prior treatment experience, and from 14 to 44 percent had been in treatment three or more times (Hubbard et al. 1989). Marsh and coworkers (1990) discuss the difficulties of evaluating the effects of specific treatment episodes in the context of multiple treatment admissions over time. These effects may have cumulative, sequential, or delayed influences on outcome. The prison experience may be conceived as a complex and multifaceted intervention that interacts with treatment in ways not well understood.

Irrelevant Treatment Replicability

The treatment process is complex and difficult to measure. Research findings attributed to measured variables may not be replicated if outcomes are the result of other unmeasured (or poorly measured) factors. For example, there is evidence that program and environmental factors (Finney and Moos 1986; Finney et al. 1981; Moos 1970), the organizational environment (D'Aunno and Price 1985), and counselor characteristics (McLellan et al. 1988) significantly influence treatment outcomes. Even within the same program, interventions vary from one individual to another depending on the needs and attributes of the patient, with the consequence that it is difficult to determine what is being evaluated.

THREATS TO IMPLEMENTATION AND POSSIBLE REMEDIES

The discussion thus far has described threats to validity that might be encountered in community-based as well as in criminal justice research. However, many of the characteristics unique to the criminal justice environment have a profound impact on the nature of research carried out in it. Treatment research in prisons and jails is influenced by (1) the institution's security level; (2) the inmate composition and culture; (3) the administrative philosophy and structure; (4) the physical environment; (5) the prison's regulatory structure, with swift consequences for rule infractions; and (6) the motivation and attitudes of prison and program staff.

Prisons are fundamentally unpleasant places designed to confine individuals convicted of crime and to deprive them of individual liberty. Because of the atmosphere of mistrust, threat, and suspicion between prison staff and inmates, together with inmate unrest and overcrowded conditions, the prison environment is often not conducive to therapeutic intervention or rehabilitation (Wexler et al. 1988). Wexler and Williams (1986) eloquently identify several barriers to effective implementation of treatment programs, including institutional resistance, the severity of inmate problems, and program inadequacies.

Whether in Federal, State, or local institutions, research on inmates is conducted at the discretion of criminal justice officials whose primary mission is to maintain public safety by ensuring that those in custody present minimal risk to the public. Although community-based treatment program directors are not likely to be held responsible for the criminal activity of their clients, the warden of the correctional institution is responsible for individuals under custody and supervision. Research or clinical interventions that present unattractive risks to correctional officials (e.g., releasing an inmate who might recidivate to a

community halfway house) are not likely to be fully implemented regardless of progress made in treatment. Therefore, inmate security considerations override clinical and research considerations.

In a synopsis of the Stay'n Out evaluation, Wexler and colleagues (1990, p. 71) noted that

while correctional institutions are generally hostile environments that impede attempts at both treatment and research, both can be accomplished successfully, even though it is highly difficult to maintain the integrity of treatment programs and research studies within correctional facilities.

Researchers are usually not regular members of the institution, since their roles, activities, and objectives are different and since their research findings may be perceived to have dubious value to the institutional program being studied. Thus, a researcher often has a marginal position within the organization (Rodman and Kolodny 1964). The result of this organizational isolation is that an investigator often must rely heavily on the cooperation of many levels of criminal justice administration, from administrators to treatment staff, most of whom have little experience with, appreciation for, or understanding of research. Often, an inordinate amount of the researcher's time must be focused on establishing and maintaining cooperative relationships with the administration, prison staff, and subjects so that research and treatment goals can be accomplished.

Randomized Designs

Since individuals who are incarcerated constitute a "captive" study population, it could be expected that implementing a randomized design would be easier in prison-based treatment. However, many of the problems encountered in community-based treatment research are present in the criminal justice environment, making implementation of this potential design difficult to realize. In noting that randomized field experiments are often "logistical failures," Dennis (1990) identifies six categories of potential methodological problems that **may** jeopardize the implementation of randomized drug treatment studies: dilution of treatment, contamination or confounding of treatment effects, reduced power from underestimated caseload, violations of the random assignment protocol, changes in the study context or environment, and changes in the treatment being delivered.

As in settings outside the criminal justice environment, conflicts often arise between research and clinical goals that must be resolved. Researcher-

practitioner issues include problems in communicating research goals and procedures to treatment staff, dealing with staff turnover, and convincing clinical administrators that randomization is necessary and ethical (Ashery and McAuliffe, in press). Treatment staffs often fear that assignment to a control group may unfairly affect those patients, especially those with more severe problems.

Ashery and McAuliffe (in press) reviewed nine randomized clinical trial studies and identified problems that threaten to jeopardize the implementation of valid randomization procedures. In addition to difficulties with client recruitment and attrition, problems included loss of subjects in the followup, failure to develop and maintain relationships with outside cooperative agencies, conflicts between treatment and research objectives, forced modifications to the study, and project management issues. Some solutions that were identified included changing the ratio of assignment to randomized groups, aggressive recruitment and followup techniques, the addition of more treatment or data collection sessions than originally planned, and incorporation of a prerandomization period to identify early dropouts.

Treatment vs. no-treatment comparisons may be needed to address the question, "Does treatment work?" However, if the research question is one of relative effectiveness (e.g., "Is treatment A more effective than treatment B?"), it may not be necessary to establish a no-treatment control group. Instead, random assignment to alternative treatments may be used. These are more likely to be successfully implemented if the alternative treatments are similar enough or of equally unknown effectiveness so that no strong preferences exist—among clients or treatment staff—for any particular treatment alternative.

Randomized designs that employ no-treatment control groups are difficult to implement because of ethical dilemmas from withholding treatment. If the demand is such that inmates are on treatment waiting lists, it may be argued that the fairest allocation of resources is to select subjects by chance. Petersilia (1989) describes a large-scale evaluation of the Bureau of Justice Assistance's Intensive Supervision Probation (ISP) program, in which randomized assignment was presented to practitioners as a way to allocate scarce resources and as the only credible way to evaluate the ISP program.

Other Designs

If a randomized design is impractical or unfeasible, quasi-experimental designs (Campbell and Stanley 1963; Cook and Campbell 1979) may be used. Quasi-experimental designs—such as pre-post designs, time series (Box and Jenkins

1976) survival analysis (Miller 1981; Fisher and Anglin 1987) and regression discontinuity (Trochim 1984)—control for some but not all threats to internal validity. Regardless of whether a randomized design can be implemented, a researcher also must try to measure and control threats to external validity, which are not controlled by randomization.

Statistical analytic methods can be used to correct for bias from nonrandom sources of error. Random error, which reduces the precision of estimates but does not introduce bias, may be reduced through the use of multiple data sources or multiple indicators to obtain more reliable estimates of important variables. This is accomplished by reducing mistakes in recording and coding data and by using data collection strategies that maximize data reliability. Statistical analytic approaches also can be used, including covariance analysis (Tatsuoka 1971), factor analysis (Gorsuch 1983), modeling of selection bias (Heckman 1979), and estimate-and-subtract procedures (Reichardt and Gollob 1989). These corrective techniques incorporate the measurement of biasing factors but do not correct for unobserved influences. If such an approach is used, it is necessary to identify and measure potential confounding variables (e.g., motivation, psychological impairment, criminal orientation, history, ability/impairment/skill level) along with treatment factors and outcome criteria of interest.

Causal modeling techniques (Duncan 1975; Nambodiri et al. 1975) also can provide a means for investigating relationships not generally amenable to experimental designs. This includes testing complex multivariate relationships between unobserved variables. Causal modeling techniques generally require the specification of a structural model and a corresponding measurement model. The structural model describes the theoretical relationships between variables, and these relationships are tested with empirical data in the measurement model using a goodness-of-fit approach. Causal models are subject to stringent assumptions, well described by James and coworkers (1982), who also identify common violations in causal modeling applications.

CONCLUSION

Compared with other areas of drug abuse treatment research, relatively little research has been carried out in jails and prisons. The Stay'n Out study in New York State prisons (Wexler et al. 1988) significantly increases understanding of the effectiveness of prison-based therapeutic communities and milieu therapy compared with no drug treatment. As correctional institutions expand their drug treatment capabilities, new questions arise with regard to the effectiveness of correctional drug treatment in different contexts. A variety of treatment options exist in correctional institutions, including prison-based self-help groups,

residential and nonresidential drug treatment programs, prison-based methadone programs, and "treatment prisons" dedicated to drug offenders.

Although it is not difficult to identify interesting research questions in the area of correction-based treatment, two areas offer substantive and methodological challenges to the investigator. The first area in which systematic investigation is needed is the influence that environmental and situational factors have on the implementation of treatment and on treatment outcomes. Moos and colleagues (Moos 1970; Moos and Finney 1988) have carried out some work in this area, but much remains to be done. For example, are community-based treatment outcomes different from prison-based outcomes, and if so, are the differences related to prison vs. community context or to other factors?

The second area is transition to the community. Recovery from drug abuse is usually a long-term process. The transition to the community from a highly structured and controlled environment is a remarkable change, even if the previously incarcerated individual progresses through several stages such as a halfway house, community residential treatment, and parole supervision. Specific questions might focus on such areas as the following: Do the effects of prison-based treatment persist beyond the period of incarceration? Does drug treatment in the correctional institution adequately prepare the incarcerated substance abuser for reentry into the community and for resisting pressure to relapse or recidivate? How can institutional-based programs more effectively prepare inmates for reentry to the community?

This chapter draws heavily on drug treatment evaluation research studies carried out in noncorrectional areas in an attempt to identify possible problems that may be encountered when implementing treatment research in the correctional environment. Although this research is challenging and at times frustrating, the opportunity for groundbreaking research should not be overlooked. Treatment research in correctional institutions is needed. Implementation and methodological problems will be encountered, but these problems are not insurmountable and can provide substantive and methodological challenges,

REFERENCES

- Ashery, R.S., and McAuliffe, W.E. Implementation problems in randomized trials of outpatient psychosocial treatments for drug abusers. *Am J Drug Alcohol Abuse*, in press.
- Bale, R.N.; Van Stone, W.W.; Kuldau, J.M.; Engelsing, T.M.J.; Elashoff, R.M.; and Zarcone, V.P., Jr. Therapeutic communities vs. methadone maintenance. A prospective controlled study of narcotic addiction treatment:

- Design and one-year followup results. *Arch Gen Psychiatry* 37:179-193, 1980.
- Box, G.E.P., and Jenkins, G.M. *Time Series Analysis: Forecasting and Control*. San Francisco: Holden-Day, 1976.
- Brecht, M.L., and Anglin, M.D. Conditional factors of maturing out: Legal supervision and treatment. *Int J Addict* 25:1393-1407, 1990.
- Campbell, D.T. Reforms as experiments. *Am Psychol* 24:409-429, 1969.
- Campbell, D.T., and Stanley, J.C. *Experimental and Quasi-Experimental Designs For Research*. Chicago: Rand McNally, 1963.
- Cook, T.D., and Campbell, D. *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Boston: Houghton Mifflin, 1979.
- Coyle, S.L.; Boruch, R.F.; and Turner, C.F. *Evaluating AIDS Prevention Programs*. Washington, DC: National Academy Press, 1989.
- D'Aunno, T., and Price, R.H. Organizational adaptation to changing environments. Community mental health and drug abuse services. *Am Behav Sci* 28:669-683, 1985.
- Dennis, M.L. "Implementing Randomized Field Experiments: An Analysis of Criminal and Civil Justice Research." Unpublished doctoral dissertation, Northwestern University, Evanston, IL, 1988.
- Dennis, M.L. Assessing the validity of randomized field experiments: An example from drug abuse treatment research. *Eval/ Rev* 14:347-373, 1990.
- Duncan, O.D. *Introduction to Structural Equation Models*. New York: Academic Press, 1975.
- Finney, J.W., and Moos, R.H. Matching patients with treatments: Conceptual and methodological issues. *J Stud Alcohol* 47: 122-134, 1986.
- Finney, J.W.; Moos, R.H.; and Chan, D.A. Length of stay and program component effects in the treatment of alcoholism: A comparison of two techniques for process analysis. *J Consult Clin Psychol* 149:120-131, 1981.
- Fisher, D.G., and Anglin, M.D. Survival analysis in drug program evaluation. Part 1. Overall program effectiveness. *Int J Addict* 22:115-134, 1987.
- Fisher, R.A. *The Design of Experiments*. 7th ed. New York: Hafner, 1960.
- Gorsuch, R.L. *Factor Analysis*. Hillsdale, NJ: Erlbaum, 1983.
- Gray-Donald, K., and Kramer, M.S. Causality inference in observational vs. experimental studies: An empirical comparison. *Am J Epidemiol* 127:885-892, 1988.
- Heckman, J. Sample selection bias as a specification error. *Econometrica* 47:153-161, 1979.
- Homans, C. Interviewing respondents. In: Johnston, L.D.; Nurco, D.N.; and Robins, L.N., eds. *Conducting Followup Research on Drug Treatment Programs*. DHEW Pub. No. (ADM)78-847. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1977. pp. 85-97.
- Howard, K.I.; Cox, W.M.; and Saunders, S.M. Attrition in substance abuse comparative treatment research: The illusion of randomization. In: Onken,

