

Implementation and Outcome Evaluation of the Intensive Aftercare Program

Final Report

National Council on Crime and Delinquency

Richard G. Wiebush
Dennis Wagner, Ph.D.
Betsie McNulty, Ph.D.
Yanqing Wang
Thao N. Le, Ph.D.

March 2005



**U.S. Department of Justice
Office of Justice Programs**
810 Seventh Street NW.
Washington, DC 20531

Alberto Gonzales
Attorney General

Tracy A. Henke
Acting Assistant Attorney General

J. Robert Flores
Administrator
Office of Juvenile Justice and Delinquency Prevention

Office of Justice Programs
Partnerships for Safer Communities
www.ojp.usdoj.gov

Office of Juvenile Justice and Delinquency Prevention
www.ojp.usdoj.gov/ojjdp

NCJ 206177

This Report was prepared by the National Council on Crime and Delinquency and was supported by grant number 95-JN-FX-0023 from the Office of Juvenile Justice and Delinquency Prevention (OJJDP), Office of Justice Programs, U.S. Department of Justice. Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the National Institute of Justice, and the Office for Victims of Crime.

Table of Contents

Executive Summary	i
Chapter 1. Introduction and Background	1
Introduction	1
Background and Context	1
Prior Research on Intensive Supervision Programs	4
The IAP Model	8
Development	8
Parameters of the Model	9
Chapter 2. Methodology	12
Research Questions and Design Overview	12
Random Assignment and the Evaluation Samples	12
Early Terminations and Sample Attrition	13
Equivalence of the Outcome Samples.....	14
Answering the Research Questions.....	15
Implementation Measures	15
Recidivism	16
Intermediate Outcomes	18
Sample Size, Statistical Power, and Significance Testing	20
Chapter 3. Implementation	22
Overview.....	22
Background	22
Client Eligibility and Intake.....	23
Youth Characteristics	24
Implementation Overview	25
Site Summaries	27
Colorado.....	27
Nevada	34
Virginia	39
Summary Assessment: Implementation.....	45
Overall Implementation.....	46
Key IAP Component Implementation.....	48
Chapter 4. Outcomes.....	55
Recidivism	55
Time at Risk	55
Subsequent Arrests, Convictions, and Incarceration	56

Most Serious Subsequent Offense	58
Mean Number of Subsequent Offenses	58
Weighted Recidivism Scores.....	59
Time to First Arrest.....	60
Multivariate Analysis of Recidivism.....	61
Recidivism and Subgroup Analyses	63
Recidivism by Release Cohort	64
Youth Characteristics Associated With Success and Failure in IAP	65
Recidivism and IAP Levels of Treatment Services	69
Intermediate Outcomes.....	73
Institutional Behavior	73
Institutional Length of Stay	74
Substance Abuse	74
Reengagement With Community Institutions.....	76
Program Terminations.....	77
Chapter 5. Summary and Conclusions	79
Summary	79
Discussion	82
Conclusions and Implications	87
References	92

List of Tables

Table EX–1	Prevalence and Incidence of Recidivism, by Site and Experimental Condition	vi
Table 2.1	Original and Final Outcome Samples, by Site	14
Table 3.1	Characteristics of the IAP and Control Groups	24
Table 3.2	Average Number of Face-to-Face Contacts per Month in Colorado, by Program Phase	29
Table 3.3	Prevalence and Intensity of Institutional Services in Colorado	31
Table 3.4	Prevalence and Intensity of Aftercare Services in Colorado	33
Table 3.5	Average Number of Face-to-Face Contacts in Nevada, by Program Phase	36
Table 3.6	Prevalence and Intensity of Institutional Services in Nevada	37
Table 3.7	Prevalence and Intensity of Aftercare Services in Nevada	39
Table 3.8	Average Number of Face-to-Face Contacts in Virginia, by Program Phase	41
Table 3.9	Prevalence and Intensity of Institutional Services in Virginia	43
Table 3.10	Prevalence and Intensity of Aftercare Services in Virginia	45
Table 3.11	Implementation Summary: Organizational Components	49
Table 3.12	Implementation Summary: Transitional Structure and Process	50
Table 3.13	Implementation Summary: Treatment Services	52
Table 3.14	Implementation Summary: Aftercare Supervision	53
Table 3.15	Implementation Summary: Other Key Program Elements	54
Table 4.1	Time in Secure Custody During 12-Month Followup Period	56
Table 4.2	Percentage of Youth With Subsequent Arrests, Convictions, and Incarceration Sentences	57
Table 4.3	Most Serious Rearrest, by Offense Category	58
Table 4.4	Mean Number of Offenses, by Offense Type	59
Table 4.5	Mean Weighted Recidivism Scores	60
Table 4.6	Mean Days to First Rearrest, by Offense Type	60
Table 4.7	Effects of Risk Factors and Group Membership on Recidivism Scores	62
Table 4.8	Colorado Recidivism, by Release Cohort	64
Table 4.9	Nevada Recidivism, by Release Cohort	65
Table 4.10	Virginia Recidivism, by Release Cohort	65
Table 4.11	Earlier System Involvement and Recidivism (Criminal Offense Recidivism Score)	67
Table 4.12	Risk Factors and Recidivism (Criminal Offense Recidivism Score)	68
Table 4.13	Overall Level of Service and Recidivism in Colorado	71
Table 4.14	Overall Level of Service and Recidivism in Nevada	72
Table 4.15	Overall Level of Service and Recidivism in Virginia	72
Table 4.16	Mean Monthly Institutional Major Misconduct Reports	74
Table 4.17	Mean Institutional Length of Stay	74
Table 4.18	Prevalence and Incidence of Arrests for Drug Charges	75
Table 4.19	Reengagement With Community Institutions	76
Table 4.20	Type of Program Termination	78

Executive Summary

This Report presents the findings from a 5-year, multisite evaluation of the implementation and outcomes of the Intensive Aftercare Program (IAP), which was sponsored by the Office of Juvenile Justice and Delinquency Prevention (OJJDP). IAP was a major initiative in aftercare programming during the 1990s and has received considerable national attention. It addresses a critical problem facing the nation's juvenile justice system: how to effectively intervene with high-risk, incarcerated juvenile offenders who have demonstrated high recidivism rates and continue to offend as adults.

The IAP Model

The goal of the IAP model is to reduce recidivism among high-risk parolees. The model postulates that effective intervention requires not only intensive supervision and services after institutional release, but also a focus on reintegration during incarceration and a highly structured and gradual transition between institutionalization and aftercare. Some of the model's key elements are the following:

- Individualized case planning to identify youth's service needs and to determine how those needs will be addressed during incarceration, transition, and aftercare.
- Continuity in case management and service delivery throughout the various program phases.
- High levels of coordination and cooperation between institutional and aftercare staff.
- The use of formal transition structures (e.g., transition facilities), processes (e.g., furloughs), and/or programs as mechanisms for facilitating community reentry.
- The use of small, IAP-specific caseloads.
- The provision of intensive supervision and multiple control mechanisms accompanied by access to a wide range of community-based services.
- The use of a system of graduated rewards and sanctions to respond immediately and proportionately to youth's behavior.

Study Design

The IAP was tested in three jurisdictions: the Denver metropolitan area in Colorado; Clark County (Las Vegas), NV; and the City of Norfolk, VA. The National Council on Crime and Delinquency (NCCD) conducted process and outcome evaluations using an experimental design that involved random assignment of eligible youth to either the experimental (IAP) or control

(traditional services) group. A total of 435 juveniles were involved in the evaluation, far fewer than was originally anticipated.¹ Youth were distributed by site as follows:

- Colorado: 67 IAP and 51 control.
- Nevada: 100 IAP and 120 control.
- Virginia: 63 IAP and 34 control.

The evaluation addressed three basic questions:

- **To what extent was the model implemented as designed?** The process evaluation used quantitative and qualitative data to assess the extent to which the sites implemented the programs as intended, including whether IAP youth received interventions that were substantially different from those received by other youth. Data were collected on a monthly basis. This provided a running account of the specific interventions used for all youth, including the number of monthly contacts with the youth/family, and the type and intensity of treatment services provided to each youth (e.g., substance abuse, life skills, counseling, education, special needs).
- **To what extent did IAP affect the subsequent delinquent/criminal involvement of participants?** The basic question addressed in the outcome evaluation was whether the IAP program achieved its primary goal of reducing delinquent/criminal activity among program participants. Police and court records were used to determine the extent of recidivism in the IAP and control groups during a standardized 12-month followup period (beginning at release to parole). Multiple measures of recidivism were used to capture the prevalence and incidence of recidivism in each group.
- **To what extent did IAP affect areas of youth functioning (e.g., substance abuse, family functioning) that are theoretically and empirically linked to recidivism?** The logic of the IAP model is that effecting positive changes in areas such as substance abuse will lead to lower recidivism. NCCD examined intermediate outcomes in the areas of institutional misconduct, substance abuse while on aftercare, and reinvolvement with educational, vocational, and employment programs while on aftercare. No data were available to assess family functioning.²

¹The original expectation was that there would be at least 100 IAP and 100 control youth at each site. After approximately 4 years of intake, the total for the three sites was 515 youth. However, each site also experienced attrition from the original sample due to early terminations (e.g., youth who were transferred to specialized facilities due to significant needs or behavioral problems or youth who, for a variety of reasons, would not be experiencing some form of parole supervision).

²The evaluation design called for the use of a series of standardized tests to measure pre- and post-program changes in the areas of substance abuse, family functioning, and social functioning. Due to low completion rates and extensive missing data, however, data from these tests could not be used in the evaluation. Alternative intermediate outcome measures were developed from other data sources, but these could not provide information as comprehensive as might have been available from the standardized tests. The absence of the standardized testing data limits the ability to understand the relationship between these intermediate outcomes and recidivism.

Implementation Findings

IAP ran for almost 5 years in each site (fall 1995 through summer 2000). Although all of the sites had implementation weaknesses, they operated programs that successfully incorporated most of the core features of the national IAP model. The sites focused strongly on transition-related issues, establishing a variety of structures and procedures to facilitate transition efforts. They created new, IAP-specific treatment programs, got a large percentage of youth involved in various treatment services, served youth in small IAP-specific caseloads, provided a level of supervision that was much more intensive than that provided to control youth, used systems of graduated rewards and sanctions, and provided a balance of control and treatment services. The sites generally did things very differently for their IAP youth, and generally did them in accordance with the model guidelines.

Colorado

Colorado's IAP served high-risk youth from the Denver area who were assigned to the state's Lookout Mountain Youth Services Center. IAP youth were handled by three IAP case managers, who each had a maximum of 18 youth. Case managers were responsible for the youth both during the institutional phase and during aftercare. IAP youth were housed in an IAP-specific cottage at Lookout Mountain. The institutional length of stay averaged 10.3 months (versus 12.6 for control youth), and the aftercare length of stay averaged 8.4 months (versus 8.7 for controls).

IAP implementation in Colorado was very strong. The project enjoyed good administrative support and had a very well-trained and committed staff who developed a coordinated, team approach to case planning and service delivery and offered a comprehensive transition model. Central to the transition process was the delivery of services by a network of community-based providers who began working with the youth in the institution and continued those services during aftercare. Transitional services included intensified parole planning and service delivery in the 60 days before institutional release, a furlough system, and the use of day treatment programming on release to aftercare. The IAP also was fairly successful in engaging parents in planning and services. Finally, Colorado implemented a comprehensive system of rewards and graduated sanctions in both the institutional and aftercare phases.

Although the Colorado IAP developed or accessed an impressive array of treatment services, it was unable to deliver services that were significantly different from those received by the control group. The lack of service differentiation was not a failure to implement the model. Rather, it resulted from a series of factors that led to dramatically enhanced services for all youth in the institutions and on aftercare. These developments effectively blurred the distinction between the IAP and control groups in terms of the extent and intensity of treatment services provided.

Nevada

The Nevada IAP program served committed youth from Clark County (primarily Las Vegas) who were extremely high risk. Two-thirds of the youth had 11 or more prior referrals, 80 percent had a prior commitment to secure care, and more than half (55 percent) were gang members. IAP participants were housed in a 20-bed, IAP-specific cottage at the Caliente Youth Center. The institutional length of stay for IAP youth averaged 6.7 months (compared with 7.7 months for

controls). Length of stay on aftercare was nearly identical for the two groups: IAP youth averaged 7 months, while control youth averaged 6.9 months.

IAP staff consisted of a unit supervisor, two intensive supervision case managers (each of whom had a caseload of 15 youth on parole and 8–10 youth in the institution), two field agents, a school liaison, and an institutional-community liaison. The latter position was a parole officer assigned to the IAP cottage at Caliente who was responsible for (1) coordinating interaction among the institution, parole staff, and the community, and (2) delivering transition-oriented life skills training to youth preparing for release to the community.

Nevada's implementation was strong in most areas. Transition activities included a 30–60 day prerelease period of intensified preparation for community reentry, services initiated during prerelease and continued on aftercare, and a 30-day institutional furlough period during which youth received intensive supervision and services. The Nevada IAP also developed a strong working relationship between community and institutional staff. Formal systems for graduated sanctions and rewards were routinely used in the institution and in the community. Nevada's delivery of treatment services to IAP youth was also strong. During both the institutional and aftercare phases, IAP youth were significantly more likely than controls to be involved with services and to receive a higher level of those services.

There were some implementation weaknesses seen in Nevada. The institutional-community liaison position experienced considerable turnover (four different people in 5 years) and extended vacancies. This instability hampered the IAP's coordination and transition strategies. In addition, Nevada was unable to implement its planned community provider network until the last year of the project. This delay limited IAP access to more individualized and specialized services for IAP youth in the community. In general, however, the focus on transition strategies—and the emphasis on the delivery of services to address identified needs—meant that the IAP was dramatically different than the traditional form of juvenile parole supervision in Nevada.

Virginia

Virginia's intensive aftercare model was referred to as the Intensive Parole Program (IPP). It served high-risk youth from Norfolk who were committed and placed at either the Beaumont or Hanover Juvenile Correctional Centers. Key staff included two institutional IPP case managers, three IPP parole officers (each of whom handled a maximum of 15 IPP cases), a parole aide, and a unit supervisor. On average, IPP youth remained in the institutional phase for 8.2 months, while the length of stay for control youth was 9.2 months. The average length of stay on aftercare was 5.8 months for IPP youth (versus 7.5 months for controls).

Virginia's implementation was strong in most areas. This was especially true with respect to the transition-related components of the model. These included monthly institutional visits by the parole officers, the use of group homes as transitional facilities, immediate linking of paroled youth with service providers, and the use of a four-phase parole supervision system. In addition, IPP institutional and aftercare staff worked as a team to provide a high level of coordination in case planning and service delivery. Virginia also created strong linkages with community agencies, which resulted in IPP youth having significantly greater involvement than control youth in aftercare treatment services. IPP staff provided very intensive parole supervision,

averaging more than 10 face-to-face contacts per youth per month. Finally, the project had a strong staff and enjoyed ongoing support from parole administrators.

The major weakness in implementation occurred during the institutional phase at Beaumont. Facility administrators provided little project support due to continuing instability and disruption in the larger institutional environment. These circumstances hampered the IPP's ability to deliver special services, including attempts to house all IAP youth in a single unit, delivery of a life skills curriculum, and full implementation of a rewards and sanctions system. Moreover, the Beaumont IPP case manager's position remained vacant for almost the entire second year of implementation. For these and other reasons, IPP youth were no more likely than control youth to be involved in treatment services—or to receive more intensive services—during the institutional phase. As in Nevada, however, these weaknesses were far outstripped by Virginia's successful implementation of most of the components of the IAP model.

Recidivism

Multiple measures were used to compare the officially reported recidivism of the IAP and control groups during the 12-month followup period (see table EX-1). In each site, there was no difference between IAP and controls in the number of days at risk during the followup. Recidivism rates were high for both groups in all three sites. Approximately 50–60 percent of the youth were rearrested for felony offenses, 60–70 percent for criminal offenses (felony and/or misdemeanor), and 80–85 percent for some type of offense. Moreover, in all three sites there were few statistically significant differences between the IAP and control groups in the prevalence or incidence of reoffending. For example:

- In Colorado and Nevada, there were no differences between IAP and controls in the proportion of youth arrested (or convicted) for felony offenses or criminal offenses. In Virginia, IAP youth were somewhat less likely to be arrested (or convicted) for felony or criminal offenses, but these differences were not statistically significant.
- In all three sites, there were no differences between the groups in (1) the nature of the most serious subsequent offense, (2) the mean number of felony arrests, criminal arrests, or total arrests, or (3) the number of days to first felony or criminal arrest.
- In all three sites, there were no differences between the groups on a composite measure of the number and severity of offenses.³

³The composite measure is referred to as the “criminal recidivism score.” It was derived by assigning a weight to each subsequent offense—based on its relative severity—then summing the offenses for each group to arrive at a total score. The score was then divided by the number of youth in each group to determine a mean score. The offense weighting scheme was as follows: violent felony = 12 points, drug or weapon felony = 8, property and other felonies = 6, violent and weapons misdemeanors = 4, other misdemeanors = 3, technical violations = 2, and traffic or status offenses = 1. For the criminal recidivism score, technical violations, traffic offenses, and status offenses were excluded from the calculations. A separate total recidivism score (not shown in the table) included all offense types.

- In Nevada and Virginia, there were no differences between the groups in the percentage of youth sentenced to a new term of incarceration as a result of an offense that occurred during the 12-month followup.

Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Days at risk	270	280	302	301	277	288
Percentage arrested, felony	52	55	63	60	43	53
Percentage convicted, felony	29	26	47	44	27	41
Percentage arrested, criminal offense	69	65	77	77	60	67
Percentage convicted, criminal offense	42	33	59	60	44	59
Percentage charged, technical violation	21	24	33*	22	60**	38
Mean felony offenses	0.7	0.9	1.1	1.0	0.6	0.9
Mean criminal offenses	1.1	1.2	1.8	1.8	1.0	1.1
Criminal recidivism score	6.2	7.5	10.9	9.8	6.4	7.1
Percentage sentenced to incarceration	41*	26	45	41	56	58

*Between-group differences significant at $p < .10$.
 **Between-group differences significant at $p < .05$.

The only statistically significant differences observed were:

- IAP youth in Nevada and Virginia were significantly more likely than control youth to be charged with a technical violation.⁴
- IAP youth in Colorado were significantly more likely than control youth to be recommitted or sentenced to a jail/prison term in the adult system.

Finally, to control for potential preexisting differences between the IAP and control groups that may have resulted from small samples or sample attrition, a multivariate (least squares regression) analysis was conducted. Group assignment (i.e., IAP versus control) was regressed against the criminal recidivism score while controlling for a range of risk-related variables (e.g., age at first adjudication, number of prior referrals). The results showed that even when controlling for other factors, IAP did not have an influence on recidivism.

⁴This result is a fairly consistent finding in the literature on intensive supervision programs. Because youth in such programs are supervised more closely than other youth, any program infractions or technical violations are much more likely to be discovered.

Subgroup Recidivism

The evaluation also examined the recidivism of various subgroups within the IAP and control samples to determine whether IAP may have had a positive (or negative) impact on certain types of youth. These analyses and the results are summarized below:

- A release cohort analysis compared the criminal recidivism scores of IAP and control youth during two different time periods (the first 2½ years and last 2½ years of the project) to determine whether the more mature IAP programs may have resulted in lower rates of recidivism. The results suggested that IAP program maturation did not result in lower recidivism rates for IAP youth vis-à-vis control youth.
- A series of analyses were conducted to determine whether IAP was more or less successful with certain types of offenders. These analyses controlled for a wide range of youth characteristics related to risk (e.g., number of prior referrals, substance abuse problems). The analyses were unable to identify any characteristics that were consistently associated with a greater likelihood of success or failure in the IAP across sites.⁵
- A level-of-service analysis compared the recidivism of IAP youth who received high levels of treatment services during the institutional and aftercare phases with the recidivism of all control youth. The results revealed that (1) in each site, there was a very low number of IAP youth who received high levels of service in both the institutional and aftercare phases of the program, but that (2) these IAP youth typically received two to three times more hours of treatment services per month than controls, and (3) while the differences were significant only in Colorado, the IAP youth who received high levels of services had lower recidivism scores than control youth in each site.

Intermediate Outcomes

In addition to recidivism, the evaluation also examined various intermediate outcomes that included measures of institutional and aftercare adjustment. The results showed that:

- Major institutional misconduct (e.g., assault, security violations) was equally prevalent in the IAP and control groups in Colorado and Virginia, but in Nevada, IAP youth were more likely than controls to have misconduct reports. However, IAP youth in Nevada and Virginia had significantly fewer misconduct incidents per month than control youth.
- In all three sites, IAP youth had a shorter length of stay in the institution (1–2 months, depending on the site) than did control youth.
- In Colorado and Nevada, IAP youth were significantly less likely than controls to test positive for substance abuse while on parole supervision. There were no significant

⁵The inability to discriminate among different types of youth is likely a function of homogeneity in offender characteristics and the small number of cases involved in these disaggregated analyses.

differences between the groups in any site in the percentage of youth arrested for drug offenses during the 12-month followup.

- In each site, IAP youth were significantly more likely than controls to be involved in vocational training for at least 2 months during aftercare. In Colorado and Virginia, a substantially larger (but not statistically significant) percentage of IAP youth was in school for at least 2 months. The Virginia IAP also had a larger, albeit nonsignificant, percentage of youth employed for 2 or more months while on aftercare. However, IAP youth in each site averaged fewer than 10 days per month engaged in these activities, and there were no differences between the groups in the frequency of participation.

Conclusions and Implications

There are two important evaluation-related issues that need to be taken into account in interpreting the “no-difference” findings for IAP outcomes. First, Colorado’s findings are colored by the enhanced services provided to the control group during the time that the IAP was being tested. As a result, the evaluation ended up comparing IAP with a form of “traditional” parole that in many ways looked similar to IAP. Although control youth did not receive many of the case management and transition-related services provided to IAP youth, the similarity between the groups in the nature and intensity of treatment services may partially account for the no-difference findings in this site.

Second, a lack of statistical power is associated with the small samples in Colorado and Virginia. For these sites, the outcome measures that examined the proportion of youth who reoffended would have to show differences of 15–20 percentage points between IAP and control youth to achieve a level that was statistically significant. Smaller, but potentially important differences between the groups would go undetected. In Virginia, for example, the data suggested that IAP youth were less likely than controls to have a subsequent felony arrest (43 percent versus 53 percent), a result that was not statistically significant. With such a small number of sample cases, however, it is difficult to reliably determine whether a difference of this size reflects a real disparity between the groups or is simply a result of sampling error. In the absence of larger samples, the recidivism data for Colorado and Virginia cannot be considered conclusive.

The results of this evaluation do not allow for a simple characterization of the effectiveness of IAP. There is no evidence that the project had its intended impact of reducing recidivism among high-risk juvenile parolees. However, evidence from just one site (Nevada) indicates that IAP did not work. In Colorado and Virginia, evaluation issues regarding confounds to the experiment and small sample size do not allow definitive statements about the efficacy—or lack thereof—of IAP.

Some implications for the future of IAP emerge from these findings. First, the evaluation results should not be used to dismiss the IAP model as ineffective. The initial implementation and testing of IAP should be seen as just that: an initial effort to operationalize a very complex intervention designed to deal with the most problematic youth in the juvenile justice system. The model warrants additional efforts at implementation and testing. With the experience and

knowledge gained from the OJJDP initiative, and with more favorable evaluation conditions (e.g., larger samples), the model may still demonstrate its ability to affect recidivism.

A second implication is that additional IAP-related efforts should involve sites that are carefully selected for their commitment and ability to implement the model. The IAP model is quite complex, and the demonstration sites' implementation experiences showed that it is in fact difficult to implement to its fullest. Even when it is reasonably well-implemented (e.g., as in Nevada), there is no guarantee that it will have the desired impact. The results of this evaluation should serve as a signal that the IAP model cannot simply be lifted off the shelf or indiscriminately implemented.

With a moderate application of financial and technical assistance resources—at a minimum, equivalent to the resources given to the demonstration sites—other carefully selected jurisdictions should be able to successfully implement most of the case management components of the IAP model. Also, a sufficient commitment of resources should be present to allow the programs to deliver at least the variety and intensity of treatment services that the three demonstration sites provided. Additional sites selected to implement the IAP may also need to focus more attention on select aspects of the model such as:

- Maximizing parental involvement.
- Enhancing strategies to deter youth from becoming involved with negative/delinquent peers.
- Strengthening efforts to more fully reintegrate youth into educational or labor-related pursuits.
- Developing more community treatment resources capable of delivering interventions that are of demonstrated effectiveness.
- Placing a greater emphasis on the development of community support networks.
- Considering use of IAP with a target group of parolees somewhat less problematic than the (very) high-risk parolees involved in the demonstration sites.

Chapter I. Introduction and Background

Introduction

The Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) intensive community-based aftercare research and demonstration project—known as the Intensive Aftercare Program (IAP)—has become widely recognized as one of the most promising recent innovations in juvenile justice. The project has called attention to an area that traditionally has received short shrift from policymakers and practitioners alike: how best to ensure successful transition and reintegration of high-risk juvenile offenders into the community. Prior to OJJDP's initiation of IAP in 1987, only one major national effort focused on reintegration and transition issues—the Violent Juvenile Offender (VJO) program (Fagan, 1990; Fagan, Forst, and Vivona, 1987; Fagan, Rudman, and Hartstone, 1984). Since 1987, however, the number of jurisdictions expressing interest in, and implementing, aftercare programs that emphasize reintegration and intensive supervision has increased. There also has been a growing emphasis on the importance of carefully evaluating such programs. Although the body of research is still limited, major contributions have been made by experiments such as the Skillman projects in Pittsburgh and Detroit (Greenwood, Deschenes, and Adams, 1993), Michigan's Nokomis Challenge Program (Deschenes, Greenwood, and Marshall, 1996), and the Philadelphia Intensive Probation Aftercare Program (Sontheimer and Goodstein, 1993; Goodstein and Sontheimer, 1997).

Interest in IAP has been particularly keen. It has been the major initiative in aftercare programming during the past decade and has received considerable attention in the field. It has the potential to address a critical problem facing the nation's juvenile justice system: how to effectively intervene with high-risk incarcerated juvenile offenders who in the past have demonstrated high recidivism rates and continued their offending patterns into their adult years. Interest has been fueled further by the conceptual and practical appeal of the IAP model, the ongoing nature of the problems that the model was designed to address (e.g., high failure rates among juvenile parolees), and the fact that it has been a multiyear, multisite national demonstration project that has used an experimental design to test its effectiveness.

This Report presents the findings from a 5-year evaluation of the implementation and outcomes of the IAP model in three jurisdictions: the Denver metropolitan area in Colorado; Clark County (Las Vegas), NV; and the City of Norfolk, VA. The evaluation, which was conducted by the National Council on Crime and Delinquency (NCCD), sought to answer these basic questions: to what extent was the model implemented as designed and what impact did the programs have on the subsequent behavior of participants?

Background and Context

The national juvenile justice context in which the IAP model was introduced and implemented was well-summarized by Wilson and Howell (1993:1), who noted:

The serious and violent crime rate among juveniles has increased sharply in the past few years. Juveniles account for an increasing share of all violent crime in

the United States. A small portion of juvenile offenders account[s] for the bulk of all serious and violent crime. At the same time, the number of juveniles taken into custody has increased, as has the number of juveniles waived or transferred to the criminal justice system. Admissions to juvenile facilities are at their highest levels ever and an increasing number of these facilities are operating over capacity. Unfortunately, the already strained juvenile justice system does not have adequate fiscal and programmatic resources to identify serious, violent and chronic juvenile offenders and to intervene effectively with them.

In some ways, national trends have changed dramatically since Wilson and Howell made these observations. For example, in the 5-year period between 1995 and 1999, the overall juvenile arrest rate declined by 9 percent and juvenile arrests for violent crimes dropped by 23 percent. Significant reductions occurred in most specific crime categories as well, including murder (-23 percent), robbery (-39 percent), motor vehicle theft (-35 percent), and weapons offenses (-27 percent) (Snyder, 2000). In other ways, however, the trends noted by Wilson and Howell have not changed. For example, the proportion of adjudicated youth sentenced to state commitment or residential placement dropped only slightly (28 percent to 26 percent of adjudicated delinquency offenses) between 1994 and 1997 (Butts, 1996; Sickmund, 2000), and the 1-day counts of committed juveniles in custody remained stable between 1997 and 1999 (Office of Juvenile Justice and Delinquency Prevention, 2001; Sickmund and Wan, 1999). Moreover, the majority of youth in training schools and other public facilities continue to be held in overcrowded institutions (Sickmund, Snyder, and Poe-Yamagata, 1997).

