

**Washington's Dangerous
Mentally Ill Offender Law:
Was Community Safety Increased?**

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Document No. 05-03-1901

WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

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The authors wish to thank the following persons for their contributions to this report: Peggy Smith, Department of Corrections; Kevin Campbell, Department of Social and Health Services, Division of Alcohol and Substance Abuse; Fred Fiedler and Roger Calhoun, Department of Social and Health Services, Division of Research and Data Analysis; John Miller and Laura Harmon, Washington State Institute for Public Policy; Bruce Stegner, Washington Institute for Mental Illness Research and Training, WSU; and Barry Ward, Washington Institute for Mental Illness Research and Training, UW.

EXECUTIVE SUMMARY

The 1999 Washington State Legislature passed legislation¹ to improve the process of identifying and providing additional mental health treatment for mentally ill offenders who are being released from the Department of Corrections (DOC), who pose a threat to public safety, and agree to participate in the program. A “Dangerous Mentally Ill Offender” (DMIO) is identified in the legislation as a person with a mental disorder who has been determined to be dangerous to self or others. Through interagency collaboration, the legislation intends to promote a safe transition to the community by having state funds support an individual’s mental health treatment and other services. The legislation directs the following:

- DOC, the Department of Social and Health Services (DSHS), the Regional Support Networks (RSN), and treatment providers shall plan and deliver support services and treatment for the offenders upon release; and
- DSHS shall use supplemental funding to contract for DMIO case management and other services with RSNs or any other qualified and appropriate entities.

The legislation also directs the Washington State Institute for Public Policy (Institute) and the Washington Institute for Mental Illness Research and Training (WIMIRT) to evaluate the Act to determine:

- Whether criminal recidivism or inpatient hospitalization was reduced;
- Whether mental health, drug/alcohol, case management, housing assistance, and other services were improved;
- Whether the risk assessment tool assessing dangerousness was valid; and
- Whether the state saved money because of early Medicaid enrollment or reduced use of DOC beds.

These outcomes were analyzed by comparing DMIO participants released from prison (DMIO participants) with a similar group of offenders from the Community Transition Study (CTS), who were released in 1996 and 1997.² This study covers all offenders admitted to the program during its first two years, and who were followed in the community for 18 months after their release from prison. The DMIO program was designed to serve participants for five years after prison release; this evaluation covers the first 18 months of a 60-month program.

¹ Substitute Senate Bill (SSB) 5011, Chapter 214, Laws of 1999.

² David Lovell, Gregg Gagliardi, and Paul D. Peterson. 2002. “Recidivism and Service Use Among Mentally Ill Offenders Released From Prison.” *Psychiatric Services* 53(10): 1290-1296; Gregg Gagliardi, David Lovell, Paul Peterson, and Ron Jemelka. 2004. “Forecasting Recidivism in Mentally Ill Offenders Released From Prison.” *Law and Human Behavior* 28(2): 133-155.

Findings

Were There Reductions in Recidivism and Hospital Use?

Recidivism Rates Were Lower for DMIO Participants. After controlling for pre-existing differences between DMIO participants and CTS comparison group subjects, we found the following statistically significant differences during the first 18 months of release from prison:

- Fewer DMIO participants (33.5 percent) were reconvicted for a new offense (felony or misdemeanor) compared with CTS subjects (52.6 percent);
- Fewer DMIO participants (13.9 percent) were reconvicted of felonies compared with CTS subjects (27.6 percent); and
- More time elapsed before DMIO participants committed a new offense.

No Reductions in Hospitalization. Equal proportions of DMIO participants and CTS subjects released directly to the community were subsequently hospitalized for approximately equal lengths of stay. The DMIO program, therefore, does not appear to have saved money in the first 18 months due to decreased hospitalization costs.

Were There Improvements in Access to Social Services?

DMIO participants Were Connected More Quickly to Community Mental Health Treatment and Received More Intensive Services. Because DOC and community mental health providers worked together to connect DMIO participants with services before their release from prison, DMIO participants more quickly obtained stable and more intensive community mental health treatment than CTS comparison group subjects.

- DMIO participants usually began receiving services immediately upon release: 59 percent of DMIO participants were seen within one week of prison release compared with 14 percent of CTS subjects, and the average time to first service after release was two weeks for DMIO participants versus six months for CTS subjects; and
- Steady community mental health treatment (nine or more months in the first year) was provided to 76 percent of DMIO participants compared with 15 percent of CTS subjects, averaging 9 and 2.5 billed hours per month of service, respectively.

DMIO Participants Received Faster Access to Medicaid and Other Social Services. Because of special arrangements made by DSHS and DOC, program participants were more quickly assessed for Medicaid eligibility and enrolled in mental health, financial, and other social service programs.

- Among DMIO participants, 72 percent received state General Assistance–Unemployed (GAU) payments during the first year compared with 41 percent of comparison group subjects, with an average wait of 26 versus 54 days, respectively.