- L.S., and Blaine, J.D., eds. *Psychotherapy and Counseling in the Treatment of Drug Abuse*. National Institute on Drug Abuse Research Monograph 104. DHHS Pub. No. (ADM)SI-1722. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1990. pp. 66-79.
- Howard, K.I.; Krause, M.S.; and Orlinsky, D.E. The attrition dilemma: Toward a new strategy for psychotherapy research. *J Consult Clin Psychol* 54:106-110, 1986.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment. A National Study of Effectiveness*. Chapel Hill, NC: University of North Carolina Press, 1989.
- James, L.R.; Mulaik, S.A.; and Brett, J.M. *Causal Analysis: Assumptions, Models, and Data*. Beverly Hills, CA: Sage, 1982.
- Kirk, R.E. *Experimental Design: Procedures for the Behavioral Sciences*. Belmont, CA: Brooks-Cole, 1982.
- Lehman, W.E.K.; Joe, G.W.; and Simpson, D.D. An integrative model. In: Simpson, D.D., and Sells, S.B., eds. *Opioid Addiction and Treatment: A 12-Year Follow-up*. Malabar, FL: Krieger, 1990. pp. 221-237.
- Marsh, K.L.; Joe, G.W.; Simpson, D.D.; and Lehman, W.E.K. Treatment history. In: Simpson, D.D., and Sells, S.B., eds. *Opioid Addiction and Treatment: A 12-Year Follow-up*. Malabar, FL: Krieger, 1990. pp. 137-156.
- McLellan, A.T.; Childress, A.R.; Griffith, J.; and Woody, G.E. The psychiatrically severe drug abuse patient: Methadone maintenance or therapeutic community? *Am J Drug Alcohol Abuse* 10:77-95, 1984.
- McLellan, A.T.; Luborsky, L.; O'Brien, C.P.; Barr, H.L.; and Evans, F. Alcohol and drug abuse treatment in three different populations: Is it predictable? *Am J Drug Alcohol Abuse* 12:101-120, 1986.
- McLellan, A.T.; Woody, G.E.; Luborsky, L.; and Goehl, L. Is the counselor an 'active ingredient' in substance abuse rehabilitation? An examination of treatment success among four counselors. *J Nerv Ment Dis* 176:423-430, 1988.
- McLellan, A.T.; Woody, G.E.; Luborsky, L.; O'Brien, C.P.; and Druley, D.A. Increased effectiveness of substance abuse treatment: A prospective study of patient-treatment "matching." *J Nerv Ment Dis* 171:597-605, 1983.
- Miller, R. *Survival Analysis*. New York: Wiley, 1981.
- Moos, R.H. Differential effects of the social climates of correctional institutions. *J Res Crime Delinquency* 7:71-82, 1970.
- Moos, R.H., and Finney, J.W. Alcoholism program evaluations: The treatment domain. In: Lettieri, I.J., ed. *Research Strategies in Alcoholism Treatment*. New York: Haworth Press, 1988.
- Mosteller, F.; Gilbert, J.P.; and McPeck, B. Controversies in design and analysis of clinical trials. In: Shapiro, S.H., and Louis, T.O., eds. *Clinical Trials: Issues and Approaches*. New York: Marcel Dekker, 1983.

- Namboodiri, N.K.; Carter, L.R.; and Blalock, H.M. *Applied Multivariate Analysis and Experimental Designs*. New York: McGraw-Hill, 1975.
- Petersilia, J. Implementing randomized experiments: Lessons from BJA's Intensive Supervision Project. *Eva/ Rev* 13:435-458, 1989.
- Reichardt, C.S., and Gollob, H.F. Ruling out threats to validity. *Eval Rev* 13:3-17, 1989.
- Robins, L.N., and Smith, J.E. Ethical considerations. In: Johnston, L.D.; Nurco, D.N.; and Robins, L.N., eds. *Conducting Followup Research on Drug Treatment Programs*. National Institute on Drug Abuse. DHEW Pub. No. (ADM)78-847. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1977. pp. 63-70.
- Rodman, H., and Kolodny, R. Organizational strains in the researcher-practitioner relationship. *Hum Organization* 23:171-182, 1964.
- Sells, S.B., ed. *Research on Patients, Treatments and Outcomes. The Effectiveness of Drug Abuse Treatment*. Vol. 2. Cambridge, MA: Ballinger, 1974.
- Sells, S.B.; Demaree, R.G.; Simpson, D.D.; Joe, G.W.; and Gorsuch, R.L. Issues in the evaluation of drug abuse treatment. *Professional Psychol* 8:609-640, 1977.
- Simpson, D.D., and Sells, S.R. Effectiveness of treatment for drug abuse: An overview of the DARP research program. *Adv Alcohol Subst Abuse* 2:7-29, 1982.
- Tatsuoka, M.M. *Multivariate Analysis*. New York: Wiley, 1971.
- Tims, F.M. *Assessing Treatment: The Conduct of Evaluation in Drug Abuse Treatment Programs*. National Institute on Drug Abuse Treatment Research Report. DHHS Pub. No. (ADM)84-1218. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1982.
- Trochim, W.M.K. *Research Design for Program Evaluation: The Regression-Discontinuity Approach*. Beverly Hills, CA: Sage, 1984.
- Wells, E.A.; Hawkins, J.D.; and Catalano, R.F. Choosing drug use measures for treatment outcome studies. I. The influence of measurement approach on treatment results. *Int J Addict* 23:851-873, 1988a.
- Wells, E.A.; Hawkins, J.D.; and Catalano, R.F. Choosing drug use measures for treatment outcome studies. II. Timing baseline and follow-up measurement. *Int J Addict* 23:875-885, 1988b.
- Wexler, H.K.; Falkin, G.P.; and Lipton, D.S. Outcome evaluation of a prison therapeutic community for substance abuse treatment. *Crim Justice Behav* 17:71-92, 1990.
- Wexler, H.K.; Falkin, G.P.; Lipton, D.S.; Rosenblum, A.B.; and Goodloe, L.P. *A Model for Prison-Based Drug Treatment: An Evaluation of the "Stay'n Out" Therapeutic Community*. New York: Narcotic and Drug Research, Inc., 1988.

Wexler, H.K., and Williams, R. The Stay'n Out therapeutic community: Prison treatment for substance abusers. *J Psychoactive Drugs* 18:221-230, 1986.

Winer, B.J. *Statistical Principles in Experimental Design*. 2d ed. New York: McGraw-Hill, 1971.

Winick, C. Maturing out of narcotic addiction. *Bull Narc* 14:1-7, 1962.

Winick, C. The life cycle of the narcotic addict and of addiction. *Bull Narc* 16:1-11, 1964.

AUTHORS

Bennett W. Fletcher, Ph.D.
Research Psychologist
Treatment Research Branch

Frank M. Tims, Ph.D.
Deputy Branch Chief
Division of Clinical Research

National Institute on Drug Abuse
Parklawn Building, Room 10A-30
5600 Fishers Lane
Rockville, MD 20857

Evaluation of the Federal Bureau of Prisons' Drug Treatment Programs

Bernadette Pelissier and Dan McCarthy

The Federal Bureau of Prisons' (BOP) recent renewal of intensive drug treatment programming is accompanied by a comprehensive evaluation plan. This evaluation plan is important, given the minimal amount of research that has been conducted on prison drug treatment programs and the need to determine "what works for whom" in the drug treatment field.

BOP's effort will involve process and outcome evaluation as well as cost-benefit analysis. The purpose of the evaluation is to provide information for supporting decisions about nationwide efforts to control drug use through drug treatment programs. It is hoped that the evaluation will guide the development of more effective drug treatment programs. In addition, it is expected that the evaluation will provide a greater understanding of the etiology of drug addiction among a prison population.

This chapter summarizes the research design to be implemented in the evaluation and highlights those elements that address issues specific to studying drug treatment programs in prison populations as well as currently existing knowledge gaps.

EPIDEMIOLOGICAL STUDY

The association between substance abuse and criminal behavior has been widely debated and researched. Nonetheless, recent research of a longitudinal nature consistently agrees that addiction acts as a "multiplier" of crime; though criminality often occurs prior to addiction, the onset of addiction results in greater levels of criminal involvement (Nurco et al. 1985).

Recent data show that more than 50 percent of all State prison inmates used drugs regularly before their last arrest but were receiving no programmatic help while incarcerated (Chaiken 1989). Comprehensive information on drug abuse problems among Federal prison inmates is currently unavailable. Therefore, BOP's research effort will include data collection from a national baseline

sample to identify the nature and extent of drug abuse problems among Federal prison inmates and to obtain information to clarify the association between drug use and other criminal behavior prior to their current incarceration. This will be useful in assessing not only the number of individuals in need of treatment and future program demand but also the severity of their impairment and criminality.

Each year, approximately one-third of BOP's institutions representing the various security levels (low, medium, and high) will be selected as part of BOP's evaluation effort, so that over a 3-year period all institutions will have been sampled. One thousand randomly selected inmates newly admitted to these institutions will be interviewed each year. The interview format—adapted from previously developed instruments of Nurco, the Bureau of Justice Statistics' prison survey, and the Treatment Outcome Prospective Study (TOPS) (Nurco et al. 1985; Innes 1988; Hubbard et al. 1989)—addresses drug use, employment, treatment history, and criminal history as well as family and other individual background characteristics.

DRUG TREATMENT PROGRAM EVALUATION

The research design involves a regional multisite assessment of residential treatment programs using four comparison groups, including a random assignment component. Two 1-year cohorts of these four comparison groups will be included in this study, which will employ a continuous-time analysis of event histories. Measures used will be multidimensional, both behavioral and cognitive, and will incorporate perceptions of program staff and research subjects as well as observations by research staff. The effect of the programs on postrelease drug use, criminal behavior, occupational and social functioning, and mental and physical health will be assessed during a 5-year followup period.

Subject Selection and Comparison Groups

The evaluation effort will focus on assessing two types of residential drug treatment programs, 12-month pilot programs and 9-month comprehensive programs representing high and moderate levels of program intensity. (See Murray, this volume, for a detailed description of BOP's drug treatment programs.) Both programs will be followed by transitional services to assist inmates in readjusting to community life. Although these programs will be located in various institutions nationwide, evaluation efforts will be limited to the Southeastern and mid-Atlantic regions of the country where random assignment procedures will be incorporated into the program admission procedures.

Inmates eligible for admission to the residential programs, based on evidence of moderate to severe levels of substance abuse, may volunteer for the pilot residential programs. The research staff will randomly assign these volunteers to the high-intensity pilot program or to a comparison group to prevent the possibility of sabotage of the process by skeptical practitioners. Volunteers who are randomly assigned to the comparison group will comprise two groups depending on choices made about other available treatment. One group will consist of individuals who receive no further in-prison treatment and the other of individuals who elect to enroll in a comprehensive moderate-intensity residential program. These various treatment and comparison groups will provide a basis for comparing the cost-effectiveness of several levels of treatment intensity.

Since program entry requires volunteering, extrapolation of results to the population of incarcerated drug abusers is not defensible without assumptions about voluntary self-selection (Singer 1986). The very act of volunteering may affect outcome. Therefore, a nonvolunteer control group will be selected to assess both selection bias and the impact of volunteering on outcomes. The nonvolunteer comparison group will be selected from among those who have passed the time point appropriate for volunteering (i.e., with less than 12 months of time remaining to serve in prison). Selection of this control group will be accomplished through a paired or probabilistic matched sample selection method, which allows for comparisons of similar groups (Rosenbaum and Rubin 1985; Saylor 1985). Criteria for matching include extent and type of prior drug use, drug treatment history, criminal involvement, prior incarceration, educational level, employment status, age, sex, and marital status. It is estimated that there will be approximately 400 inmates in each of the comparison groups each year.