Custody trends are related in part to unacceptably high rates of recidivism, revocation, and recommitment among juvenile parolees. Several studies have documented the extraordinary recidivism rates accounted for by this segment of the juvenile justice population:

- In a study of almost 4,000 parolees ages 17–22, Beck and Shipley (1987) found that 69 percent had been rearrested for a serious crime, 52 percent reconvicted, and 49 percent returned to prison within 6 years of their release from prison.
- As part of an evaluation of reforms in the Massachusetts Department of Youth Services (Krisberg, Austin, and Steele, 1991), NCCD reviewed data from recidivism studies of youth released from juvenile corrections programs in eight states. These studies showed that between 55 and 75 percent of the parolees were rearrested within 1 year of their release. Moreover, NCCD found that between 26 percent and 62 percent of the juveniles were reincarcerated within 36 months of their release to parole.
- A 1995 study of parolees released from Minnesota’s two primary juvenile correctional facilities determined that two-thirds were rearrested and more than half were rearrested for a felony offense within 2 years of release (Office of the Legislative Auditor, 1995).
- Earlier research in two of the sites involved in this study showed that 36 percent of Colorado releasees were reconvicted within 1 year (Boyles, 1998) and that 40 percent of Virginia parolees were rearrested within 1 year of release (Brock et al., 2000).

Other studies have shown that not only are recidivism rates high among parolees, but that many parolees continue their offending patterns into adulthood where they begin a career criminal path. In the Minnesota study cited previously, the researchers examined the extent of involvement the juvenile parolees had in the criminal justice system by following them for 5 years after their release from the juvenile institution. The results showed that more than 90 percent had been arrested as adults and that approximately two-thirds had been sentenced to prison (Office of the Legislative Auditor, 1995).

In a major national study, Hamparian and colleagues (1985) followed into adulthood a cohort of 1,222 youth who were arrested for a violent offense at least once as juveniles. Recidivism data obtained from the criminal justice system showed a clear continuity and transition into adult offending by incarcerated juveniles:

- Of those institutionalized as juveniles, 76 percent were arrested as adults.
- Of those arrested as adults, half had been in a juvenile institution.
- Of those arrested as adults, three-quarters were arrested at age 18 or 19.

These results are the legacy of the nation's historical lack of attention to the critical issues of reintegration, transition, and aftercare for serious and chronic offenders. This neglect has extended to theoretical, policy, programmatic, and evaluation issues. Clearly, the IAP initiative to develop, implement, and test innovative aftercare programs is critical to the field for the following reasons:

- The development and implementation of effective aftercare programs could address—at least in part—several of the problems facing juvenile corrections.
- Juvenile facilities, in particular secure facilities, are experiencing continuing crowding problems upon which effective aftercare could have a positive effect.
- Traditional efforts to confine and release high-risk juveniles, who are most likely to transition to adult criminal careers, have not been successful in affecting recidivism.
- Many current aftercare programs have not effectively addressed the myriad of problems (e.g., substance abuse, learning disabilities, family and employment problems) that serious juvenile offenders face.
- The consistently high recidivism rates among youth on aftercare contribute both to institutional crowding (via revocations and commitments) and increased public fear, which in turn fuels reactive and superficial “get tough” approaches such as increased reliance on transfer and waiver of juveniles to the adult system (Torbet et al., 1996).
- Although there have been important contributions, relatively little research has been conducted on the effectiveness of innovative aftercare approaches, and the findings to date have not provided clear-cut guidance for future policy or programmatic directions.

Prior Research on Intensive Supervision Programs

The IAP model has its roots in the intensive supervision movement that emerged in the criminal and juvenile systems during the 1980s. In general, the goals of juvenile and adult intensive supervision programs (ISPs) have been to serve as an alternative to incarceration or as an enhanced form of probation or parole, to strengthen the quality of supervision services, to save money, and to reduce recidivism. Typically, increased intensity is accomplished by reducing caseload size, increasing frequency of contacts, structuring surveillance and casework activities, imposing additional conditions of supervision, and, in some programs, involving offenders in a wider array of treatment services. Adult ISPs have tended to emphasize public safety issues and have focused on enhancing the control aspects of community supervision (e.g., high frequency of contacts, surveillance, electronic monitoring, random urinalysis). Juvenile ISPs also have typically included the use of similar control measures but have placed at least an equal emphasis on treatment services (Armstrong, 1991).

ISPs for juvenile parolees have been of two basic types. The first model is a parole enhancement approach, in which the primary focus is on providing more intensive supervision while the youth is in the community. The second model includes intensive community supervision but is distinguished by its emphasis on transition and reintegration activities that begin while the youth is still in the institution. The IAP model is one manifestation of the latter style of intensive supervision programming for juvenile parolees.

Is there any evidence that intensive supervision programming is effective or at least holds promise? Evaluation efforts undertaken to date provide mixed results. Major studies of the use of ISPs as an alternative to incarceration for adults in Georgia, New Jersey, and Florida have indicated that the alternative programs reduced recidivism and saved money (Baird and Wagner, 1990; Erwin and Bennett, 1987; Pearson, 1987). Some of these studies have been criticized on methodological grounds, however, primarily because the comparison groups were prison parolees who may have been at higher risk for reoffending than the ISP participants (Byrne, Lurigio, and Baird, 1989; General Accounting Office, 1990; Tonry, 1990).

The evidence is more clear—and less positive—for ISPs that have been designed as probation or parole enhancement programs for adults. Such programs have generally been found to have no appreciable effect on recidivism when compared with traditional forms of supervision (Byrne and Kelly, 1989; Petersilia and Turner, 1993). The study by Petersilia and Turner (1993) was particularly important because it involved random assignment of approximately 2,000 offenders in 14 different sites across the country. While the evaluators concluded that enhancement ISPs met their goals of providing a higher level of community control and punishment and that they were effective as intermediate sanctions, they clearly had no impact on recidivism. During a 1-year followup, ISP participants were arrested at approximately the same rate as controls (37 percent versus 33 percent), had a similar time to first arrest, had equally serious offenses, and were significantly more likely to be arrested for technical violations.

While these results strongly indicate that control-oriented ISPs for adults do not work, some evidence shows that greater involvement in treatment programming in the context of intensive supervision can have a positive impact on recidivism. Petersilia and Turner (1993) found that when California and Texas ISP participants were involved in multiple treatment or service

programs, they had recidivism rates that were 10–20 percent lower than control cases. Similarly, Papparazi and Gendreau (1993) found that among ISP participants in New Jersey who received high levels of treatment services, recidivism rates were 21–29 percent lower (depending on the outcome measure) than the control group. In Massachusetts, Byrne and Kelly (1989) determined that when offenders in the ISP (and control) groups were provided with high-quality case management and referrals for service, they had much lower recidivism rates than offenders who did not receive this type of supervision.

The results are similarly mixed for intensive programming undertaken with juveniles, including those efforts that have coupled reintegration-oriented strategies with intensive supervision in the community. The evaluation literature indicates that (1) substantial evidence supports the effectiveness of ISPs as alternatives to incarceration, but that (2) only a limited number of program evaluations provide reintegration and intensive supervision, and (3) based on those parole evaluations that do exist, the evidence supporting the use of such programs is mixed at best.

A series of studies on the use of intensive supervision and other highly structured alternatives to incarceration for high-risk juveniles has shown that such programs are at least as effective (and in some cases more so) as traditional incarceration in reducing recidivism and that they cost significantly less than institutionalization. A brief review of some of these studies follows:

- Barton and Butts (1990) evaluated the effectiveness of ISPs as alternatives to secure care. That study, conducted in Detroit, randomly assigned more than 500 youth to three different ISPs or to correctional placement by the state agency. The results showed (1) no significant differences between the groups after 2 years on measures of official recidivism or self-reported recidivism (incidence or severity), but (2) the alternative programs cost about one-third less than state commitment. The authors concluded that the “results suggest that the programs offered a viable, alternative disposition for many such youth who otherwise would have been committed to the state” (p. 251).
- Wiebush (1993) used a quasi-experimental design to evaluate the effectiveness of an ISP that functioned as an alternative for juvenile felony offenders in Lucas County, OH, who would have been committed to a state training school. The results—after an 18-month followup—were much the same as those found by Barton and Butts (1990). The ISP youth had no worse recidivism rates (except for technical violations) than the youth who had been incarcerated and subsequently released to parole supervision.
- Greenwood and Turner (1987) evaluated the effectiveness of the Vision Quest program with a group of juvenile offenders ($n=89$) from San Diego by comparing their recidivism rates to 177 youth who had been incarcerated in a county correctional facility. In spite of the fact that the Vision Quest participants were more serious offenders as a group, they had 25 percent lower recidivism rates than the controls in the year after their release.
- Brandau (1992) used a quasi-experimental design to evaluate Delaware’s two Associate Marine Institute programs. This study found (1) one of the Marine programs was serving as an alternative to secure care; (2) after a mean followup of 3 years, no difference existed

between the overall recidivism or reincarceration rates of the (true diversion) Marine Institute participants and the incarcerated youth; but (3) substantial differences existed between the two groups in the nature of their subsequent offenses. As compared with the control group, the Marine Institute youth were much more likely to recidivate because of a technical violation and much less likely to recidivate because of a new offense.

- Henggeler, Melton, and Smith (1992) conducted a series of five experimental and quasi-experimental evaluations of out-patient treatment programs that use a treatment model referred to as Multi-Systemic Therapy (MST). The programs that involved delinquent youth all showed significantly lower recidivism rates among MST participants. In a South Carolina study, 84 serious and violent delinquents were randomly assigned to either MST or normal services provided by the youth corrections agency. After a mean followup period of 4½ years, 61 percent of the MST group compared with 80 percent of the control group had a new arrest. MST youth were also much less likely to have been incarcerated, and they had a longer period of time to their first arrests. All these differences were statistically significant.

These evaluations lend additional support to a host of earlier evaluations (Coates, Miller, and Ohlin, 1978; Empey and Erickson, 1972; Empey and Lubeck, 1971; Palmer, 1975) that demonstrated that well-structured programs can provide safe, cost-effective alternatives to secure confinement for high-risk youth. Only one major study (of a deinstitutionalization effort in Maryland) has found that institutionalized youth have lower recidivism rates than youth handled in alternative programs (Gottfredson and Barton, 1993).

Much less evidence exists regarding the effectiveness of reintegration-focused interventions that include intensive supervision for juvenile parolees. Fagan (1990) conducted an experimental, indepth study of the VJO program, which provided a continuum of care for violent juvenile offenders at four urban sites (Boston, Detroit, Memphis, and Newark). VJO youth were initially placed in small, secure facilities and were gradually reintegrated into the community through community-based residential programs and received intensive supervision. Across all sites, no significant differences were found in the recidivism rates of VJO and control youth. However, in Boston and Detroit—the two sites with the strongest implementation of the program design—VJO youth had significantly fewer and less serious rearrests than the control group when time at risk was taken into account. In addition, youth in these two jurisdictions had significantly longer intervals until their first arrest. Fagan (1990:254) concluded that “the principles and theories built into VJO programs can reduce recidivism and serious crime among violent juvenile offenders.” Further, Fagan (1990:233) stated that “reintegration and transition strategies should be the focus of correctional policy, rather than lengthy confinement in state training schools with minimal supervision upon release.”

Positive results for the reintegration/intensive supervision approach were also found in a study of high-risk juvenile parolees in Philadelphia (Sontheimer and Goodstein, 1993). There, evaluators used an experimental design to assess the impact of a program that called for prerelease aftercare planning and frequent contact between the parole officer and the youth/family during the institutional phase. This was followed by an aftercare phase that included the use of small caseloads (i.e., 1:15), multiple contacts per week, and supervision that included evening and weekend hours. In spite of considerable implementation problems (Goodstein and Sontheimer,

1997), the youth who received the intensive intervention had significantly fewer arrests, including felony arrests, than did control youth (although there was no difference in the proportion of youth rearrested).

Although these two studies seem to affirm the importance of transition-focused interventions, several other studies of similar programs found no impact. For example:

- The Skillman Aftercare Experiment involved two experimental aftercare programs in Detroit, MI, and Pittsburgh, PA. An evaluation of the project, conducted by Greenwood and colleagues (1993), was based on random assignment to one of the two programs or to traditional postrelease supervision. Private providers operated the experimental programs, which shared common core features including prerelease planning involving the aftercare worker, youth, and family; an intensive level of supervision including several daily contacts; efforts to resolve family problems; a focus on getting youth involved with education and/or work upon return to the community; and highly motivated caseworkers. The results showed that the experimental programs were no more successful than traditional supervision in achieving the program's intermediate objectives (i.e., participation in school or work, reduction in drug use, dissociation with delinquent peers) or in reducing recidivism. During a 12-month followup period, no significant differences were found between the study groups in the percentage of youth who were rearrested or reconvicted, in self-reported offenses, or in the severity of subsequent offenses.
- A wilderness challenge program in Michigan (Nokomis) involved an approach that was very similar to that used in the Skillman experiment. It also had similar results. Youth in the experimental program were seen throughout the residential period by their community workers, were involved in an intensive community transition period (30 days of house arrest), had multiple contacts per week during aftercare, and had weekend and evening surveillance. Deschenes and colleagues (1996) used a quasi-experimental design to assess the effectiveness of the program. Several different outcome measures were used including official and self-reported arrests, substance abuse, and family functioning. No significant differences were found between the experimental and control groups on any of these measures.
- Sealock and colleagues (1997) evaluated an intensive aftercare program for drug-involved youth in Baltimore City. The program involved drug education and treatment during a 3-month residential phase, an intensive transition phase characterized by daily contacts and ongoing involvement in treatment, and an aftercare phase in which contacts were reduced but youth were linked to a community service provider network. The evaluation used a quasi-experimental design that, because of preexisting differences between the experimental and control groups, meant that the outcome comparisons needed to be treated cautiously. The outcome data indicated that the experimental youth were just as likely to be arrested as the control youth during the 18-month followup, but that they were more likely to be adjudicated delinquent for these new offenses and that they had a significantly higher number of adjudications for drug offenses. One positive finding was that the experimental youth had fewer arrests for person-related offenses.

These negative results may be explained by implementation shortcomings. Each of these programs, including the ones with positive results, experienced some degree of implementation problems. In the Skillman project, for example, although youth in the Detroit program were seen much more frequently by their caseworkers than the control youth, the level of contact fell far short of the multiple contacts per day that had been planned. Perhaps more importantly, the experimental youth in both the Detroit and Pittsburgh programs were no more likely than control youth to be involved in education programs or to be employed during aftercare. In the Baltimore study, the level of intervention fell considerably short of what was called for in the program design. For example, instead of being seen daily during the intensive transition phase, youth were seen about once per week. Moreover, the planned intensive involvement of family members in supportive counseling sessions during aftercare turned out to be sporadic at best.

The evaluators in the Skillman and Baltimore projects focus their discussion on potential changes or enhancements to the intervention model that may be required to make it more effective with the type of high-risk youth targeted for intervention. Moreover, both sets of evaluators considered that the interventions simply may have been inadequate to the task of addressing the “insurmountable nature of the problems and temptations encountered by the youth in their home communities” (Greenwood, Deschenes, and Adams, 1993:32) or “the basic problem that treatment services of the type provided in the aftercare programs do not seem able to compete with the temptations of street life” (Sealock, Gottfredson, and Gallagher, 1997:231).

The IAP Model

Development

The OJJDP intensive aftercare research and demonstration program has been a multistage effort directed by David Altschuler, Ph.D., of the Johns Hopkins Institute for Policy Studies and Troy Armstrong, Ph.D., of the Center for Delinquency and Crime Policy Studies at California State University at Sacramento. The initial stages of the project involved a comprehensive literature review and onsite assessments of promising aftercare programs throughout the country. The project directors then integrated what was learned during the assessment phase and developed a comprehensive, theory-driven model referred to as IAP. In addition to specifying model components and the principles underlying them, Altschuler and Armstrong developed basic policies and procedures and compiled training and technical assistance packages to assist jurisdictions in implementing the program prototype. In 1992 and 1993, eight invited jurisdictions were involved in multiday training and preliminary planning sessions with the project principals, a team of experts in specific areas (e.g., substance abuse), and OJJDP staff. These states were then invited to submit proposals to demonstrate their interest in the model, identify the particular implementation site(s), detail their program design, and specify their intended approach to implementation. Four were subsequently selected to participate in the IAP demonstration. Each of the sites was to receive \$100,000 per year for 3 years (later extended to 5) to support IAP implementation, along with ongoing training and technical assistance from Altschuler and Armstrong. The selected jurisdictions were:

- Clark County (Las Vegas), NV.
- Denver, Arapahoe, Douglas, and Jefferson Counties (Metropolitan Denver), CO.

- Essex (Newark) and Camden Counties, NJ.
- City of Norfolk, VA.

The final stages of the project consisted of IAP implementation for an approximately 5-year period and the attendant NCCD-conducted evaluation of program implementation and outcomes.¹

Parameters of the Model

The goal of the IAP model is to reduce recidivism among high-risk parolees. It is based on a theoretical model that integrates strain, social learning, and social control theories. The model postulates that serious and chronic delinquency is related to (1) weak controls stemming from inadequate socialization and social disorganization, (2) strain, which can have a direct effect on delinquency, and (3) the intervening forces of peer group influences. The ways in which these components interact varies greatly, but a central theoretical point made by Altschuler and Armstrong is that whereas delinquency may have multiple causes, the co-occurrence of social and personal strain, weak conventional controls, and strong alliance with delinquent groups results in a greater probability of delinquent behavior than would be expected by any of the three elements alone.

Effective intervention with the target population requires not only intensive supervision and provision of services after institutional release but also a focus on reintegration during incarceration and a highly structured and gradual transition process that serves as a bridge between institutionalization and aftercare. Altschuler and Armstrong (1996:15) suggest that the—

IAP model is most clearly conceptualized as a correctional continuum consisting of three distinct, yet overlapping, segments:

- prerelease and preparatory planning during incarceration;
- structured transition that requires the participation of institutional and aftercare staff prior to and following community reentry; and,
- long-term, reintegrative activities that ensure adequate service delivery and the necessary level of social control.

¹New Jersey was dropped from the demonstration in late 1997. A myriad of factors lead to the decision to stop the project. Basically, however, implementation progress had stalled significantly throughout most of 1997. This was primarily the result of a major reorganization of the juvenile corrections agency that was initiated that year and a high level of staff turnover within the project. Because that site was operational for only 2 years, it was not included in the outcome evaluation. More detail on implementation issues in New Jersey can be found in Wiebush, McNulty, and Le, 1998, and Wiebush, McNulty, and Le, 2000.

Altschuler and Armstrong identify five principles that should form the underpinning of all intervention efforts for high-risk parolees:

- Preparing youth for progressively increased responsibility and freedom in the community.
- Facilitating youth-community interaction and involvement.
- Working with both the offender and targeted community support systems (e.g., schools, family) on qualities needed for constructive interaction and the youth's successful community adjustment.
- Developing new resources and supports where needed.
- Monitoring and testing the youth and the community on their ability to deal with each other productively.

The notion of overarching case management is central to the IAP model. It focuses on the processes required for successful transition and aftercare and includes five subcomponents:

- **Assessment, classification, and selection criteria.** IAP focuses on high-risk offenders to maximize its potential for crime reduction and to avoid the negative outcomes previously demonstrated to result from supervising low-risk offenders in ISPs (Clear, 1988). To accurately identify these high-risk youth, implementing jurisdictions need to use a validated risk-screening instrument.
- **Individualized case planning that incorporates family and community perspectives.** This component specifies the need for institutional and aftercare staff to jointly identify youth's service needs shortly after commitment and to plan for how those needs will be addressed during incarceration, transition, and aftercare. It requires attention to youth problems in relation to their families, peers, school, and other social networks.
- **A mix of intensive surveillance and services.** The model promotes close supervision and control of high-risk offenders in the community but also emphasizes the need for similarly intensive services and support. This approach requires that staff have small caseloads and that supervision and services be made available not only during traditional times but also in the evenings and on weekends.
- **A balance of incentives and graduated consequences.** Intensive supervision is likely to uncover numerous technical violations and program infractions. The IAP model indicates the need for a range of graduated sanctions tied directly and proportionately to the seriousness of the violation instead of relying on traditional "all-or-nothing" parole sanctioning schemes. At the same time, the model points to a need to consistently reinforce youth progress via a graduated system of meaningful rewards.
- **Creation of linkages with community resources and social networks.** This element of case management is rooted in the conviction that the parole agency cannot effectively

provide the range and depth of services required for high-risk, high-need parolees unless it brokers services through a host of community agencies and resources. Moreover, because interventions focus on family, school, peer, and community issues, the case manager and service agencies need to create strong working relationships with these social networks.

The IAP model was considered prescriptive in the sense that each of the implementing sites was required to use the intervention framework and the underlying program principles as the foundation for local program design. However, each site had considerable flexibility to develop the specific design that would provide the best fit between the model's parameters and the local context. As a result, the sites shared key IAP features but also had program characteristics that clearly distinguish them from each other. The various ways in which the sites chose to operationalize the several components and features of the model are described in Chapter 3.

Chapter 2. Methodology

Research Questions and Design Overview

Three central research questions framed the evaluation:

- To what extent did the nature of supervision and services provided to Intensive Aftercare Program (IAP) youth differ from those provided to regular parolees?
- To what extent did IAP have an impact on the subsequent delinquent/criminal involvement of program participants?
- To what extent did IAP have an impact on specific areas of youth functioning (e.g., substance abuse, family functioning, employment, life skills, and social functioning) that are theoretically and empirically linked to continued involvement in delinquent/criminal behavior?

To answer these questions, the National Council on Crime and Delinquency (NCCD) used an experimental design that involved random assignment of IAP-eligible youth to either the experimental or control conditions. NCCD also employed a series of measures to compare differences between the two groups in terms of services delivered, pre-post changes in selected areas of youth functioning, and the extent and nature of recidivism.

NCCD used a series of forms to capture data on youth and program characteristics, employed a battery of standardized testing instruments to measure pre-post changes in youth functioning, and searched state agency and state police records to measure recidivism.

The following sections provide more detail on the study sample, the research design, and the methods of data collection and analysis.

Random Assignment and the Evaluation Samples

During the course of the demonstration, all committed youth in each site were scored on a locally validated parole recidivism risk assessment scale to determine their eligibility for the experiment. Assigned agency staff scored youth after commitment. All youth who scored high risk were considered eligible for the project unless they had certain characteristics (determined by each site) that resulted in automatic exclusion from the project. Examples of exclusionary criteria were sex offenders, youth who received a determinative commitment until age 21, and youth whose mental health problems required specialized mental health placements.

When a youth was deemed eligible, the site representative notified NCCD, which then used random assignment procedures to determine whether the youth would be assigned to the experimental or control group.

The eligibility determination and randomization processes occurred during slightly different time periods in each site. In Colorado, randomization began in August 1995 and continued through December 1, 1999. In Nevada, the process began in September 1999 and ran through June 1, 2000. Selection in Virginia began in January 1996 and ended December 1, 1999.

Caseflow studies conducted prior to the beginning of the evaluation indicated that NCCD could expect to have approximately 100 youth in each condition involved in the evaluation in Colorado and Nevada and about 75 youth in each condition in Virginia. For various reasons, intake numbers were lower than expected in Colorado and Virginia.² The randomization process resulted in the inclusion of 515 juveniles across all sites distributed as follows:

- Colorado: 82 IAP and 68 controls (150 total).
- Nevada: 120 IAP and 127 controls (247 total).
- Virginia: 74 IAP and 44 controls (118 total).³

Early Terminations and Sample Attrition

Throughout the project, each site experienced attrition of the original randomized sample. This attrition occurred due to circumstances arising during (or at the completion of) the institutional phase that either (1) significantly altered the IAP's ability to deliver its intended intervention for a youth, or (2) significantly altered the nature of the routine intervention for a youth in the control group.

The circumstances and criteria that warranted early termination from the program had been identified by each site early in the project and were applied to both the experimental and control groups.⁴ Generally, these criteria fell into two basic categories. The first set of criteria focused on juveniles whose intended institutional programming was interrupted or terminated as a result of a transfer to a different institution (or to a specialized unit within the same institution). More specifically, these criteria included: (1) transfers to specialized units or facilities in order to address significant needs such as severe mental health or severe substance abuse problems, and (2) transfers to other units or facilities as a result of severe behavioral problems. The second set of criteria focused on juveniles who, although completing the institutional phase, would not be experiencing some form of community supervision. For the most part, this included youth whose sentences expired while they were in the institution, those whose families had moved and for whom aftercare would be provided by another jurisdiction, and youth who upon release immediately began serving a previously imposed sentence in the adult system.

²In Colorado, reductions in the pool of eligible youth were due primarily to the placement of large numbers of youth in out-of-state contracted beds. In Virginia, the precise reasons for the lower than expected numbers are unclear, but are believed to be associated partially with the introduction of several institutional diversion programs (e.g., intensive probation supervision) at about the time the IAP was implemented.

³In Virginia, randomization was based on a ratio of two IAP assignments for each control assignment.

⁴Although the primary focus of the early termination process was to avoid including in the outcome study those IAP youth who would not receive the intended IAP intervention, the criteria were also strictly applied to the control group to avoid the introduction of bias into the outcome samples.

Table 2.1 shows by site (1) the number of youth who met IAP eligibility criteria and were randomly assigned to the IAP or control groups, (2) the number and percentage of youth who received early terminations and who therefore were not included in the outcome sample, and (3) the number of youth in the final outcome sample. Although not explicitly shown in the table, the original sample included a total of 515 youth across all three sites. Of these, 80 (15.5 percent) were early terminations.⁵ The remaining 435 youth are those who were included in the implementation and outcome evaluation.

Sample	Colorado		Nevada		Virginia	
	IAP	Control	IAP	Control	IAP	Control
Original randomization	82	68	120	127	74	44
Early terminations	15	17	20	7	11	10
Percent attrition	18%	25%	17%	6%	15%	23%
Final outcome sample	67	51	100	120	63	34
Total by site	118		220		97	

Equivalence of the Outcome Samples

The attrition that occurred after random assignment raises the possibility that the preexisting characteristics of the youth in the IAP and control groups might not be equivalent, in spite of the randomization process. To examine the question of post-attrition equivalence, NCCD compared the final IAP and control samples on a range of youth and family characteristics. These characteristics were recorded shortly after each youth had been randomly assigned and were captured on an NCCD social history form.⁶ This site-specific analysis showed no significant ($p < .05$) difference between the IAP and control groups in any site in terms of age, ethnicity, or juvenile justice history (including the nature of the commitment offense, age at first adjudication, number of prior referrals, or number of prior incarcerations). Also, no significant differences were found between the groups in any of the sites on a range of risk-related need variables. These measures included associating with negative peers, dropping out of school, being abused and/or neglected, and experiencing family member problems such as substance abuse or incarceration.

⁵The primary reasons for attrition and early termination in Colorado were (1) expiration of sentence at the time of institutional release (28 percent of early terminations), (2) institutional transfers due to program needs (19 percent), (3) out-of-state transfers (16 percent), and (4) other reasons (25 percent). In Nevada, the primary reasons for early terminations were (1) out-of state transfers for parole supervision (33 percent), (2) transfers to other facilities during the institutional phase due to behavioral problems (22 percent), (3) the imposition of adult sentences upon release (11 percent), and (4) institutional transfers due to program needs (7 percent). Virginia's attrition primarily was accounted for by (1) institutional transfers due to program needs (29 percent), (2) the imposition of adult sentences (14 percent), (3) juveniles who had not yet been released by 12/1/00 and who therefore could not be included in the outcome evaluation (14 percent), and (4) other reasons (14 percent).

⁶The social history form was administered to all IAP and control youth within 30 days of admission to the institution.

Differences, however, were found regarding a few characteristics. In Colorado, the control group had a significantly ($p < .05$) higher percentage of youth with major substance abuse problems than did IAP youth, suggesting that control youth had a slightly higher risk profile. In Nevada, IAP youth were significantly more likely than controls to have major substance abuse and school discipline problems, indicating a somewhat higher level of risk for the IAP youth. No differences were found between the IAP and control outcome samples in Virginia.