- DMIO participants received food stamps sooner and in greater proportions than CTS subjects.
- Among DMIO participants, 92 percent were ruled eligible for state assistance programs, of whom 86 percent established Medicaid eligibility, usually with no delays.

DMIO participants Received More Drug and Alcohol Treatment. In the first year after release, 53 percent of DMIO participants received substance abuse treatment compared with 19 percent of comparison group subjects.

Challenges to Community Transition. DMIO participants examined in our case management study posed considerable challenges to DOC and community mental health case managers, particularly in the area of housing. DMIO participants were often difficult to place in housing because of their histories of violent or sex offenses. Nevertheless, only four (11 percent) DMIO study participants became homeless during the study period compared with 12 (29 percent) CTS subjects.

Is DOC's Risk Assessment Tool Valid for the DMIO Population?

To assess risk level of all offenders, DOC relies on an instrument called the Level of Services Inventory-Revised (LSI-R). The total score on this instrument predicts felony recidivism and violent felony recidivism about as well for DMIO participants as it does for the general population of offenders.

Overall, Did the DMIO Program Save Money for Taxpayers and Crime Victims?

The benefit-cost evaluation estimates the effect of the program on crime outcomes. We did not measure the program's effects on all potential outcomes, such as decreases in substance abuse or other public sector costs. The recordkeeping for DMIO expenditures is not precise; it was therefore necessary to make some assumptions about costs. To the extent that these assumptions are not accurate, the benefit-cost calculation is compromised. If recordkeeping is improved in the future, the cost figures can be adjusted and the benefit-cost calculations refined.

We estimate that the DMIO program costs about \$15,000 per participant during the first 18 months. As reported, we estimate the DMIO program reduces recidivism rates and, thus, lowers taxpayer costs for the criminal justice system as well as additional benefits due to fewer crime victims. We estimate that the \$15,000 per participant cost of the program produces a total of \$11,100 in crime-reduction benefits. Of these total benefits, \$5,418 accrues to taxpayers in the form of reduced criminal justice system expenditures that will be avoided because crime is lower. Fewer crime victims are expected because the program lowers crime; we estimate these benefits to be \$5,682 per participant. This results in an overall return of 74 cents per dollar of DMIO program cost.

As mentioned before, this estimate reflects the first 18 months of DMIO operation; only a longer-term evaluation will be able to assess the full impact of the five-year DMIO program.

Effects on Prison Release. Many offenders in prison have special conditions attached to their release planning; these conditions can potentially cause individuals to have their release date extended. Available data about releases of DMIO participants and other mentally ill offenders did not reveal substantial differences between groups in release timing.

Effects on Timely Medicaid Eligibility. The federal Social Security system reimburses the state for subsistence payments by state funds for individuals admitted to the Supplemental Security Income (SSI) program. Our analysis indicated that the state did not achieve any financial advantages due to the program's emphasis on speedy medical applications. State payments are reimbursed by the federal government whether eligibility is determined sooner or later.

Conclusions

This evaluation must be regarded as preliminary. The legislation authorized a five-year treatment program; this report covers results from the first 18 months. To date, the program appears to be accomplishing its principal objectives: reductions in the felony recidivism rates of DMIO participants and improved delivery of social services and safe housing to this population. Rates of hospitalization usage were not affected in this 18-month period. Our 18-month benefit-cost analysis indicates that the recidivism reduction can be expected to generate financial benefits to taxpayers that are slightly less than program costs.

This preliminary benefit-cost analysis should be reviewed after the program's five-year mark. Additional recordkeeping and data collection by program administrators would allow additional policy questions about the program to be answered.

I. LEGISLATIVE MANDATE

Late in 1997, public and legislative attention was focused on offenders with untreated mental illnesses after a man recently released from jail stabbed and killed another citizen on a public street. A legislative subcommittee was created in 1998 to identify gaps in laws and policies that may have allowed this tragic event to occur. Public meetings of the group provided a forum for policymakers, as well as mental health, corrections, and law enforcement representatives, to discuss issues and investigate solutions. Many topics were raised: identification and treatment of mentally ill offenders who pose serious safety risks; offender supervision, including apprehension of those who violate supervision conditions; coordination of services between the Department of Corrections (DOC) and the Department of Social and Health Services (DSHS); and barriers to information sharing among agencies.

During the 1998 and 1999 legislative sessions, the subcommittee's work gave rise to several bills. In 1999, the Legislature passed Substitute Senate Bill 5011,⁴ with a specific focus on a select group of felons leaving prison with serious mental health problems. The population was labeled "dangerous mentally ill offenders" (DMIO) and defined as persons who have a mental disorder and have been determined to be dangerous to themselves or others.