If there are too few volunteers to implement random assignment or fill the available spaces, additional incentives for volunteering may be developed. However, in the event that inadequate implementation of the random assignment procedure occurs because of an insufficient number of volunteers, because of subject refusal to accept program assignment, or because of high dropout rates or other administrative problems, the ability to account for self-selection biases in drawing conclusions about program effectiveness will be hindered. Two aspects of the research design are considered crucial to interpretation of results in the event of incomplete implementation of random assignment. First, all selected research subjects will be followed regardless of program participation or when they drop out. Second, the comprehensiveness of the data to be collected—both behavioral and attitudinal—will allow an assessment of program participation covariates.

In addition to the four comparison groups, a regional baseline comparison group will provide information on volunteerism-information generally unavailable in most drug treatment outcome studies. The group will be composed of inmates randomly selected from among all inmates who would be eligible to volunteer for the pilot treatment programs. Information collected will be similar to that obtained from the national baseline sample of new admissions. Characteristics of this group will be compared with those of the pilot program volunteers to address the following questions: What percentage of incarcerated drug abusers volunteer for treatment? Are volunteers individuals whose criminal career is related to drug abuse? Are volunteers individuals with the most severe drug abuse problems?

Independent Variable Measures

Sociodemographic Characteristics. The array of background variables to be collected is similar to that collected in other drug treatment research efforts (McGlothlin et al. 1977; Collins et al. 1982; Anglin and McGlothlin 1988; Simpson 1988; Wexler et al. 1985; Nurco et al. 1986; Anglin and Speckart 1988) and can be grouped as follows:

1. Demographic and family characteristics
2. Lifestyle and life changes
3. Alcohol and other drug use
4. Previous treatment experiences
5. Illegal activities/criminal justice system involvement
6. Occupational history

These variables include all behaviors targeted by the programs. Whereas the priority target behaviors are drug use and criminal activities, others include social and occupational functioning.

These variables serve two purposes. First, assessment of treatment outcome requires a comprehensive assessment of pretreatment functioning to provide a baseline measure for comparison with posttreatment behaviors. Second, these variables will be used to assess the degree to which these factors account for variation in treatment retention and outcome success. Although treatment outcome results pertaining to sociodemographic characteristics are inconclusive (Anglin and Hser 1990), greater consistency has been shown in research on predictors of treatment retention (Allison and Hubbard 1985; McLellan 1983).

Crucial to program evaluation is the issue of length and timing of baseline measures (Wells et al. 1988a; Anglin and Hser 1990). There is some degree of consensus that baseline periods of 1 or more years are desirable: Shorter

periods just prior to treatment entry may bias outcome results toward showing positive results since they often represent elevated levels of drug use or criminal involvement (Bale 1979; Sells et al. 1977; Anglin and Hser 1990). This study, through using a life history calendar technique (Freedman et al. 1988), will have the flexibility of identifying various baseline periods. The life history calendar obtains detailed information on legal status, illegal activities, living arrangement, employment, and treatment status for each episode of addiction or change in drug use behavior after initial drug use.

Cognitive/Psychological Attributes. A major issue emerging in the drug treatment evaluation field concerns the impact of psychosocial characteristics and cognitive perceptions on treatment outcomes.

Psychological Impairment. Researchers reviewing and commenting on the drug abuse evaluation field have noted the need to include more data on the psychosocial and psychiatric characteristics of drug-dependent clients (Jaffe 1988; Tims and Holland 1988; Hubbard et al. 1988). Individuals who abuse drugs are an extremely heterogeneous group; and intake symptoms such as psychological functioning have been found to be a more important predictor of outcome than pretreatment background characteristics (Cronkite and Moos 1980; Jaffe 1988; Cohen 1986). The heterogeneity of the addict population and the variation in levels of psychological impairment are important considerations in addressing the issue of what treatment works with whom.

Level-of-impairment measures will be adopted from those being developed in the Drug Abuse Treatment Outcome Study project, funded by the National Institute on Drug Abuse. This coordinated effort also will provide a basis for comparing incarcerated and nonincarcerated drug-abusing populations.

Motivation. Client motivation and perceptions about treatment have been identified as important dimensions to include in studies of drug treatment outcome. Motivation and commitment to change have been reconceptualized as a dynamic process involving staff as well as environmental and client characteristics (Miller 1985). Studies of natural recovery from addiction and long-term followup studies have shown the importance of such characteristics as client initiative, commitment to renounce drug use, and readiness for treatment (Waldorf and Biernacki 1981; Havassy and Tschann 1983; Simpson 1988; Hall and Havassy 1986). A study of change processes found variations in the balance given to pros and cons of drug use across the stages of change (Prochaska and DiClemente 1986).

The questionnaire to assess motivations and expectations about treatment includes questions related to reasons for volunteering, positive and negative

effects of drug use, expectations about treatment outcome, commitment to abstinence from drug use, and perceived probability of successful abstinence after release from prison.

Cognitions About Substance Use. The lack of theory-inferred outcome variables (proximal outcomes) has been cited as a possible explanation for the frequency with which program evaluations show little or no effectiveness (Chen and Rossi 1980). Evaluation of program effectiveness needs to focus on both proximal and distal (final) outcomes; program failure may result either from faulty theory or because the proximal outcomes specified by the theory were not achieved (Rosen and Procter 1978; Jones 1982; Holland 1986).

Relapse prevention theory, the model on which the pilot residential drug treatment programs are being based, provides a mechanism to assess the role of theory-inferred proximal outcomes on the distal outcomes of interest. Relapse prevention is a cognitive-behavioral model with origins in Bandura's (1977) self-efficacy theory, which presents a comprehensive and integrated framework for explaining the change process in psychotherapy. This theory posits that techniques producing initial behavioral change may be ineffective at maintaining that change over time and avoiding relapse. Relapse prevention treatment provides individuals with the behavioral and cognitive skills necessary to cope effectively with high-risk situations (Marlatt and George 1984; Marlatt and Gordon 1985).

Two sets of instruments will focus on theoretical assumptions underlying the pilot treatment programs. These instruments are based on previous research that has identified seven dimensions of high-risk situations for relapse, including both intrapersonal and interpersonal situations (Marlatt and Gordon 1985). The first set of instruments—Inventory of Alcohol Use and Inventory of Drug Use—identifies situations in which alcohol or other drug use occurred in the past. The second set of instruments—Situational Confidence Questionnaire and Drug-Taking Confidence Questionnaire—assesses efficacy expectations, the individual's confidence in being able to resist the urge to use drugs in a variety of situations (Annis 1982a, 1982b; Annis and Martin 1985; Brownell et al. 1986).

The cognitive/psychological data will enable assessment of whether program volunteers meet the criteria assumed by the relapse prevention theory. In other words, are program participants deficient in coping skills? Does program participation affect these skills? Does improvement of these skills decrease relapse after treatment? Which posttreatment factors are more conducive to the maintenance of these skills?

Treatment Structure and Process. Treatment process is another neglected area identified by program evaluation theorists as well as researchers evaluating substance abuse treatment and criminal justice programs (Quay 1977; Reed 1978; Sechrest et al. 1979; De Leon 1988; Hubbard et al. 1988; Simpson 1988; Tims and Holland 1988). Measures of treatment integrity and strength as well as methods of estimating treatment effects are crucial to program evaluation to assess whether the lack of successful outcomes results from problems in program implementation (Hall and Loucks 1977; Quay 1977; Sechrest et al. 1979; Chen and Rossi 1980; Rezmovic 1986; Peterson and Bickman 1988; Reid and Hanrahan 1988). Furthermore, without specific information on the nature of a program, studies with positive outcomes cannot clearly explain why they were obtained and programs cannot be readily replicated (Simpson 1988).

To date, the most widely discussed aspect of the substance abuse treatment process consists of differentiating the major treatment modalities (Simpson 1988; Allison and Hubbard 1985). There is very little study of treatment process variations within each type of modality, particularly in long-term therapeutic communities (Cole and James 1975; De Leon 1988; Allison and Hubbard 1985).

Triangulated measures in this evaluation will obtain perceptions of the program structure and process from the perspective of inmate participants, program staff, and researchers, using such instruments and data sources as the following:

1. The Program Description Checklist. This checklist will be used to obtain staff perceptions of various program aspects, including types of services, emphasized program goals, treatment planning process, program termination, level of inmate involvement, and staff background. It is adapted from the Program Description Checklist used by Hubbard and colleagues (1989) in TOPS.
2. The Moos Community-Programs Environment Scale (COPES). This scale will be used to obtain inmate perceptions of 10 dimensions of the treatment program environment. COPES has been used to assess various treatment program climates (Price and Moos 1975; Fischer 1979; Verinis 1983; Bell 1985; Friedman et al. 1986).
3. Therapist Empathy Scales. Psychotherapy outcome studies consistently find that higher levels of therapist empathy and understanding are associated with positive client outcomes (Cooley and Lajoy 1980; Valle 1981; Free et al. 1985; Orlinsky and Howard 1986). Items will be selected

from therapist empathy scales, such as the Barrett-Lennard (1962) Relationship Inventory and the Cooley and Lajoy (1980) instrument representing five factors of client-therapist relationships.

4. Client Satisfaction Questionnaire (CSQ). A modified version of the CSQ developed by LeVois and colleagues (1981) will be used to assess satisfaction with staff and with the type, amount, and quality of services received.
5. The Observer Checklist. A checklist has been developed to obtain information about program operations from a third perspective, that of research staff not affiliated with program operations. In addition to recording information on attendance, adherence to program schedule, the physical environment, and the extent of inmate participation, a major focus of this instrument is on the nature and type of inmate-staff interactions. Categorizations of these interactions are being adopted from Levy's (1979) research on the activities and processes occurring in self-help groups (e.g., behavioral prescriptions, modeling, behavioral rehearsal, self-disclosure). Both inmate and staff behavior will be rated.
6. Services Received. Data will be extracted from BOP and transitional services program records on treatment plans, type and frequency of psychological services received, and attendance failures for each research subject. Services received will include those within residential drug treatment programs as well as drug education, Narcotics Anonymous, Alcoholics Anonymous, and other psychological or counseling services.
7. Prison Social Climate Survey (PSCS). Perceptions of staff and inmates at institutions with residential drug treatment programs will be obtained before and after program startup using the PSCS. This instrument measures various aspects of the prison environment about which prison administrators express concern: security and safety, living conditions, programs and services, and personal well-being (Saylor 1984). Data from the surveys will be used to assess the effect, if any, of the drug abuse treatment programs on each institution as a whole and, conversely, to assess the effect of the institution environment on drug treatment program participants.

Postrelease Environment. Outcome studies and studies of natural recovery processes from addiction have identified similar postrelease factors conducive to preventing drug use relapse. These factors include participation in a social network that does not use drugs or that is supportive of the individual's efforts to stop using drugs, family responsibilities, involvement in leisure or recreational

activities that do not involve the use of drugs, employment, absence of such negative life events as a death in the family or legal problems, and positive emotional states (Cronkite and Moos 1980; Finney et al. 1981; Hawkins 1983; Jorquez 1983; Rhoads 1983; Catalano and Hawkins 1985; Perri 1985; Simpson and Marsh 1986; Faupel 1988). In addition, others note that involvement in criminal and/or drug-abusing subcultures as well as labor force participation may be affected by the community structure within which an individual resides (Sells et al. 1977; Hawkins 1983). Indicators of the community structure include unemployment rates, economic conditions, income levels, drug-related arrest rates, other arrest rates, and availability of treatment resources. This evaluation will include both these microlevel and macrolevel indicators of postrelease environment.

Dependent Variable Measures

Proximal Outcomes. The proximal outcomes consist of two types. The first type is composed of indicators of adjustment while participating in the drug treatment programs, either during the in-prison component or during the transitional service phase. Dimensions of adjustment will include rule infractions; “dirty” urines; and participation in institutional vocational, educational, and recreational programs. The second type of proximal outcome addresses the theoretical assumptions of the relapse prevention model and consists of pre-post change scores on the instruments assessing perceptions about drug use.

Distal Outcomes. The primary distal outcomes of interest are drug use and criminal activities in that (1) a primary goal of drug treatment programs is to prevent drug use subsequent to release; (2) prison administrators are interested in reducing recidivism; and (3) research has demonstrated a link between drug abuse and criminal behavior. Other outcome measures of interest include social and occupational functioning as well as mental and physical health.

The followup interviews elicit information similar to that obtained in the program intake interviews to enable pretreatment and posttreatment comparisons. In addition, special attention will focus on specific aspects of outcome measures. First, resumption of drug use will allow for distinctions between lapses-any instance of return to drug use-and relapse, a resumption of regular baseline drug use. Second, information on the circumstances surrounding drug use and criminal activity after release from prison will be collected. This information is important to understanding the processes of relapse and rehabilitation and may provide useful feedback to program staff for program modifications (Wells et al. 1988b).