Answering the Research Questions

Implementation Measures

The primary goal of the process evaluation was to document and assess the extent to which the sites implemented the programs as intended. For example, there was a need to know whether the programs selected high-risk youth for program participation, whether staff carried the small caseloads believed to be necessary to actually deliver intensive supervision, whether and to what extent the sites implemented the case management components of the IAP model, and, more generally, whether and to what extent IAP youth received interventions that were substantially different from those other youth received.

Both quantitative and qualitative methods were used to gauge implementation. The primary source of quantitative data was the NCCD-developed “Monthly Case Management and Service Delivery” form. Assigned case managers completed this form for all IAP and control youth on a monthly basis. It was designed to provide program operators and evaluators with a running account of the specific interventions used for experimental and control youth. Staff recorded information on the number of face-to-face and telephone contacts with youth and family; types, frequency, and duration of surveillance and drug testing; incentives and sanctions implemented; and services provided to the youth. The information recorded for services included the nature of the service, the service provider, and the number of hours or days the service was provided. Service delivery was captured for the following areas: education, vocational training, mental health services and counseling, special needs services (e.g., anger management), drug and alcohol education and counseling, life skills, health-related education, victim sensitivity training, and recreation and athletics. In recording service-related information, program staff used a coded list of services and service providers that NCCD developed.

Data on contacts and services were analyzed and reported in several different ways. For services, the IAP evaluators examined the proportion of youth in each group who received each type of service during different phases of the intervention. Evaluators also calculated the mean monthly hours of each type of service that the youth received. Contact information was reported using the mean monthly number of contacts for each type. These data are analyzed according to four different phases of the intervention:

- Institutional phase (all months in the institution except for the 30 days prior to release).
- Institutional transition phase (the 30 days immediately prior to release).⁷

⁷In Colorado, the institutional transition period consisted of the 60 days prior to release.

- Community transition phase (the 30 days immediately following release).
- Aftercare phase (all months on aftercare exclusive of the first 30-day period).

This four-phase approach was used to examine the extent to which contacts and services were more or less intensive during the critical transition months just before and after the institutional release date.

Qualitative methods were also used extensively to gain a richer understanding of how the programs operated, how they changed over time, how obstacles to implementation were dealt with, and the areas in which implementation was relatively strong or weak. Qualitative approaches included reviews of program manuals and other materials, periodic onsite visits (approximately three per site per year), routine telephone contact with site IAP coordinators and program staff, ongoing discussions with the technical assistance providers, and participation in four annual national IAP conferences.

Both the quantitative and qualitative data were used in the evaluation to provide a detailed picture of implementation. This took the form of narrative descriptions of program operations and the identification of strengths and weaknesses in implementation. It also included an analysis and assessment of each site's implementation of 21 different aspects of the IAP model including the various case management components of the model (e.g., transition structures and processes, early parole planning, institutional visits by the parole officer, use of rewards and sanctions) and the extent and nature of treatment services provided to IAP youth. This analysis resulted in a ranking of the overall level of implementation achieved by each site (see page 46).

Recidivism

The primary question addressed in the outcome evaluation was whether and to what extent the IAP program reduced delinquent/criminal activity among program participants. This question is of paramount importance because recidivism reduction is the central purpose of the IAP model and constitutes the core goal of its implementation in all three sites.

To assess the program's impact on subsequent offending, evaluators compared the recidivism rates of IAP youth with those of control youth during a standardized 12-month followup period (beginning at release to parole). A consensus has emerged among researchers that there is no one best measure of recidivism. Instead, the use of multiple outcome indicators is preferred. Consequently, NCCD used the following recidivism measures:

- Number and proportion of youth positively and negatively terminated from parole.
- Number and proportion of youth rearrested for new offenses, including felony offenses, criminal offenses (i.e., felony or misdemeanor), and traffic and status offenses.
- Number and percentage of youth charged with technical violations while on parole.
- Number and percentage of youth adjudicated delinquent as juveniles or convicted as adults for subsequent arrests or violations.

- Number and proportion of youth reincarcerated.
- Mean arrests for the various types of offenses and violations.
- Most serious subsequent offense.
- A composite measure that combines into one score the number and seriousness of subsequent offenses.
- Time to first arrest for various types of offenses.

All youth were tracked for recidivism not only in the juvenile system but also in the adult system. Data on time at risk during the 1-year followup were also collected to control for any time spent in local detention or jail facilities or in state training schools or prisons.

The presentation of the basic recidivism findings is followed by a series of analyses that attempt to provide further insight into the nature of recidivism in the IAP and control groups (see page 64). These analyses examine potential differences in outcomes by controlling for (1) early versus later implementation periods, (2) selected offender characteristics that typically are related to risk of reoffending (e.g., age at first adjudication, number of prior referrals), and (3) intensity of services received while in the institutional and aftercare phases of the programs.

The sources of data for the outcome measures listed above varied slightly from site to site but included state police records, state agency records, and court records. A standardized outcome data collection form was used in all sites. For each youth, information was gathered on the arrest dates, the nature of the offense(s) charged, whether the offense resulted in a petition and adjudication/conviction, and, if so, the nature of the juvenile court disposition or adult sentence. Data on the nature of program terminations were available from a program termination form, which assigned parole officers completed for all IAP and control group cases. Data used to calculate time at risk were obtained from an examination of local detention and jail records, parole agency and court data on subsequent commitments to training schools, and adult court data on subsequent prison incarceration.

Unlike the implementation data, recidivism data (except program termination information) were collected directly by NCCD staff. These staff in some cases included employees of the parole agency in each site who worked part-time for NCCD. Other data collectors included NCCD contract employees hired and trained specifically for the outcome data collection effort and the principal investigators for the project.

Each youth's data collection form was accompanied by copies of source documents including police rap sheets and court hearing/disposition information. This allowed the principal investigators to doublecheck all information submitted by site-based data collectors. In fact, one of the principal investigators double coded (and in some cases triple coded) every youth's outcome data form. In instances where outcome information was conflicting or unclear, the problems would be referred back to the agency staff who provided and/or controlled the source information.

Intermediate Outcomes

A second important question for the outcome evaluation was whether and to what extent the IAP intervention affected those areas of youth functioning that repeatedly have been identified through research as recidivism risk factors (e.g., school and family functioning, substance abuse). Because of their empirical relationship to recidivism, these are some of the key areas targeted for intervention in the IAP model. Measuring program impact in these areas is important for two reasons. First, the extent of change in one or more of these dimensions may help to explain any observed differences in recidivism between IAP and control groups. That is, if IAP is successful in reducing recidivism, it may be attributed to the program's successful intervention in the areas of substance abuse, peers, and/or family functioning. Thought of this way, the evaluation in effect assessed program impact on intermediate outcomes. Second, however, because these areas are targets of IAP intervention, it is important to treat them as alternative outcomes of interest (i.e., alternatives to recidivism). That is, it would be worthwhile discovering that the IAP effected significant reductions in substance abuse (for example) even if it did not effect significant reductions in recidivism.

NCCD planned to measure change, on a pre-post basis, among youth in the IAP and control groups in the extent and frequency of substance abuse and family and social functioning. A set of standardized tests were to be administered at the time of admission to the institution and once parole ended. This set of tests, or tools, consisted of:

- A **substance use interview** that captured information on the primary problem drug of youth, age at first use, and frequency of use for a variety of drugs ranging from alcohol and marijuana to amphetamines, cocaine, and heroin. The pretest asked all of the above questions and also asked about frequency of use for each drug in the 3 months prior to commitment. The posttest repeated the questions about types of drugs used and the frequency of their use in the 3 months prior to parole release. This instrument has been adapted from a tool used by Wanberg and his associates in Colorado. It is designed to measure changes in the extent and frequency of substance abuse among IAP and control groups.
- A **youth self-report**, which measures emotional and behavioral adjustment based on self-reporting. It contains eight subscales including withdrawn, somatic symptoms; anxiety/depression; social problems; thought problems; attention problems; and delinquency and aggressive behavior. This validated tool was to be administered at admission, institutional release, and release from parole. It is designed to measure changes in the areas of social functioning, self-reported delinquency, and aggressive behavior (Achenbach, 1991).
- The **Family Environmental Scale**, which measures youth's perceptions of family along three broad dimensions: relationships, personal growth, and (family) system maintenance. It incorporates 10 subscales that measure cohesion, expression, and conflict (for relationships); independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis (for personal growth); and organization and control (for family system maintenance). This validated instrument is designed to assess changes in family functioning (Moos and Moos, 1994).

The measures of pre-post change in these areas of functioning could not be included in the evaluation due to the low completion rate for the posttesting and extensive missing data among the completed forms. For the pretests, the completion rates exceeded 90 percent in all sites, perhaps because they were administered while youth were in the institution. For the posttests, however, data were missing for approximately 30–80 percent of the cases, depending on the site and the standardized test. For example, on the followup substance abuse assessment in Colorado, no data were available for about one-third of the IAP and almost one-half of the control cases. In Nevada, data were missing for two-thirds of the IAP and three-fourths of the control cases. The corresponding figures for Virginia were 69 percent and 100 percent, respectively. Similarly dismal figures applied to the Family Environmental Scale and the youth self-report.

Several factors are believed to have played a role in the loss of these data. First, in each site, some youth simply could not be found because they had gone AWOL from parole supervision. Second, the IAP evaluators believe that the staff responsible for administering the tests, were reluctant to administer the standardized testing to those youth who were incarcerated on new charges at the time they were discharged from parole. This reluctance could derive from the time required to travel to the institution and administer the test and/or the seeming irrelevance of the test for someone who has just been reincarcerated. Third, even the youth who were asked to complete the testing appear to have been extremely reluctant to answer all but the most nonincriminating questions. For example, response rates on the substance abuse followup questionnaire were much higher for questions about alcohol and marijuana usage than they were for questions about cocaine and other hard drugs.

Regardless of the reasons for the low response rate, the potential bias resulting from the large number of cases with missing data effectively precluded the use of this set of standardized testing in the evaluation.

To estimate the impact of IAP on intermediate outcomes, a set of alternative measures was developed from available data. These alternative measures focused on substance abuse during aftercare and the extent to which youth were reintegrated within traditional social institutions such as school and employment while on aftercare. The substance abuse measures included the proportion of youth who had positive drug screens while on aftercare (determined from an item on the Monthly Case Management Report) and the incidence and prevalence of arrests for drug offenses during the 1-year recidivism tracking period. The reintegration measures focused on the proportion of youth who were involved for at least 2 months in vocational training, education, and/or employment while on aftercare. This information was gathered from the service involvement data on the Monthly Case Management Report. No alternative measures could be developed for family functioning (such as those that would have been included in the Family Environment Scale), or for self-reported delinquency or aggressiveness (such as those that would have been included in the youth self-report).

Although NCCD was able to develop alternative outcome measures for some areas of youth functioning, the absence of the standardized pre-post testing was a significant shortcoming of the IAP evaluation. It significantly restricted the ability to assess the extent to which IAP affected key areas targeted for intervention and to understand the relationship between success and failure in these areas and recidivism. On the other hand, IAP's impact on recidivism remained a central

focus of the evaluation, and the recidivism measures themselves were not negatively affected by the absence of pre-post testing.

Sample Size, Statistical Power, and Significance Testing

Data analysis focused on comparing the IAP and control groups—using frequency distributions or means as appropriate—for each of the outcome measures noted above. Significance testing was conducted using chi-square and t-tests. All testing of means used two-tailed tests under the assumption that IAP outcomes may have been better or worse than control outcomes.

Like much of the research conducted on the effectiveness of interventions in juvenile and criminal justice, this evaluation used relatively small samples—particularly in Colorado and Virginia. One of the problems with samples of this size is that they require fairly substantial differences between the experimental and control groups for a finding to reach a level that is considered statistically significant. Small-size samples may result in what is referred to as a Type II error—concluding that there is “no difference” when one in fact exists. That is, there may be real differences between the groups that do not attain the prescribed level of significance because the samples are small. These same differences in larger samples might attain significance and lead to a conclusion that the intervention did make a difference.

An example drawn from the study findings illustrates this point. As will be shown subsequently, 53 percent of the control group and 43 percent of the IAP youth in Virginia were arrested for a felony offense during the 12-month followup period (see page 57). This difference was not statistically significant. In order for there to be a statistically significant difference between the groups on this outcome measure (at the .05 level), IAP youth would have to have a recidivism rate that was 31 percent or lower (i.e., a difference of 22 percentage points between groups). Even a fairly substantial 20-percentage point difference between the groups would be considered not significant and would lead to a “no difference” conclusion.

To increase the likelihood of finding meaningful, significant differences between IAP and control groups, significance testing is reported at the .10 level in addition to the more traditional .05 level. (For ease of presentation and discussion, significance results at the .01 level are not noted separately.) Although it is not conventional to report significance at the .10 level, NCCD decided that this relaxed threshold would be important in light of the relatively small sample sizes in Colorado and Virginia. Ultimately, the IAP evaluators agree with Lipsey (1990:39) when he comments that:

In (such) applied research the implications of error of inference may be quite different from those in basic research. To “discover” that an applied treatment is effective when, in fact, it is not, does indeed mislead practitioners just as the analogous case misleads theoreticians. Practitioners, however, are often in situations where they must act as effectively as they can irrespective of the state of their formal knowledge, and it is not unusual for them to use treatments and techniques of plausible but unproven efficacy. Moreover, demonstrably effective treatments for many practical problems are not easy to come by and candidates should not be too easily dismissed. Accepting a relatively high probability of

Type I error in applied treatment effectiveness research amounts to giving a treatment the benefit of the doubt about whether statistically modest effects represent treatment efficacy or merely sampling error.

The evaluators found that the use of the .10 significance criterion had a modest effect on the between-group differences that would be required to attain significance. Returning to the outcome finding described above, IAP youth in Virginia would have to have a felony recidivism rate of 35 percent or lower (versus 53 percent for controls; an 18-percentage point difference) to attain significance at the .10 level. In Colorado, a 15-percentage point difference between the groups would be needed, and in Nevada, where the samples are much larger, a 10-percentage point difference would be needed to attain significance at the .10 level. Clearly, the use of the .10 criterion helps to modestly reduce (but does not eliminate) the possibility of rejecting as nonsignificant what may be real and meaningful differences in outcomes.

In summary, the sample sizes used in the evaluation are likely to detect (i.e., report as statistically significant) moderate or large differences in group outcomes. However, they are unlikely to detect smaller, but potentially important differences between the groups (e.g., a 10-percentage point difference), especially in Colorado and Virginia. This applies to results that might be favorable to IAP (i.e., those suggesting that the IAP youth did better than the control youth) and to results that might not (i.e., those suggesting that IAP youth did worse than the controls). It is also important to remember that the differences observed between the groups may have no practical or substantive significance, regardless of whether they are statistically significant. For example, a finding of a 3- or 4-percentage point difference between IAP and control youth on a given outcome measure would probably be considered a “no-difference” finding in practical terms, irrespective of sample size and statistical power concerns.

Chapter 3. Implementation

This chapter focuses on the nature and extent of Intensive Aftercare Program (IAP) implementation in the three sites. The assessment of the degree of program implementation is critical to understanding and interpreting outcome findings. While successful implementation of an experimental program does not guarantee a positive impact on outcomes, weak or partial implementation clearly diminishes the likelihood that program goals will be attained. As noted earlier, the literature on intensive supervision programs and reintegration-oriented strategies is replete with examples of poorly or partially implemented programs that failed to reduce recidivism (Fagan, 1990; Greenwood, Deschenes, and Adams, 1993; Sealock, Gottfredson, and Gallagher, 1997).

This chapter is organized into three primary sections. It begins with a brief description of the context of IAP implementation, the number and characteristics of the youth involved in the projects, and cross-site overview of implementation. The second section provides a description of the key features of the programs in each site. The emphasis is on the ways in which the sites operationalized the IAP's key components and the extent to which each site provided an intervention that met model requirements and distinguished IAP services from those provided to the control groups. The final section, a summary assessment, includes an overall implementation rating for each site and a series of tables that provide an evaluative overview of the implementation of the various model components in each site.

Overview

Background

The state juvenile corrections agencies in Colorado, Nevada, and Virginia had similar motivations and goals in adopting the IAP model. In the mid 1990s, each of the sites was confronted with increasing juvenile crime rates, sharp increases in commitments, and the attendant problem of severely crowded state correctional facilities. The sites also knew that recidivism rates among their parole populations were high and that aftercare-related issues had traditionally been given scant attention. These circumstances were thrown into particularly sharp relief as a result of increasing public and legislative concerns over the handling of serious, violent, and chronic juvenile offenders. In this context, IAP's introduction was particularly timely. The model carried considerable conceptual appeal for agency administrators and staff and gave each of the states an opportunity to address pressing issues with financial assistance from OJJDP and technical assistance from the designers of the model.

Each of the IAP sites underwent a 6- to 18-month planning period before implementation. During this time, Altschuler and Armstrong provided interagency planning teams and agency staff with intensive training on the model's rationale and components and technical assistance on design and implementation issues. Each of the sites used the national model as a framework for planning their IAP application; however, they had the flexibility to operationalize the various components of the model in a way that best fit local circumstances and therefore maximized the possibility of successful implementation. This resulted in the development of three programs that

all adhered to the basic tenets of the IAP but looked quite different from each other in terms of design and operations. All the sites, however, had common and clearly articulated goals for the project: to reduce recidivism and recommitments among the aftercare population.

Client Eligibility and Intake

The basic eligibility criteria for the IAP demonstration were the same across sites:

- Male.
- Committed to the custody of the state juvenile corrections agency.
- From a selected county/counties.⁸
- Placed at a specified juvenile correctional facility.⁹
- At high risk of reoffending based on the results of a site-specific risk assessment instrument.¹⁰

Each site also selected a limited set of offenses (e.g., sex offenses) or conditions (e.g., severe mental health problems) that served as exclusionary criteria. Those youth who met all of the above eligibility criteria were placed into the IAP pool and randomly assigned by the National Council on Crime and Delinquency (NCCD) to either the IAP or control group.

The number of youth enrolled in the demonstration project was lower than expected. After approximately 3 years of intake, only Nevada had enrolled at least 100 youth in each experimental group. Colorado had enrolled 150 youth, Nevada 247, and Virginia 118 by the time intake ceased.

Each site also experienced attrition in the original randomized sample. As discussed previously, experimental and control youth were removed from the study during the institutional phase if they were transferred to a different facility as a result of having severe mental health, substance abuse, or behavioral problems. Terminations also occurred if youth “maxed out” their sentences while in the institution (primarily in Colorado) or if parole supervision was going to be provided by another jurisdiction (e.g., out-of-state transfers).¹¹ As a result of this attrition, the final samples for the implementation and outcomes studies consisted of 118 youth in Colorado (67

⁸In Colorado, eligible youth were drawn from four counties in the Denver metropolitan area: Denver, Arapaho, Douglas, and Jefferson. All Nevada youth were from Clark County (Las Vegas), and all Virginia youth were from the City of Norfolk.

⁹To be eligible for the program, youth in each site had to be assigned to a specific facility. The designated IAP facilities were the Lookout Mountain Youth Center (Colorado), the Caliente Youth Center (Nevada), and the Beaumont and Hanover Juvenile Correctional Centers (Virginia).

¹⁰The risk tools used in each site were empirically based scales that the sites developed with outside technical assistance. They were developed using a cohort of juveniles released to parole in the early 1990s and outcome measures that included new arrests or revocations within a 1-year period after release. The youth identified as high risk on each of the scales had recidivism rates of 60–70 percent, depending on the site.

¹¹The purpose of the termination policy of each site was to exclude from the experiment those youth who would not receive complete IAP services in the institution and at least some exposure to IAP aftercare. To avoid bias, the same termination criteria were applied to control youth.

IAP, 51 control), 220 juveniles in Nevada (100 IAP, 120 control), and 97 participants in Virginia (63 IAP, 34 controls).

Youth Characteristics

Only high-risk offenders were selected to ensure that the intensive services available through the IAP model were targeted to those most likely to commit future offenses, thereby increasing the programs' potential to reduce crime. The sites were extremely successful in identifying and selecting a high-risk population. Participating youth not only had sufficiently serious or chronic offense histories to get committed to a state institution in the first place but also represented the very highest risk youth from among this “deep-end” population. Based on the risk tools used to identify eligible youth, approximately 60–70 percent of these high-risk juveniles in each site could be expected—given traditional intervention practices—to be arrested for a new offense within 1 year of their release. Table 3.1 below provides more detailed information on the characteristics of the samples in each site.

Table 3.1: Characteristics of the IAP and Control Groups			
Youth Characteristic	Colorado (n=118)	Nevada (n=220)	Virginia (n=97)
Ethnicity			
African American	26%	34%	75%
Caucasian/Anglo	33	33	12
Hispanic/Latino	36	19	2
Other/unknown	5	15	10
Commitment offense			
Violent/person	38%	16%	12%
Property	42	36	38
Other	21	37	21
Probation/parole violation	0	12	29
Juvenile justice history			
Age at first adjudication: 13 or younger	49%	66%	39%
Five or more prior referrals	— ^a	96	75
One or more prior commitments	37	81	55
Youth and family problems			
Most friends delinquent	58%	66%	59%
Dropped out/not attending school	36	36	27
Major school behavior problems	21	21*	39
Major drug/alcohol problem	57**	41*	26
Major mental health problem	28	11	16
Victim of abuse/neglect	49	49	18
Family member, drug/alcohol problem	49	40	47
Family member incarcerated	79	40	48
*IAP youth significantly more likely ($p < .05$) to have this problem.			
**Control youth significantly more likely ($p < .05$) to have this problem.			
^a Data missing for 50 percent of the Colorado sample on this variable.			

The data show that large percentages of the high-risk youth in each site had early and/or extensive involvement in the juvenile justice system. For example, between 39 percent (Virginia) and 66 percent (Nevada) of the youth had their first delinquent adjudication before age 14, and three-fourths of the Virginia youth and almost all the Nevada youth had five or more prior referrals to court. Perhaps most striking is the proportion of youth in each site (37–81 percent) for whom the current commitment was at least their second experience in a juvenile correctional facility. The data also indicate that these youth not only were high risk but that they also exhibited extensive personal problems (e.g., negative peers, school dropout, drugs) and family problems (e.g., family substance abuse and criminality) that present significant barriers to successful reintegration.

Implementation Overview

The IAP experiment ran for almost 5 years in each site (fall 1995 through summer 2000). The first 2 years of implementation are best characterized as a developmental period for each of the sites as they undertook the incremental process of translating program design into daily operational reality. Each of the sites was quite successful in implementing certain key aspects of the program during this time, but each also struggled with other programmatic features. By late 1997, the IAP programs in each site had largely stabilized and they continued on this track through the end of the project.

Although each of the sites had weak spots in their implementation, they all operated IAP programs that successfully incorporated most of the core features of the national model. For example, in each site:

- High-risk, program-eligible youth were identified through the use of a site-specific, empirically based risk assessment instrument.
- Staff who handled only IAP cases in small caseloads (i.e., 15–20 youth) provided institutional and aftercare case management. The IAP model prescribed small caseloads to ensure that staff had sufficient time and energy to provide intensive supervision, deal with the complex problems facing the youth, create necessary linkages with community service providers, coordinate efforts with institutional staff, and deal with youth while they were in the institution and in the community.
- Community-based case managers/parole officers routinely visited the IAP youth who were in the institution (at least once per month). This transition-related mechanism is designed to facilitate (1) coordination of planning and service delivery between community and institutional staff, (2) ongoing parole planning, (3) development of strong relationships with the youth, and (4) maintenance of youth-community connections during the institutional period.
- The IAP model requires a high level of cooperation between institutional and parole staff to ensure coordination and continuity in case planning and case management across the various phases of the intervention. While Nevada experienced some problems in this area, Colorado and Virginia achieved this goal. For many staff in the latter two sites, in fact, the

extraordinary level of communication and cooperation that developed was considered to be one of the most significant operational accomplishments of the project.

- The model emphasizes the need for early and ongoing planning for aftercare to ensure that the transition from the institution to the community is executed as smoothly as possible. In each site, planning for aftercare began shortly after the youth's institutional placement and was finalized at least 30 days before release. As a result, community interventions and services began shortly after many of the youth got home.
- A major requirement of the model is to develop formal structures and processes to facilitate the transition from institution to aftercare. Each site's implementation was strong in this regard. Highly formalized transition processes included (1) the use of 30–60-day transitional facilities in Virginia, (2) a pre-parole furlough period with day treatment and intensive monitoring in Nevada, and (3) a range of activities in Colorado that included prerelease supervised visits, furloughs in the community, and service delivery by community treatment providers that began during the institutional phase and continued during aftercare.
- In the community, parole officers worked jointly with staff referred to as parole aides, field agents, or “trackers” who typically provided monitoring/surveillance functions and some direct services. This team approach allowed greater flexibility in scheduling and helped to ensure that supervision would be provided in the evenings and on weekends.
- To expand the range of services that would normally be available to the highly problematic IAP population, each of the sites developed a set of special services that included structured life skills curriculums, anger management training, peer group counseling, and family counseling.
- The model specifies that aftercare services should represent a balanced mix of control measures (i.e., supervision and surveillance) and treatment interventions to address identified needs. Each of the sites was able to access a fairly wide range of services, was successful in getting a large percentage of youth engaged in those services, and at the same time provided high levels of social control.
- Graduated reward and sanction systems were developed to continuously reinforce positive behavior and to provide sanctions for negative behavior that were proportionate to the infraction. These systems were used in the institutional and aftercare phases.
- In each site, the monthly number of face-to-face contacts between IAP youth and parole officers was at least twice that which occurred in the control group. In addition, the parents of IAP youth had monthly face-to-face contacts with their child's parole officer about twice as often as control parents. This greater frequency of face-to-face contacts in the IAP groups was true for both the institutional and aftercare phases.

Although these key features of the IAP model were generally well-implemented in the sites, each program had other areas in which implementation was not as strong. In Nevada, for example, efforts to provide enhanced transitional services specific to IAP youth were significantly

hampered by frequent and/or extended vacancies in the position that was supposed to deliver the services. In Virginia, institutional programming in general was of low intensity, and IAP-specific programming in one of the institutions was limited by a lack of administrative support for the program.

The successful implementation of the various IAP case management practices did not automatically result in the delivery of more, or more intensive, services to IAP youth. For the institutional phase in Virginia, there was no difference between the IAP and control groups in the percentage of youth who received various services or in the intensity of services for those who did receive them. Moreover, in Colorado there were few differences between the IAP and control groups on these service delivery measures during both the institutional and aftercare phases. The problem in Colorado was not that the IAP was not well implemented or that youth did not receive a lot of services. However, while the experimental program was being conducted, state officials were simultaneously enhancing the nature and number of services that were being provided to all youth involved in the system, including the control group. Only in Nevada were there consistent differences favoring IAP in the proportion of youth receiving services and the intensity of service delivery in the institutional and aftercare phases.

The strength of implementation varied by site. Regardless of what was happening with the control group, Colorado delivered a version of IAP that had an extraordinary degree of fidelity with the prescriptions and intent of the national model. The level of implementation in Virginia was strong in most areas of the model but was negatively affected by the previously mentioned problems in service delivery during the institutional phase. Nevada's level of implementation also was generally strong, particularly in light of that site's previous approach to parole supervision, which relied almost exclusively on monitoring and control. However, as was the case in Virginia, some problem areas in Nevada detracted from the overall level of implementation.

Site Summaries

Colorado

Colorado's IAP was operated by the Division of Youth Corrections (DYC) and served committed high-risk youth from the Denver metropolitan area (Denver, Arapaho, Douglas, and Jefferson Counties) who were assigned to DYC's Lookout Mountain Youth Services Center in Golden, CO. Lookout Mountain can hold 152 youth and consists of six cottages. One of these, Cedar Cottage, was the designated IAP housing unit. For IAP youth, the institutional length of stay averaged 10.3 months (versus 12.6 for control youth), and the time spent on aftercare averaged 8.4 months (versus 8.7 months for control youth).