The DMIO legislation mandated the following:

- DOC shall identify DMIO participants using correctional records as well as research-based factors that are linked with an increased risk of dangerousness;
- Representatives from DOC, DSHS, the Regional Support Networks (RSN), and treatment providers shall deliver support services and treatment for offenders who are identified as appropriate candidates and who agree to participation;
- DOC and DSHS shall develop rules and agreements to facilitate early identification of Medicaid-eligible individuals in this population; and
- DSHS shall contract for case management and other services for this population after release, relying on RSNs or any other qualified and appropriate entities.

The legislation took effect March 15, 2000. The Washington State Institute for Public Policy (Institute) issued reports in 2002 and 2003 containing preliminary findings.⁵ This report is the final evaluation directed by the legislation.

⁴ Enacted May 17, 1999, Chapter 214, Laws of 1999.

⁵ Polly Phipps and Gregg Gagliardi. 2002. *Implementation of Washington's Dangerous Mentally Ill Offender Law: Preliminary Findings*. Olympia: Washington State Institute for Public Policy; Polly Phipps and Gregg Gagliardi. 2003. *Washington's Dangerous Mentally Ill Offender Law: Program Selection and Services*. Olympia: Washington State Institute for Public Policy.

Legislative Questions

The Legislature set out specific questions for the evaluation. The Institute, in conjunction with Washington Institute for Mental Illness Research and Training (WIMIRT), was directed to evaluate whether:

- The law reduces participants' criminal recidivism;
- Treatment and services for participants is increased and inpatient mental health treatment is decreased;
- Delivery and effectiveness of treatment and services is increased for participants;
- The risk assessment tool assessing dangerousness of offenders is valid;
- Participants' enrollment in the federal Medicaid program occurs sooner and saves money for the state;
- Fewer participants are returned to prison, saving DOC costs; and
- Services should be expanded to include other classifications of offenders.

The next section covers research methods used for this study.

II. RESEARCH METHODS

Study Design

To determine the effectiveness of this bill, it is necessary to compare DMIO participants with a similar group of offenders released from prison without benefit of the program's interagency coordination and supplemental funding for services. For the comparison group, we relied on the Community Transition Study (CTS), which looked in detail at mentally ill offenders released from Washington State prisons in 1996 and 1997.⁶

This study used information from public agency databases maintained by the Administrative Office of the Courts, DOC, the Department of Social and Health Services Mental Health Division (DSHS-MHD), DSHS Division of Alcohol and Substance Abuse, DSHS Research and Data Analysis Division, as well as the Department of Health, Division of Vital Statistics.

Recidivism Study. Reliable recidivism findings require both adequate numbers of subjects and a reasonable period of follow-up time after release. By using participants released by the end of 2002, the follow-up period was sufficiently long to capture recidivism data and also have an adequate sample size. All subjects in both studies were compared over equal periods, regardless of release date. The DMIO program started more slowly than anticipated, and this limited the amount of follow-up time available for this report.

By the end of 2002, 113 DMIO participants had been released. Two were committed to a state hospital for the entire 18-month post-release study period, one died just after release, four were transferred out of state, and six were committed as sexual predators: this left 100 offenders released to Washington communities for whom outcomes were assessed.

These DMIO participants were compared over the first 18 months after release with findings on 287 CTS subjects. Statistical controls were used to account for relevant differences between the two groups.

Case Management Study. The transition experiences of DMIO participants were assessed by collecting and coding case management information on the first 53 DMIO participants released by January 2002. Members of this group were slightly older than later DMIO participants and had fewer past drug felonies but were otherwise similar in demographics and criminal history. Similar information had been collected and coded on a group of 48 CTS subjects released in 1996. Information was collected from community mental health case managers through a monthly questionnaire and from institutional counselors and community corrections officers through notes they enter into the DOC Offender-Based Tracking System (OBTS) database.

Group statistics often fail to capture observations at the level of individual offenders and treatment providers. The narrative portion of the case management study examined individual DMIO participants as clinical "case studies" to illustrate the special challenges this

⁶ Lovell et al., "Recidivism and Service Use Among Mentally Ill Offenders"; Gagliardi et al., "Forecasting Recidivism in Mentally Ill Offenders."

group presented. Summary comments by community mental health providers, as well as notations by staff in the agency's OBTS information system, were used for this purpose. Appendix C provides more detailed explanations of this portion of the evaluation.

Risk Tool Validation Study. The Institute's ongoing study of the LSI-R was used for this aspect of the study, along with methods developed for the CTS.⁷

Cost-Benefit Study. The Institute has developed methods of economic analysis to assess program benefits in terms of reduced costs to taxpayers, for law enforcement, adjudication, and corrections, as well as crime victims.⁸ Estimates of the effect size of reductions in recidivism attributable to DMIO program intervention, based on the recidivism study, are applied to the long-run distribution of offenses committed by CTS subjects. Program costs for this study were limited to the supplemental funding provided by the Legislature for this program.