The 5-year followup period is of sufficient length to indicate whether treatment effects endure over time. Followup interviews will be administered at three points after release from BOP custody: 3 to 6 months after release, 2 years after release, and 5 years after release. The first followup interview time frame was selected on the basis of previous research demonstrating that most individuals relapse within the first 6 months of program termination (Tims and Leukefeld 1988).

Conceptual Model

The proposed research will be guided by the following conceptual model (figure 1) identifying the general classes of variables to be used in data analysis. Although previous research suggests that each class of variables may affect the distal outcomes of interest, comprehensive assessments with a longitudinal database on the relative effects of each class of variables on the ultimate outcomes have been infrequent. Inmate background and demographic characteristics as well as psychological/cognitive characteristics at program admission are seen as having an effect on the distal outcomes. However, these effects may be mediated by both the in-prison and the community drug treatment components, proximal outcomes that reflect changing cognitive and psychological characteristics of individuals, and, finally, the postrelease environment. In addition, this model will serve as a basis for generating specific hypotheses about the relationship between and within classes of variables.

Data Analysis

This evaluation will use a variety of multivariate analytic techniques that seldom have been used in previous drug treatment outcome studies but recently have been shown to be of value in answering questions about which treatment is effective for which types of individuals and in addressing such issues as time to relapse (Speckart and Anglin 1986; Jaffe 1988). These multivariate techniques will provide the means to control for confounding factors when comparing treatment groups with nonequivalent comparison groups and will promote external validity.

A variety of techniques will be used to address different questions. For example, Grade of Membership (GOM) analysis, a recently developed multivariate analytical model that overcomes many problems of cluster analysis (Woodbury and Manton 1982; Swartz et al. 1986), will be used to identify types of drug abusers. Discriminant analysis will be used to identify the factors differentiating treatment successes from treatment failures.

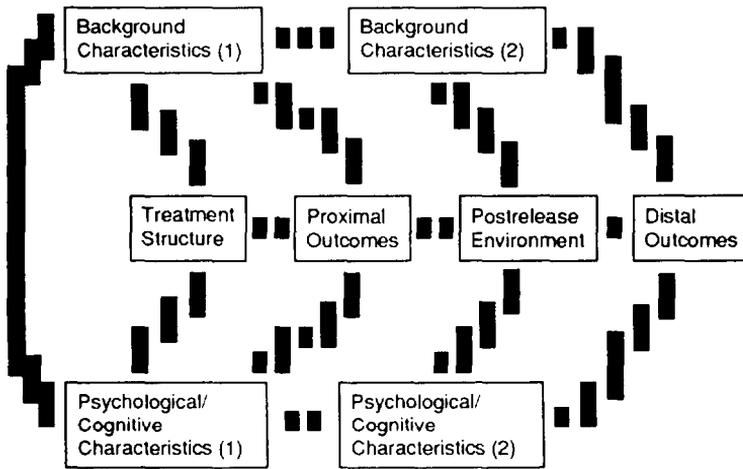


FIGURE 1. *The influence of background and psychological/cognitive characteristics and treatment experiences on treatment outcomes*

Of particular importance will be event history analysis (Allison 1984) and survival techniques to address questions about duration of time until relapse (Barton and Turnbull 1981; Anglin and Fisher 1987; Curry et al. 1988; Greenhouse et al. 1989). Hazard functions will be used to identify the posttreatment intervals during which individuals are at highest risk for relapse and those associated with a propensity to relapse at different time points. Survival function analyses will be used to compare differences in survival among the various treatment groups.

SPECIAL ISSUES IN EVALUATING PRISON DRUG TREATMENT PROGRAMS

The evaluation of prison-based treatment programs present special issues related both to data collection and to program implementation. All data collected after release from the custody of BOP should be conducted by nonprison personnel to ensure that respondents perceive followup interviews as confidential. Since program enrollment occurs toward the end of an individual's sentence, there are concerns about accurate recall of life event history prior to incarceration. Also problematic are adequate categorization and description of the treatment process for the large number of transitional treatment services to which subjects will be released.

Given that dropout rates in many drug treatment programs historically have been high and that program retention is correlated with positive outcomes, a crucial issue in prison drug treatment may be intervention timing. BOP's program design will not permit testing models of earlier intensive intervention for individuals with longer sentences. How are questions answered concerning the best time for intervening within a prison setting? How much does the process of adapting to prison life interfere with possible program participation (i.e., having to transfer away from an institution that is close to family to participate in drug treatment). Questions also may be raised about the program implementation constraints within a prison setting with respect to practicing skills of resisting drug use in "tempting" situations that would occur outside the prison context.

In summary, the research design for evaluating BOP's residential drug treatment programs will provide information of interest to both criminal justice and drug control policymakers. The information will increase the knowledge base concerning the specific issue of effective prison drug programs as well as the more general issue of what works with whom. The selection of measures and data analytic techniques represents an integration of measurement issues within the framework of a comprehensive theoretical orientation. The authors hope to begin to address the question of who requires intensive long-term treatment, who requires only minimal treatment, who can change on their own, and who will not change.

REFERENCES

- Allison, M., and Hubbard, R.L. Drug abuse treatment process: A review of the literature. *Int J Addict* 20(9):1321-1345, 1985.
- Allison, P. *Event History Analysis: Regression for Longitudinal Event Data*. Beverly Hills, CA: Sage, 1984.
- Anglin, M.D., and Fisher, D.G. Survival analysis in drug program evaluation. Part II. Partitioning treatment effects. *Int J Addict* 24(4):377-387, 1987.
- Anglin, M.D., and Hser, Y. Treatment of drug abuse. In: Tonry, M., and Wilson, J., eds. *Crime and Justice, Vol 4: Drugs and Crime*. Chicago: University of Chicago Press, 1990. pp. 393-460.
- Anglin, M.D., and McGlothlin, W.H. Outcome of narcotic addict treatment in California. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 106-128.
- Anglin, M.D., and Speckart, G. Narcotics use and crime: A multisample, multimethod analysis. *Criminology* 26(2):197-233, 1988.
- Annis, H.M. *Inventory of Drinking Situations*. Toronto, Ontario: Addiction Research Foundation of Ontario, 1982a.

- Annis, H.M. *Situational Confidence Questionnaire*. Toronto, Ontario: Addiction Research Foundation of Ontario, 1982b.
- Annis, H.M., and Martin, G. *Inventory of Drug-Taking Situations and Drug-Taking Confidence Questionnaires*. Toronto, Ontario: Addiction Research Foundation of Ontario, 1985.
- Bale, R.N. Outcome research in therapeutic communities for drug abusers: A critical review. *Int J Addict* 14(8):1053-1074, 1979.
- Bandura, A. Self-efficacy: Toward a unifying theory of behavioral change. *Psychol Rev* 84(7):191-215, 1977.
- Barrett-Lennard, G.T. Dimensions of therapist response as causal factors in therapeutic change. *Psychol Monogr* 76(43):1-35, 1962.
- Barton, R.R., and Turnbull, B.W. A failure rate regression model for the study of recidivism. In: Fox, J.A., ed. *Models in Quantitative Criminology*. New York: Academic Press, 1981. pp. 81-101.
- Bell, M.D. Three therapeutic communities for drug abusers: Differences in treatment environments. *Int J Addict* 20(10):1523-1531, 1985.
- Brownell, K.D.; Marlatt, G.A.; Lichtenstein, E.; and Wilson, G.T. Understanding and preventing relapse. *Am Psychol* 41(7):765-782, 1986.
- Catalano, R.F., and Hawkins, J.D. Project skills: Preliminary results from a theoretically based aftercare experiment. In: Ashery, R.S., ed. *Progress in the Development of Cost-Effective Treatment for Drug Abusers*. National Institute on Drug Abuse Research Monograph 58. DHHS Pub. No. (ADM)88-1401. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1985. pp. 157-181.
- Chaiken, M.R. *In-Prison Programs for Drug-Involved Offenders*. Washington, DC: National Institute of Justice, U.S. Department of Justice, 1989.
- Chen, H., and Rossi, P.H. The multi-goal, theory driven approach to evaluation: A model of linking basic and applied social science. *Soc Forces* 59:106-122, 1980.
- Cohen, A. A psychosocial typology of drug addicts and implications for treatment. *Int J Addict* 21(2):147-154, 1986.
- Cole, S.G., and James, L.R. A revised treatment typology based on the DARP. *Am J Drug Alcohol Abuse* 2(1):37-49, 1975.
- Collins, J.J.; Hubbard, R.L.; Rachal, J.V.; Cavanaugh, E.R.; Craddock, G.; and Kristiansen, P.L. *Criminality in a Drug Treatment Sample: Measurement Issues and Initial Findings*. Research Triangle Park, NC: Research Triangle Institute, 1982.
- Cooley, E.J., and Lajoy, R. Therapeutic relationship and improvement as perceived by clients and therapists. *J Clin Psychol* 36(2):562-570, 1980.
- Cronkite, R.C., and Moos, R.H. Determinants of the posttreatment functioning of alcoholic patients: A conceptual framework. *J Consult Clin Psychol* 48(3):305-316, 1980.

- Curry, S.; Marlatt, G.A.; Peterson, A.V., Jr.; and Lutton, J. Survival analysis and assessment of relapse rates. In: Donovan, D.M., and Marlatt, G.A., eds. *Assessment of Addictive Behaviors*. New York: Guilford Press, 1988. pp. 454-473.
- De Leon, G. Program-based evaluation research in therapeutic communities. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 69-87.
- Faupel, C.E. Heroin use, crime and employment status. *J Drug Iss* 18(3):467-479, 1988.
- Finney, J.W.; Moos, R.H.; and Chan, D.A. Length of stay and program component effects in the treatment of alcoholism: A comparison of two techniques for process analyses. *J Consult Clin Psychol* 49(1):120-131, 1981.
- Fischer, J. The relationship between alcoholic patients' milieu perception and measures of their drinking during a brief follow-up period. *Int J Addict* 14(8):1151-1156, 1979.
- Free, N.K.; Green, B.L.; Chernus, L.A.; and Whitman, R.M. Empathy: An outcome in brief focal dynamic therapy. *Am J Psychiatry* 142(8):917-921, 1985.
- Freedman, D.; Thornton, A.; Camburn, D.; Alwin, D.; and Young-DeMarco, L. The life history calendar: A technique for collecting retrospective data. In: Clogg, C.C., ed. *Sociological Methodology*. Vol. 18. San Francisco: Jossey-Bass, 1988. pp. 37-68.
- Friedman, A.S.; Glickman, N.W.; and Kovach, J.A. The relationship of drug program environmental variables to treatment outcome. *Am J Drug Alcohol Abuse* 12(1/2):53-69, 1986.
- Greenhouse, J.B.; Stangh, D.; and Bromberg, J. An introduction to survival analysis: Statistical methods for analysis of clinical trial data. *J Consult Clin Psychol* 57(4):536-544, 1989.
- Hall, G.E., and Loucks, S.F. A developmental model for determining whether the treatment is actually implemented. *Am Educ Res J* 14(3):263-276, 1977.
- Hall, S.M., and Havassy, B.E. Commitment to abstinence and relapse to tobacco, alcohol, and opiates. In: Tims, F.M., and Leukefeld, C.G., eds. *Relapse and Recovery in Drug Abuse*. National Institute on Drug Abuse Research Monograph 72. DHHS Pub. No. (ADM)88-1473. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1986. pp. 118-135.
- Havassy, B.E., and Tschann, J.M. Client initiative, inertia, and demographics: More powerful than treatment interventions in methadone maintenance? *Int J Addict* 18(5):617-631, 1983.
- Hawkins, J.D. Community characteristics associated with treatment outcome, In: Cooper, J.R.; Altman, F.; Brown, B.S.; and Czechowicz, D., eds.