IAP staff consisted of a project director, three full-time client managers, and a part-time researcher. In Colorado's DYC, client managers have primary responsibility for offender case management during the institutional stay and during aftercare. By design and in practice, each IAP client manager was responsible for a maximum of 18 youth (both in the institution and on the street). In contrast, all other client managers carried caseloads of approximately 35 youth. Although the client managers had primary responsibility for each case, one of Colorado's accomplishments was the development of a formal team approach to case management. The

team consisted of IAP client managers, Cedar Cottage staff, community-based service providers, and parents. It was characterized by constant interaction and communication around assessment, planning, service delivery, and monitoring issues for each youth. The team approach not only resulted in more coordinated interventions for youth but also helped overcome the long-standing “us versus them” mentality between institutional and community-based staff. Further, it provided a source of mutual support for staff, which proved critical given the difficult nature of the IAP population.

IAP implementation in Colorado was impressive. The project enjoyed strong administrative support and had a very well-trained and committed staff. It developed a highly coordinated team approach to case planning and service delivery and offered a comprehensive transition model. Central to the transition process was the delivery of services by a network of community-based providers who began working with the youth in the institution and continued those services during aftercare. The IAP provider network and its partnership with the public agency was one of the core elements of the project. Colorado also benefited from a strong IAP management team that consisted of top-level administrators from the institution, field offices, and the central office. The management team provided ongoing support, guidance, and monitoring for program operations. The IAP also was highly successful in engaging parents in planning and services. Finally, Colorado implemented comprehensive systems of rewards and graduated sanctions in both the institutional and aftercare phases.

In spite of an otherwise highly successful implementation, however, the Colorado IAP was unable to deliver a level of treatment services that was significantly different from the one the control group received. The lack of service differentiation was not a failure to implement the model. Rather, it resulted from a series of factors that led to dramatically enhanced services provided to all youth in the institutions and on aftercare. These developments helped blur the distinction between IAP and control groups in terms of the extent and intensity of treatment services provided.

Transition-related activities

Colorado had a range of activities that focused on reintegration and transition issues. The initial caseplan for an IAP youth—which was completed within 30 days of the youth’s placement at Cedar Cottage—focused on institutional treatment but also anticipated the kind of programming the youth would require during transition and on release to aftercare. A more detailed transition plan was subsequently developed during the 2 months before the youth’s release from the institution. The key people involved in service delivery (i.e., the management team) were parties to the development of the caseplan and the transition plan. Including various team members helped ensure that multiple perspectives and a long range view were incorporated in the planning process.

During the 60 days prior to the anticipated release date and continuing for 60 days into community placement, the client manager met with the youth and treatment providers on a weekly basis. These meetings included a review of the program expectations, the youth’s transition goals, and an update of weekly transition activities. This was one of several mechanisms that served to bridge the institutional and aftercare phases through ongoing planning and review of progress.

This careful attention to transition planning had a positive, yet unanticipated consequence. Officials with responsibility for release decisionmaking were generally impressed with the quality of transition and aftercare plans and, as a result, granted IAP youth their release far earlier than they did control youth. The average institutional length of stay for the IAP group was significantly less than the control group’s length of stay (10.3 months versus 12.6 months).

One of the key transition mechanisms in the Colorado IAP was continuity in service delivery. Community-based providers began weekly services (including multifamily counseling and life skills) during the institutional phase and continued those services in the community during aftercare. The extent of Colorado’s provider involvement across the institutional/aftercare boundary was unique in the IAP sites and clearly represents Altschuler and Armstrong’s notion of “backing services up into the institution” to maximize the transition process.

Sixty days before release, when intensified parole planning began, IAP youth started a series of stepdown measures that included supervised trips to the community and overnight or weekend home passes. Once paroled, most program youth went through 1–2 months of day treatment programming that, in conjunction with services, provided a high level of structure during the day. In addition, trackers monitored the youth during evening and weekend hours. Finally, the supervision by case managers was structured in a way that allowed for decreasing frequency of contact over time, as a youth’s progress warranted.

Table 3.2 shows the number of face-to-face contacts per month that case managers had with youth and their parents during each of four program phases. In order to sharpen the focus on transition-related activities, the analysis separates the 60-day institutional period immediately before release (institutional transition phase) from the rest of the institutional stay and also treats the first 30 days of aftercare (community transition phase) separately from the rest of the aftercare period. The data show that in each phase, IAP case managers had face-to-face contacts with IAP youth and their parents approximately twice as frequently as did case managers for the control group. Also note the sharp increase in youth and parent contacts during the transition months immediately before and after institutional release. During all four phases, the frequency of contacts for the IAP youth and parents was significantly higher than that for the control group.

Face-to-Face Contacts	Institutional Phase		Institutional Transition		Community Transition		Aftercare Phase	
	IAP (n=66)	Control (n=50)	IAP (n=66)	Control (n=50)	IAP (n=67)	Control (n=50)	IAP (n=66)	Control (n=50)
Youth and case manager	2.3*	1.1	4.1*	2.0	5.7*	2.7	3.1*	1.7
Parent and case manager	0.5*	0.2	2.4*	1.3	2.9*	1.7	1.3*	0.8

*Between-group differences significant at $p < .05$.

^aThe institutional phase includes all time in the institution, except the last 60 days before release. The institutional transition phase is the 60 days of the institutional period immediately before release. Community transition is the first 30 days after institutional release. Aftercare includes all time on aftercare exclusive of the first 30 days.

Services during the institutional phase

Generally, the institution-based intervention resources in Colorado were varied and rich. The fundamental approach to treatment in Cedar Cottage, as in other cottages, was the establishment of a normative culture model. This was accomplished through daily groups during which behavior was examined, confronted if need be, and discussed by group members and staff.

In addition to this core normative culture model and the traditional institutional services provided (e.g., education, individual and group counseling), IAP youth received a number of other cottage-based services including:

- Core education training for substance abuse issues.
- A reflections group that addressed “readiness to change” issues.
- A victim awareness group.
- A violent offenders group.
- A multifamily counseling group, run jointly by the community providers and Cedar staff.
- Periodic specialized groups run by the client managers.
- Additional individual counseling provided by community providers and interns with master’s degrees in social work.
- A vocational skills workshop run by one of the community day treatment providers.
- An anger management group.
- A survival skills class.
- Experiential learning activities and a ropes course.

In spite of the range of resources available to IAP youth, evaluation data showed only a few differences in the extent or intensity of services received by IAP and controls. As shown in table 3.3, similar percentages of IAP and control youth were involved in almost all of the service areas during the regular institutional period, and few differences existed between the groups in the intensity of those services. During the 60 days before release (the institutional transition period), there were several service areas in which a significantly higher percentage of IAP than control youth were involved, but they received more intensive services in just two areas.

Table 3.3: Prevalence and Intensity of Institutional Services in Colorado				
Institutional Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) per Month of Service	
	IAP (n=66)	Control (n=50)	IAP	Control
Education	100	100	16 days	17 days
Specialized education services	30	30	2 hours	2 hour
Vocational training	88	78	3 hours	3 hours
Mental health/counseling	100	100	21 hours*	24 hours
Drug/alcohol	59	58	2 hours	2 hours
Life skills	36*	58	1 hour	1 hours
Special needs	83	78	3 hours	3 hours
Institutional Transition Services				
Service Type	IAP (n=66)	Control (n=51)	IAP	Control
Education	92*	72	16 days*	11 days
Specialized education services	27*	8	4 hours	0 hours
Vocational training	74*	43	5 hours	6 hours
Mental health/counseling	97*	84	21 hours*	17 hours
Drug/alcohol	45	47	2 hours	2 hours
Life skills	27	33	1 hour	1 hour
Special needs	59	57	2 hours	4 hours

*Between-group differences significant at $p < .05$.

These results, especially for the institutional phase, reflect developments in Colorado that began shortly after the initiation of the IAP project and continued throughout the experiment. Institutional administrators began making a concentrated effort to enhance programming for all youth and undertook several new initiatives. Ironically, several of these initiatives were inspired by the programming that IAP had pioneered, and several services that originally had been specific to the experimental group soon became part of the routine treatment package for all youth at Lookout Mountain. The upshot was that while IAP youth received a high level of service in the institution, so too did the control group. Colorado is a classic example of a changing programmatic environment confounding the results of an experiment. Although institutional administrators were aware of the potential these changes had for the evaluation, they took the position that treatment needs of the youth, rather than evaluation requirements, should drive programming.

Aftercare supervision

As in all the sites, Colorado's IAP aftercare component was designed to offer IAP youth high levels of supervision to reduce their risk of reoffending and provide them with access to a wide range of community resources to address their varied needs. IAP provided extensive supervision in the early stages of aftercare by virtue of youth's participation in day treatment programs. Contracted trackers who monitored youth's whereabouts in the community provided weekend and evening coverage.

Mandated contacts between the IAP client manager and the youth provided an additional dimension of supervision. Although frequency of contact varied somewhat by youth, they typically were to be seen once per week during the first 2 or 3 months following release to parole (less so, if in day treatment). Depending on the youth's adjustment, this frequency of contact could be reduced to as little as once per month in the later stages of parole. The implementation data (see table 3.2) show that IAP youth were seen face to face by the client managers an average of almost 6 times during the first month after release to the community. During the rest of aftercare, IAP youth averaged a little more than three face-to-face contacts per month. This frequency of contact (during both time periods) was significantly higher than that received by control group youth. IAP youth were also significantly more likely (54 percent versus 16 percent) to undergo other forms of social control such as curfew checks, drug testing, and other surveillance-related activities (data not shown in tabular form).

Aftercare services

The creation of the service providers' network helped ensure that IAP youth had access to a wide array of services. The network included both residential providers (12–15 different organizations) and nonresidential providers (an additional 12–15 organizations). The network had the ability to provide services ranging from in-patient substance abuse treatment and group home placement to day treatment, family counseling, and tracking/mentoring. Most newly released IAP youth were required to attend one of the day treatment programs. The day treatment providers emphasized basic education and provided math, language arts, social studies, and science classes. Equal emphasis was placed on knowledge building and skills development in areas of immediate practical importance to IAP youth. Each afternoon, group discussions focused on issues such as domestic violence, parenting and family issues, anger management, and drug/alcohol education and treatment.

In spite of the range of services available to IAP youth, the implementation data for the community (see table 3.4) show that for only a few services, IAP youth were more likely to be involved, or receive more intensive services, than control youth.

Table 3.4: Prevalence and Intensity of Aftercare Services in Colorado				
Community Transition Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) per Month of Service	
	IAP (n=63)	Control (n=40)	IAP	Control
Education	37	25	6 days	4 days
Specialized education services	10	8	1 hour	1 hour
Vocational training	40*	20	2 hours*	1 hour
Mental health/counseling	60*	42	12 hours	9 hours
Drug/alcohol	43	35	3 hours	3 hours
Life skills	33	35	3 hours	5 hours
Special needs	16	20	1 hour	1 hour
Aftercare Services				
Service Type	IAP (n=62)	Control (n=37)	IAP	Control
Education	53	46	4 days	4 days
Specialized education services	35**	14	1 hour	0 hours
Vocational training	65	54	4 hours**	1 hour
Mental health/counseling	74	59	9 hours	6 hours
Drug/alcohol	69*	51	2 hours	3 hours
Life skills	52	54	3 hours	4 hours
Special needs	32	32	1 hour	1 hour
*Between-group differences significant at $p < .10$.				
**Between-group differences significant at $p < .05$.				

The slight differentiation between IAP and control youth with respect to aftercare services was a result of the same type of developments that affected the data on institutional services (table 3.4). When IAP began, control clients were served in caseloads almost double the size of the IAP caseloads (35 versus 18). This meant that the IAP project should have had a distinct advantage in terms of its ability to provide intensive supervision and to get youth engaged in more—and more intensive—services. In fact, that is what happened during the first 2 years of the project. As a result of a lawsuit settlement in 1997, however, DYC was provided with substantial funding that allowed the agency to hire a large number of new case managers. Subsequently, the caseloads of all non-IAP client managers were reduced to a level that was from a practical perspective indistinguishable from the IAP caseload size (25 cases). Moreover, the agency at that same time benefited from an infusion of funding that allowed them to significantly enhance programming efforts on behalf of all DYC parolees. As a result, during the last 3 years of the experiment, there were few reasons to expect that the extent or intensity of service delivery for IAP youth would be dramatically different from control youth.

Nevada

The Nevada IAP program was operated by the Clark County office of the Nevada Youth Parole Bureau. It served high-risk committed youth from Clark County (primarily Las Vegas). The youth involved in the IAP experiment in Nevada were an extremely high-risk population. Two-thirds of the youth had 11 or more prior referrals, 80 percent had previously been committed, and more than half (55 percent) were gang members.

IAP participants were assigned to the Caliente Youth Center, a 140-bed, staff-secure facility located 150 miles northeast of Las Vegas. Each IAP youth was housed in a 20-bed, IAP-specific cottage. The vast majority of control cases were placed at Nevada's other juvenile correctional facility (176 beds) at Elko. For reasons that are tied to traditional differences between the two facilities (as opposed to any impact of the IAP), institutional length of stay for IAP youth was significantly less than for the control group (6.7 months versus 7.7 months). Length of stay on aftercare was nearly identical for the two groups: IAP youth averaged 7 months, while control youth averaged 6.9 months.

The IAP staff consisted of seven people:

- A unit manager who was responsible for overall management and coordination of the program.
- Two intensive case managers, each of whom had primary supervision and case management responsibility for a maximum of 15 youth on the street and another 8–10 youth in the institution. (Traditional parole officers handled caseloads of at least 35.)
- Two field agents who worked as part of a team with the intensive case managers and who provided evening and weekend supervision and some direct services.
- An institutional-community liaison—a parole officer assigned to the IAP cottage at Caliente—who coordinated interaction and communication among the institution, the parole unit, and the community.
- A school liaison—a Clark County school district employee housed at the parole bureau—who managed school reintegration activities.

Although not technically a team member, the supervisor of the IAP cottage at Caliente was also a critical component of the IAP staff during the first 2½ years of the project.

Nevada's implementation was strong in most areas. As in the other IAP sites, a strength of the program was the design of its transition structure. It included a 30–60 day prerelease period of intensified preparation for community reentry, services that were initiated during prerelease and continued into aftercare, and a 30-day furlough period of conditional release during which youth received intensive supervision and services. The IAP also developed a strong relationship between community and institutional staff that had not previously been attempted or accomplished. Formal systems for graduated sanctions and rewards were routinely used in the institution and in the community. Finally, Nevada's delivery of treatment services to IAP youth

was strong. During both the institutional and aftercare phases, participants were significantly more likely than controls to be involved in services and to receive a stronger dosage of those services. This accomplishment was particularly impressive in light of Nevada's traditional emphasis on a control/surveillance model for parole and the program's limited access to specialized services in the community.

However, some important shortcomings existed in Nevada. The IAP institutional-community liaison was a parole officer position that was based at the institution that handled IAP youth (Caliente Youth Center). The liaison position experienced considerable turnover (four different people in 5 years) and extended vacancies (totaling a little more than 12 months). Because the primary purposes of that position were to facilitate coordination between the institution and the community and to deliver prerelease transition services to IAP youth, the turnover hampered the IAP coordination and transition strategies. In addition, until the last year of the project, Nevada was unable to implement its planned community provider network because of bureaucratic obstacles to finalizing provider contracts. This problem limited the program's access to more individualized and specialized services for IAP youth. Another implementation shortcoming occurred with respect to family involvement, including a failure to maintain routine contact with parents during the institutional phase and to engage them in planning and service delivery. Finally, Nevada never created a formal IAP management team, which may have hampered the project's ability to resolve key issues such as the liaison vacancies and the service provider contract problems.

Transition-related activities

Historically in Nevada, planning for parole began when a youth was about to be released from a facility. Moreover, these plans largely consisted of a determination of where youth would live after release and the specification of parole rules. Those practices changed significantly under IAP. First, all IAP youth had a community treatment plan that the parole officer developed approximately 30–60 days before release. In developing the plans, staff used input from the institutional-community liaison, institutional staff, parents, and the youth. Second, the IAP case plans were based on a much more in-depth assessment of youth needs, which provided a foundation for more individualized and treatment-oriented aftercare strategies. The ability to develop earlier and more treatment-oriented parole plans was partially a function of the increased knowledge about youth that the parole officers derived from their institutional visits. In keeping with the IAP model, parole staff made the 5-hour round trip to Caliente once per month.¹²

During the 30–60-day period before their release to the community, IAP youth were to be involved in several specialized programs designed to provide a smoother transition to parole. Two major programs initiated at this time were specialized curriculums dealing with substance

¹²This was not the case during the first 2 years of the project, when visits were much more sporadic. As a result, the average monthly number of face-to-face institutional contacts over the entire life of the project was 0.5 (i.e., every other month). Beginning in late 1997, however, the monthly visits became routine. The parole officers appear to have consistently focused on making the institutional visits during the month prior to release, since the number of face-to-face contacts for that phase averaged 1.5 per youth. In contrast, parole officers in charge of control group youth did not see their cases at all during most of the institutional period (0 contacts) and averaged 0.5 face-to-face contacts during the institutional transition period. See table 3.5.

abuse (Rational Recovery) and life skills (Jettstream).¹³ The latter targeted issues such as impulse control and communication. By design, the first half of these curriculums was to be delivered in the institution just before release and the second half in the initial months of aftercare. In practice, these services were delivered sporadically in the institutional phase due to the frequent turnover and extended vacancies in the institutional-community liaison position. Ultimately, the project shifted tactics and delivered the entire specialized curriculums during aftercare, primarily because community staff were never certain of the extent to which the coursework had actually been covered in the institution.

A central feature of the transition process was the community-based furlough period. During the first 30 days after release, IAP youth were still on an institutional placement status and could be administratively returned to the facility at any time. To ensure that community staff would be able to return youth to Caliente, the IAP cottage kept one or two beds available in reserve. During furlough, youth received treatment services from a day treatment provider (Center for Independent Living) and parole staff; the Jettstream and Rational Recovery programs were covered, and a series of other classes and programs were initiated. Youth were also closely supervised, including a minimum of two contacts per week, weekly urinalysis, and evening and weekend monitoring/supervision by the field agents.

Table 3.5 shows the frequency of face-to-face contacts between parole officers and the youth and their parents during four phases of supervision. In all but the institutional transition phase, the frequency of contacts was significantly higher for IAP youth. In the month immediately following release from the institution and during the rest of aftercare, the parents of IAP youth also had a significantly higher number of face-to-face contacts with the parole officers. The data also illustrate that the IAP officers paid increased attention to youth (although not necessarily to their parents) during the model’s critical transition periods.

Table 3.5: Average Number of Face-to-Face Contacts in Nevada, by Program Phase^a

Face-to-Face Contacts	Institutional Phase		Institutional Transition		Community Transition		Aftercare Phase	
	IAP (n=99)	Control (n=99)	IAP (n=100)	Control (n=99)	IAP (n=99)	Control (n=117)	IAP (n=94)	Control (n=111)
Youth and parole officer	0.5*	0	1.5	1.0	7.4*	3.0	4.6*	1.9
Parent and parole officer	0	0	0.4	0.7	2.5*	1.8	1.5*	0.8

*Between-group differences significant at $p < .05$.
^aThe institutional phase includes all time in the institution, except for the last 30 days before release. The institutional transition phase is the 30 days of the institutional period immediately before release. Community transition is the first 30 days after institutional release. Aftercare includes all time on aftercare exclusive of the first 30 days.

¹³Yet another transition program was referred to as the “Money Program,” which was designed to teach responsible money management. Youth were provided with a mock checking account from which “bills” had to be paid for rent, food, insurance, and other necessities. Youth could also use the account to purchase recreation opportunities and other privileges but had to have a balance of \$50 at the end of the month to purchase their bus ticket home to Las Vegas.

Institutional services

Caliente offered a moderate range of institutional programming, which included quite sophisticated vocational training programs. For most of their institutional stay, IAP youth received the same services as other youth in the facility (e.g., education, vocational training, counseling). The entire facility utilizes the Positive Peer Culture approach, which includes a 1.5-hour group meeting, 5 days per week. Reality therapy, anger control, parenting skills, and rational thought processes are emphasized. IAP-specific programming included increased individual counseling, the transition programming that occurred during the prerelease period, and the IAP cottage's reward and sanctions system. The implementation data on institutional and institutional transition services show a fairly consistent pattern: IAP youth had very high participation rates in most of the services, they were significantly more likely than control youth to be involved in several of the service areas, and they received much more intensive services in most areas (table 3.6).

Institutional Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) Per Month of Service	
	IAP (n=97)	Control (n=99)	IAP	Control
Education	100	100	15 days	16 days
Specialized education services	2	15*	0 hours	0 hours
Vocational training	84*	60	15 hours*	6 hours
Mental health/counseling	100	98	41 hours*	16 hours
Drug/alcohol	100*	83	4 hours*	6 hours
Life skills	100*	35	47 hours*	2 hours
Special needs	90*	78	1 hour*	2 hours
Institutional Transition Services				
Service Type	IAP (n=97)	Control (n=99)	IAP	Control
Education	94*	77	17 days*	13 days
Specialized education services	2	6	0 hours	0 hours
Vocational training	68*	30	21 hours*	5 hours
Mental health/counseling	96*	72	47 hours*	12 hours
Drug/alcohol	85*	48	6 hours*	3 hours
Life skills	92*	17	60 hours*	1 hour
Special needs	72*	45	2 hours*	1 hour

*Between-group differences significant at $p < .05$.

Aftercare supervision

On successfully completing furlough, youth were formally released to parole supervision. Parole was divided into three phases with decreasing levels of control lasting 90 days, 60–90 days, and 30–60 days, respectively. Supervision was significantly more intensive for IAP youth than it was for controls. As shown previously, the IAP parole staff had an average of 7.3 face-to-face contacts with each youth during the community transition period (versus 3.0 for controls) and 4.5 face-to-face contacts per youth each month during the rest of aftercare (versus 1.8 for controls). During both community phases, the parole officer contacted IAP parents about twice as frequently as the control parents.

During the first 2 years of the project, surveillance in the community was accomplished through routine and unscheduled visits by field agents, who worked an extended-hours format into the evening and on weekends. For the last 3 years, however, little surveillance/monitoring activity took place during the week. These activities stopped primarily because the youth were involved with the day treatment provider into the evening hours. Other available control measures included drug testing administered by field agents (for youth with documented drug histories), electronic monitoring, and house arrest. IAP youth were significantly more likely than controls to receive extended coverage and supervision (51 percent versus 0 percent), electronic monitoring (5 percent versus 0 percent) and urinalysis, house arrest, curfew checks, and other forms of control (17 percent versus 9 percent; data not shown in tabular form).

Aftercare services

The Nevada IAP provided a wide range of services during the parole phase. During the program's first 2 years of operations, the IAP relied heavily on a direct service delivery model for many of its core services. These included Jettstream and Rational Recovery classes, Positive Peer Culture groups, job skills, educational and recreational programming, and victim awareness training. In an effort to broaden its use of community resources, however, IAP transferred the responsibility for most of this programming to a private provider in 1998. The provider, the Center for Independent Living, offered day treatment services that were unique to IAP youth (although it served other parolees in a separate program). All IAP youth were involved in day treatment for an 18-week period following their release from the institution. After shifting to a community provider for its core services, Nevada's IAP limited its direct services to tutoring, arranging for community service (16 hours was a condition of IAP parole), and recruiting volunteers to provide life skills training in selected areas (e.g., sexually transmitted diseases).

The amount of structure the day treatment afforded was limited in that the services were provided for just 2 days per week (later expanded to 3), and lasted from 3–7 p.m. An additional shortcoming of the Nevada aftercare phase was that it was not until the last year of the project that it offered individualized services for specific needs (e.g., family counseling, substance abuse treatment) due to extended difficulties in arranging contracts with community providers.

Regardless of the service delivery model used or the limitations in availability of services, the extent of involvement in community treatment services among IAP youth was quite different from that of the control youth (table 3.7). During the community transition and aftercare phases, IAP youth were significantly more likely than control youth to be involved in virtually all types of services. IAP youth also received significantly more intensive services in several areas.

Table 3.7: Prevalence and Intensity of Aftercare Services in Nevada				
Community Transition Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) per Month of Service	
	IAP (n=96)	Control (n=106)	IAP	Control
Education	64*	35	5 days	4 days
Specialized education services	15*	4	1 hour	0 hours
Vocational training	29	29	1 hour	1 hour
Mental health/counseling	70*	6	5 hours*	1 hour
Drug/alcohol	55*	6	6 hours*	0 hours
Life skills	56*	3	7 hours*	1 hour
Special needs	45*	2	1 hour*	0 hours
Aftercare Services				
Service Type	IAP (n=87)	Control (n=104)	IAP	Control
Education	82*	55	5 days	5 days
Specialized education services	37*	19	1 hour	1 hour
Vocational training	57	54	1 hour	1 hour
Mental health/counseling	83*	12	3 hours*	0 hours
Drug/alcohol	75*	14	4 hours*	0 hours
Life skills	75*	3	3 hours*	0 hours
Special needs	59*	1	0 hours	0 hours

*Between-group differences significant at $p < .05$.

Virginia

Virginia’s intensive aftercare model was referred to as the Intensive Parole Program (IPP). It served high-risk youth from the City of Norfolk who were committed to the Virginia Department of Juvenile Justice and placed at one of two central Virginia facilities—the Beaumont and Hanover Juvenile Correctional Centers. Eight staff members from the Department of Juvenile Justice were responsible for the IPP youth:

- Two IAP grant-funded institutional IPP case managers, one at Beaumont and one at Hanover, each of whom handled only IPP cases (maximum of 15 each).
- An IPP case manager at the Reception and Diagnostic Center (a separate facility) who had responsibility for all IPP youth while they were in the reception center.

- Three IPP parole officers, all in Norfolk, each of whom handled only IPP cases (with a maximum of 15 each, including youth on the street and in the institutions).
- A grant-funded IPP parole aide, located in Norfolk, who worked only with IPP cases.
- A supervisor in Norfolk who was responsible for all four IPP parole staff (in addition to other POs).

Throughout most of the project, approximately 15–20 IPP youth were in the institutions at any given time and an additional 12–15 IPP youth were in the community. On average, IPP youth remained in the institutional phase for a little more than 8 months, approximately 1 month less than the average length of stay for control youth (8.2 versus 9.2 months). The average length of stay on aftercare was 5.8 months for IPP youth (versus 7.5 months for controls).

Virginia's implementation was strong in most aspects of the IAP model. This was especially true with respect to the transition-related components of the model. These included early parole planning, monthly institutional visits by the parole officers, the use of group homes as transitional facilities, immediate linking of paroled youth with service providers, and the use of a four-phase parole supervision system. In addition, institutional and aftercare staff created a team approach that provided high levels of communication, coordination, and continuity in case planning and service delivery. Virginia also created strong linkages with community agencies that in turn resulted in IPP youth having significantly greater involvement in services than control youth during aftercare. IPP placed a heavy emphasis on family involvement, maintained frequent contact with parents throughout all program phases, and focused on getting parents involved with needed services. Finally, the project had highly dedicated staff and enjoyed strong support from parole administrators in the central office and the community.

The major weakness in implementation occurred with respect to IPP services during the institutional phase at one of the facilities. Beaumont housed most IPP participants. Throughout the life of the project, facility administrators provided little project support due to continuing instability and disruption in the larger institutional environment. A series of problems confronted facility administrators during the course of the project including (1) severe institutional overcrowding, (2) a massive construction program, (3) implementation of a new correctional model (the military-style LEADER program), and (4) a major crisis over discipline and contraband that threatened the facility's certification during the last 2 years of the IPP effort.

The primary effect of these problems on IPP was to significantly hamper the delivery of IPP-specific services, including attempts to house all IPP youth in a single unit, deliver a life skills curriculum, and fully implement a rewards and sanctions system.¹⁴ Moreover, the Beaumont IPP institutional case manager's position became vacant and remained vacant for almost the entire second year of implementation.

¹⁴For example, the institutional case managers had great difficulty just getting access to a room where group counseling could be provided. During the last 2 years of the project, the concerns over contraband led to a prohibition against bringing almost anything into the facility from outside. This negatively affected the ability to provide several tangible and simple rewards that had been used previously such as meals from fast food restaurants, pizzas, and birthday cakes. More generally, the all-consuming focus of administrators on much larger issues left the Beaumont IPP staff feeling as though they were operating entirely on their own, with no administrative support.

Transition-related activities

Several complementary activities facilitated a reintegration focus and an emphasis on transition in Virginia. First, the parole planning process began early (within 2 weeks of commitment), was continuous (with constant communication about a youth’s progress among institutional staff, community staff, and parents), involved an extraordinary number of people connected to the case (probation officer, parole officer, reception facility staff, institutional case manager, and representatives of an interagency community assessment team in Norfolk), and was finalized 30–60 days prior to the youth’s release from the facility.