Analysis and Interpretation of Results. An experimental study with random assignment to treatment and control groups is the most reliable research design, if implemented with low attrition. These experimental designs, however, are infrequently available for public programs such as the DMIO program because ethical and political concerns are raised about denial of service and agencies' public safety obligations. For this study, we relied on a matched comparison group. Three principal limitations are created by this non-randomized research design and the necessarily limited follow-up period:⁹

- The CTS cohort was released from prison more than four years before the DMIO participants. Changes in other factors—such as increasing emphasis by state and local agencies on interagency coordination and community supervision during the intervening period—could account for some effects attributed to the DMIO program.
- Because the DMIO enrollment process preferentially selected persons with violent criminal histories, the program included fewer women and fewer property and drug offenders than the CTS. These and other observed and unobserved pre-existing differences may confound interpretation of program effects. We control for the observed differences statistically.
- As noted elsewhere, our evaluation of the DMIO program must be regarded as preliminary. We measure results over the first 18 months of a five-year treatment program.

Details about the selection process for DMIO participants and the CTS comparison group are in Appendices A and B.

⁷ Gagliardi et al., "Forecasting Recidivism in Mentally Ill Offenders."

⁸ Steve Aos, Roxanne Lieb, Jim Mayfield, Marna Miller, and Annie Pennucci. 2004. *Benefits and Costs of Prevention and Early Intervention Programs for Youth, Technical Appendix*. Olympia: Washington State Institute for Public Policy.

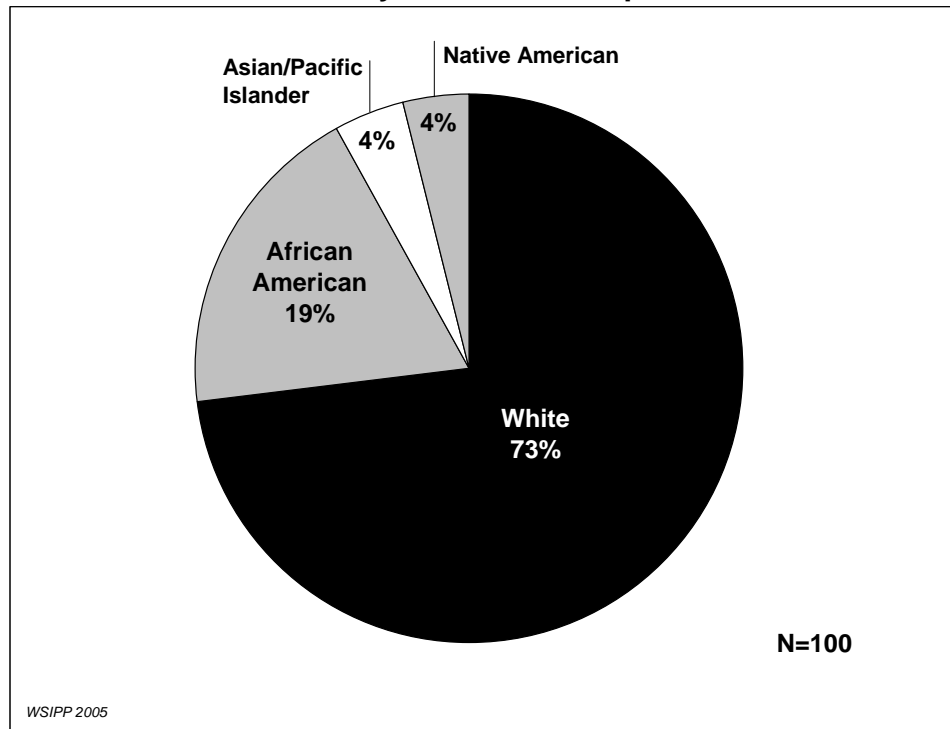
⁹ T.D. Cook and D.T. Campbell. 1979. *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Chicago: Rand McNally.

DMIO Program Participants

The selection process for DMIO participants is managed by an interagency body, the Statewide Review Committee. For further detail on this body and decision-making, see the Institute's 2003 report.¹⁰ As described earlier in this document, we report findings for the first 100 program participants who were released to the community and remained in Washington.

With an average age of 37 years upon release, DMIO participants were older than the general population of offenders (average 33 years). DMIO participants resembled the overall prison release population in ethnicity, except that they were slightly more likely to be white and slightly less likely to be African American (see Exhibit 1). In addition to ethnicity categories identified in this exhibit, DOC records show that 2 percent of participants were Hispanic, in contrast to the 14 percent represented in all prison releases.