- Research on the Treatment of Narcotic Addiction: State of the Art.* National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)83-1281. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1983. pp. 680-700.
- Holland, S. Measuring process in drug abuse treatment research. In: De Leon, G., and Ziegenfuss, J.T., Jr., eds. *Therapeutic Communities for Addictions: Readings in Theory, Research, and Practice.* Springfield, IL: Charles C Thomas, 1986. pp. 169-181.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Harwood, H.J.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness.* Chapel Hill, NC: University of North Carolina Press, 1989.
- Hubbard, R.L.; Rachal, J.V.; Craddock, S.G.; and Cavanaugh, E.R. Treatment Outcome Prospective Study (TOPS): Client characteristics and behaviors before, during, and after treatment. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects.* National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 42-68.
- Innes, C.A. *State Prison Inmate Survey, 1986: Drug Use and Crime.* Bureau of Justice Statistics Special Report. Washington, DC: U.S. Department of Justice, 1988.
- Jaffe, J.H. Evaluating drug abuse treatment: A comment on the state of the art. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects.* National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp.13-28.
- Jones, R.R. Using theory and precedent to design and implement follow-up evaluations. In: McSweeney, A.J.; Fremouw, W.J.; and Hawkins, R.P., eds. *Practical Program Evaluation in Youth Treatment.* Springfield, IL: Charles C Thomas, 1982. pp. 230-251.
- Jorquez, J.S. The retirement phase of heroin using careers. *J Drug Iss* 13(3):343-365, 1983.
- LeVois, J.; Nguyen, T.D.; and Attkinsson, C.C. Artifact in client satisfaction assessment: Experience in community mental health settings. *Eval Program Plan* 4:139-150, 1981.
- Levy, L.G. Processes and activities in groups. In: Lieberman, M., and Borman, L.K., eds. *Self-Help Groups for Coping with Crisis: Origins, Members, Processes, and Impact.* San Francisco: Jossey-Bass, 1979. pp. 234-251.
- Marlatt, G.A., and George, W.H. Relapse prevention: Introduction and overview of the model. *Br J Addict* 79:261-273, 1984.
- Marlatt, G.A., and Gordon, J.R., eds. *Relapse Prevention: Maintenance Strategies in Addictive Behavior Change.* New York: Guilford, 1985.

- McGlothlin, W.H.; Anglin, M.D.; and Wilson, B.D. *An Evaluation of the California Civil Addict Program*. National Institute on Drug Abuse Services Research Monograph Series. DHEW Pub. No. (ADM)78-558. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1977.
- McLellan, A.T. Patient characteristics associated with outcome. In: Cooper, J.R.; Altman, F.; Brown, B.S.; and Czechowicz, D., eds. *Research on the Treatment of the Narcotic Addict: State of the Art*. National Institute on Drug Abuse Treatment Research Monograph Series. DHHS Pub. No. (ADM)83-1281. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1983. pp. 500-529.
- Miller, W.R. Motivation for treatment: A review with special emphasis on alcoholism. *Psychol Bull* 98(1):84-107, 1985.
- Nurco, D.N.; Ball, J.C.; Shaffer, J.W.; and Hanlon, T.E. The criminality of narcotic addicts. *J Nerv Ment Dis* 173(2):94-102, 1985.
- Nurco, D.N.; Ball, J.C.; Shaffer, J.W.; Kinlock, T.W.; and Langrod, J. A comparison by race/ethnicity of narcotic addict crime rates in Baltimore, New York, and Philadelphia. *Am J Drug Alcohol Abuse* 12(4):297-307, 1986.
- Orlinsky, D.E., and Howard, K.I. Process and outcome in psychotherapy. In: Garfield, S.L., and Bergin, A.E., eds. *Handbook of Psychotherapy and Behavior Change*. New York: John Wiley and Sons, 1986. pp. 311-381.
- Perri, M.G. Self-change for control of smoking, obesity, and problem drinking. In: Shiffman, S., and Wills, T.A., eds. *Coping and Substance Use*. New York: Academic Press, 1985. pp. 295-317.
- Peterson, K.A., and Bickman, L. Program personnel: The missing ingredient in describing the program environment. *N Dir Program Eval* 40:83-92, 1988.
- Price, R.H., and Moos, R.H. Toward a taxonomy of inpatient treatment environments. *J Abnorm Psychol* 84(3):181-188, 1975.
- Prochaska, J.O., and DiClemente, C.C. Toward a comprehensive model of change. In: Miller, W.R., and Heather, N., eds. *Treating Addictive Behaviors: Processes of Change*. New York: Plenum Press, 1986. pp. 3-27.
- Quay, H.C. The three faces of evaluation. *Crim Just Behav* 4(4):341-354, 1977.
- Reed, T. Outcome research on treatment and on the drug abuser: An exploration. *Int J Addict* 13(1):149-171, 1978.
- Reid, W.J., and Hanrahan, P. Measuring implementation of social treatment. *N Dir Program Eval* 40:93-111, 1988.
- Rezmovic, E.L. Assessing treatment implementation amid the slings and arrows of reality. In: Cordray, D.S., and Lipsey, M.W., eds. *Evaluation Studies Review Annual*. Vol. 77. Newbury Park, CA: Sage, 1986. pp. 584-601.
- Rhoads, D.L. A longitudinal study of life stress and social support among drug abusers. *Int J Addict* 18:195-222, 1983.

- Rosen, A., and Procter, E.K. Specifying the treatment process: The basis for effectiveness research. *J Soc Serv Res* 2(1):25-43. 1978.
- Rosenbaum, P.R., and Rubin, D.B. Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *Am Statistician* 39(1):33-38, 1985.
- Saylor, W.G. "Surveying Prison Environments." Federal Bureau of Prisons report, 1984.
- Saylor, W.G. "PREP: Post-release Employment Project: Interim Report." Federal Bureau of Prisons report, 1985.
- Sechrest, L.; West, S.G.; Phillips, M.A.; Redner, R.; and Yeaton, W. Some neglected problems in evaluation research: Strength and integrity of treatments. In: Sechrest, L.; West, S.G.; Phillips, M.A.; Redner, R.; and Yeaton, W., eds. *Evaluation Studies Review Annual*. Vol. 4. Beverly Hills, C.A: Sage, 1979. pp. 15-35.
- Sells, S.B.; Demaree, R.G.; Simpson, D.D.; Joe, G.W.; and Gorsuch, R.L. Issues in the evaluation of drug abuse treatment. *Prof Psychol* 8:609-640, 1977.
- Simpson, D.D. National treatment system evaluation based on the Drug Abuse Reporting Program (DARP) followup research. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 29-41.
- Simpson, D.D., and Marsh, K.L. Relapse and recovery among opioid addicts 12 years after treatment. In: Tims, F.M., and Leukefeld, C.G., eds. *Relapse and Recovery in Drug Abuse*. National Institute on Drug Abuse Research Monograph 72. DHHS Pub. No. (ADM)88-1473. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1986. pp. 86-103.
- Singer, B. Self-selection and performance-based ratings: A case study in program evaluation. In: Waimer, H., ed. *Drawing Inferences from Self-Selected Samples*. New York: Springer-Verlag, 1986. pp. 29-49.
- Speckart, G., and Anglin, M.D. Narcotics and crime: An overview of recent research advances. *Contemp Drug Probl* 13(4):741-769, 1986.
- Swartz, M.S.; Blazer, D.G.; Woodbury, M.A.; George, L.K.; and Landerman, R. Somatization disorder in a U.S. Southern community: Use of a new procedure for analysis of medical classification. *Psychol Med* 15:595-609, 1986.
- Tims, F.M., and Holland, S. A treatment evaluation agenda: Discussion and recommendations. In: Tims, F.M., and Ludford, J.P., eds. *Drug Abuse Treatment Evaluation: Strategies, Progress, and Prospects*. National Institute on Drug Abuse Research Monograph 51. DHHS Pub. No. (ADM)86-1329. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1984. pp. 167-174.

- Tims, F.M., and Leukefeld, C.G. *Relapse and Recovery in Drug Abuse*. National Institute on Drug Abuse Research Monograph 72. DHHS Pub. No. (ADM)88-1473. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1986.
- Valle, S.K. Interpersonal functioning of alcoholism counselors and treatment outcome. *J Stud Alcohol* 42(9):783-790, 1981.
- Verinis, A.S. Ward atmosphere as a factor in irregular discharge from an alcohol rehabilitation unit. *Int J Addict* 18(6):895-899, 1983.
- Waldorf, D., and Biernacki, P. The natural recovery from opiate addiction: Some preliminary findings. *J Drug Iss* 11:61-74, 1981.
- Wells, E.A.; Hawkins, J.D.; and Catalano, R.F., Jr. Choosing drug use measures for treatment outcome studies. II. Timing baseline and follow-up measurement. *Int J Addict* 23(8):875-885, 1988a.
- Wells, E.A.; Hawkins, J.D.; and Catalano, R.F., Jr. Choosing drug use measures for treatment outcomes studies. I. The influence of measurement approach on treatment results. *Int J Addict* 23(8):851-873, 1988b.
- Wexler, H.K.; Lipton, D.S.; and Foster, K. "Outcome Evaluation of a Prison Therapeutic Community for Substance Abuse Treatment: Preliminary Results." Paper presented at the American Society of Criminology Annual Meeting, San Diego, CA, 1985.
- Woodbury, M.A., and Manton, K.G. A new procedure for analysis of medical classification. *Methods Inf Med* 21:210-220. 1982.

AUTHORS

Bernadette Pelissier, Ph.D.
Research Analyst
Federal Bureau of Prisons
Research Department
Federal Correctional Institution
P.O. Box 1000
Butner. NC 27509

Dan McCarthy, M.A.
Research Analyst
Office of Research and Evaluation
Federal Bureau of Prisons
NALC Building, Room 202
320 First Street, N.W.
Washington, DC 20534

Directions for Practice and Research

Carl G. Leukefeld and Frank M. Tims

INTRODUCTION

Many drug abusers come into contact with the criminal justice system through jails and lockups. The impressions of those who work in prisons and jails are supported with data from the Drug Use Forecasting (DUF) system. DUF reports show that approximately 60 percent of arrestees in 22 major cities were using a drug other than alcohol at the time of their arrest (Wish and O'Neil 1989). In fact, the criminal justice system is awash with drug users, and the need for expanding drug abuse treatment in prisons and jails has been identified.

Prison treatment for drug abuse has a varied history in the United States. Treatment for incarcerated Federal offenders formally began with two U.S. Public Health Service (PHS) Hospitals that were opened in Lexington, KY, in 1935 and Fort Worth, TX, in 1938. It is interesting to note that the need for these Federal treatment facilities first was recognized by the Director of the Federal Bureau of Prisons (BOP), who urged Congress to establish narcotics farms in these locations. These facilities evolved from farms to hospitals to clinical research centers that were transferred from PHS and are now part of BOP.

Drug abuse treatment in prisons has been influenced by the therapeutic community (TC) movement, which incorporates former drug users who provide a structured therapeutic environment within a prison. However, prison drug abuse treatment currently is limited, partly because of the atmosphere that resulted from the antirehabilitation research findings published in the late 1960s (Martinson 1974). Treatment for drug abusers in jails is even more limited, which should be expected given the brief length of stay (Peters and May, this volume).

People who become aware of the limited, but currently expanding, drug abuse treatment programs in the Nation's prisons initially are shocked; then they ask the question, "Why?" The answer is complicated by both policy and science issues. The science issues may be easier to describe than related policy issues, but they also are complicated. Lipton and colleagues' review (this

volume), also called the Matineson report (1974) reaffirmed the backlash of antirehabilitation and then concluded after reviewing available research from correctional rehabilitation studies that rehabilitation efforts did not work. Although this interpretation subsequently was reversed after additional study, the report's influence on rehabilitation programs as well as on drug abuse treatment in prisons and jails was enormous. New treatment programs were not begun, and some existing treatment and rehabilitation programs were terminated (Murray, this volume).

The current reemphasis on drug abuse treatment in prisons and jails appears to be motivated by the need to do something about the large numbers of drug abusers in prisons and supported by recent research findings that drug abuse treatment is effective (Hubbard et al. 1989). The effectiveness of drug abuse treatment is related specifically to the length of time an individual remains in drug abuse treatment, regardless of the type of treatment; however, it also is known that drug abuse is both chronic and relapsing once a person is addicted. The chronicity and relapsing aspects of drug abuse often make the effectiveness of drug abuse treatment difficult to understand. Viewed from a health perspective, treatment should be followed by "cure" and no further drug abuse. Viewed from a correctional perspective, recidivism should be reduced and drug abuse ended. These goals are compatible but frequently are implemented differently, often causing tension. There is also criticism about the limitations of drug abuse treatment in spite of the research that has consistently supported the effectiveness of drug abuse treatment generally (Hubbard et al. 1989) and, specifically, when combined with criminal justice sanctions (Leukefeld and Tims 1988).

Experiences related to treating drug abusers in prisons and jails are largely from the United States. Unfortunately, these experiences are related closely to the rapid expansion of drug use, most recently crack cocaine, in larger cities and the crime associated with it. These "epidemics" strain correctional facilities and community treatment settings. The current recognition of the expanding drug abuse problem provides criminal justice practitioners with a window of opportunity to establish drug abuse treatment interventions that are documented with research data and supported by practice. In fact, criminal justice practitioners are recognizing the important control function that drug abuse treatment can have in an institution, a major purpose for some and a bonus for others. This monograph seeks to increase knowledge about drug abuse treatment in prisons and jails. The utility of this information hopefully will be short-lived given the expansion in drug abuse treatment initiatives that are expected in the next several years. However, until those data are published, this volume should provide useful information and guidance for practitioners and researchers.