Second, the IPP developed mechanisms to ensure high levels of communication and coordination among all those involved in IPP cases, thereby facilitating overarching case management. In addition to ongoing telephone communication between the case managers and parole officers while the youth was at the institution, IPP parole officers made monthly visits to see the youth and case managers at the institution. The parole staff also contacted parents twice per month while youth were institutionalized, and the institutional case managers traveled to Norfolk periodically to meet with the parents of youth on their caseloads. From the perspective of IPP managers and staff, the improved coordination and communication in planning and service delivery were IPP’s major accomplishments.

Virginia’s focus on transition is reflected in the data on frequency of face-to-face contacts between the parole officer and the youth during the four program phases (table 3.8). Whereas the parole officers saw each youth about once per month during the institutional phase, this level of contact doubled during the month before release and then escalated dramatically in the first month of aftercare. A similar progression is evident for contacts between the parole officer and the youth’s parents.

Face-to-Face Contacts	Institutional Phase		Institutional Transition		Community Transition		Aftercare Phase	
	IPP (n=62)	Control (n=29)	IPP (n=62)	Control (n=29)	IPP (n=61)	Control (n=23)	IPP (n=60)	Control (n=22)
Youth and parole officer	1.1*	0.7	2.4*	0.8	14.8*	3.1	10.0*	2.6
Parent and parole officer	1.7*	1.1	2.4*	1.2	5.9*	2.1	4.6*	1.6

*Between-group differences significant at $p < .05$.
^aThe institutional phase includes all time in the institution, except the last 60 days before release. The institutional transition phase is the 60 days of the institutional period immediately before release. Community transition is the first 30 days after institutional release. Aftercare includes all time on aftercare exclusive of the first 30 days.

Virginia's use of group home placements as a bridge between the institution and the community was unique among the three IAP sites and was considered the heart of the transition process. Virtually all youth entered one of two Norfolk group homes for a 30–60-day period immediately upon release from Beaumont or Hanover.¹⁵ Involvement in community programs and services started shortly after placement at the group home.

The general focus on transition in Virginia, and more specifically the use of the transitional facilities, appears to have had an impact on institutional length of stay. Although the difference was not statistically significant, the average length of stay for IPP youth was a month less than for the control group (8.2 months versus 9.2 months).

Some of the transition practices that took place in the other IAP sites were not implemented in Virginia. For example, state policies prohibited the use of furloughs or passes prior to institutional release. Regulations also severely limited contracting with community providers for services for institutionalized youth. IPP staff were able to develop a comprehensive life skills curriculum designed to be initiated in the institution and continued on aftercare; for a variety of reasons, however, it was never consistently delivered in both settings.

Services during the institutional phase

Generally, services to IPP youth in the institutional phase were weak. Evaluation data (table 3.9) indicate that a high percentage of IPP youth received the various institutional services, but the extent of participation was no different from that found for the control youth. Moreover, although some differences existed between the groups in terms of intensity of services during this phase, those differences did not always favor the IPP group, and the actual levels of service were low for both groups of youth. During the institutional transition phase, IPP youth were more likely than controls to be involved—and receive more intensive services—in education, counseling, and life skills. Once again, however, the levels of service received by both groups were quite low in most categories.

¹⁵ During the last 2 years of the project, bed space in these two Norfolk-based facilities became extremely limited, and some youth were placed in group homes in other parts of the state. Youth sent to these facilities sometimes stayed for up to 6 months.

Table 3.9: Prevalence and Intensity of Institutional Services in Virginia				
Institutional Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) per Month of Service	
	IPP (n=62)	Control (n=28)	IPP	Control
Education	97	93	15 days*	12 days
Specialized education services	56	64	0 hours*	2 hours
Vocational training	52	46	2 hours*	5 hours
Mental health/counseling	98	100	5 hours*	2 hours
Drug/alcohol	71	75	1 hour	0 hours
Life skills	82	79	1 hour	1 hour
Special needs	69	82	1 hour	1 hour
Institutional Transition Services				
Service Type	IPP (n=62)	Control (n=28)	IPP	Control
Education	86*	64	16 days*	11 days
Specialized education services	2	7	0 hours	0 hours
Vocational training	34	29	3 hours	5 hours
Mental health/counseling	84**	68	6 hours*	3 hours
Drug/alcohol	23	14	1 hour	1 hour
Life skills	56*	29	1 hour*	0 hour
Special needs	39	36	2 hour	1 hour
*Between-group differences significant at $p < .05$.				
**Between-group differences significant at $p < .10$.				

Aftercare supervision

Virginia used multiple mechanisms to provide a high level of social control during aftercare, including the transitional group home placements, high frequency of contact between parole officers and youth, evening and weekend supervision, and a variety of surveillance activities. Like Nevada, Virginia used a formal phase system to gradually step down the intensity of parole supervision. In the 2 months following exit from the group home, standards required staff to contact youth 5–7 times per week. This was reduced to 3–5 times per week during the next 2 months and reduced again to 3 times per week during the final 30 days of parole.

IPP’s high expectations were largely met in practice (table 3.8, page 41). During the community transition phase, each IPP youth had an average of 15 face-to-face contacts with his parole officer. During the rest of aftercare, the average number of face-to-face contacts was 10 per month. In both the community transition and aftercare phases, IPP youth received more intense supervision than the control youth.

Supervision activities included evening and weekend coverage. The three parole officers each worked 1 or 2 nights per week until 7 p.m., and the parole aide worked each night until 8 p.m. Both types of staff frequently worked on weekends, typically participating in recreational/cultural activities and/or monitoring youth through telephone contacts.

Supervision was also enhanced by the use of various special control measures including curfews, pagers (for youth to inform staff of their location at a time determined by the parole officer), random evening and weekend phone calls, random urinalysis, and electronic monitoring. These control measures were used for almost all youth in the initial stages of parole supervision and on an as-needed basis during the later phases. The control-oriented practices clearly distinguished IPP parole from standard parole: IPP youth were significantly more likely to receive evening and weekend supervision (73 percent versus 9 percent), electronic monitoring (16 percent versus 3 percent), and drug testing, paging, and curfew checks (54 percent versus 3 percent).

Aftercare services

IPP balanced the use of these extensive controls with an equal emphasis on providing services to meet the needs of IPP youth and their families. The project accessed a wide range of resources, including direct and brokered services—routinely using approximately 15 different public and private community-based organizations for service delivery. The basic approach was to provide a set of core services for all youth (e.g., individual and group counseling, education, vocational training, employment), supplemented by specific services designed to meet the needs of individual youth and families. Some of the aftercare services were unique to IPP and were provided primarily by IPP staff. These included weekly youth groups that focused on life skills and substance abuse education and (intermittently offered) parent groups that ran in 10-week cycles and focused on life skills.

Although the evaluation data showed few differences in the extent or intensity of services delivery during the institutional phase, the picture is somewhat different with respect to services for IPP youth in the community. As shown in table 3.10, IPP youth were significantly more likely than control youth to receive educational, vocational training, counseling, and life skills services during the community transition phase. During aftercare, IPP youth were again more likely to be involved in education, counseling, and life skills. During both phases, however, few services were provided more intensively to IPP than to control youth.

Table 3.10: Prevalence and Intensity of Aftercare Services in Virginia				
Community Transition Services				
Service Type	Youth Who Ever Received Service (%)		Mean Hours (Days) per Month of Service	
	IPP (n=61)	Control (n=20)	IPP	Control
Education	46*	15	4 days*	1 day
Specialized education services	43	30	6 hours	6 hours
Vocational training	33**	10	9 hours*	2 hours
Mental health/counseling	95*	40	26 hours*	7 hours
Drug/alcohol	51	30	4 hours	3 hours
Life skills	64*	25	6 hours	3 hours
Special needs	3	5	0 hours	0 hours
Aftercare Services				
Service Type	IPP (n=59)	Control (n=20)	IPP	Control
Education	71*	40	5 days**	2 days
Specialized education services	51	40	4 hours	3 hours
Vocational training	57	53	4 hours	2 hours
Mental health/counseling	100*	53	13 hours	8 hours
Drug/alcohol	64	47	3 hours	0 hours
Life skills	71*	37	4 hours	3 hours
Special needs	10	5	0 hours	0 hours
*Between-group differences significant at $p < .05$.				
**Between-group differences significant at $p < .10$.				

Summary Assessment: Implementation

This section presents a summary qualitative assessment and overall rating of each site's IAP implementation. It also reviews and rates the sites' implementation for each of 21 discrete design components of the IAP model. The design components at issue here are those that Altschuler and Armstrong (1994, 1996) have stressed as critical to the model, those to which the sites paid particular attention during the course of implementation, and those that NCCD has focused on in describing IAP implementation throughout this chapter. It has further been suggested (Altschuler, Armstrong, and MacKenzie, 1999) that the critical design features noted here provide a framework for assessing other juvenile intervention strategies that focus on reintegration and transition from secure confinement.

Three ratings were used to rank both the overall level of implementation and the individual design components—weak, moderate, and strong. A fourth category, very strong, was used to characterize design components only. Descriptions of these categories follow:

- **Weak.** The component was not implemented or program practices rarely approached the level of functioning that the national or local model specified or intended. For the overall program ranking, “weak implementation” means that although strong implementation may have existed in some areas, this was outweighed by program shortcomings to the extent that the intended functioning of the IAP model was significantly diluted and implementation can be considered only partial.
- **Moderate.** Program practices in relation to components generally reflected the model and met expectations, but some aspects of the component (or some incidents during implementation) demonstrated significant shortcomings. The level of implementation was hindered by uneven practices that varied by staff member, by phase (i.e., institution versus community), over the life of the project, and/or by specific subelements of the practice. A “moderate” rating means that the areas of weaknesses were substantial enough to have a negative impact on the overall quality of implementation for the component. For the overall ranking, “moderate implementation” means that generally the model was well-implemented and that program strengths far outweighed the weaknesses. However, areas of weakness were significant enough that implementation cannot be characterized as strong.
- **Strong.** The degree of implementation typically reflected the model and met expectations. “Typically” means that almost everyone was doing what they were supposed to be doing, doing it reasonably well, and doing it most of the time. Although there may have been one or two elements of weakness, their impact was not sufficient to offset the overall quality of implementation for this component. For the overall program ranking, “strong implementation” means that for almost all program components, a high and consistent level of congruence existed between design and practice. While areas of weakness were found, these did not subtract significantly from the overall level of implementation.
- **Very strong.** The extent and quality of component implementation were consistently high and represented an unusually strong aspect of the program. This rating was not used to characterize the overall level of program implementation.

Overall Implementation

In assessing each site on the overall level of implementation, it was necessary to take into account the ratings given the individual design components (see tables 3.11–3.15), the relative importance of the various components to the overall functioning of the model,¹⁶ and the extent to which identified weaknesses were or were not offset by program strengths. Essentially, the

¹⁶Some of the individual components that were assessed did not carry as much influence in the overall rankings as others. For example, while the use of a risk assessment tool to identify high-risk offenders is a must for IAP client selection processes, its application can be a routine function once the tool has been developed. In contrast, trying to ensure continuity of service delivery is a much more complicated and demanding process to initiate and maintain. Generally, NCCD gave less weight to the organizational/administrative components and greater weight to the transitional, service, and supervision components.

overall rankings reflect what NCCD believes to be the “big picture” with respect to implementation. In other words, all things considered, how well did the site achieve fidelity between practice and program intent and design?

Colorado

Overall Rating: Strong Implementation

The ratings shown in tables 3.1 through 3.5 make it clear that Colorado’s implementation was strong in virtually all areas. The site received “very strong” rankings in 7 of the 21 areas assessed. These included administrative commitment, quality of staff, parole planning, involvement of the family/community during the institutional phase, continuity of service delivery, access to a wide range of institutional services, and the balance of supervision and services on aftercare. All the remaining components received “strong” rankings, with two exceptions. These exceptions (differential provision of services in the institution and during aftercare) were classified as “weak” due to the project’s inability—in spite of major efforts—to engage youth in more services, and in more intensive services, than was the case for the control group. Although these weaknesses are critical from an evaluation perspective, they can hardly be treated as a shortcoming of program implementation. The IAP’s “weakness” in this area was simply that Colorado increased the level of services that was provided to control group youth.

Nevada

Overall Rating: Moderate Implementation

The most striking aspect of IAP implementation in Nevada was the extent and intensity of treatment service delivery during the institutional and aftercare phases. The level of service provided is even more impressive in the context of the dramatic shift from Nevada’s traditional control and surveillance-oriented parole strategy to the treatment-oriented strategy engendered by the IAP. Nevada was assessed as “very strong” for providing far more services to IAP youth than to control youth in both phases and for its blend of treatment and control. This site also received strong rankings in nine other areas, including the structured transition, the intensity of community supervision, and the use of graduated rewards/sanctions. However, there were several areas where implementation of some of the key components was not as strong as it may have been (e.g., parole planning, maintaining community links in the institutional phase, continuity of service delivery). Particularly problematic was the instability in the institutional liaison position. Implementation was also hindered by the project’s inability to develop a network of community providers that could have offered more individualized services to program youth. Finally, the Nevada IAP had little success in involving families. In spite of its considerable accomplishments, there were enough of these shortcomings that Nevada’s overall level of implementation must be considered moderate.

Virginia

Overall Rating: Moderate Implementation

The implementation of Virginia’s IPP was rated as “very strong” on two components (frequency of contact on aftercare and balance of supervision and services on aftercare) and “strong” on 12 other components. Most of the strong assessments occurred in key areas such as parole planning, structured transition processes, access to a wide range of services in the community, family involvement, and all the components in the aftercare supervision category. Overall, IPP staff had a very clear focus on the reintegration and transition issues that the model emphasized. Virginia

was also rated as “mixed” in five areas and “weak” in one. Almost all of these lower ratings were tied to the lack of administrative support for IPP at the Beaumont facility (and to a lesser degree, the vacancy in the institutional case manager’s position) and the impact that had during the institutional phase of the program. Continuity in service delivery, access to a wide range of institutional services, differential provision of services in the institution, and the use of graduated rewards/sanctions were all negatively affected. Rather than resulting from shortcomings of the IPP itself, these areas of weakness were largely attributable to a constantly unstable institutional environment that required almost all the attention of institutional administrators and left IPP institutional staff without the support they needed to fully execute the program. In spite of the rather strong implementation of IPP in most areas, particularly on the community side, the difficulties encountered at Beaumont affected the nature and extent of institutional services to the extent that overall implementation cannot be classified as “strong.”

Key IAP Component Implementation

NCCD rated the extent of implementation of design components by taking into account the degree to which each site’s practice reflected the intent and requirements of the national and local IAP models. Primary considerations were whether the site in fact did what it said it was going to do, how closely practices matched what the site promised to deliver, and how consistently (both across staff and over time) the component was delivered as intended.

The following series of matrices (tables 3.11–3.15) organize the design components into five groups: organizational components, transition structure and processes, treatment services, aftercare supervision, and other key program elements. The matrices show the various design components in the lefthand column and, in the next three columns, how each site’s implementation was rated for each component. The rating for each site’s component implementation is accompanied by a brief narrative that provides a rationale for the rating.

Table 3.11: Implementation Summary: Organizational Components			
Design Component	Colorado	Nevada	Virginia
Management: Model indicates need for strong administrative commitment to support IAP.	Implementation: Very strong	Implementation: Moderate	Implementation: Moderate
	Strong commitment by central office and regional and institutional administrators. Almost no turnover among key administrators over course of project.	Strong commitment by agency administrators, but ineffective execution by one of them hurt project. Mixed support by a series of institutional administrators.	Strong support by community and central office parole administrators. Weak/no support at one institution, with major implications for IAP programming there.
Management: Use of IAP management team to guide and oversee policy and practice.	Implementation: Strong	Implementation: Weak	Implementation: Strong
	Regular team meetings. Team included administrators from central office, institution, and community.	Never formed an IAP management team.	Regular team meetings. Team included administrators and line staff from central office, institutions, and community. Limited participation by institutional administrators created some weakness.
Staffing: Model requires small, IAP-specific caseloads.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Throughout project, case manager caseloads remained at or below design ratio of 1:18, including youth in the institution and on the street. Caseloads included only IAP youth.	Throughout project, parole officer caseloads remained at or below design ratio of 1:15 (on the street). Caseloads included only IAP youth.	Throughout project, institutional case manager caseloads at or below design ratio of 1:15, parole officer caseloads at or below 1:15 (in and out). Caseloads included only IAP youth.
Staffing: Model indicates need for flexible, creative, and committed staff.	Implementation: Very strong	Implementation: Moderate	Implementation: Strong
	Very dynamic, well-trained, and committed staff in institution and community. Low turnover, no extended vacancies.	Parole staff had trouble buying into concept early on but ultimately shifted focus from traditional control orientation to services orientation. Turnover among parole officers and field agents created some instability. Extensive turnover and vacancies in liaison position.	Early difficulties among parole staff in adopting flexible, creative supervision style. But these staff were very strong for most of project. No turnover among parole officers. Very strong institutional staff, but extended vacancy in one position a negative.
Client identification: Model requires targeting high-risk youth for IAP participation.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Used site-specific, empirically based risk tool to determine eligibility. Expected recidivism rate of 68 percent for those classified as high risk. Participants also a very high-need group.	Used site-specific, empirically based risk tool to determine eligibility. Expected recidivism rate of 65 percent for those classified as high risk. Participants also a very high-need group.	Used site-specific, empirically based risk tool to determine eligibility. Expected recidivism rate more than 60 percent for those classified as high risk. Participants also a very high-need group.

Design Component	Colorado	Nevada	Virginia
Early parole planning: Model specifies need for early and ongoing planning for aftercare that includes family and community perspectives.	Implementation: Very strong	Implementation: Moderate	Implementation: Strong
	Initial aftercare plan done 30 days after placement. Intensive planning sessions led to finalization at 60 days before release. Case manager, institutional staff, parents, and community providers routinely involved. Ongoing revisions routine as result of constant communication among case manager, institutional staff, and parent. Individual risk/needs factors and relevant services routinely addressed.	Aftercare planning finalized 30 days before release. Parole officer and institutional staff had good communication regarding youth during most of project. Strong focus on individual youth needs. Parents and community providers rarely involved. Turnover and vacancies in institutional liaison position hampered the planning process.	Initial aftercare plan done 30 days after placement; final plan done 30 days before release. Initial planning had input from probation staff, parole officer, parents, and interagency community assessment team. Ongoing revisions routine as result of constant communication among parole officer, institutional case manager, and parents. Individual risk/needs factors and relevant services routinely addressed. Year-long vacancy in institutional case manager position hampered this process.
Maintain child-community links: Model stresses need to maintain community connections by involving outside people/agencies in institutional phase.	Implementation: Very strong	Implementation: Moderate	Implementation: Strong
	Community providers worked with youth in institution throughout stay. Routine visits by case manager to institution. Multiple visits by parents/family during stay. Parents involved in multifamily counseling at institution. Ongoing contact between case manager and parent during institutional phase. Ongoing communication among case manager, parents, and youth regarding institutional progress and home situation.	Parole officers visited institution on monthly basis. (This never happened before IAP and did not happen for controls.) However, few institutional visits by family and no involvement by community agencies. Sporadic contact between parole officer and parent during institutional phase.	Parole officers visited institution monthly and had routine contact with parents. Institutional case managers visited parents in the community. Communication among institutional case manager, parole officer, parents, and youth regarding institutional progress and home situation. Parental visits occurred, but not routine. Community agency not involved in institution due to state prohibitions.
Continuity of service delivery across institutional/aftercare phases: Model stresses the need to continue in aftercare those services provided in the institution and to avoid disjointed, incompatible, or duplicative services.	Implementation: Very strong	Implementation: Moderate	Implementation: Moderate
	Community providers worked with youth while in institution and continued with them upon release to aftercare. Several services began in institution and continued in community. Intensive prerelease parole planning allowed exchange of information about what youth had accomplished and what he still needed at time of release.	Planned delivery of two structured life skills curriculums before institutional release with continuation in initial months of community supervision. Actual delivery very sporadic in institution. Frequent involvement with youth by educational liaison during institutional and aftercare phases facilitated coordination of educational and vocational services.	Frequent contact between parole officer and institutional staff meant community providers were aware of what a youth had/had not done while in institution; service continuity planned accordingly. Planned IAP-specific life skills group for use in institution and community, but it never operationalized.

Table 3.12 (continued)			
Prerelease community visits: Needed to begin reentry process and begin testing youth-community interaction.	Implementation: Strong	Implementation: Weak	Implementation: Not applicable
	Supervised day trips to community beginning 60 days before release.	Planned prefurlough visits never happened.	Not allowed by state policy
Formal, structured transition to community (stepdown): Mechanisms needed as bridge between highly structured institutional living and return home.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Most youth participated in highly structured day treatment programming beginning at release and continuing for 1–2 months. Twenty-five percent of IAP youth went through transitional residence before parole.	All youth had 30-day conditional release to community during which they received intensive supervision and were subject to administrative return to institution for program infractions. Participation in day treatment during this time. Drawback was that day treatment provided only 2–3 days per week during last 2½ years.	Most youth placed for 30–60 days at transitional residence (group home). Some placed for 6 months. Others got day treatment and electronic monitoring for 60 days.
Phased levels of parole supervision: System needed for gradually decreasing intensity of supervision.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Informal system, but concept of decreasing intensity routinely applied: decreasing from 1 time per week contact in early months to 1 time per month later.	Formal, four-phase system: 4 contacts per week during furlough period, down to 3 times per week during next 3 months, then to 1 time per month.	Formal, four-phase system: 5–7 contacts per week during 2 months after release from group home, then 3–5 times per week for next 60 days, then 3 times per week.

Design Component	Colorado	Nevada	Virginia
Access to wide range of institutional services: Needed to meet multiple needs of target population.	Implementation: Very strong	Implementation: Strong	Implementation: Weak
	Wide range of services available to all institutionalized youth. Multiple IAP-specific programs also developed. High participation rates in multiple service areas. IAP-dedicated housing units.	Moderate range of institutional services available, including sophisticated vocational training. Very high participation rates in available services and very high intensity. IAP-specific services available, but some delivered sporadically. IAP-dedicated housing unit.	Limited range of services available. High participation rates during most of stay, but much lower rates in critical month before release. Low intensity of services for IAP youth. Few IAP-specific services, except increased individual counseling. IAP-specific housing for limited time only.
Differential provision of services in institution: IAP goal for IAP youth to receive more and more intensive services.	Implementation: Weak	Implementation: Very strong	Implementation: Weak
	Due to enhanced services to controls, few differences between groups in participation rates or intensity of services for most of institutional phase. During institutional transition, IAP youth more likely to be involved in several service areas, although no differences in intensity of these services.	IAP youth much more likely to receive services, and more intensive services, than controls in several service areas.	No difference between IAP and controls in participation rates or intensity of services during most of institutional stay. Some differences in participation rates favoring IAP during institutional transition.
Access to wide range of community providers for aftercare services: Variety and depth of youth problems require access to wide range of resources outside of parole agency.	Implementation: Strong	Implementation: Moderate	Implementation: Strong
	Use of formal community provider network composed of 25 agencies to provide wide range of services. High participation rates in multiple areas.	Very limited access/use of community resources during first 2 years. Yet IAP provided range of in-house services. Broader but still limited use of community resources last 3 years. High participation rates.	Accessed very wide range of community resources. Created several in-house IAP-specific services. High participation rates.
Differential provision of services in community: IAP goal for IAP youth to receive more and more intensive services.	Implementation: Weak	Implementation: Strong	Implementation: Moderate
	Few differences between IAP and controls in participation rates or intensity of services. Partially a function of enhanced services to control group.	IAP youth more likely than controls to be involved in a range of services and to receive more intensive services in several areas.	IAP youth more likely than controls to be involved in a range of services, but no difference in intensity of services

Design Component	Colorado	Nevada	Virginia
High frequency of contact between youth and parole officer and parent and parole officer.	Implementation: Strong	Implementation: Strong	Implementation: Very strong
	Face-to-face contacts with youth averaged 6 in first month after release and 3 per month thereafter. With parent, 3 in first month and 1 per month thereafter. Did not always meet local model's contact standards, but contact frequency twice as high as controls. Higher frequency not needed in first months of aftercare due to youth involvement in day treatment.	Face-to-face contacts with youth averaged 7 in first month after release and 4.5 per month thereafter. With parent, 2.5 in first month and 1.5 per month thereafter. Did not always meet local model's contact standards, but contact frequency twice as high as controls. Higher frequency not needed in first months of aftercare due to youth involvement in day treatment.	Face-to-face contacts with youth averaged 15 in first month after release and 10.5 per month thereafter. With parent, 6 in first month and 5 per month thereafter. Did not always meet local model's contact standards, but contact frequency more than 3 times as high as controls.
Provision of evening and weekend coverage.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Case managers often worked evenings and some weekends. Trackers routinely provided evening and weekend coverage. IAP youth significantly more likely to receive extended coverage.	Parole aides worked on weekdays (10 a.m.–7 p.m.) and on Saturdays. IAP youth significantly more likely to receive extended coverage.	Case managers scheduled to work evenings 1–2 times per week. Occasional weekend supervision. Parole aide routinely provided evening and weekend coverage. IAP youth significantly more likely to receive extended coverage
Use of control and surveillance mechanisms.	Implementation: Strong	Implementation: Strong	Implementation: Strong
	Control facilitated by frequency of parole officer contacts and structure of day treatment program. Surveillance provided via trackers, evening curfew checks, and drug testing. IAP youth significantly more likely to receive various surveillance activities.	Control enhanced by furlough structure, frequency of contacts, mandatory weekend supervised community service, and day treatment involvement. Evening surveillance provided by field agents in first 2 years but not thereafter. IAP youth still significantly more likely to receive various surveillance activities	Control increased by high frequency of contacts and group home placement for first 1–2 months after release. Surveillance provided by parole aide and parole officers, using curfew checks, pager/call-in system, drug testing and limited electronic monitoring. IAP youth significantly more likely to receive various surveillance activities.
Balance of supervision and services.	Implementation: Very strong	Implementation: Very strong	Implementation: Very strong
	Excellent blend of control and service provision.	Excellent blend of control and service provision.	Excellent blend of control and service provision.

Table 3.15: Implementation Summary: Other Key Program Elements

Design Component	Colorado	Nevada	Virginia
<p>Use of graduated sanctions and incentives: To reinforce positive behavior, provide sanctions for negative behavior that are proportionate to the infraction.</p>	Implementation: Strong	Implementation: Strong	Implementation: Moderate
	<p>Formal, IAP-specific, consistently used system of rewards/sanctions in institution. Informal, highly individualized system in aftercare; constant use of rewards and sanctions.</p>	<p>Formal, IAP-specific system in institution and aftercare. Specification of levels of infraction or accomplishment and associated responses. Extensive and consistent use of creative rewards in community.</p>	<p>Strong IAP-specific reward/sanction system at one institution. Weak/no system at other institution for 2 years. Formal system for aftercare; consistently used. Used rewards that benefited family.</p>
<p>Family involvement: To engage parent with youth’s intervention; provide parental support; improve parenting skills, address family problems.</p>	Implementation: Strong	Implementation: Weak	Implementation: Strong
	<p>Strong communication between parole officer and parents in both phases. High degree of parental involvement in case planning and institutional visits. Use of multifamily counseling groups in institution and aftercare.</p>	<p>Little parental involvement in institution. Parental input into institutional case plan usually limited to initial home visit. Limited contact between parent and parole officer during institutional phase. No parent-specific services. Strong parent-parole officer communication during aftercare.</p>	<p>Strong communication between parole officer and parents in both phases. Limited parent visits to institution. Routine referrals for services for parents’ own needs. Use of family preservation programs. Ran four 8-week IAP parent groups during institutional phase, but never had clear idea of purpose.</p>

Chapter 4. Outcomes

This chapter focuses on the central issue of the outcome evaluation: whether and to what extent IAP served to reduce recidivism among program participants. Reductions in recidivism and recommitments are the clearly articulated primary goal of the Intensive Aftercare Program (IAP) (Altschuler and Armstrong, 1996). As a result, the comparative recidivism rates of the IAP and control groups are the primary criterion on which the assessment of the efficacy of IAP should be based. However, because it is possible that the program had impacts other than those associated with reoffending, the National Council on Crime and Delinquency (NCCD) also examined results in several other areas including institutional behavior and length of stay, issues related to community reintegration, substance abuse, and type of program termination.