Exhibit 1
Ethnicity of DMIO Participants



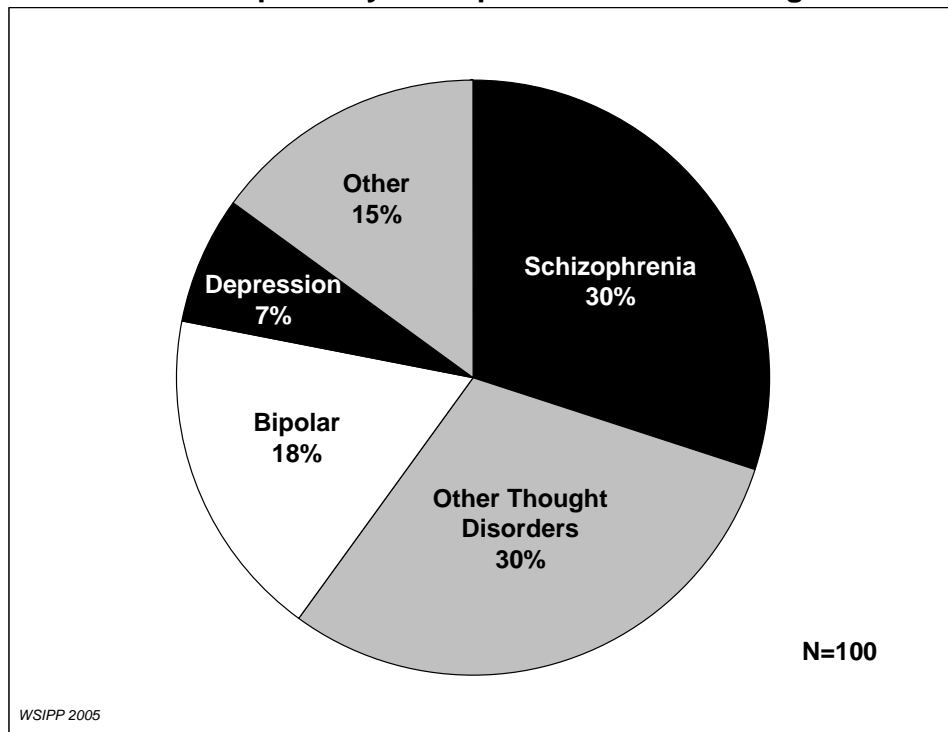
¹⁰ Phipps, et al., *Washington's Dangerous Mentally Ill Offender Law*.

DMIO participants were diagnosed with severe mental disorders. Over half were diagnosed with major thought disorders. The “other” disorder category includes dementia, brain injury, developmental disability, and severe personality disorders (see Exhibit 2).

Before incarceration, 68 (60 percent) had received publicly funded community mental health treatment, and 63 (56 percent) had been hospitalized for mental health reasons. While in prison, 71 percent were assigned to a mental health residential bed: 35 percent for over a year and 25 percent for over two years.

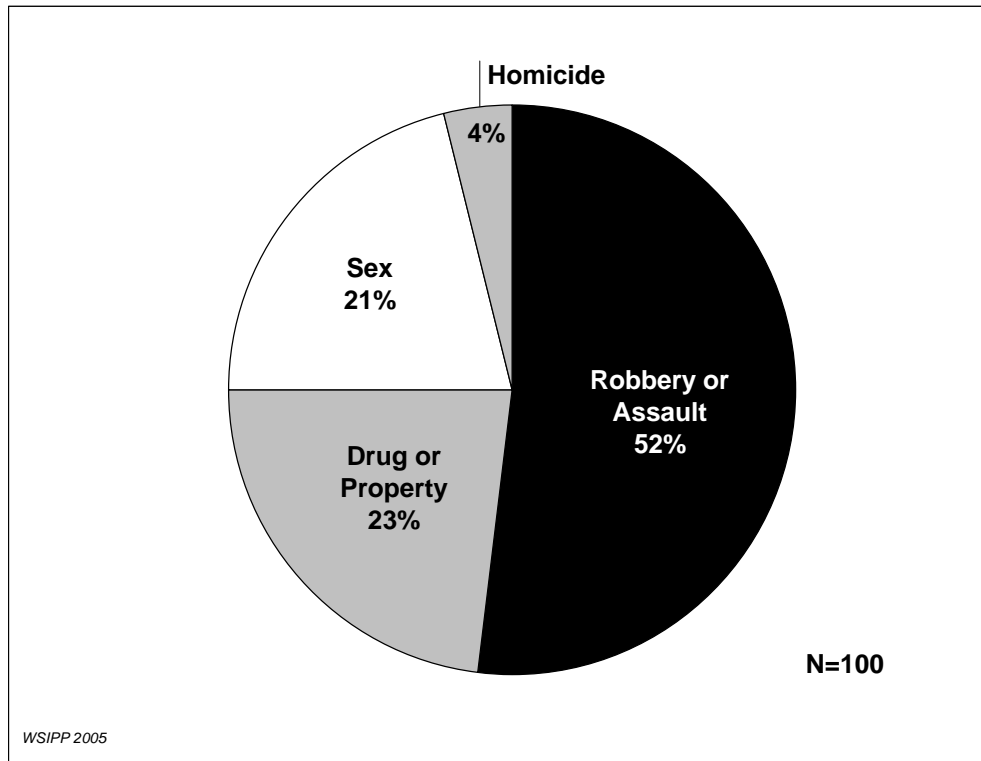
Of the group, 13 (12 percent) were enrolled with the DSHS Division of Development Disabilities and received services after release; the case management study revealed other participants impaired by accidental brain injury or chronic substance abuse.