This monograph focuses on examining drug abuse treatment in prisons and jails within the context of acquired immunodeficiency syndrome (AIDS) and the high levels of drug abuse in the criminal justice system. Its purpose is to explore selected drug abuse treatment approaches, present evaluation findings, review-related issues, including assessments, explore evaluation methodology, and present recommendations for practice and research. The following sections highlight the major topics included in the monograph. Chapters are grouped in five areas: current status of drug abuse treatment in prisons and jails, drug abuse treatment approaches, evaluations, special issues, and recommendations.

CURRENT STATUS OF DRUG ABUSE TREATMENT IN PRISONS AND JAILS

Lipton and colleagues (this volume) overview institutional drug abuse treatment and examine the chronicity of drug abuse. They also point out that all but eight States are under court order for prison overcrowding, with a 55-percent growth rate in the prison population during the past 8 years. Unfortunately, limited research evidence currently exists to support the effectiveness of drug abuse treatment in prisons, including the most traditional forms of drug abuse treatment such as drug education, self-help groups, individual counseling, group counseling, and milieu therapy. However, TC research has shown promise with positive outcomes from the Stay'n Out program (Wexler et al., this volume) and the Cornerstone program (Field, this volume).

Brown (this volume) presents five program models that are available for incarcerated drug abusers in correctional settings: (1) no specialized services, which is most typical; (2) drug education and/or drug abuse counseling; (3) residential units dedicated to drug abuse treatment; (4) client-initiated and/or maintained services; and (5) specialized services for drug abusers not directly targeted on their drug abuse problems. He also discusses three service delivery models that serve as alternatives to incarceration: (1) probation, a mix of counseling, support, and surveillance, which is most typical; (2) surveillance, which includes house arrest and electronic monitoring; and (3) diversion, which is represented by Treatment Alternatives to Street Crime (TASC).

Our Nation's jails provide a reservoir of drug abusers. A survey completed by the American Jail Association examined the scope of drug abuse treatment services in jails across the country (Peters and May, this volume). Of the 57 percent (n=1,737) of the jails who responded to a mailed questionnaire, only 28 percent indicated that they offered drug abuse treatment in their jails. Moreover, only 19 percent indicated that they funded drug treatment programs, and only 12 percent of the drug treatment programs were isolated from the

general jail population. In addition, the average jail drug treatment program focused on whites (66 percent of program participants), had an average size of 42 and an average age of 26, and employed three staff members; more than 80 percent had volunteer staff. Using data from the 1,687 jails that provided inmate census information, only 6.7 percent of the average inmate population was enrolled in drug treatment. A major conclusion reached by Peters and May is the need for jails, especially for smaller jails, to develop liaison with community drug abuse treatment programs.

The AIDS virus is a major problem in the Nation's prisons and jails. However, the number of human immunodeficiency virus (HIV)-1-positive individuals in prisons is not as large as initially projected. There is speculation that AIDS education may be more effective for this group than others. By October 1989, 5,411 cases of AIDS were reported from U.S. prisons and jails (Hammett 1990). Seroprevalence rates also vary by region, with 7 percent in Maryland and 17.4 percent in New York. Vlahov (this volume) identifies three responses to HIV-1 in correctional settings: educating inmates at risk in correctional settings about unlikely routes of transmission, with emphasis on intravenous drug use; providing serological screening that focuses on inmate identification to start confidential chemotherapeutic protocols (costs and benefits of such testing must be weighed); and participating in drug abuse treatment to help intravenous drug abusers decrease their needle use. Vlahov suggests that correctional settings serve as an opportune environment to begin HIV treatment for these difficult-to-reach individuals.

DRUG ABUSE TREATMENT APPROACHES

Murray (this volume) indicates that BOP, to intervene with the increasing number of drug abusers, is expanding drug abuse interventions. Murray reviews BOP's history of providing treatment to drug abusers and then describes contemporary issues. He points out that nearly 50 percent of the 56,500 BOP inmates in 60 facilities are incarcerated for drug-related crime; by 1995 this population will reach 95,000, with almost 70 percent incarcerated for drug offenses. After reviewing select studies, Murray adds that addiction is a multiplier of crime. With that background, he outlines BOP's comprehensive drug abuse treatment strategy, which includes a multitiered approach and a comprehensive evaluation, described in this volume by Pelissier and McCarthy. The BOP's layered approach includes one level of drug education, three treatment levels, and one level of transitional services: (1) drug education programs that will be mandatory for inmates with a substance abuse history; (2) individual, group, and self-help drug abuse counseling services that will be available on an outpatient basis to volunteers; (3) comprehensive residential drug treatment units, which began in October 1990; (4) three pilot drug abuse

treatment programs with a research emphasis were operational by the end of 1990; and (5) transitional services for community reentry after release from comprehensive and pilot residential programs.

Winett and colleagues (this volume) describe a pilot program for drug abusers that is planned by the California Department of Corrections (CDC) to examine the effectiveness of a TC intervention. This prison-based TC, called "Amity Rightturn," will be located near San Diego, CA, and will serve 200 medium-security male inmates for a 7- to 9-month residential experience. The need for this pilot is supported with CDC intake statistics that show that the number of drug offenders in California grew from 3,890 in 1984 to 19,909 in 1988. The need also was supported by the recognition that in 1988 drug offense commitments were for the first time the largest category of felony commitments to the CDC. Rightturn incorporates the most recent research findings and is designed as a program evaluation activity. The outcome study will include 400 volunteers, with 200 randomly assigned to the Rightturn program. Approximately 100 participants, group 1, will parole to San Diego County and receive community substance abuse treatment. Approximately 100 inmates, group 2, will participate in the Rightturn program and will receive regular parole services somewhere in the State system. Group 3, composed of about 200 who are eligible and volunteer but are not randomly assigned to groups 1 or 2, will serve as a control group. Results are expected to add knowledge related to the effectiveness of prison-based and community drug abuse treatment.

Brenna (this volume) provides a different perspective of drug abuse treatment by focusing on substance abuse services for juvenile offenders. The State of Washington's experience in treating juvenile offenders has developed within the goals of offender accountability, coupled with rehabilitation. Based on this explicit philosophy, the Washington model of integrated services evolved as a continuum of services based on client dysfunction. The integrated service model incorporates the following: (1) inpatient chemical dependency cottages located on institutional campuses, (2) specially trained staff who coordinate and provide treatment services, (3) specifically designed drug education provided by the institutional school programs, (4) chemical dependency assessments by diagnostic staff, and (5) onsite drug detection.

The Florida Department of Corrections has established a four-tiered approach for their Comprehensive Statewide Substance Abuse Program. Bell and coworkers (this volume) indicate that more than 50 percent of Florida's inmates admit to a serious substance abuse problem. They go on to describe Florida's Tiers program, which commences with an assessment to determine the severity of substance abuse classification and to recommend a treatment level. Tier I is a 40-hour program focused on providing educational drug abuse information for

those who have a less than severe substance abuse history, deny having a problem, and have a short sentence. Tier II is an intensive 8-week, residential modified TC program for those diagnosed with a serious drug problem. Tier III is residential TC treatment for 9 to 12 months in the community provided through contract services for 54 beds available to those who meet work release requirements. Tier IV is 10 weeks of community counseling, focused on relapse prevention and supportive therapy for inmates assigned to community correctional centers. These service providers contribute information to and use information from the Substance Abusing Offender Treatment Information Network for treatment management. In addition, three types of evaluations are being carried out: screening and assessment to determine, among other things, severity and treatment intervention; process evaluation for program integrity; and outcome evaluation to examine knowledge, attitudes, and behaviors.

Vigdal and Stadler (this volume) emphasize the importance of providing a system-wide approach to treating drug-abusing offenders. Using the Wisconsin Department of Corrections as an example, they examine various strategies and programs that support continuity of care. Wisconsin's specialized substance abuse programming began in 1975 with an alcohol treatment unit and with demonstrated effectiveness (Vigdal et al. 1980). Within that context, the current program evolved that includes the following: an Alternative to Revocation component with 10 percent of the treatment beds reserved for offenders who are being revoked and no community treatment is available; Special Treatment Programs, one for alcohol and two for drugs other than alcohol; a residential TC for 9 to 12 months; intensive supervision positions combined with drug testing for five teams of two officers with a 40-person caseload for each team; and day-treatment programs, as an intermediate sanction, for coordinated care with correctional treatment facilities. The heart of this systems approach is the assessment procedures that are used to match treatments and offenders along four dimensions: alcohol dependence, other drug involvement, psychiatric impairment, and psychopathic tendencies.

Field (this volume) outlines the rich experience and evaluation findings Oregon has had with innovative drug treatment services. The Cornerstone program, located on the grounds of the Oregon State Hospital, is a 32-bed TC that began in 1975. With Cornerstone as a model, the State currently funds three additional TCs that also serve drug abuse offenders who are sex offenders, mentally ill, and/or mentally or socially retarded. Oregon also supports the following drug abuse interventions: two additional residential treatment programs, correctional institutional group counseling through contracts with community treatment professionals, several cooperative agreements for community treatment, a pilot program with subsidy funds for releases who are a poor risk, a demonstration project to examine coordinated community services,

the use of Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) groups, alcohol and drug education classes for alcoholics and addicts, and institutional information centers to assist inmate recovery. In addition, all inmates are subject to random urine testing. Research results indicate that Cornerstone clients showed, as a function of the treatment program, enhanced self-esteem, reduced psychiatric symptomatology, increased knowledge in critical treatment areas, reduced criminal activity, and reduced criminal recidivism (Field 1985). Field (this volume) reports that four conclusions can be reached based on 220 different program admissions from 1983 to 1985: (1) Criminal activity decreased for Cornerstone participants; (2) addicted offenders with little or no treatment show accelerated criminal activity; (3) time in treatment is correlated with decreasing criminal activity; (4) arrests, convictions, or prison incarcerations are about equally accurate measures.

EVALUATIONS

Wexler and colleagues (this volume) present data from a study that examines the Stay'n Out TC program in New York. Using a sample of 1,500 subjects from the program, which has operated in New York's correctional system for more than 12 years, they report that prison-based TC treatment reduced recidivism rates for males and females. A quasi-experimental design was used to compare the Stay'n Out intervention with inmates who volunteered for the program but never participated, participants in a counseling program, and participants in a milieu therapy program. Parole outcomes are compared for four groups of males and three groups of females (a female milieu treatment comparison group was not available). Three parole outcome variables are reported: the percent arrested, the mean time until first arrest for those arrested, and the percent positively discharged. Based on these analyses, the major finding is that the Stay'n Out TC was effective in reducing recidivism and that this effect increased as time in the program increased but declined after 12 months. Positive parole completion, no arrest, and time until arrest increased with time in the TC but did not increase for the other interventions.

Implementing and evaluating a prison drug treatment program can be complicated by many things. Inciardi and coworkers (this volume) review obstacles and present their experiences in implementing Delaware's KEY TC program. Some of the specific implementation issues cited are: a budget that did not include adequate funds for program materials, support services, public relations, and special events; the use of an initial facility that was neither conducive to nor appropriate for a TC, which delayed implementation and necessitated the selection of another facility; staff recruitment problems that rely on a professional model and prohibit hiring ex-felon addicts; nonspecification of client admission criteria; failure to develop close working relationships with the

Delaware Classification Board and other programs; lack of program autonomy; and lack of aftercare services. Although the program is therapeutically driven rather than research driven, a followup evaluation has started. An initial analysis reveals that KEY residents are typically black, older, have had prior treatment, and have used multiple drugs more than the general prison population.

Methadone treatment has not been used by the criminal justice system. Hubbard and colleagues (1989) report that only 3 percent of persons in methadone treatment were referred by the criminal justice system, compared with about 30 percent for outpatient drug-free and 30 percent for TC treatments. In spite of that low referral rate, Magura and coworkers (this volume) present research findings from a criminal justice methadone maintenance program called Key Extended Entry Program (KEEP). KEEP was established in 1987 to provide methadone maintenance to addicts charged with misdemeanors at Rikers Island in New York City and referral to community methadone programs with dedicated treatment slots. Reporting on a long-term followup study that includes a cohort of 225 KEEP participants and controls, Magura and coworkers indicate that KEEP sociodemographic characteristics were similar to those of other Rikers Island prisoners. They were daily cocaine users, more than half (54 percent) of the injectors reported sharing needles or works in the previous 6 months, and property crimes were their most frequent arrest charge. There was also a high attrition rate, 60 percent for men and 67 percent for women, for those not in methadone treatment when released to community treatment.