Recidivism data are based on officially reported arrests—in both the juvenile and criminal systems—that occurred during the 12-month period following each youth’s release from the institution. The data also incorporate technical parole violations. Recidivism information further includes the convictions and dispositions that resulted from those arrests or violations (even if they occurred after 12 months). All data were gathered from police and/or juvenile court and parole records in each site.¹⁷ Data were also collected on all time spent (pre- and postdispositional) in secure care during the 12-month followup period.

Because researchers are in general agreement that there is no single best measure of recidivism, NCCD reports on several different outcome measures, including the percentage of youth rearrested and convicted for various types of offenses, the mean number of offenses accounted for by each group, the nature of the most serious subsequent offense, time to first rearrest by offense type, the percentage of youth reincarcerated, and a composite measure (weighted recidivism score) of the number and severity of offenses that occurred during the 12-month followup.

The presentation of the basic recidivism findings is followed by a series of analyses that attempt to provide further insight into the nature of recidivism in the IAP and control groups. These analyses examine potential differences in outcomes by controlling for (1) early versus later implementation periods, (2) selected offender characteristics that typically are related to risk of reoffending (e.g., age at first adjudication, number of prior referrals), and (3) intensity of services received while in the institutional and aftercare phases of the programs.

Recidivism

Time at Risk

The use of a standardized 12-month followup period for each youth helps to ensure that the recidivism data reflect an equal amount of at-risk time for each youth in the IAP and control groups. However, there is also a need to account for periods of time during the 12-month followup when the youth were not free to offend because they were being held in a secure

¹⁷ Arrest information in Colorado and Virginia was gathered from statewide databases. In Nevada, arrest information was based on Clark County data only.

placement as a result of a new offense or technical violation. If either the IAP or control youth spent significantly more time in detention, jail, or training schools during the followup period, this would reduce their time at risk and could affect the interpretation of the outcome data.

Information on time spent in secure care during the 12-month followup period was collected on all youth from the records of local detention centers and jails in addition to state training schools, boot camps, and prisons (table 4.1).

Table 4.1: Time in Secure Custody During 12-Month Followup Period						
Time in Secure Care	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Mean days	95	85	63	64	88	77

The data indicate that on average, the IAP and control groups in Colorado and Virginia had approximately 3 months when they were not at risk; while the Nevada youth in each group were incarcerated for slightly more than 2 months during the followup period. In all three sites, no statistically significant differences were seen between the groups in the amount of time at risk. In other words, there is no basis for suspecting that differential time at risk affected the comparative prevalence or incidence of recidivism in any of the sites.¹⁸

Subsequent Arrests, Convictions, and Incarceration

The proportion of IAP and control youth subsequently arrested and convicted for various types of offenses is shown for each site in table 4.2. Data are also presented on the percentage of youth in each group that was sentenced to a term of incarceration as a result of an arrest that occurred within the 12-month followup period. For arrests and convictions, prevalence rates are shown for four different offense categories: felony offenses, criminal offenses (which include both felonies and misdemeanors), technical violations of parole, and any offense type (which includes felony, misdemeanor, technical violations, status, and traffic offenses).

¹⁸ As a result of this finding, analyses that specifically control for time at risk are not presented. The results of those analyses were identical to the results presented here.

Table 4.2: Percentage of Youth With Subsequent Arrests, Convictions, and Incarceration Sentences						
Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Percent Rearrested, by Offense Category						
Felony offense	52%	55%	63%	60%	43%	53%
Criminal offense ^a	69	65	77	77	60	67
Technical violation	21	24	33*	22	60**	38
Any offense ^b	78	82	87	82	82	85
Percent Convicted, by Offense Category						
Felony offense	29	26	47	44	27	41
Criminal offense	42	33	59	60	44	59
Technical violation	8	10	12	5	37*	19
Any offense	56	45	72	68	81	78
Percent Sentenced to Incarceration Term						
Detention or jail	4	2	8	6	29	26
Training school or prison	37	24	37	35	27	32
Total	41*	26	45	41	56	58
[*] Between-group differences significant at $p < .10$. ^{**} Between-group differences significant at $p < .05$. ^a Criminal offense = felony and/or misdemeanor committed as a juvenile or adult. ^b Any offense = includes felony, misdemeanor, technical violation, status, and traffic offenses.						

These data show that recidivism rates were high for both groups in all three sites. Approximately 50–60 percent of the youth were arrested for felony offenses, about 60–70 percent were arrested for criminal offenses, and approximately 80–85 percent were arrested for some type of offense during the 12-month followup. More importantly, no statistically significant differences were found between the IAP and control groups in each site on most of the arrest and conviction outcome measures. The only significant differences among the groups was the higher prevalence of technical violations among IAP youth in Nevada and Virginia. The literature on intensive supervision programs consistently shows that because youth in intensive programs are typically supervised much more closely than youth under traditional forms of parole, any program violations are much more likely to be discovered.¹⁹ In Colorado and Virginia, substantial, albeit statistically nonsignificant, differences were found on some of the outcome measures. In Colorado, IAP youth had worse results than control youth; a larger proportion of IAP youth were

¹⁹ That this pattern did not appear in Colorado may be a function of the way in which violations are handled in Colorado and how NCCD counted violations. In Colorado, technical violations are not filed with the court, so there is no official record as in the other sites. As a result, NCCD counted as a technical violation any infraction (other than a new offense) that resulted in the case manager (or the police via a warrant from the Division of Youth Corrections) placing the youth in detention. However, case managers also have the ability to administratively sanction a youth for violations without placing him in detention. Consequently, IAP youth may have engaged in additional technical violations, but they would not have been recorded as such if there was no detention placement.

convicted for a criminal offense (42 percent versus 33 percent) and for all offense types (56 percent versus 45 percent). In Virginia, the data suggest that IAP youth may have had better outcomes than controls on some measures, including felony arrests (43 percent versus 53 percent), felony convictions (27 percent versus 41 percent), and criminal offense convictions (44 percent versus 59 percent).²⁰

Table 4.2 also shows that substantial percentages of the youth in each group and site were sentenced to a new term of incarceration. In Nevada and Virginia, roughly half the youth in each group received such sentences, and there were no differences between the IAP and control youth on this measure. In Colorado, however, IAP youth were significantly more likely than controls to be reincarcerated.

Most Serious Subsequent Offense

Table 4.3 compares the IAP and control groups in each site with respect to the single most serious offense type for which youth were arrested during the followup period. Offenses were ranked in severity, ranging from violent felony offenses (e.g., robbery, rape, felony assault) to traffic and status offenses. The data in all three sites show no significant differences between IAP and control youth in the nature of the most serious subsequent offense. That is, IAP youth were no more likely than control youth to have less serious (or more serious) subsequent offenses.

Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Violent felony	4%	10%	13%	12%	16%	6%
Drug felony	4	2	17	12	5	21
Weapons felony	2	0	5	2	2	3
Property felony	9	20	25	32	16	24
Other felony	33	24	3	0	5	0
Misdemeanor	16	10	14	17	18	15
Technical violation	4	14	5	3	22	15
Traffic or status	4	4	5	2	0	3
No rearrest	22	18	13	18	18	15

Mean Number of Subsequent Offenses

The question of whether any differences existed between IAP and control youth in the total number of offenses for which they were arrested during the followup period is addressed in table 4.4. In Colorado and Virginia, youth in both IAP and control groups averaged less than one felony offense and approximately one criminal offense during the followup period. Nevada youth in both groups were responsible for one felony offense and just under two criminal

²⁰ These differences may be the result of chance (i.e., sampling error). Alternatively, they may reflect real differences in outcomes that do not attain statistical significance due to the small samples involved.

offenses. In all categories and all sites, the number of offenses for which each group was responsible is nearly identical. The observed differences were not statistically significant.

Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Felony offense	0.7	0.9	1.1	1.0	0.6	0.9
Criminal offense	1.1	1.2	1.8	1.8	1.0	1.1
Technical violation	0.2	0.3	0.5	0.3	0.8	0.6
Offense, all types	1.5	1.6	2.8	2.5	1.8	1.7

Weighted Recidivism Scores

To provide a fuller picture of the extent and nature of official recidivism in the experimental and control groups, NCCD developed a composite measure that combines both the frequency and severity of the offenses for which youth were arrested during the followup period. For this measure, each subsequent offense was assigned a weight—based on its relative severity—and all weighted offenses were summed to give each youth a weighted recidivism score:

- Violent felony: 12 points.
- Drug or weapons felony: 8 points.
- Property or other felony: 6 points.
- Violent or weapons misdemeanor: 4 points.
- Other misdemeanor: 3 points.
- Technical violation: 2 points.
- Traffic or status offense: 1 point.

If a youth had three subsequent arrests—for possession of stolen property (6 points), possession of marijuana (3 points), and technical violation of parole (2 points)—his total weighted recidivism score would be 11 points. A youth with no subsequent offenses would receive a score of 0. Individual scores were then used to compute total and mean scores for each group. In effect, the mean weighted recidivism scores represent a concise summary of the number and seriousness of the offenses committed by experimental and control youth during the year after their institutional release. To provide different perspectives on the weighted recidivism score, one score was calculated for all offenses and another for just the criminal offenses for which a youth was arrested (i.e., exclusive of technical violations and traffic and status offenses). The first measure is referred to as the “total recidivism score”; the second is referred to as the “criminal offense recidivism score.”

The mean recidivism scores for each group are shown in table 4.5. The data show that in Colorado and Virginia, the IAP youth had slightly lower scores than the controls on both measures, but these differences were not statistically significant. In Nevada, IAP scores on both measures were slightly higher than control scores, but again the difference was not significant.

Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Criminal offense recidivism score	6.2	7.5	10.9	9.8	6.4	7.1
Total offense recidivism score	6.7	8.2	12.4	10.9	8.1	8.4

Time to First Arrest

To examine whether the supervision and services provided by IAP may have had an effect on delaying the involvement of program participants in subsequent offending, NCCD examined the amount of time (mean number of days) that elapsed between the date of institutional release and the date that each youth was first rearrested for each of several offense types.²¹ The results are shown in table 4.6. In all sites and on all measures, the differences in time to first arrest between IAP and control youth were minimal—typically less than 20 days. Only one difference (time to first technical violation in Virginia) was statistically significant.²² The time to first arrest of any type for both groups was approximately 5 months in Nevada and Virginia and approximately 6 months in Colorado. The time to first felony arrest was typically a few months later: about 8 months in Colorado, 7½ months in Nevada, and 9 months in Virginia.

Outcome Measure	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Days to first felony arrest	241	249	224	235	274	254
Days to first criminal arrest	211	232	177	179	238	234
Days to first technical violation	311	305	278	301	190*	271
Days to first arrest, any	189	193	142	150	145	169

*Between-group differences significant at $p < .05$.

²¹For this analysis, youth who had no subsequent arrests were assigned a value of 365 days.

²²The same is true when the analysis includes only those youth who were in fact rearrested.

Multivariate Analysis of Recidivism

The several bivariate analyses presented above compare the recidivism of youth assigned to the IAP and control groups across a variety of outcome measures. Although the IAP and control groups were randomly assigned within each site, sample attrition during the institutional phase or the small sample sizes used in Colorado and Virginia could result in comparison groups that are not equivalent in terms of their propensity to commit new offenses. For instance, the risk profile of offenders in the IAP group could be higher or lower than that of the control group, thus biasing recidivism findings that do not control for these differences. The analysis used here is a multivariate analysis (least squares regression) that controls for risk factors that have demonstrated a strong relationship to youth recidivism in other studies. The principal outcome measure examined is the criminal offense recidivism score. This is a continuous measure that represents the mean seriousness and frequency of criminal arrests (felony and misdemeanor) during the followup period. The question is whether IAP may have had an impact on the outcomes of participants after controlling for potential preexisting differences in the risk-related characteristics of the groups.

The risk factors used as independent variables include criminal history, demographic, or stability factors that were recorded about the youth at the time of commitment and institutional placement. Criminal history variables include the most serious commitment offense type, which is dummy coded for property offenses (property=1, all others 0) and person offenses (person=1, all others 0); age at first adjudication (13 or younger=1, all others 0); number of prior referrals (number of prior adjudications is substituted in Colorado because referral data are missing for most cases); and number of prior commitments. Race is represented by a dummy variable for African American youth (AA=1, other youth 0). Youth stability factors include major mental health problems, major substance abuse problems, abuse/neglect victimization, school discipline problems (expelled or placed in an alternative school), and gang membership. Two family-related risk measures are also used: family member substance abuse and family member criminality (current or prior incarceration). Each youth and family risk factor was dummy coded (problem=1, no indicated problem or missing data=0). The variable for IAP assignment was also dummy coded (IAP=1, control cases=0).²³

The independent variables were entered simultaneously in the regression models for each site. The results are shown in table 4.7. The table reports the unstandardized coefficients and standard error of the risk factors, race, and IAP assignment when they are regressed upon criminal offense recidivism score.

²³Data for some of the youth and family stability measures were missing for some cases in each site. These missing observations were coded as zero (“no problem”) to prevent listwise deletion of cases in the regression analysis. Mean replacement was used if the prior referral or adjudication count was missing. Missing data values are shown in tables 4.11 (page 67) and 4.12 (page 68).

Independent Variables	Colorado (n=118)		Nevada (n=220)		Virginia (n=96)	
	b	SE	b	SE	b	SE
Constant	2.148	3.269	2.907	2.185	5.758	3.125
IAP assignment	-0.401	1.516	0.716	1.428	-0.666	1.743
Property offense	3.327*	1.915	2.157	1.526	2.167	1.968
Person offense	2.010	1.954	-2.549	1.974	-2.189	2.812
Number of prior referrals ^a	0.885*	0.504	0.396**	0.128	0.235	0.205
Age at first adjudication	0.628	1.415	-0.422	1.541	-2.940	1.880
Number of prior incarcerations	-0.383	0.988	0.596	0.808	-0.903	1.083
Gang membership	4.025**	1.554	1.340	1.432	3.096	2.904
Victim of abuse/neglect	2.336	1.530	-0.759	1.480	-0.262	2.429
School behavior	2.066	1.803	1.021	1.708	-1.156	1.792
Mental health problem	-0.429	1.777	-0.291	2.241	3.763	2.346
Substance abuse problem	-2.181	1.597	1.422	1.483	-0.251	2.100
Family substance abuse	-0.406	1.484	-2.426	1.485	-0.968	1.877
Family criminality	-1.521	1.826	-0.792	1.473	-0.809	1.864
African American race**	2.925	1.720	3.253**	1.608	1.502	2.058
Adj. R-square	0.062		0.063		-0.017	

*Between-group differences significant at $p < .10$.
**Between-group differences significant at $p < .05$.
^aIn Colorado, number of prior adjudications was used as the independent variable. In Nevada and Virginia, the variable was number of prior referrals.

Regression findings

The results of this analysis indicate that even when controlling for the risk-related characteristics of IAP and control group members, IAP did not have an impact on outcomes, as measured by criminal recidivism scores.²⁴

In Colorado, when all risk factors were entered in the equation with IAP assignment, gang membership showed the strongest positive relationship to recidivism ($p = .01$). Commitment for

²⁴The same results were obtained when the same independent variables were regressed upon additional outcome measures including number of arrests for criminal offenses and number of arrests for felony offenses.

a property offense, number of prior adjudications, and race also had a positive relationship and were significant at the .10 level. The unstandardized coefficient for IAP has a negative sign but is not significant. In Nevada, two factors had a direct effect on recidivism: the number of prior referrals ($p < .01$) and African American status ($p < .05$). The coefficient for IAP membership was positive, but again was not significant. In Virginia, none of the variables were significantly associated with recidivism. The coefficient for IAP assignment has a negative sign, but was not significant.

Reduced regression models

Since small sample sizes in Colorado and Virginia reduce the power of the analysis when all risk factors are entered, a reduced regression model was also examined (i.e., one that produced the most efficient estimate of recidivism in each site). A stepwise selection procedure was used to select factors whose contribution to the regression was significant at .10 or lower. The results of this additional analysis showed that (1) in Colorado, gang membership ($p < .01$) and African American status ($p < .05$) were the only significant variables; (2) in Nevada, number of prior referrals ($p < .01$), person offense ($p < .05$), and African American status ($p < .10$) remained in the equation; and (3) in Virginia, mental health problem was the only variable in the reduced model (data not shown in tabular form).

The variable for IAP group membership was then entered in the reduced regression model for each site. It did not prove significant in any site. The IAP coefficient was negative in Colorado and Virginia, but remained positive in Nevada.

The multivariate findings indicate that some factors have a significant impact on recidivism for both the IAP and control groups in each site. However, with the exception of race (significant in both Colorado and Nevada), these factors were site specific. Moreover, when these factors are controlled for in the regression analyses, youth participation in IAP does not appear to have a significant impact on recidivism in any site.

Recidivism and Subgroup Analyses

The primary analyses to this point have focused on the comparative outcomes of the IAP and control groups in the aggregate. In this section, the evaluation turns to an examination of various subgroups within the IAP and control samples in an effort to determine whether the IAP may have had a positive (or negative) impact on certain types of youth. These analyses focus on potential differential impacts based on the characteristics of the intervention (i.e., earlier versus later implementation periods, intensity of services) and on the characteristics of the offenders (e.g., offense history, needs).

Recidivism by Release Cohort

One issue is whether there may have been changes over time in IAP's impact on the recidivism of participants. It is not uncommon for any newly implemented program to undergo a startup period during which the project works out the problems associated with translating program design into operational reality. As discussed in the implementation section, all three IAP sites went through a period of adjustment before they had implemented the various components of the IAP model and had developed what could be considered a mature program. In Nevada and Virginia, for example, it took more than a year for the intensive parole officers to make the transition from traditional supervision practices to the more innovative approaches that the IAP model expected. Similarly, it was not until 2½ years after startup that Nevada began using community agencies for the provision of most aftercare treatment services.

To examine potential differences in recidivism associated with different stages of the project, NCCD divided the IAP and control groups in each site into two cohorts. All youth released from the institution on or before July 30, 1998, were treated as the first release cohort, while all youth released from the institution after that date were treated as the second release cohort. Essentially the cohorts correspond to the youth who experienced the respective interventions during the first 2½ years and last 2½ years of the experiment. Assuming that the IAP programs had not fully matured until sometime during the second year of implementation, NCCD would expect to observe lower recidivism rates among the IAP youth (vis-à-vis control youth) who were in the second release cohort.²⁵ The cohort analysis is shown below, in a separate table for each site. The dependant variables used are (1) the composite criminal offense recidivism score and (2) the percentage of youth rearrested for a criminal offense.

Outcome Measure	Cohort 1 (First 2½ Years)		Cohort 2 (Second 2½ Years)	
	IAP (n=45)	Control (n=22)	IAP (n=22)	Control (n=29)
Mean criminal offense score	5.9*	2.8	6.7*	11.0
Arrested, criminal offense (%)	64	41	77	83

*Between-group differences significant at $p < .05$.

²⁵ Dividing the implementation period into two equal parts is a somewhat arbitrary approach. Each site had a unique point (or points) in time that could be used to divide nonmature from mature stages. Nonetheless, this analysis compares a period when all three sites were mature programs (i.e., the last 2½ years) with a period that included the startup time (i.e., the first 2½ years).

Table 4.9: Nevada Recidivism, by Release Cohort				
Outcome Measure	Cohort 1 (First 2½ Years)		Cohort 2 (Second 2½ Years)	
	IAP (n=66)	Control (n=79)	IAP (n=34)	Control (n=41)
Mean criminal offense score	12.2	10.1	8.4	9.3
Arrested, criminal offense (%)	80	76	71	78

Table 4.10: Virginia Recidivism, by Release Cohort				
Outcome Measure	Cohort 1 (First 2½ Years)		Cohort 2 (Second 2½ Years)	
	IAP (n=40)	Control (n=22)	IAP (n=23)	Control (n=12)
Mean criminal offense score	6.4	6.7	6.5	7.2
Arrested, criminal offense (%)	60	59	61	83

In Colorado, a significant difference existed between the IAP and control groups in both cohorts on the criminal recidivism score (but not in the percentage rearrested). In the first cohort, IAP youth did significantly worse than the controls. In cohort two, they did significantly better. Note, however, that this improved performance is a result of a dramatic increase in the recidivism scores (and the percentage rearrested) of the controls from cohort one to cohort two rather than any reduction in the recidivism scores of the IAP group. These data indicate that the reoffending patterns of the IAP youth did not improve as the program matured.

In Nevada, some reduction in IAP recidivism scores and the percentage rearrested occurred from cohort one to cohort two, but this change was not substantial enough to produce any significant difference in recidivism between IAP and control youth in the second cohort. The Virginia data showed no within-group reductions in recidivism scores or percentage rearrested from cohort to cohort and no between-group differences in recidivism scores during either time period. The substantial difference between the percentage of IAP and control youth rearrested in cohort two was not statistically significant due to the small number of cases.

Youth Characteristics Associated With Success and Failure in IAP

Although aggregate recidivism between IAP and control groups did not differ, it is possible that IAP may have had differential impacts with certain kinds of offenders. The series of analyses on the following pages address this issue by examining the recidivism scores associated with various characteristics of IAP and control youth. The focus is on characteristics that repeatedly have been found to be associated with risk of recidivism. The variables are the same as those used in the preceding regression analyses and include measures of the nature and extent of

juvenile justice system involvement (table 4.11)²⁶ and measures of offender risk factors (table 4.12). These analyses are an examination of the interaction between each youth characteristic and the type of intervention provided (i.e., IAP versus control) and may provide some indication of the types of youth with which IAP is more or less successful.

The analyses were able to identify only a few youth characteristics that were associated with more or less success in IAP, and these differed from site to site. In Colorado, IAP youth whose first adjudication was at age 13 or younger had significantly lower recidivism scores ($p < .10$) than control youth with similar characteristics. In the other two sites, IAP youth with these characteristics did no better or worse than control youth. In Nevada, the relatively small number of IAP youth who had been committed for person offenses did significantly better ($p < .05$) than control youth who were committed for such offenses. This was not true for IAP youth who were committed for person offenses in the other sites. In Virginia, no significant differences were observed between the groups on any characteristic.

²⁶Three variables—age at first adjudication, number of prior referrals, and number of prior commitments—are treated as dichotomous variables in table 4.11 but were handled as interval variables in the regression analyses previously reported.

Youth Characteristic	Colorado				Nevada				Virginia			
	IAP		Control		IAP		Control		IAP		Control	
	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score
Nature of commitment offense												
Person offense	26	6.5	19	8.2	13	2.8*	22	10.1	7	4.0	5	4.8
Property offense	26	6.9	23	8.0	39	13.5	39	10.3	23	7.6	14	9.1
Other offense	15	4.4	8	5.4	34	11.9	46	9.2	14	9.3	6	8.5
Technical violation	0		0		14	8.4	12	9.4	19	3.6	9	4.4
Missing	0		1	0.0	0		1	22.0	0		0	
Age at first adjudication												
13 or younger	33	5.5**	25	9.9	66	11.5	80	10.2	24	4.7	14	6.2
14 or older	34	6.8	26	5.2	34	9.6	38	8.9	37	7.5	20	7.8
Missing	0		0		0		2	13.0	2	5.5	0	
Number of prior referrals^a												
0–6	n/a		n/a		8	12.4	16	7.5	29	7.9	14	5.8
7–10	n/a		n/a		21	6.7	27	8.9	12	8.3	12	8.3
11 or more	n/a		n/a		71	9.1	76	10.5	22	7.6	8	7.6
Missing					0		1	0.0	0		0	
Prior commitment												
None	37	6.0	30	8.8	19	10.8	21	7.3	26	6.8	17	8.5
One or more	25	5.7	19	6.3	81	10.9	98	10.3	37	6.1	16	5.9
Missing	5	9.4	2	0.0	0		1	22.0	0		1	4.0
Race												
Other	52	5.9	35	5.9	68	9.3	79	8.9	16	4.5	8	8.1
African American	15	6.9	16	10.9	32	14.1	41	11.7	47	7.0	26	6.8

*Between-group differences significant at $p < .05$.
^aNo data were available for 50 percent of the Colorado sample on this measure.

Youth Characteristic	Colorado				Nevada				Virginia			
	IAP		Control		IAP		Control		IAP		Control	
	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score	<i>n</i>	Score
Mental health problem												
No	44	6.2	40	8.4	73	11.4	97	10.3	35	6.2	23	7.0
Yes, major problem	23	6.1	10	4.6	17	11.1	8	4.0	10	10.1	5	11.4
Missing	0		1	0.0	10	6.6	15	9.7	18	4.6	6	4.2
Substance abuse problem												
No	36	6.3	15	10.8	38	10.4	67	10.2	32	7.0	18	6.4
Yes, major problem	31	6.0	36	6.1	52	11.4	38	9.6	15	7.7	10	5.7
Missing	0		0		10	9.8	15	8.8	16	4.0	6	11.2
School discipline												
No/minor problems	56	6.3	37	6.4	71	10.1	103	10.0	36	6.2	23	8.3
Expelled/Sent to alternative school	11	5.3	14	10.5	29	12.8	17	8.8	27	6.7	11	4.7
Gang membership												
No/Missing	48	5.4	28	5.6	55	10.2	55	8.2	56	6.0	30	7.2
Yes	19	8.2	23	9.8	45	11.7	65	11.3	7	9.7	4	6.8
Youth a victim of abuse/neglect												
No	43	5.5	26	7.2	43	11.4	54	9.4	28	8.0	19	5.8
Yes, substantiated	24	7.4	25	7.8	48	11.4	59	10.4	11	4.4	6	11.2
Missing	0		0		9	5.6	7	8.7	24	5.4	9	7.3
Family substance abuse problem												
No	34	5.8	26	8.2	43	11.2	66	9.4	10	9.5	12	5.7
Yes, major problem	33	6.5	25	6.7	45	10.4	42	8.8	30	5.8	16	6.9
Missing	0		0		12	11.5	12	15.9	23	5.8	6	10.8
Family criminality												
No	17	7.5	7	4.6	39	10.9	58	10.2	13	10.1	10	3.8
Yes, current/prior incarceration	49	5.7	44	8.0	41	10.7	46	9.6	32	7.0	15	6.0
Missing	1	6.0	0		20	11.2	16	9.2	18	2.3	9	12.8

These results unfortunately give little guidance for refining IAP selection criteria. Across all sites, no characteristics were consistently associated with a greater likelihood of success or failure in IAP. These results are likely a result of homogeneity in offender characteristics, the similar rates of criminal reoffending, and the small number of cases involved in these disaggregated analyses.

Recidivism and IAP Levels of Treatment Services

The implementation information on the comparative prevalence and intensity of treatment service delivery in the IAP and control groups presented above was based on aggregate data. These data may mask differences in the nature and extent of services received by the youth within the groups. In a program that was operational for a 5-year period, it would not be unusual for program participants in the same site to have received varying levels of treatment service over time (Cordray, 2000; Fagan, 1990). Moreover, such within-program variations in service delivery may have had a direct impact on the observed level of recidivism in the IAP groups. It is important therefore to identify youth who received relatively higher and lower levels of IAP services and to examine recidivism in light of these differences.

The following exploratory analysis examines the relationship between different levels of services and outcomes. It examines recidivism among IAP youth who received a high level of service both in the institution and in the community, IAP youth who did not receive a high level of service in both settings, and control group youth as a whole.²⁷ The aggregate recidivism data presented earlier showed that there were few significant differences between IAP and control youth in all three sites. Here the primary question is whether youth who received a high level of service in IAP had lower levels of recidivism than the control group. In effect this analysis is an exploration of the “service dosage” question and a preliminary test of an IAP assumption that high levels of service will result in lower recidivism. There is considerable evidence that outcomes are strongly related to the intensity of treatment services provided in juvenile correctional programs (Lipsey and Wilson, 1998).

Measurement of IAP service levels

In measuring the extent of services received by the groups, NCCD used a subset of the treatment service areas described in the implementation data. These were viewed as core services. For the institutional phase, these core services included vocational training, substance abuse, counseling/mental health, and life skills services. For the aftercare phase, these same four services were examined along with community educational services.²⁸

²⁷ Ideally, this analysis would compare high service level IAP youth with high service level control youth. However, so few control group youth in each site received high levels of service both in the institution and in the community that such an analysis would have been meaningless.