Exhibit 2
DMIO Participants by Principal Mental Health Diagnoses



In terms of criminal history, a substantial proportion of DMIO participants (27 percent) had been imprisoned due to their first Washington felony conviction. An equal proportion had four or more past felonies, ranging as high as 13. A distinctive aspect of DMIO participants is the seriousness of their index offenses.¹¹ Compared with all prison releases, where 36 percent were released after serving time for felony convictions against persons, over three-quarters of DMIO participants had violent or sex index felonies (see Exhibit 3).

**Exhibit 3
DMIO Index Offenses**

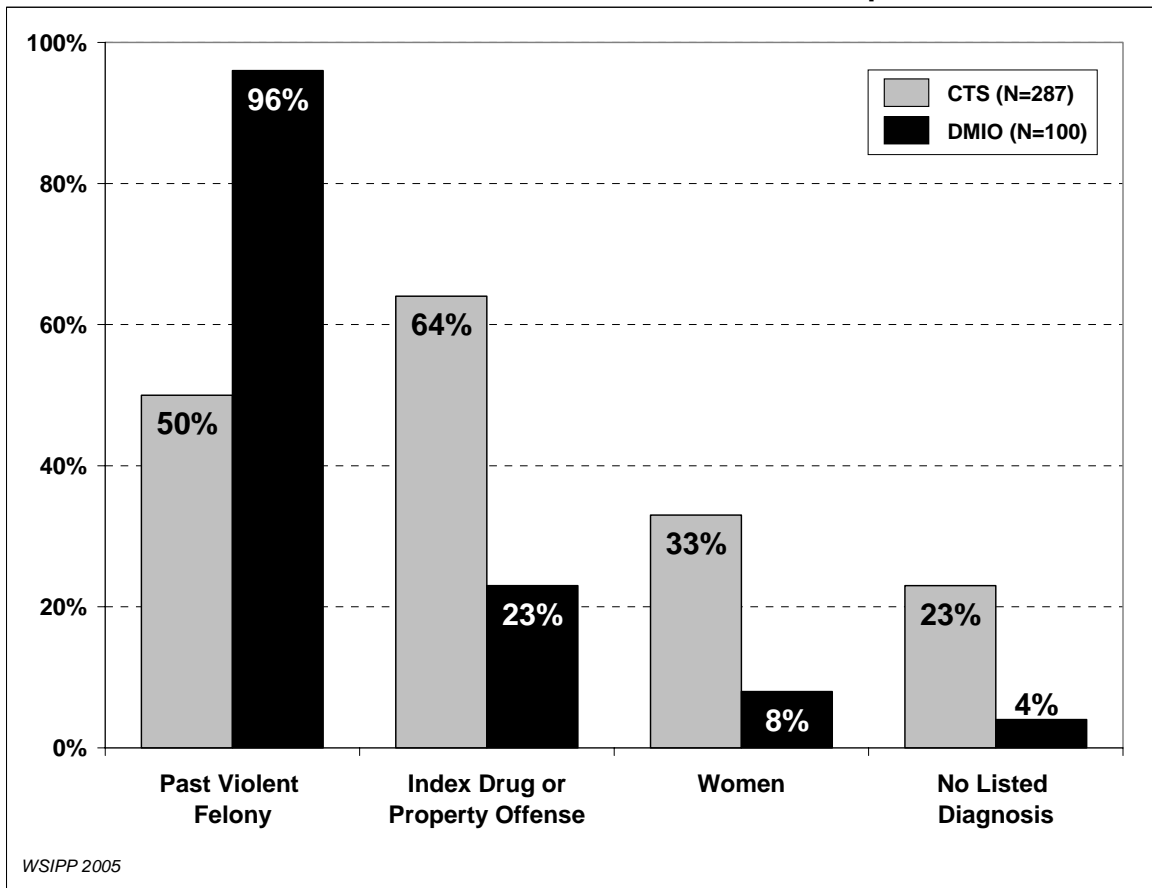


¹¹ An index offense is the offense which led to the offender's current term of incarceration.

DMIO participants Versus CTS Subjects. There were no significant differences between CTS subjects and DMIO participants in ethnicity. The groups were also similar in the age at which they began offending, in the number of previous misdemeanors, in the percentage placed in mental health residential treatment (CTS 60 percent, DMIO 64 percent), and in the percentage who had been prescribed psychotropic medications while in prison (90 percent in both groups).