SPECIAL ISSUES

Transition from institutional settings to the community is difficult for drug offenders. Gregrich (this volume) explores issues related to managing the drug-abusing offender and suggests that institutional crowding, caused by increasing numbers of drug-abusing offenders, would be eased by community transition programs and placements. Case management will receive additional attention and could be held accountable for making the criminal justice system work—a responsibility to be avoided. Clearly, there is no unifying voice for case management, but there are advocates for community services, especially now with planning for additional intermediate sanctions. In addition, Gregrich posits several principles related to drug abuse treatment: Treatment and coercion work together, drug abuse offenders are harder to treat than others, interventions must focus on the chronic and related deviant behaviors, offender and other drug treatment programs share certain characteristics, intensive surveillance produces results, and interventions must be organized and orthodox.

Continuing with the theme that drug abusers present special risks when they are in transition from the institution to the community, Weinman (this volume) suggests that this transition should follow a specific course that monitors drug abuse and other behaviors. TASC, working together with parole, can intervene successfully and systematically with the drug-abusing offender. Case management through TASC incorporates the following elements: support, staff training, data collection, client identification based on eligibility criteria, assessment and referral, urinalysis, and monitoring. Weinman cites several studies that indicate that TASC is successful, and she explores the benefits of a TASC and parole partnership to help avoid prison crowding. Weinman also identifies four necessities (Gegrich and Weinman 1990) for drug offender management—early identification, thorough assessment, substantial monitoring, and unbroken contact—and concludes that these principles define the TASC/parole partnership.

Fletcher and Tims (this volume) explore methodological issues, with emphasis in four areas: treatment outcomes, treatment process, environmental/situational factors, and transitional factors. Treatment outcome studies should focus on specific questions for behavioral change and optimal treatment. Treatment process studies should examine which treatment produces behavioral change as well as how treatment can be improved. Environmental/situational factors should incorporate the influence of prison contexts on treatment process and outcomes. Transitional factors, including treatment carryover from the institution to the community and how well institutional treatment prepares inmates for community reentry, should be taken into account. Finally, Fletcher and Tims remind us that research frequently is carried out in a hostile research environment.

Pelissier and McCarthy (this volume) describe BOP's drug abuse treatment evaluation study. The design is a four-group, multisite assessment of residential treatment. Eligible inmates will be assigned randomly to: group 1, high-intensity pilot program; group 2, comparison group with no further in-prison treatment; group 3, comparison group of moderate intensity residential treatment; and group 4, matched sample, nonvolunteer comparison group. Independent variable measures include sociodemographic characteristics: cognitive/psychological attributes such as psychological impairment, motivation, and cognition about substance abuse; treatment structure and process; and postrelease environment. Dependent variables will include proximal outcomes such as adjustment measures (e.g., rule infractions, dirty urines, and participation in institutional programs) and drug use perceptions to test theoretical assumptions. Distal outcomes include drug use and criminal activities, recidivism, social and occupational functioning, and mental/physical health.

RECOMMENDATIONS

The following statements represent areas of agreement reached by the group of criminal justice practitioners and researchers with extensive experience in correctional drug abuse treatment who attended the National Institute on Drug Abuse technical review on “Drug Abuse Treatment in Prisons and Jails.” The most intense discussion focused on the type and extent of need for drug abuse treatment in correctional settings as well as the types of treatment interventions that should be available to drug abusers in prisons and jails. In addition, staffing drug abuse treatment activities with former abusers or professionals was reviewed as a possible anchor point on a continuum: a middle ground of combining staff was deemed most viable. The specific points of agreement were as follows:

- Treatment Interventions
 - A continuum of treatment program options, balanced between institutional and community-based treatment interventions, should be available for drug-abusing offenders.
 - The unique needs of special population groups, including women and minority offenders, should receive special attention.
 - Successful correctional drug abuse treatment programs must have commitment from top administrators and others throughout the relevant organizations.
 - If programmatic compromises, based on limited and competitive resources, are necessary, then evaluation data should be used to develop cost-efficient and integrated service models.
 - Program goals should be established that incorporate the primary objective of reducing criminal activity and drug abuse as well as reducing recidivism with secondary or interim objectives of reducing criminal activity and managing inmate behavior. Emphasis should be placed on joint custody within a framework of healing and punishing.
 - Although assessment and diagnosis are key to good programing, assessments should be balanced with needed and available treatment services.
 - New and innovative service models must be developed and evaluated.

- Drug testing should be part of correctional drug abuse treatment.
- It is suggested that a drug treatment program be isolated physically from the general prison or jail population and that treatment also be available to the general prison population.
- Correctional drug abuse treatment initiatives for juveniles, which are different from adult drug abuse treatment, need to be developed and expanded.
- Modeling is an important component of drug abuse treatment, and recovering persons have been successful in correctional drug abuse treatment programs.
- Aftercare services should be more than self-help activities (e.g., AA and NA).
- Although TCs are widely used in prisons and jails for the treatment of drug abusers, TC treatment is not the only successful approach to be used in these settings and is not appropriate for all offenders.
- Educational and vocational services should be available.
- Transition from prison to community programs should be emphasized, including relapse prevention approaches.
- Research
 - A historical review of past programmatic efforts using meta-analytic procedures should be initiated to clarify the impact of correctional drug abuse treatment programs.
 - To facilitate planning, comprehensive epidemiological studies should be initiated with uniform measurement criteria to examine current patterns and project future patterns of drug abuse.
 - A standardized correctional drug abuse treatment topology should be developed that incorporates uniform definitions of treatment and system components (i.e., assessment, education, intervention, treatment, and continuity of care).
 - A series of studies should be initiated to develop consistent outcome measures across sites with an eye to developing operational program performance standards.

- A survey of correctional and community programs focused on drug abuse interventions would clarify the existing universe of services as well as identify new intervention approaches.
- Further studies of the economic impact of drug abuse on crime should be initiated.
- A series of studies should be carried out that would examine the relationship of sequencing surveillance with drug abuse treatment combined with either probation or parole.

- Evaluation

- Program evaluation information and feedback must be given as quickly as possible to intervention staff because evaluation information can help staff members better understand their interventions and provide guidance for program modifications.
- A large-scale and multisite program evaluation should be initiated to examine the long-term efficacy of correctional drug abuse treatment efforts, including institutional and community interventions.
- Treatment comparison and control groups, randomized if possible, should be incorporated into evaluation designs.
- Study dropouts and those persons entering correctional drug abuse treatment programs should be taken into consideration when outcome data are analyzed.
- Quasi-experimental designs with “wait list” controls are a realistic possibility when evaluating correctional drug abuse treatment programs.
- Longitudinal and nested evaluation designs should be initiated to clarify the efficacy of interventions and to better understand drug abuse and criminal careers.
- Evaluation efforts within correctional environments should be planned to take into account such factors as the impact of wellness activities and religious beliefs.
- Studies should be initiated to better understand correctional system dropouts and failures as well as those who refuse treatment.

- Special studies should be initiated to examine the impact of prison drug abuse treatment on long-term inmates.
- Ethnographic studies should be incorporated into evaluations along with systematically reported anecdotal information.
- Demonstrations
 - Replicable drug abuse treatment demonstration programs should be initiated in all phases of the criminal justice system.
 - Demonstration programs should be initiated to examine the feasibility of establishing model drug abuse treatment initiatives. Such demonstration programs should combine staff training activities for prison facilities that are combined with community-based treatment programs.
- Management Information
 - A standardized management information system should be developed to provide uniform data for decisionmaking and program evaluation. This information also could be used to garner support from policymakers and to provide uniform data points across all components.
- Community Linkage
 - Citizen advisory groups should be established to provide suggestions and policy input for correctional drug abuse treatment programs.
 - Additional emphasis must be placed on presenting the positive aspects of correctional drug abuse treatment to consumers and to the general public.
 - Joint and interagency linkages, designed to enhance drug abuse interventions, should be developed at all levels.
- Training
 - As drug treatment is expanded in jails and prisons, additional personnel, including former users, correctional officers, and professionals, must be cross-trained and jointly trained to provide drug abuse treatment.
 - Training capacity and uniform training standards should be developed for correctional drug abuse treatment practitioners.

—Internships and research training should be available to encourage a new generation of researchers who are interested in and committed to correctional research and evaluation in the area of drug abuse.

- Technical Assistance

—A centralized and ongoing technical assistance effort should be established and standardized criteria developed pertaining to client variables, program variables, process variables, and outcome measures for correctional drug abuse settings•

- Funding

—Adequate funding should be stable and consistent to provide institutional drug abuse treatment linked with community treatment.

REFERENCES

- Field, G. The Cornerstone program: A client outcome study. *Fed Probation* 49(2):50-5, 1985.
- Gregrich, R.J., and Weirman, B.A. "Managing the Dug Offender." Paper presented at the Academy of Criminal Justice Sciences, Denver, CO, March 13, 1990.
- Hammett, T.M. *Update 7989: AIDS in Correctional Facilities*. Washington, DC: National Institute of Justice, 1990.
- Hubbard, R.L.; Marsden, M.E.; Rachal, J.V.; Cavanaugh, E.R.; and Ginzburg, H.M. *Drug Abuse Treatment: A National Study of Effectiveness*. Chapel Hill, NC, and London: The University of North Carolina Press, 1989. 213 pp.
- Leukefeld, C.G., and Tims, F.M., eds. *Compulsory Treatment of Drug Abuse: Research and Clinical Practice*. National Institute on Drug Abuse Research Monograph 86. DHHS Pub. No. (ADM)89-1578. Washington, DC: Supt. of Docs., U.S. Govt. Print. Off., 1988. 258 pp.
- Martinson, R. What works? Questions and answers about prison reform. *Public Interest* 35:22-54, 1974.
- Vigdal, G.L.; Stadler, D.W.; Goodrick, D.D.; and Sutton, D.J. Skills training in a program for problem-drinking offenders: A one-year follow-up evaluation. *J Offender Counseling Services Rehabil* 5(2):61-73, 1980.
- Wish, E.D., and O'Neil, J.A. *Drug Use Forecasting (DUF) Research Update, January to March, 7989*. Washington, DC: National Institute of Justice, 1989.

AUTHORS

Carl G. Leukefeld, D.S.W.
Director
Center on Drug and Alcohol Research
University of Kentucky
210 Medical Annex 2
Lexington, KY 40536-0080

Frank M. Tims, Ph.D.
Deputy Branch Chief
Division of Clinical Research
National Institute on Drug Abuse
Parklawn Building, Room 10A-
5600 Fishers Lane
Rockville, MD 20857

National
Institute on
Drug
Abuse

Research

MONOGRAPH SERIES

While limited supplies last, single copies of the monographs may be obtained free of charge from the National Clearinghouse for Alcohol and Drug information (NCADI). Please contact NCADI also for information about availability of coming issues and other publications of the National Institute on Drug Abuse relevant to drug abuse research.

Additional copies may be purchased from the U.S. Government Printing Office (GPO) and/or the National Technical Information Service (NTIS) as indicated. NTIS prices are for paper copy; add \$3 handling charge for each order. Microfiche copies are also available from NTIS. Prices from either source are subject to change.

Addresses are:

NCADI
National Clearinghouse for Alcohol and Drug Information
P.O. Box 2345
Rockville, MD 20852
(301) 468-2600
(800) 729-6686

GPO
Superintendent of Documents
US. Government Printing Office
Washington, DC 20402
(202) 275-2981

NTIS
National Technical Information Service
U.S. Department of Commerce
Springfield, VA 22161
(703) 487-4650

For information on availability of NIDA Research Monographs 1 through 70 (1975-1986) and others not listed, write to NIDA, Community and Professional Education Branch, Room 10A-54, 5600 Fishers Lane, Rockville, MD 20857.