²⁸ For this analysis, the institutional phase includes both the regular institutional phase and the institutional transition phase. Similarly, the community phase includes both the community transition and aftercare phases.

This analysis also used a subset of the youth involved in the outcome study. To operationalize the high and low service level designations for IAP youth, selection criteria for the analysis required that all youth have at least 3 months of data (i.e., the Monthly Case Management Reports) from the institutional phase and at least 2 months of data from the aftercare phase. These same criteria for inclusion were applied to the control group.²⁹

The level of service for the groups was calculated by summing the monthly hours of service received by each youth across all the core service areas and dividing by the total number of monthly service reports used to generate the total service hours. This resulted in a figure representing the mean monthly hours of core service for each group. The median hours of service for the IAP youth was then used to divide the IAP group into low and high levels of service. This calculation was done separately for the institutional and aftercare phases. As a result, any given IAP youth could have been classified at a low or high institutional service level and at a low or high aftercare service level.

To determine the overall level of treatment services received during the course of the IAP intervention, a two-by-two table was developed to reflect the various combinations of service levels. Each IAP youth was classified into one of the four following categories:

- Low institution service, low aftercare service.
- High institution service, low aftercare service.
- Low institution service, high aftercare service.
- High institution service, high aftercare service.

Because the IAP model stresses comprehensive and intensive service provision that spans both the institutional and aftercare phases of intervention, NCCD's primary interest is in the recidivism of IAP youth who received high levels of service in both phases.

Caveats

Some important caveats to this analytic approach require it to be treated as exploratory. First, the available assessment data on youth needs were insufficiently precise to evaluate the link between an individual youth's needs and the nature or extent of the services he received. Consequently, the method of determining service level (i.e., summing hours of service across all the service categories) did not control for those instances in which a youth may not have received services in a particular area because he did not need that service, or those situations in which a youth may have received a level of service that fell short of what he actually needed. In other words, this analysis does not reflect a key tenet of IAP: there needs to be a careful assessment of youth needs

²⁹The use of these criteria resulted in some attrition for the IAP groups and substantial attrition for the control groups in each site. In Colorado, the application of the criteria resulted in a sample size for this analysis of 54 IAP youth (81 percent of the larger outcome sample) and 35 control youth (69 percent of the larger sample). In Nevada, the resulting sample was 82 IAP (82 percent of the larger sample) and 81 control youth (68 percent of the larger sample). In Virginia, the resulting sample was 54 IAP youth (86 percent of the larger sample) and 17 control youth (50 percent). As a check on the potential bias resulting from the use of this subsample, NCCD compared the criminal recidivism scores for each group in the subsample. Just as in the larger outcome sample, the subsamples showed no significant differences between IAP and control groups' criminal recidivism scores.

and an appropriate matching of needs with services based on assessment results. It instead assumes that most youth have needs in all the areas examined and that receiving a high level of services to address those needs is potentially beneficial in reducing recidivism.

A second and related point has to do with the assumption that because some IAP youth received a high level of service, that reflects a higher level of program implementation for the “average” IAP participant. However, it may be that the youth who received higher levels of service in IAP had a high level of involvement because they were the most needy and problematic youth in the IAP population. If that was in fact the case, this analysis could contain a built-in bias that favors the control group, since youth with higher levels of need may be more likely to recidivate. Conversely, the youth who received higher levels of service in IAP may have been a more compliant subset of the larger group. If that were the case, the bias would be in favor of the IAP group.

A final caveat concerns sample size and statistical power. This analysis uses a subsample of cases and then further divides the IAP sample into low and high service groups. The result is that a relatively low number of youth are involved in some of the analytic categories. Having such a low number of cases reduces the likelihood that the findings will attain statistical significance.

Service levels and recidivism

The series of tables below shows, by site, the mean monthly hours of services received during the institutional and aftercare phases—and the associated criminal recidivism scores—for three groups of youth: IAP youth who had a low level of service either in the institution or while on aftercare (or during both phases), IAP youth who had a high level of service in both phases, and all controls, regardless of their level of service in either phase.

Table 4.13: Overall Level of Service and Recidivism in Colorado				
Level of Service	<i>n</i>	Mean Monthly Hours of Service		Criminal Recidivism Score
		Institution	Community	
Low in institution or low in community, or both	36	82	35	6.6
High in institution, high in community	18	155	108	3.7*
All controls	35	65	51	8.8

*Between-group differences significant at $p < .05$.

Table 4.14: Overall Level of Service and Recidivism in Nevada				
Level of Service	<i>n</i>	Mean Monthly Hours of Service		Criminal Recidivism Score
		Institution	Community	
Low in institution or low in community, or both	63	118	35	11.4
High in institution, high in community	19	155	88	7.6
All controls	81	29	53	9.2

Table 4.15: Overall Level of Service and Recidivism in Virginia				
Level of Service	<i>n</i>	Mean Monthly Hours of Service		Criminal Recidivism Score
		Institution	Community	
Low in institution or low in community, or both	36	8	62	7.5
High in institution, high in community	12	15	92	5.0
All controls	17	11	47	6.8

The hours of service data show that in Colorado and Nevada, youth in the IAP high service group had dramatically higher levels of service in both phases than did the average control youth. Given these differences in service levels in Colorado and Nevada, one might expect also to see significantly lower IAP recidivism scores in both sites. The results are mixed. In Colorado, there were in fact significant differences in the recidivism scores of high service IAP and control youth (3.7 versus 8.8). In Nevada, however, there was no significant difference in the recidivism scores of these two groups (7.6 versus 9.2).

In Virginia, substantial differences existed between youth in the IAP high service group and controls in the level of aftercare services, but virtually no differences between them in the level of institutional services. Consequently there may be less reason than in the other sites to expect to see an impact on recidivism. In fact, no significant differences in the criminal recidivism scores of the high-service IAP and control groups (5.0 versus 6.8) were found.

The results of this exploratory analysis show that even when focusing on IAP youth in each site who received the highest levels of service, Colorado was the only site in which the IAP youth who received the highest levels of service had recidivism scores that significantly differed from the scores of the control group, which received far less intensive services. However, there appears to be a consistent relationship (albeit nonsignificant) across sites between high service levels in IAP and lower recidivism rates. This is the first outcome measure where the results have suggested a positive IAP impact in all three sites. Ultimately, however, the previously described methodological constraints inherent in this analysis prohibit drawing firm conclusions from the data.

Intermediate Outcomes

The term “intermediate outcomes” has a two-part definition. First, such outcomes are in-program results that can be considered outcomes of interest in their own right (e.g., institutional behavior, nature of terminations from the program). Second, they are measures of change in youth functioning, attitudes, or behavior (e.g., reductions in substance abuse, reengagement with school) that, according to the logic of the IAP model, should lead to lower rates of recidivism. Many of these intermediate outcomes may also help shed light on recidivism findings. For example, given the well-established link between substance abuse and criminal behavior (Catalano et al., 1989; Elliott, Huizinga, and Ageton, 1985; Hawkins et al., 1988), a finding that IAP was no more successful in curbing substance abuse than was standard parole would contribute to an understanding of why no differences were seen between IAP and controls on most recidivism measures.

As discussed previously, the original evaluation design called for the use of standardized testing to examine changes in attitudes and behaviors on a pre- and postprogram basis. Due to extensive missing data on these standardized tests, however, they could not be used to inform the evaluation. In lieu of the preferred measures, NCCD used a series of substitute measures to estimate the attainment of intermediate program objectives. Some of these alternative measures (e.g., those focusing on substance abuse) do not provide the depth of understanding that may have been achieved with standardized testing results. Further, no substitute measures were available to estimate changes in two key areas: peer relationships and family functioning.

Institutional Behavior

The IAP model does not specifically posit improved functioning in the institution as one of its objectives. As implementation proceeded, however, it became apparent that two practices had the potential to reduce behavioral problems in the facility. First, IAP youth had much more frequent contact with their institutional case managers than did control youth. IAP staff repeatedly reported that this increased personal attention was viewed by youth as one of the benefits of being in the program and therefore could provide a disincentive to disruptive behavior. Secondly, the IAP programs in Colorado, Nevada, and one of the institutions in Virginia regularly used a system of tangible rewards (e.g., more commissary privileges, fast food, phone calls to home, access to video games) and sanctions (fewer or restricted privileges) that were reportedly very meaningful to the youth. If these reward and sanction systems were effective, one would expect to see reductions in institutional misbehavior.

To assess whether these specific practices and the IAP program more generally had any impact on institutional behavior, NCCD analyzed misconduct data reported for both groups of youth in the monthly case management reports. These data captured major incidents of institutional misconduct such as assaults and fighting, safety and security violations, program disruption, and verbal abuse and insubordination. The data showed no significant differences between IAP and control youth in Colorado (78 percent versus 65 percent) and Virginia (57 percent versus 53 percent) in the percentage of youth who had ever had a major misconduct report. In Nevada, however, a significantly higher proportion of IAP than control youth ($p < .05$) had such reports (48 percent versus 28 percent). An additional measure of institutional misconduct is the frequency with which such incidents occurred. As shown in table 4.16, IAP youth in Nevada and

Virginia who received major misconduct reports had significantly fewer monthly incidents than did the control youth. The groups in Colorado showed no difference on this measure.

Institutional Misconduct	Colorado		Nevada		Virginia	
	IAP (n=51)	Control (n=33)	IAP (n=48)	Control (n=33)	IAP (n=35)	Control (n=18)
Monthly reports	0.3	0.3	0.4*	0.5	0.3*	0.4

*Between-group differences significant at $p < .05$.

Institutional Length of Stay

The IAP model does not incorporate any specific guidelines regarding lengths of stay in the institution or on aftercare, focusing instead on the principles and practices associated with transition and reintegration. Nor does the model claim that its case management practices will necessarily serve to reduce the amount of time youth spend in secure care. Yet IAP youth in all three sites spent substantially less time in the institutional setting than did the control youth (see table 4.17). In Colorado and Nevada, the amount of time spent was significantly less. As mentioned previously, the differential in Colorado was directly attributable to the enhanced transition and release planning practiced by IAP and the positive impact those practices had on decisionmakers regarding institutional release. In Virginia, the ability of IAP to move youth to a transitional facility played a major role in reducing institutional time. In Nevada, however, it is not clear that IAP practices affected length of stay, since there were traditional differences between Caliente and Elko (the control group facility) in the length of time youth typically remained in the facilities. The Colorado and Virginia findings suggest that IAP’s transition-related practices have the potential to substantially reduce lengths of stay and thereby reduce costs associated with secure care placements.

Length of Stay	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
In months	10.3*	12.6	6.7*	7.7	8.2	9.2

*Between-group differences significant at $p < .05$.

Substance Abuse

Because of the link between substance abuse and delinquency, IAP places a major emphasis on the need to provide substance abuse education and treatment services to participants. The sites therefore made services in this area a priority and involved a large proportion of youth in substance abuse programming. The following briefly reviews the previously presented implementation data:

- In Colorado, a significantly higher percentage of IAP than control youth received substance abuse services during aftercare.

- In Nevada, IAP youth were significantly more likely to be involved in drug treatment during both the institutional and aftercare phases.
- During aftercare in Virginia, a higher percentage of IAP than control youth was involved in this service area (although the difference was not statistically significant).
- Only in Nevada were there differences between the groups in the intensity of substance abuse programming.

To assess whether IAP’s emphasis on substance abuse treatment had an impact on drug involvement after release from the institution, NCCD examined the extent to which the youth in each group had positive drug tests while on aftercare and the extent to which the youth in each group were arrested for drug-related offenses during the 1-year followup period. While instructive, neither of these measures provides the ability to examine the question of whether, or to what extent, the IAP interventions may have led to a reduction (pre versus post program) in substance abuse among program participants.

For the positive drug screen analysis, NCCD used only those youth in each site who were known to have been given drug tests. This subsample of youth was rather small.³⁰ However, the results indicate that IAP youth were significantly less likely ($p < .05$) than controls to test positive in both Colorado (17 percent versus 50 percent) and Nevada (24 percent versus 60 percent), but not in Virginia (7 percent versus 0 percent) (data not shown in tabular form).

The prevalence and incidence of arrests for drug charges (including possession, use, under the influence, and drug sales) are shown in table 4.18. These data include arrests from the entire followup period and show no significant differences between IAP and control youth in any site on either measure.

	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Arrested on drug charges (%)	12	6	35	28	14	24
Drug charges (mean)	0.1	0.0	0.5	0.4	0.1	0.3

³⁰ In Colorado, 12 IAP youth (18 percent) and 12 control youth (24 percent) were tested. In Nevada, 17 IAP youth (17 percent) and 10 controls (8 percent) were tested. In Virginia, 16 IAP youth (25 percent) and 10 controls (19 percent) were tested.

Reengagement With Community Institutions

Implicit in the notion of reintegration for paroled youth is an effort to reconnect them with traditional social and community institutions. Success in reestablishing—and maintaining— involvement with activities such as school or work can facilitate a sense of commitment and attachment to prosocial institutions and reduce the likelihood of continued offending.

To assess the relative success of the IAP programs in reconnecting youth, NCCD examined aftercare involvement in three areas: school, vocational training, and employment. To provide a sense of the extent to which youth maintained a connection in these areas, evaluators measured the proportion of youth who were involved in these various activities for at least 2 months during aftercare.³¹ Consequently, a youth who may have returned home, re-enrolled in school, attended for 3 weeks, and then dropped out would not be considered as having been successfully re-involved in educational activities. The results of this analysis are shown in table 4.19.

The results are mixed. In all three sites, IAP youth were significantly more likely than control youth to be involved in vocational training for at least 2 months during aftercare. In addition, although the differences were not statistically significant, the data suggest that a larger percentage of IAP youth in Colorado and Virginia returned to school and stayed there for at least 2 months and that Virginia IAP youth were more likely than controls to be employed for at least 2 months. On the other hand, no difference between the groups was seen in the intensity of involvement (days per month) in any of the three areas, except in Nevada where IAP youth spent significantly less time in school each month than did control youth.

Activity/Institution	Colorado		Nevada		Virginia	
	IAP (n=54)	Control (n=36)	IAP (n=83)	Control (n=95)	IAP (n=57)	Control (n=18)
Involved in school for 2+ months (%)	50	33	47	50	65	44
Days in school per month (mean)	5.8	7.6	5.6*	7.4	7.2	7.5
Involved in vocational training for 2+ months (%)	26*	6	34*	2	44*	11
Hours in vocational training per month (mean)	3.3	1.2	1.5	3.2	10.2	5.5
Employed for 2+ months (%)	46	44	45	43	51	33
Days employed per month (mean)	5.9	7.6	8.5	9.3	4.9	5.4

*Between-group differences significant at $p < .05$.

³¹ For this analysis, NCCD excluded any youth who did not have a minimum of 2 months of aftercare data from the monthly case management reports. The n size used in the analysis changes accordingly.

Program Terminations

Table 4.20 shows the circumstances under which IAP and control youth ended their period of community supervision. There were no significant differences between the groups in any site on this measure.

In Colorado, the IAP youth were almost evenly distributed among four types of program termination. Approximately 1 in 5 youth successfully completed IAP;³² while similar percentages went AWOL or their sentences expired (jurisdiction expired).³³ Another 24 percent of the IAP group left the program due to a parole revocation, recommitment, or an adult sentence. Control youth followed a similar pattern, and there were no significant differences between IAP and controls in their distribution by type of program termination.

In Nevada, a similar percentage of IAP youth received successful (34 percent) and negative (35 percent) discharges. Like Colorado, the Nevada IAP experienced a fairly large percentage of youth (23 percent) who were discharged because they were AWOL and could not be located for an extended period of time. In this site, there also was no significant difference between IAP and control youth who received various types of terminations.

In Virginia, IAP and control youth were equally likely to complete parole (44 percent and 50 percent, respectively) and equally likely to receive a negative termination due to a revocation or recommitment (46 percent and 44 percent, respectively).

³² A completed discharge does not mean that all youth who received this type of discharge were necessarily arrest-free while under supervision. A youth may have had a new charge(s), been continued on parole, and then went on to make a successful adjustment.

³³ Prior to July 1, 1998, Colorado juveniles were sentenced to the Division of Youth Corrections for a specified period of time with no requirement that they serve any portion of that time under parole supervision. This meant that some juveniles served their entire sentence in the institution (in which case they were treated by the evaluation as “institutional terminations”), while others were released to the community under parole supervision for the balance of their sentences. Youth who were discharged because their sentence was completed would have received a “jurisdiction expired” termination. Some of these youth were considered to have made satisfactory progress at the time jurisdiction had expired and others were considered to have made unsatisfactory progress. Due to potential variations from case manager to case manager in what was considered “satisfactory progress,” NCCD chose to treat these juveniles as a single category of terminations.

Termination Type	Colorado		Nevada		Virginia	
	IAP (n=67)	Control (n=51)	IAP (n=100)	Control (n=120)	IAP (n=63)	Control (n=34)
Completed	22%	18%	34%	27%	44%	50%
Jurisdiction expired ^a	21	31	2	8	2	0
Negative: revoked/ recommitted	24	31	35	41	46	44
Negative: AWOL	19	14	23	14	3	0
Other ^b	9	2	2	3	5	3
Type unknown	4	4	4	8	0	3
Total	100	100	100	100	100	100
^a Indicates discharge due to youth's reaching statutory age or sentence limits.						
^b Other terminations include death, move to another state, placement in long-term residential program, and judicially ordered termination.						

Chapter 5. Summary and Conclusions

Summary

The Intensive Aftercare Program (IAP) is an intervention model that uses a variety of reintegration-focused and transition-oriented strategies, coupled with intensive supervision and provision of services. The goal of the program is to reduce recidivism among an especially challenging correctional subpopulation: high-risk juvenile parolees. The IAP demonstration project was conducted in three participating jurisdictions over a 5-year period and involved more than 500 juveniles. The evaluation used an experimental design that randomly assigned juveniles at each site to either the intensive IAP intervention or to a control group that received traditional services. The logic and utility of random assignment are that any observed differences in recidivism can be directly attributed to the effects of the experimental intervention rather than to any preexisting differences in the characteristics of the experimental and control groups.

The study focused heavily on implementation issues—relying on both qualitative and quantitative data—to determine the extent to which the sites translated the model into local practice. Implementation was emphasized to avoid assessing program outcomes without establishing whether or to what extent the program was implemented as it was designed. Because IAP required the sites to establish a very comprehensive approach to an unusually difficult population, it is necessary to be able to distinguish between a flawed or a successful program implementation when considering program outcomes. Similar attention must be given to factors that may affect the experimental design and limit evaluators' ability to draw conclusions from the findings.

The evaluation focused on two critical issues in IAP implementation: (1) the extent to which the case management components of the IAP model (e.g., transition processes, frequent contacts, access to a wide array of services) were delivered as intended, and (2) the extent to which IAP participants received a level of treatment services that distinguished them from youth in the control group.

All three sites successfully implemented most of the major IAP case management components. They all had a strong focus on transition-related issues and established a variety of structures and procedures to facilitate transition efforts. They created new, IAP-specific programs, got a large percentage of youth involved in various treatment services, served youth in small IAP-specific caseloads, provided a level of supervision that was much more intensive than that provided to controls, subjected the youth to various control and surveillance mechanisms, used systems of graduated rewards and sanctions, and provided a balance of control and treatment services. The sites generally did things very differently for their IAP youth and generally did them in accordance with the model guidelines.

There also were some problems with implementation. For example, both Colorado and Virginia had far fewer youth enrolled in the project (118 and 97, respectively) than was originally anticipated (thereby creating evaluation issues with respect to sample size and statistical power). In addition, both Nevada and Virginia experienced problems with staff turnover and/or vacancies in key IAP institutional positions that hampered service delivery for extended periods.

To summarize implementation in the demonstration sites:

- Colorado’s overall implementation was rated as “strong.” The IAP had very strong implementation of the case management components of the model. The level and intensity of treatment services were also high, but the control group received very similar levels of treatment services. From an evaluation perspective, this complicates the assessment of IAP’s impact.
- Nevada’s implementation of most of the IAP components was strong, but significant weaknesses were observed in a few key areas (resulting in a moderate implementation rating). The Nevada IAP did, however, provide a very strong differentiation between IAP and control youth with respect to the extent and intensity of treatment services. Nevada was the one site that met the planned number of participants ($n=220$).
- Virginia also did a good job of implementing most of the model’s case management components, but, like Nevada, demonstrated some weakness that resulted in a moderate implementation rating. With respect to differentiation in treatment service delivery, Virginia was very weak in the institutional phase and only moderately successful in providing more—or more intensive—services during aftercare. The small sample size in Virginia ($n=97$) makes it difficult to draw firm conclusions about the effectiveness of IAP.

Assessing youth recidivism was the second major focus of the evaluation. Recidivism was tracked during the 12-month period after each youth’s release from secure confinement. Officially reported data were used to compare group recidivism outcomes on a wide range of measures, including arrests, technical violations, adjudications, and subsequent incarceration. Various additional analyses were conducted to examine the impact of IAP on different subgroups, defined by risk factors or program intervention measures.

The results showed that a high percentage of IAP and control youth were arrested during the followup period. In each site, approximately half the youth were arrested for one or more new felony offenses, and about 80 percent of the youth were arrested for some type of offense (including technical violations). This was not surprising given the high-risk profile of the population served. However, no statistically significant or substantive differences were seen between IAP and control youth on almost all the recidivism measures. This includes the percentage of youth rearrested for various types of offenses, the number of offenses committed during the followup, the most serious subsequent offense, a summary measure of offense frequency and severity (i.e., criminal recidivism scores), and time to first arrest.

The results of a regression analysis (using criminal recidivism score as the dependent variable) indicated that even when controlling for the risk-related characteristics of IAP and control group members, IAP did not have an impact on outcomes.

There also were no significant differences between the groups in any site in the percentage of youth who received positive or negative terminations from parole. However, in Nevada and Virginia, IAP participants were more likely than controls to be charged with technical violations

of parole. In Colorado, IAP youth were significantly more likely than controls to be sentenced to a period of incarceration as a result of an arrest that occurred during the followup period.

The evaluation also examined whether and to what extent IAP was successful with certain subgroups of offenders. One subgroup analysis examined potential program maturation effects by comparing outcomes for youth served during the earlier and later periods of the demonstration. This “release cohort” analysis had one significant finding: in Colorado, IAP youth who were involved in the project during its last 2½ years did significantly better than control youth during that same time period. However, this difference appears to be accounted for by a dramatic increase in recidivism among youth in the control group rather than a decrease in recidivism among IAP youth. As a result, it is difficult to attribute this difference to IAP program maturation. No evidence of a program maturation effect on recidivism was seen in Nevada or Virginia.

The evaluation also attempted to determine whether IAP may have been more or less successful with certain subgroups of offenders by examining the interaction between group membership and various youth characteristics (risk- and needs-related variables such as offense history, substance abuse, and family problems). The homogeneity of the groups and the reduced number of cases available when the groups were disaggregated by the various characteristics made it difficult to gain much insight. Only a few characteristics were associated with significantly lower recidivism among IAP youth; none were significant in more than one site. As a result, the evaluation results cannot provide much useful guidance regarding which juveniles might be better or worse candidates for IAP interventions in the future.

A final subgroup analysis was conducted to estimate IAP’s impact on youth who received high levels of treatment services both in the institution and during aftercare. This analysis indicated that a small proportion of youth in each site received high levels of service during both the institutional and aftercare phases and that the small group of IAP youth in Colorado who consistently received high levels of treatment services recidivated significantly less than the control group. Although the between-group differences were not statistically significant in Nevada and Virginia, each of these sites experienced a similar trend toward lower recidivism. Because this was an exploratory analysis constrained by a number of methodological and conceptual caveats, no firm conclusions can be drawn from the results. However, these findings tentatively suggest that a high level of IAP treatment services may have a positive impact on recidivism.

A third focus of the study was on intermediate outcomes, including behavioral or social adjustment indicators other than recidivism. This component of the research was originally designed to help determine—through analysis of changes on pre-post standardized test scores—whether IAP effected positive changes in youth behavior and attitudes that could be expected to lead to a reduced likelihood of recidivism. The extent of missing data on the standardized tests, however, precluded their use. In lieu of the preferred measures, the National Council on Crime and Delinquency (NCCD) used a series of substitute measures, some of which could not provide the depth of understanding that may have been achieved with standardized testing results. Further, there were no substitute measures to estimate changes in two key areas: peer relationships and family functioning.

Two intermediate outcome measures focused on the institutional phase. The results showed that the IAP programs in Nevada and Virginia had a positive impact on behavior while youth were in the institution and that program practices contributed directly to reduced institutional lengths of stay in Colorado and Virginia.

Other intermediate outcomes focused on aftercare. The findings with respect to substance abuse after release from the institution were mixed. Although IAP youth in Colorado and Nevada were less likely than control youth to test positive for drug use, no difference was found in those sites (or in Virginia) between IAP and control youth in the percentage arrested for drug offenses. What evaluators do not know about substance abuse from these intermediate measures is whether or to what extent youth in the IAP or control groups may have reduced their use of drugs as a result of the intervention (i.e., pre-post changes in behavior).

The findings regarding re-engagement with traditional community institutions were also mixed. In each site, IAP was significantly more successful than traditional parole in getting youth involved in job-related training and in keeping them there for at least 2 months during aftercare. Potentially positive but nonsignificant results were observed for other measures. In Colorado and Virginia, for example, a larger percentage of IAP than control youth were involved in school for at least 2 months, and the Virginia IAP program had a larger percentage of youth employed for 2 or more months during aftercare. However, no significant between-group differences were found in any of the sites with respect to the average number of days per month that the youth were in school, vocational training, or work (the exception being Colorado, where IAP youth had significantly fewer days of school involvement per month than did the control youth). Moreover, in each site, IAP youth averaged fewer than 10 days per month engaged in these activities.

Discussion

Although IAP appears to have had a positive impact on some subgroups and some intermediate outcomes, there was no site in which IAP youth had significantly lower recidivism than the control group. The hypothesized impact of IAP was hoped to be a positive effect in lowering recidivism. This section examines several different factors—both programmatic and evaluation-related—that may have influenced this finding.

Some factors probably do not help to explain the “no-difference” findings. First, program outcomes probably cannot be explained by any bias resulting from pre-existing differences in the characteristics of IAP and control youth. Due to substantial attrition in the original samples, the comparative characteristics of the final samples of IAP and control youth in each site were examined carefully. The analysis showed that the groups had nearly identical demographic, offense history, and risk and needs characteristics. Moreover, when these characteristics were controlled for in a regression analysis, participation in IAP was shown to have no impact on recidivism.

A second concern that may be discounted is the possibility of the sites overly relying on control strategies and neglecting treatment services. Evaluations of intensive supervision programs in the late 1980s and 1990s found that strategies that relied primarily on control and surveillance orientations simply did not work. These evaluations suggested that the delivery of effective

intensive supervision programs required a balance between control and treatment strategies (Byrne and Kelly, 1989; Petersilia and Turner, 1993). The design of the IAP model took these findings into account, and it is clear from this study's implementation findings that each of the sites delivered an intervention that balanced control and treatment services.

A third potential issue is whether the intensity of supervision provided by the sites was sufficiently high to accomplish program objectives. Virginia staff had face-to-face contacts with IAP youth approximately 15 times during the first month after release and an average of 10 times per month thereafter. There were far fewer monthly face-to-face contacts with IAP youth in Colorado and Nevada. Colorado case managers had face-to-face contacts with IAP youth about 6 times during the first month after release from the institution and 3 times per month during the rest of the aftercare period. The corresponding figures for Nevada were about 7 contacts and 4 contacts, respectively. Although this frequency of contacts was significantly higher than that provided to control youth, one can still raise the question of whether seeing a youth once or twice a week is sufficient to accomplish the work that needs to be done with such a high-risk population. NCCD knows of no research that identifies an optimum frequency of contacts that would ultimately qualify a program as "intensive." In fact, the available research provides contradictory evidence on what level of contact is required to produce positive outcomes (see, for example, Goodstein and Sontheimer, 1997; Greenwood, Deschenes, and Adams, 1993). The apparent lack of a relationship between frequency of contacts and outcomes in intensive supervision programs was directly examined by Sealock and colleagues (1997), who determined that an increased level of contact for juveniles during aftercare was not associated with better outcomes.