The principal pre-release differences between DMIO and CTS subjects are examined in Exhibit 4. Because of these observed differences, multivariate statistical adjustments were necessary to compare the outcomes for these groups. The next section explains these adjustments in detail.

Exhibit 4
Differences Between CTS and DMIO Groups



III. FINDINGS

Recidivism

This section assesses whether DMIO program efforts resulted in a reduction of new offenses among DMIO participants by answering the following questions:

- Were there significant differences in new offenses between DMIO participants and the CTS subjects?
- To what extent can differences be attributed to program involvement rather than to pre-existing differences between the groups?

Recidivism Comparisons

There are two ways to present recidivism rates for the CTS and DMIO groups. Had the two groups of subjects been drawn from the same population and randomly assigned to the CTS or DMIO groups, one would simply calculate the percentage that recidivated for each group. However, because our subjects were not randomly selected from the same population, there were important pre-existing differences in recidivism risk between the CTS and DMIO groups that distort the observed recidivism rates. One way to correct for this distortion is to take these differences into account in a multivariate analysis and then to calculate *mean-adjusted recidivism rates* based on the findings from that statistical analysis. Except where otherwise indicated, we report recidivism rates in terms of mean-adjusted recidivism rates.

Recidivism is defined as reconviction in a Washington court for a new offense during the 18-month follow-up period available for this study, for which the offender was adjudicated guilty.¹² We examined three categories of recidivism: violent felony recidivism, felony recidivism, and any recidivism (includes misdemeanor recidivism as well as felony recidivism). Mean-adjusted recidivism rates for the CTS and DMIO groups are presented in Exhibit 5.

¹² Charges with a disposition of Not Guilty by Reason of Insanity are also counted as offenses, but there were no such events during the follow-up period for this study.

Exhibit 5
Recidivism Rates
Mean-Adjusted Reconviction Rates

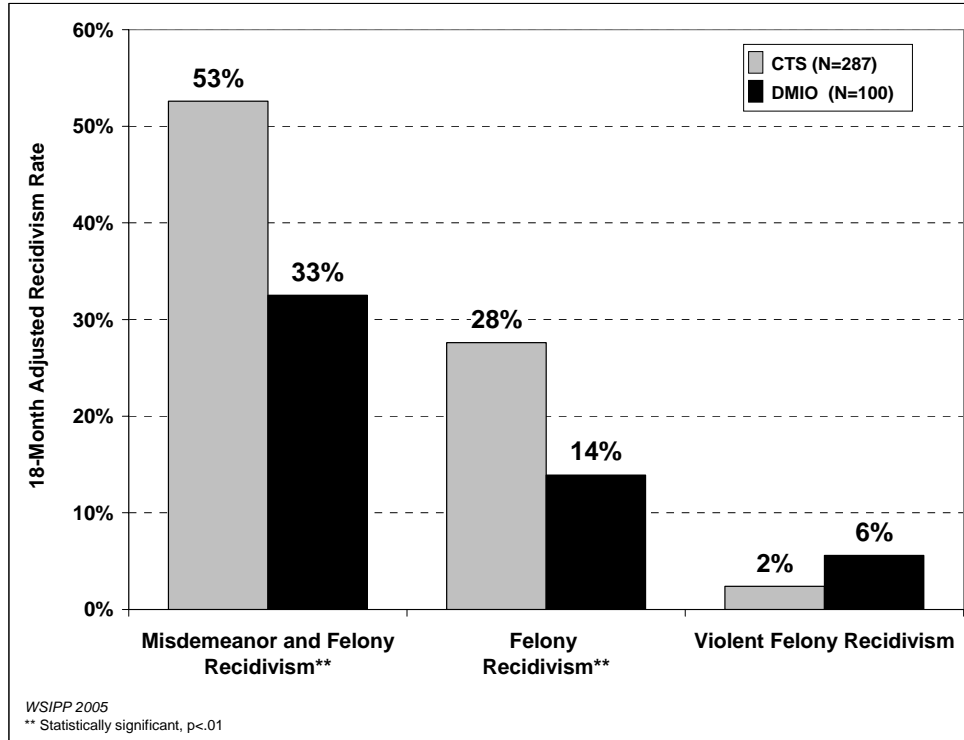


Exhibit 6 examines the three recidivism measures and the DMIO treatment effect size on each measure (estimated from logistic regression analysis). The mean-adjusted recidivism rates are presented along with the actual numbers of recidivists and the raw, unadjusted recidivism rates (shown in parentheses). The logistic regression analysis reveals no significant differences between DMIO participants and CTS subjects in violent felony recidivism. However, DMIO participation was associated with a substantially lower mean-adjusted rate for felony recidivism and any new offense recidivism.