- 71 OPIATE RECEPTOR SUBTYPES AND BRAIN FUNCTION. Roger M. Brown, Ph.D.; Doris H. Clouet, Ph.D.; and David P. Friedman, Ph.D., eds.
GPO out of stock NTIS PB #89-151955/AS \$31
- 72 RELAPSE AND RECOVERY IN DRUG ABUSE. Frank M. Tims, Ph.D., and Carl G. Leukefeld, D.S.W., eds.
GPO Stock #017-024-01302-1 \$6 NTIS PB #89-151963/AS \$31
- 73 URINE TESTING FOR DRUGS OF ABUSE. Richard L. Hawks, Ph.D., and C. Nora Chiang, Ph.D., eds.
GPO Stock #017-024-01313-7 \$3.75 NTIS PB #89-151971/AS \$23
- 74 NEUROBIOLOGY OF BEHAVIORAL CONTROL IN DRUG ABUSE. Stephen I. Szara, M.D., D.Sc., ed.
GPO Stock #017-024-01314-5 \$3.75 NTIS PB #89-151989/AS \$23
- 75 PROGRESS IN OPIOID RESEARCH. PROCEEDINGS OF THE 1986 INTERNATIONAL NARCOTICS RESEARCH CONFERENCE. John W. Holaday, Ph.D.; Ping-Yee Law, Ph.D.; and Albert Herz, M.D., eds.
GPO out of stock NCADI out of stock
Not available from NTIS
- 76 PROBLEMS OF DRUG DEPENDENCE, 1986: PROCEEDINGS OF THE 48TH ANNUAL SCIENTIFIC MEETING, THE COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, INC. Louis S. Harris, Ph.D., ed.
GPO out of stock NCADI out of stock
NTIS PB #88-208111/AS \$53
- 77 ADOLESCENT DRUG ABUSE: ANALYSES OF TREATMENT RESEARCH. Elizabeth R. Rahdert, Ph.D., and John Grabowski, Ph.D., eds.
GPO Stock #017-024-01348-0 \$4 NCADI out of stock
NTIS PB #89-125488/AS \$23
- 78 THE ROLE OF NEUROPLASTICITY IN THE RESPONSE TO DRUGS. David P. Friedman, Ph.D., and Doris H. Clouet, Ph.D., eds.
GPO out of stock NTIS PB #88-245683/AS \$31
- 79 STRUCTURE-ACTIVITY RELATIONSHIPS OF THE CANNABINOIDS. Rao S. Rapaka, Ph.D., and Alexandros Makriyannis, Ph.D., eds.
GPO out of stock NTIS PB #89-109201/AS \$31

- 80 NEEDLE SHARING AMONG INTRAVENOUS DRUG ABUSERS: NATIONAL AND INTERNATIONAL PERSPECTIVES. Robert J. Battjes, D.S.W., and Roy W. Pickens, Ph.D., eds.
GPO out of stock NTIS PB #88-236138/AS \$31
- 81 PROBLEMS OF DRUG DEPENDENCE, 1987: PROCEEDINGS OF THE 49TH ANNUAL SCIENTIFIC MEETING, THE COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, INC. Louis S. Harris, Ph.D., ed.
GPO Stock #017-024-01354-4 \$17 NTIS PB #89-109227/AS
Contact NTIS for price
- 82 OPIOIDS IN THE HIPPOCAMPUS. Jacqueline F. McGinty, Ph.D., and David P. Friedman, Ph.D., eds.
GPO out of stock NTIS PB #88-245691/AS \$23
- 83 HEALTH HAZARDS OF NITRITE INHALANTS. Harry W. Haverkos, M.D., and John A. Dougherty, Ph.D., eds.
GPO out of stock NTIS PB #89-125496/AS \$23
- 84 LEARNING FACTORS IN SUBSTANCE ABUSE. Barbara A. Ray, Ph.D., ed.
GPO Stock #017-024-01353-6 \$6 NTIS PB #89-125504/AS \$31
- 85 EPIDEMIOLOGY OF INHALANT ABUSE: AN UPDATE. Raquel A. Crider, Ph.D., and Beatrice A. Rouse, Ph.D., eds.
GPO Stock #017-024-01360-9 \$5.50 NTIS PB #89-123178/AS \$31
- 86 COMPULSORY TREATMENT OF DRUG ABUSE: RESEARCH AND CLINICAL PRACTICE. Carl G. Leukefeld, D.S.W., and Frank M. Tims, Ph.D., eds.
GPO Stock #017-024-01352-8 \$7.50 NTIS PB #89-151997/AS \$31
- 87 OPIOID PEPTIDES: AN UPDATE. Rao S. Rapaka, Ph.D., and Bhola N. Dhawan, M.D., eds.
GPO Stock #017-024-01366-8 \$7 NTIS PB #89-158430/AS \$45
- 88 MECHANISMS OF COCAINE ABUSE AND TOXICITY. Doris H. Clouet, Ph.D.; Khursheed Asghar, Ph.D.; and Roger M. Brown, Ph.D., eds.
GPO Stock #017-024-01359-5 \$11 NTIS PB #89-125512/AS \$39
- 89 BIOLOGICAL VULNERABILITY TO DRUG ABUSE. Roy W. Pickens, Ph.D., and Dace S. Svikis, B.A., eds.
GPO Stock #017-022-01054-2 \$5 NTIS PB #89-125520/AS \$23

- 90 PROBLEMS OF DRUG DEPENDENCE, 1988: PROCEEDINGS OF THE 50TH ANNUAL SCIENTIFIC MEETING, THE COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, INC. Louis S. Harris, Ph.D., ed.
GPO Stock #017-024-01362-5 \$17
- 91 DRUGS IN THE WORKPLACE: RESEARCH AND EVALUATION DATA. Steven W. Gust, Ph.D., and J. Michael Walsh, Ph.D., eds.
GPO Stock #017-024-01384-6 \$10 NTIS PB #90-147257/AS \$39
- 92 TESTING FOR ABUSE LIABILITY OF DRUGS IN HUMANS. Marian W. Fischman, Ph.D., and Nancy K. Mello, Ph.D., eds.
GPO Stock #017-024-01379-0 \$12 NTIS PB #90-148933/AS \$45
- 93 AIDS AND INTRAVENOUS DRUG USE: FUTURE DIRECTIONS FOR COMMUNITY-BASED PREVENTION RESEARCH. C.G. Leukefeld, D.S.W.; R.J. Battjes, D.S.W.; and Z. Amsel, D.Sc., eds.
GPO Stock #017-024-01388-9 \$10 NTIS PB #90-148941/AS \$39
- 94 PHARMACOLOGY AND TOXICOLOGY OF AMPHETAMINE AND RELATED DESIGNER DRUGS. Khursheed Asghar, Ph.D., and Errol De Souza, Ph.D., eds.
GPO Stock #017-024-01386-2 \$11 NTIS PB #90-148958/AS \$39
- 95 PROBLEMS OF DRUG DEPENDENCE, 1989: PROCEEDINGS OF THE 51 ST ANNUAL SCIENTIFIC MEETING, THE COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, INC. Louis S. Harris, Ph.D., ed.
GPO Stock #017-024-01399-4 \$21 NTIS PB #90-237660/AS \$67
- 96 DRUGS OF ABUSE: CHEMISTRY, PHARMACOLOGY, IMMUNOLOGY, AND AIDS. Phuong Thi Kim Pham, Ph.D., and Kenner Rice, Ph.D., eds.
GPO Stock #017-024-01403-6 \$8 NTIS PB #90-237678/AS \$31
- 97 NEUROBIOLOGY OF DRUG ABUSE: LEARNING AND MEMORY. Lynda Erinoff, Ph.D., ed.
GPO Stock #017-024-01404-4 \$8 NTIS PB #90-237686/AS \$31
- 98 THE COLLECTION AND INTERPRETATION OF DATA FROM HIDDEN POPULATIONS. Elizabeth Y. Lambert, M.S., ed.
GPO Stock #017-024-01407-9 \$4.75 NTIS PB #90-237694/AS \$23
- 99 RESEARCH FINDINGS ON SMOKING OF ABUSED SUBSTANCES. C. Nora Chiang, Ph.D., and Richard L. Hawks, Ph.D., eds.
GPO Stock #017-024-01412-5 \$5 NTIS PB #91-141119 \$23

100 DRUGS IN THE WORKPLACE: RESEARCH AND EVALUATION DATA. VOL. II. Steven W. Gust, Ph.D.; J. Michael Walsh, Ph.D.; Linda B. Thomas, B.S.; and Dennis J. Crouch, M.B.A., eds.
GPO Stock #017-024-01458-3 \$8

101 RESIDUAL EFFECTS OF ABUSED DRUGS ON BEHAVIOR. John W. Spencer, Ph.D., and John J. Boren, Ph.D., eds.
GPO Stock #017-024-01426-7 \$6 NTIS PB #91-172858/AS \$31

102 ANABOLIC STEROID ABUSE. Geraline C. Lin, Ph.D., and Lynda Erinoff, Ph.D., eds.
GPO Stock #017-024-01425-7 \$8 NTIS PB #91-172866/AS \$31

103 DRUGS AND VIOLENCE: CAUSES, CORRELATES, AND CONSEQUENCES. Mario De La Rosa, Ph.D.; Elizabeth Y. Lambert, M.S.; and Bernard Gropper, Ph.D., eds.
GPO Stock #017-024-01427-3 \$9 NTIS PB #91-172841/AS \$31

104 PSYCHOTHERAPY AND COUNSELING IN THE TREATMENT OF DRUG ABUSE. Lisa Simon Onken, Ph.D., and Jack D. Blaine, M.D., eds.
GPO Stock #017-024-01429-0 \$4 NTIS PB #91-172874/AS \$23

105 PROBLEMS OF DRUG DEPENDENCE, 1990: PROCEEDINGS OF THE 52ND ANNUAL SCIENTIFIC MEETING, THE COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, INC. Louis S. Harris, Ph.D., ed.
GPO Stock #017-024-01435-4 \$22

106 IMPROVING DRUG ABUSE TREATMENT. Roy W. Pickens, Ph.D.; Carl G. Leukefeld, D.S.W.; and Charles R. Schuster, Ph.D., eds.
GPO Stock #017-024-01439-7 \$12

107 DRUG ABUSE PREVENTION INTERVENTION RESEARCH: METHODOLOGICAL ISSUES. Carl G. Leukefeld, D.S.W., and William J. Bukoski, Ph.D., eds.
GPO Stock #017-024-01446-0 \$9

108 CARDIOVASCULAR TOXICITY OF COCAINE: UNDERLYING MECHANISMS. Pushpa V. Thadani, Ph.D., ed.
GPO Stock #017-024-01446-0 \$7

109 LONGITUDINAL STUDIES OF HIV INFECTION IN INTRAVENOUS DRUG USERS: METHODOLOGICAL ISSUES IN NATURAL HISTORY RESEARCH. Peter Hartsock, Dr.P.H., and Sander G. Genser, M.D., M.P.H., eds.

GPO Stock #017-024-01445-1 \$4.50

110 THE EPIDEMIOLOGY OF COCAINE USE AND ABUSE. Susan Schober, Ph.D., and Charles Schade, M.D., M.P.H., eds.

GPO Stock #017-024-01456-7 \$11

111 MOLECULAR APPROACHES TO DRUG ABUSE RESEARCH: VOLUME I. Theresa N.H. Lee, Ph.D., ed.

Not for sale at GPO

112 EMERGING TECHNOLOGIES AND NEW DIRECTIONS IN DRUG ABUSE RESEARCH. Rao S. Rapaka, Ph.D.; Alexandros Makriyannis, Ph.D.; and Michael J. Kuhar, Ph.D., eds.

GPO Stock #017-024-01455-9 \$11

113 ECONOMIC COSTS, COST-EFFECTIVENESS, FINANCING, AND COMMUNITY-BASED DRUG TREATMENT. William S. Cartwright, Ph.D., and James M. Kaple, Ph.D., eds.

Not for sale at GPO

114 METHODOLOGICAL ISSUES IN CONTROLLED STUDIES ON EFFECTS OF PRENATAL EXPOSURE TO DRUG ABUSE. M. Marlyne Kilbey, Ph.D., and Khursheed Asghar, Ph.D., eds.

GPO Stock #017-024-01459-1 \$12

115 METHAMPHETAMINE ABUSE: EPIDEMIOLOGIC ISSUES AND IMPLICATIONS. Marissa A. Miller, D.V.M., M.P.H., and Nicholas J. Kozel, M.S., eds.

GPO Stock #017-024-01460-5 \$4

116 DRUG DISCRIMINATION: APPLICATIONS TO DRUG ABUSE RESEARCH. Richard A. Glennon, Ph.D., and Jerry Frankenheim, Ph.D., eds.

117 METHODOLOGICAL ISSUES IN EPIDEMIOLOGICAL, PREVENTION, AND TREATMENT RESEARCH ON DRUG-EXPOSED WOMEN AND THEIR CHILDREN. M. Marlyne Kilbey, Ph.D., and Khursheed Asghar, Ph.D., eds.





DHHS Publication No. (ADM) 92-1884
Alcohol, Drug Abuse, and Mental Health Administration
Printed 1992