A lower-than-expected frequency of face-to-face contacts is probably not a reasonable explanation of "no-difference" findings for another reason. In all three sites, various mechanisms were used for social control (and treatment) that went far beyond the number of times a parole officer and youth saw each other. These included group home placement (Virginia), involvement in structured day treatment programming (Colorado and Nevada), extended coverage and surveillance mechanisms (all sites), and involvement with a range of service-providing agencies (all sites). Consequently, even though the frequency of face-to-face contacts may have been somewhat lower than expected in some sites, the sites provided intensive supervision through a variety of other means.

Yet another factor that can be ruled out is a lack of program maturation. Although many correctional (and other) evaluations suffer from the effects of assessing programs that have been operational for a relatively brief period (e.g., 1–2 years), and that consequently have not reached maturity, such was not the case with the IAP evaluation. This study spanned a period of almost 5 years of program implementation and included both startup and mature operations. Moreover, the evaluation specifically examined the potential differences in program outcomes, controlling for earlier and later implementation periods, and found that IAP outcomes did not differ significantly from one period to the other.

However, a number of evaluation, program implementation, and client targeting issues may have affected the recidivism findings in this evaluation. These are discussed below.

First, it is clear that Colorado's findings are colored by the confounds to the evaluation that were introduced with the expansion of treatment services to the control group. For a variety of reasons that have been described previously, Colorado officials were continuously enhancing services to the control group at the same time they were implementing IAP. The result was that during the last 3 years of the evaluation, instead of receiving traditional services, control youth in the institution received many of the same programs originally developed for IAP youth. During this same period, control group youth received aftercare services that were in some ways similar to services received by IAP youth (e.g., small caseloads, use of trackers). The evaluation design called for a comparison of IAP interventions with those provided by traditional parole services. As a result of the enhanced services provided to the control group, however, the evaluation ended up comparing IAP with a form of parole that in many ways looked similar to IAP. While control youth did not receive many of the case management and transition-related services provided to IAP youth, the similarity between the groups in the nature and intensity of treatment services may partially account for the "no-difference" findings in this site.

A second evaluation-related issue that potentially affects the findings is the lack of statistical power associated with the small sample sizes in Colorado and Virginia. For these sites, the outcome measures that examined the proportion of youth who reoffended would have to show differences of 15–20 percentage points between IAP and control youth to achieve a level that was statistically significant. Smaller differences between the groups would not attain significance and hence would result in a "no-difference" conclusion. In Virginia, for example, data suggested that IAP youth were less likely than controls to have a subsequent felony arrest (43 percent versus 53 percent), a result that was not statistically significant. With such a small number of cases in the sample, however, it is difficult to reliably determine whether a difference of this magnitude reflects real differences between the groups or is simply a result of sampling error. Even if the 10 percentage point difference between Virginia IAP and controls on the felony rearrest measure was "real" (i.e., not the result of sampling error), the small sample size would produce significance testing results indicating "no difference." In short, larger samples would have been required in Colorado and Virginia to determine whether IAP may have had a small, yet meaningful impact on recidivism.

The preceding two points are important evaluation-related issues that offer potential explanations for the lack of statistically significant recidivism differences between the IAP and control groups in Colorado and Virginia. Also, a range of program and implementation factors may help provide understanding of the recidivism findings. These are discussed below.

A programmatic factor that may have influenced the similarity in outcomes is that the intensive supervision of IAP youth may have led to a discovery of offenses that would not have been detected among control youth. Previous evaluations of intensive supervision programs have determined that high failure rates among the experimental groups were largely attributable to closer scrutiny by probation/parole staff and the increased likelihood that technical violations would be detected (see, for example, Petersilia and Turner, 1993). In fact, NCCD's study showed that the Nevada and Virginia IAPs had a significantly higher percentage of youth charged with technical violations. In all three sites, however, evaluators saw no significant differences between IAP and control youth in terms of felony or criminal arrests. Is there any reason to believe that closer supervision may have been associated with some proportion of the criminal

offenses (as opposed to technical violations) reported for IAP youth in the sites? No available evidence suggests that may have been the case in Colorado or Virginia. In Nevada, however, the IAP group may have been subject to a greater likelihood of arrest because parole officers have the ability to arrest and charge youth with criminal offenses. For example, if an IAP parole officer was visiting a youth's house and observed drugs or a weapon lying around, the youth would be arrested by the parole officer for the criminal offense of drug or weapon possession (rather than a technical violation of parole). Although control youth would have been subject to similar measures, the intensive supervision provided by IAP may have increased the likelihood of experimental youth being arrested in these circumstances. Because the proportion of arrests that were made under these circumstances is unknown, the evaluators can only speculate that this may have inflated the IAP arrest data. This issue clearly complicates the evaluation of intensive supervision programs and deserves more detailed examination in future research. There is a need to determine whether and to what extent the provision of intensive supervision itself has an impact on criminal arrests and to identify and describe the mechanisms by which it occurs.

Based on interviews with project staff, one potential barrier may have been difficulties in dealing with peer and family issues. Research has consistently demonstrated that negative peer influences and family functioning problems play a major role in chronic and violent juvenile offending (Hawkins et al., 2000; Schumacher, 1994; Thornberry, Huizinga, and Loeber, 1995). Although the IAP model stresses the need for intervention in these areas, and the sites in fact offered programs to address these issues, staff consistently reported that family and peers were often the most difficult areas in which to effect change. Colorado had some success in getting parents involved in treatment planning and in programming, but Nevada had almost none and Virginia's success was sporadic. In the latter sites, staff often found it difficult to obtain parents' trust or their consistent involvement in efforts on behalf of their children or themselves. In all of the sites, a large percentage of the parents had problems of their own (e.g., substance abuse) that often precluded their interest—let alone their involvement—in what was happening with their children. Peer relationships were also a continuing problem. The sites addressed negative peer influence issues in life skills programming and in various forms of counseling. All sites had pro forma parole conditions that placed restrictions on associating with negative peers. However, staff repeatedly reported that it was extremely difficult to keep IAP youth from hanging out with the people who lived in their neighborhoods, with whom they had grown up, and from whom they received support. While the IAP model identifies the need to address negative peer influences, and the sites did so, it appears that it was difficult to find effective ways to deal with these issues.

An additional consideration may be the quality of treatment service delivery that was available. The sites made a major effort to identify youth problems, identify available services in the community, and get youth engaged in those services. Judging from the high proportion of IAP youth who were involved in the various services NCCD examined, the sites were generally successful in this regard. With respect to drug treatment, for example, a large proportion of youth in each site received at least 1 hour per week of substance abuse programming. What is not clear is how well those and other services were delivered. Whereas site staff reported that many of the programs accessed by IAP provided high-quality services, it is the evaluators' impression that others were accessed simply because a youth had a problem and a provider offered to address it. This is somewhat speculative, but the evaluators believe that there was as much, or more,

pressure to get kids into “something” as there was to make sure that that “something” was a high-quality service. In many circumstances, only one provider was available in a community for a particular service, and staff had to take what they could get. For example, one IAP staff person commented that a treatment provider was trying to deliver a wide range of services to make the parole agency happy but was stretched so thin in terms of time and expertise that some of those services were poorly delivered.

These observations are not grounded in comprehensive data and are not meant to convey an image of routinely poor service delivery. Instead, NCCD speculates that the IAP programs may have had difficulty finding high-quality intervention services on a routine basis. Similar circumstances would apply in most correctional jurisdictions. Lipsey and Wilson (1998) have identified the importance of engaging youth in a range of services (as the IAP sites did). But they also note that effective service intervention is likewise dependent on the type of treatment, the duration and intensity of the treatment, and the quality of service delivery (including careful client selection, the use of well-designed treatment protocols, and thorough training of treatment personnel). Assessing the quality and effectiveness of treatment providers is a task far beyond the scope of this evaluation, but given the problem profile of IAP participants, the delivery of high-quality interventions is clearly an essential element of IAP implementation.

Altschuler and Armstrong (1994) suggested the importance of creating community support networks that can provide additional monitoring and support for program youth both during parole and after discharge. These networks might consist of individuals (e.g., relatives, neighbors, mentors) and/or institutions (e.g., schools, community organizations, churches) that are indigenous to the youth’s community. In some ways, these support networks can be conceived as the final step in the reintegration process, at which point the community takes responsibility for, and provides long-term support to, its most problematic youth. Because many high-risk youth do not have any effective parental involvement, the creation of other support networks may be critical to successful reintegration.

This was one area of the IAP model that the sites did not address in any systematic way. Although some efforts were made along these lines, the sites did not consistently attempt to develop supportive community-based networks. Instead, the focus was on engaging youth in formal programs that were run by public or private agencies, paid for by the state, and would typically end involvement with the youth as soon as the program was over or parole was terminated.

Finally, the evaluators believe that the IAP focus on the highest risk juvenile parolees deserves very careful consideration. The youth selected for IAP intervention were clearly the highest risk population that could be found in the juvenile justice system. IAPs targeted youth who had been committed to state training schools and identified as the very highest risks from among the committed population. The offense history and risk and needs profiles of the youth in each site dramatically underscore just how problematic was this subgroup of juvenile offenders. The characteristics of the Nevada youth provide an instructive example: two-thirds had their first delinquent adjudication at age 13 or younger, 96 percent had five or more prior referrals, 66 percent had 11 or more prior referrals, 4 out of 5 youth previously had been committed to a training school (i.e., the experimental intervention occurred at their second or third commitment),

55 percent were gang members, 4 in 10 had significant drug problems, and the same proportion had family members with significant drug problems. Clearly, any program intervention would have difficulty affecting such a deep-end, high-risk, high-needs population.

Legitimate and research-supported arguments exist for a general correctional strategy of targeting high-risk offenders for intensive supervision. These include the potential for having a greater impact on crime and avoiding the unintended consequences (i.e., high recidivism rates) of intensively supervising low-risk offenders (Clear, 1988). In addition, a series of meta-analyses (Andrews et al., 1990; Lipton and Pearson, 1996) have also indicated that intensive programs should be delivered to high-risk youth. However, much of the evidence from several studies of interventions that have used methods similar to IAP and with similar target populations suggests the difficulty of delivering an intervention that can successfully impact high-risk juvenile parolees (Deschenes, Greenwood, and Marshall, 1996; Greenwood, Deschenes, and Adams, 1993; Sealock, Gottfredson, and Gallagher, 1997). Two of these studies questioned whether interventions with such a problematic population may have been inadequate to address the “insurmountable nature of the problems and temptations encountered by the youth in their home communities” (Greenwood, Deschenes, and Adams, 1993:32) or “the basic problem that treatment services of the type provided in the aftercare programs do not seem able to compete with the temptations of street life” (Sealock, Gottfredson, and Gallagher, 1997:231).

One of the limitations of this study was the inability to identify the presenting characteristics of youth who were most likely to benefit from IAP intervention. This was in part due to small samples and in part to the homogenous nature of the youth served at each site. All the youth have extremely problematic profiles. As a result, this evaluation cannot address the questions of whether implementation might be facilitated, or outcomes improved, if the program were to serve, for example, moderate-risk committed youth or youth who have been placed in other facilities that serve as alternatives to training school commitment. While these youth still have high-risk profiles in relation to the overall juvenile correctional population, their less extensive offense histories and the less serious nature of their risk and needs profiles might make them more amenable to the efforts of an IAP intervention. Testing IAP’s impact on these types of juvenile offenders could provide a much better indication of who may benefit most from this kind of comprehensive intervention.

Conclusions and Implications

The results of this evaluation do not allow for broad-brush characterizations regarding IAP’s effectiveness. There is no evidence that the project had its intended impact of reducing recidivism among high-risk juvenile parolees. However, strong evidence from one site (Nevada) indicated that the IAP did not work. In Colorado and Virginia, evaluation issues regarding confounds to the experiment and small samples do not allow definitive statements about the efficacy—or lack thereof—of the IAP.

The Nevada evidence is fairly strong. It was the one site where the sample of IAP and control youth was large enough to allow firm conclusions to be drawn from the outcome data. And, although there were some important problems, implementation largely reflected what was expected in the IAP model. Moreover, Nevada was the one site in which IAP youth clearly

received a wider array of treatment services and more intensive treatment services than the control group. In spite of this, no significant or substantive differences were found between IAP and control youth on any outcome measures, except that IAP youth were more likely to be charged with a technical violation. The similarity between the Nevada groups on most outcome measures is striking. For example, 63 percent of the IAP youth and 60 percent of the controls had new felony arrests during the 12-month followup; 77 percent of each group had new criminal arrests; 13 percent of the IAP group and 12 percent of the control group had a violent felony as their most serious subsequent offense; and IAP youth averaged 1.1 felony offenses while the control group's average was 1.0.

The Colorado outcome data also showed few differences in recidivism between IAP and control youth. The only statistically significant findings were that IAP youth were more likely than controls to be reincarcerated (41 percent versus 26 percent), IAP youth had higher criminal recidivism scores during the first 2½ years of the project (5.9 versus 2.8), and IAP youth had lower criminal recidivism scores during the last 2½ years of the program (6.7 versus 11.0). On all other measures, no significant differences were seen between the groups. However, the general pattern of “no difference” in outcomes in Colorado needs to be viewed in the context of the substantially enhanced services that the control youth received during the course of the evaluation. Instead of comparing IAP to traditional parole, the evaluation actually compared IAP to a form of enhanced parole that provided control group youth with a level of treatment service similar to that provided to IAP youth. As a result, there may be little basis for expecting that IAP and control group recidivism rates would be very different. And the fact that they were not cannot be interpreted as a failure of IAP. Instead, the confounding of the evaluation in Colorado means that IAP did not receive an appropriate test of its potential impact in that site.

The Virginia data are also problematic because they are based on a small sample. Only the most dramatic differences between IAP and control youth would result in findings of significance. The low number of cases (63 IAP and 34 control) makes it difficult to determine whether other, smaller differences between the groups are meaningful or simply the result of sampling error. The only statistically significant difference between the IAP and control groups was that the former group was much more likely to be charged with a technical violation (60 percent versus 38 percent) and to be adjudicated delinquent for that violation (37 percent versus 19 percent). All other differences were nonsignificant, although some were promising for IAP (e.g., felony rearrests, 43 percent versus 53 percent; criminal rearrests, 60 percent versus 67 percent). The small samples and consequent lack of statistical power in Virginia means that the “no-difference” findings cannot be treated as conclusive.

Several implications for the future of IAP emerge from these findings. First, the evaluation results should not be used to dismiss the IAP model as ineffective. Although considerable evidence was found from one site that the IAP did not achieve its goals, the evidence from the other sites is inconclusive. Moreover, the initial implementation and testing of IAP in the three demonstration sites should be seen as just that: an initial effort to operationalize a very complex intervention designed to deal with the most problematic youth in the juvenile justice system. NCCD believes the IAP model has sufficient merit to justify its undergoing additional efforts at implementation and testing. It is possible that with the experience and knowledge gained from

the OJJDP initiative, in addition to more favorable evaluation conditions (i.e., larger samples), the model may demonstrate its ability to impact recidivism.

A second implication is that additional IAP-related efforts should involve sites that are carefully selected for their commitment and ability to implement the model. The IAP model is quite complex, with multiple facets, components, and requirements. It makes major demands on a participating agency, including substantially changing traditional intervention practices and getting access to a wide range of treatment resources. The OJJDP sites' implementation experiences showed that IAP is in fact a very difficult model to implement to its fullest. Even when it is reasonably well implemented (e.g., as in Nevada), there is no guarantee that it will have the desired impact. The OJJDP initiative was a 5-year effort that involved a substantial commitment of resources by the participating sites and ongoing technical and financial assistance from the federal government. The initiative was a dedicated and highly focused effort. The results of this evaluation—both in terms of implementation and outcomes—should serve as a warning signal that the IAP model cannot simply be lifted off the shelf or indiscriminately implemented.

If IAP-type strategies were to be undertaken in other places, what might be done to enhance the chances for success? NCCD believes that with a moderate application of financial and technical assistance resources—at a minimum, equivalent to the resources directed to the demonstration sites—other carefully selected jurisdictions would be able to successfully implement most of the case management components of the IAP model. That would be a necessary but not sufficient condition for success. There also would have to be a commitment of financial, programmatic, and community resources to ensure that the required treatment services were available to the program and that they were effectively delivered. The financial commitment would have to be sufficient to allow the programs to deliver at least the variety and intensity of treatment services that were provided by the sites. In this regard, Colorado's efforts should serve as the benchmark for IAP service delivery. The communities in which the programs were located would need to increase their capacity for making available the right range and quality of services to meet the program's needs. Any new IAP program would also need to be committed not only to getting youth involved in the treatment services but also to developing the skills to keep them there and to carefully monitor the quality of services delivered.

Sites chosen to implement IAP may also need to focus more attention on some aspects of the model that they may have overlooked or with which staff in the demonstration sites struggled. As suggested earlier, these might include:

- Maximizing parental involvement in programming for their children and in services for their own problems.
- Paying concentrated attention to the difficulties of extracting youth from their involvement with negative and delinquent peers.
- Redoubling efforts and/or pursuing new strategies for more fully reintegrating youth into educational pursuits or the labor market.

- Developing community treatment resources capable of delivering high-quality interventions of demonstrated effectiveness.
- Placing a greater emphasis on the development of community support networks.
- Considering use of the intervention with a target group that is somewhat less problematic than the high-risk parolees involved in these demonstration sites. One very minor alteration in selection criteria would be to exclude youth who have had a prior commitment. IAP should be the first experience a youth has in transitioning from the institution to the community, not the second or third.

Several other issues have previously been identified as factors that facilitated or impeded implementation in the demonstration sites (Wiebush, McNulty, and Le, 2000). These include the need to:

- Take a long-term, multiyear perspective on program implementation that takes into account the complexity of the model and that allows for an incremental approach to implementation.
- Generate strong internal and external support for the project by involving both high-level decisionmakers from other agencies and program staff within the IAP in planning and ongoing implementation decisions.
- Ensure strong, committed program leadership at the management and operations levels that has sufficient time dedicated to the project and that can aggressively address implementation issues as they arise.
- Ensure that sufficient staff resources are allocated to allow for intensive supervision and case management (e.g., approximately a 1:15 staff to youth ratio) and that workload demands elsewhere in the agency do not become a rationale for diluting the intensity of the IAP model.
- Have access to specialized funding sources that will allow contracting for the wide spectrum of routine and specialized treatment services that the high-risk, high-needs target population require.
- Pay sufficient attention to the project in circumstances such as when unstable operating environments (e.g., frequent and/or major organizational changes) or competing agency priorities (e.g., institutional overcrowding, workload demands) occur.
- Select energetic, flexible, and creative staff.
- Develop strategies for minimizing staff turnover and for rapidly filling vacancies as they occur.

In short, the strategy would be to carefully invest in the IAP model to ensure that it is implemented in the fullest possible way. This suggests the need for highly focused, ongoing

development and demonstration efforts that can take into account the implementation and evaluation obstacles identified in these demonstration sites and further enhance the development of the model.

References

- Achenbach, T.M. 1991. *Manual for the Youth Self-Report and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.
- Altschuler, D.M., and Armstrong, T.L. 1994. *Intensive Aftercare for High Risk Juveniles: A Community Care Model*. Summary. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Altschuler, D.M., and Armstrong, T.L. 1996. Aftercare not afterthought: Testing the IAP model. *Juvenile Justice* 3(1):15–22.
- Altschuler, D.M., Armstrong, T.L., and MacKenzie, D.L. 1999. *Reintegration, Supervised Release and Intensive Aftercare*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Armstrong, T. 1991. Introduction. In *Intensive Interventions With High Risk Youth: Promising Approaches in Juvenile Probation and Parole*, edited by T. Armstrong. Monsey, NY: Willow Tree Press.
- Baird, S.C., and Wagner, D. 1990. *Evaluation of the Florida Community Control Program*. Madison, WI: National Council on Crime and Delinquency.
- Barton, W.H., and Butts, J.A. 1990. Viable options: Intensive supervision programs for juvenile delinquents. *Crime and Delinquency* 36(2):238–256.
- Beck, A.J., and Shipley, B.E. 1987. *Recidivism of Young Parolees*. Special Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Boyles, C.E. 1998. *Recidivism Evaluation of Committed Juveniles Discharged in Fiscal Year 1995–96*. Denver, CO: Colorado Department of Human Services, Division of Youth Corrections.
- Brandau, T. 1992. An alternative to incarceration for juvenile delinquents: The Delaware Bay Marine Institute. Unpublished doctoral dissertation, University of Delaware.
- Brock, W., Buinavert, L., Heilbrun, K., Keeney, M., Lanier, A., Schmid, M., Shumate, M., Waite, D., Westendorf, M., and Witte, G. 2000. Risk factors for juvenile recidivism: The postrelease adjustment of juvenile offenders. *Criminal Justice and Behavior* 27(3):275–291.
- Butts, J.A. 1996. *Offenders in Juvenile Court 1994*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Byrne, J.M., and Kelly, L. 1989. *Restructuring Probation as an Intermediate Sanction: Evaluation of the Massachusetts Intensive Probation Supervision Program*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

- Byrne, J.M., Lurigio, A.J., and Baird, S.C. 1989. The effectiveness of the new intensive supervision programs. *Research in Corrections* 1(2):1-48.
- Catalano, R.F., Wells, E.A., Jenson, J.M., and Hawkins, J.D. 1989. Aftercare services for drug using institutionalized delinquents. *Social Service Review* 63:553-577.
- Clear, T. 1988. Statistical prediction in corrections. *Research in Corrections* 1(1):1-35.
- Coates, R.B., Miller, A.D., and Ohlin, L.E. 1978. *Diversity in a Youth Correctional System: Handling Delinquents in Massachusetts*. Cambridge, MA: Ballinger Publishing Company.
- Cordray, D.S. 2000. Enhancing the scope of experimental inquiry in intervention studies. *Crime and Delinquency* 46(3):401-424.
- Deschenes, E.P., Greenwood, P.W., and Marshall, G. 1996. *The Nokomis Challenge Program Evaluation*. Santa Monica, CA: The RAND Corporation.
- Elliott, D.S., Huizinga, D., and Ageton, S.S. 1985. *Explaining Delinquency and Drug Use*. Beverly Hills, CA: Sage Publications, Inc.
- Empey, L., and Erickson, M. 1972. *The Provo Experiment: Evaluating Community Control of Delinquency*. Lexington, MA: Lexington Books.
- Empey, L., and Lubeck, S.G. 1971. *The Silverlake Experiment: Testing Delinquency Theory and Community Intervention*. Chicago, IL: Aldine Publishing.
- Erwin, B.S., and Bennett, L. 1987. *New Dimensions in Probation: Georgia's Experience With Intensive Probation Supervision*. Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Fagan, J.A. 1990. Treatment and reintegration of violent juvenile offenders: Experimental results. *Justice Quarterly* 7(2):223-263.
- Fagan, J., Forst, M., and Vivona, T. 1987. *Treatment and Reintegration of Violent Juvenile Offenders: Experimental Results*. San Francisco, CA: URSA Institute.
- Fagan, J., Rudman, C.J., and Hartstone, E. 1984. Intervening with violent juvenile offenders: A community reintegration model. In *Violent Juvenile Offenders: An Anthology*, edited by R. Mathias, P. DeMuro, and R. Allinson. San Francisco, CA: National Council on Crime and Delinquency.
- General Accounting Office. 1990. *Intermediate Sanctions: Their Impacts on Prison Crowding, Costs and Recidivism Are Still Unclear*. Gaithersburg, MD: General Accounting Office.
- Goodstein, L., and Sontheimer, H. 1997. The implementation of an intensive aftercare program for serious juvenile offenders. *Criminal Justice and Behavior* 24(3):332-359.

- Gottfredson, D.C., and Barton, W.H. 1993. Deinstitutionalization of juvenile offenders. *Criminology* 31(4):591–611.
- Greenwood, P.W., Deschenes, E.P., and Adams, J. 1993. *Chronic Juvenile Offenders: Final Results From the Skillman Aftercare Experiment*. Santa Monica, CA: The RAND Corporation.
- Greenwood, P.W., and Turner, S. 1987. *The VisionQuest Program: An Evaluation*. Santa Monica, CA: The RAND Corporation.
- Hamparian, D.M., Davis, J.M., Jacobson, J.M., and McGraw, R.E. 1985. *The Young Criminal Years of the Violent Few*. Washington, DC: U.S. Department of Justice.
- Hawkins, J.D., Herrenkohl, T., Farrington, D., Brewer, D., Catalano, R., Harachi, T., and Cothorn, L. 2000. *Predictors of Youth Violence*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Hawkins, J.D., Jenson, J.M., Catalano, R.F., and Lishner, D.M. 1988. Delinquency and drug abuse: Implications for social services. *Social Service Review* 62:258–284.
- Henggeler, S.W., Melton, G.B., and Smith, L.A. 1992. Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology* 60(6):953–961.
- Krisberg, B., Austin, J., and Steele, P. 1991. *Unlocking Juvenile Corrections*. San Francisco, CA: National Council on Crime and Delinquency.
- Lipsey, M. 1990. *Design Sensitivity: Statistical Power for Experimental Research*. Newbury Park, CA: Sage Publications.
- Lipsey, M., and Wilson, D. 1998. Effective intervention for serious juvenile offenders: A synthesis of research. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, Inc.
- Lipton, D., and Pearson, F.S. 1996. The CDATE Project: Reviewing research on the effectiveness of treatment programs for adults and juvenile offenders. Paper presented at the annual meeting of the American Society of Criminology, Chicago, IL.
- Moos, R., and Moos, B. 1994. *Family Environment Scale Manual*. 3d ed. Palo Alto, CA: Consulting Psychologists Press.
- Office of Juvenile Justice and Delinquency Prevention. 2001. *OJJDP Annual Report, 2000*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Office of the Legislative Auditor. 1995. *Residential Facilities for Juvenile Offenders*. St. Paul, MN: Office of the Legislative Auditor, State of Minnesota.

Palmer, T. 1975. Martinson Revisited. *Journal of Research in Crime and Delinquency* 12(2):133–152.

Papparazi, M., and Gendreau, P. 1993. An ISP that works! Treatment, organizational support and officer roles. Unpublished manuscript. Trenton, NJ: New Jersey Department of Corrections, Bureau of Parole.

Pearson, F.S. 1987. *Research on New Jersey's Intensive Supervision Program*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Petersilia, J., and Turner, S. 1993. *Evaluating Intensive Supervision Probation/Parole: Results of a Nationwide Experiment*. Research in Brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.

Schumacher, M. 1994. *The "Eight Percent Problem": Chronic Juvenile Offender Recidivism. Exploratory Research Findings and Implications for Problem Solutions*. Santa Ana, CA: Orange County Probation Department.

Sealock, M.D., Gottfredson, D., and Gallagher, C. 1997. Drug treatment for juvenile offenders: Some good and bad news. *The Journal of Research in Crime and Delinquency* 34(2):210–236.

Sickmund, M., Snyder, H., and Poe-Yamagata, E. 1997. *Juvenile Offenders and Victims: 1997 Update on Violence*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Sickmund, M., and Wan, Y. 1999. *Census of Juveniles in Residential Placement Databook*. Fact Sheet. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Snyder, H. 2000. *Juvenile Arrests 1999*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Sontheimer, H., and Goodstein, L. 1993. Evaluation of juvenile intensive aftercare probation: Aftercare versus system response effects. *Justice Quarterly* 10(2):187–227.

Thornberry, T., Huizinga, D., and Loeber, R. 1995. The prevention of serious delinquency and violence: Implications from the program of research on the causes and correlates of delinquency. In *Serious, Violent and Chronic Juvenile Offenders: A Source Book*, edited by J.C. Howell, B. Krisberg, J.D. Hawkins, and J.J. Wilson. Thousand Oaks, CA: Sage Publications.

Tonry, M. 1990. Stated and latent functions of ISP. *Crime and Delinquency* 36(1):174–191.

Torbet, P., Gable, R., Hurst, H., Montgomery, I., Szymanski, L., and Thomas, D. 1996. *State Responses to Serious and Violent Juvenile Crime*. Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Wiebush, R.G. 1993. Juvenile intensive supervision: The impact on felony offenders diverted from institutional placement. *Crime and Delinquency* 39(1):68–89.

Wiebush, R.G., McNulty, E., and Le, T. 1998. *The Intensive Aftercare Program (IAP) Demonstration Project: Interim Implementation Assessment*. San Francisco, CA: National Council on Crime and Delinquency.

Wiebush, R.G., McNulty, E., and Le, T. 2000. *Implementation of the Intensive Community-Based Aftercare Program*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Wilson, J., and Howell, J.C. 1993. *A Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.