Exhibit 6
Criminal 18-Month Recidivism Measures
Mean-Adjusted and Unadjusted Rates

Recidivism Type	CTS		DMIO		Effect Size
	N	Adjusted (Unadjusted)	N	Adjusted (Unadjusted)	
Violent Felony	14	2.4% (4.9%)	10	5.6% (10%)	.17
Felony**	97	28% (34%)	15	14% (15%)	-.34
Any New Offense**	152	52% (53%)	31	32% (31%)	-.41

** Statistically significant, p<.01

Because the DMIO program was instituted in part to reduce the risk of serious violence among persons with mental illness, we examined the pattern of violent felonies in detail (see Exhibit 7). New violent felonies were rare for both the CTS and DMIO groups, and few of these felonies are classified as most serious violent felonies as defined in RCW 9.9A.030.

The CTS study found that mentally ill offenders released from DOC in 1996 and 1997 had the same relatively low risk of violent felony recidivism as other, non-mentally disordered inmates released in those years.¹³ Because violent felonies are rare, and because the sample size available for this study is relatively small, the numbers presented here do not provide a statistically meaningful basis for comparing violent felony recidivism rates between groups. To make a meaningful comparison would require a larger sample of DMIO participants (several hundred) studied over three to five years after release.

Exhibit 7
Violent Felony Recidivism in the CTS and DMIO Groups

Crime	CTS Group (N=287)	DMIO Group (N=100)	Total
Rape of a Child First Degree[†]	1	0	1
Rape in the Second Degree[†]	0	1	1
Robbery in the First Degree[†]	2	0	2
Robbery in the Second Degree[†]	2	0	2
Assault in the First Degree[†]	0	1	1
Assault in the Second Degree	1	1	2
Assault in the Third Degree	2	3	5
Vehicular Homicide	1	1	2
Custodial Assault	2	0	2
Violation of a Protection Order (felony)	1	1	2
Harassment (felony)	1	2	3
Unlawful Possession of a Firearm	1	0	1
Total	14	10	24

[†] Defined as a “most serious violent offense.”

Controlling for Pre-Existing Differences

Here we consider differences between DMIO participants and CTS subjects in recidivism to determine whether these observed differences are due to pre-existing differences in risk rather than DMIO treatment. Exhibit 4 (p. 12) revealed differences between the groups in four areas; additional analysis examined these areas in more detail. Eleven pre-existing differences between DMIO participants and CTS subjects are reported in Exhibit 8. Of particular interest, more CTS subjects were female or 25 years old or younger upon release; they also had more previous felonies, though fewer violent felonies. As a result of these and other differences, the CTS group had a substantially higher predicted risk for felony recidivism based on the CTS felony risk prediction equation (41 percent versus 29 percent).¹⁴

¹³ Lovell et al., “Recidivism and Service Use Among Mentally Ill Offenders.”

¹⁴ Gagliardi et al., “Forecasting Recidivism in Mentally Ill Offenders.”

Taking these factors together, one would predict lower recidivism rates for DMIO participants than CTS subjects, regardless of the program. We need to consider, therefore, whether observed recidivism differences between DMIO participants and CTS subjects might be caused by these factors rather than the DMIO program. To take account of this possibility, we conducted a logistic regression analysis that included, as explanatory variables, all pre-existing differences detailed in Exhibit 8, as well as DMIO treatment.

Exhibit 8
Significant Pre-Existing Differences Between
DMIO Participants and CTS Subjects

Pre-Release Variables	Means/Proportions	
	CTS	DMIO
Female**	33%	9%
Young age at release (\leq age 25)*	19%	9%
Time served (days)**	799.9	1362.4
Previous felonies*	3.98	3.33
Previous violent felonies**	.72	1.47
Previous sex felonies**	.16	.32
Previous drug felonies**	.97	.32
Misdemeanor assaults**	.66	1.37
Misdemeanor offenses*	3.16	3.29
Index violent offense**	37%	82%
Felony risk equation probability**	.41	.29

* Statistically significant, $p < .05$; ** statistically significant, $p < .01$

Felony Recidivism

After controlling for the pre-existing differences between the groups listed in Exhibit 8—many of which are well-known recidivism risk factors—the DMIO program was found to substantially reduce felony recidivism relative to the CTS comparison group.¹⁵ After adjusting for these pre-existing differences, DMIO participants were only about 42.5 percent as likely to be convicted of a new felony as CTS subjects. That is, the CTS subjects were about 2.35 times more likely to be reconvicted of a felony. The DMIO program had a moderate effect size of $-.34$ in reducing the likelihood of a future felony conviction. Full details of the logistic regression analysis are presented in Appendix D.

Other Recidivism Measures. Details of the logistic regression analyses for the two other recidivism measures (any recidivism, violent felony recidivism) are also presented in Appendix D. These analyses were run in the same way as the analysis of felony recidivism, adjusting for pre-existing differences by including these variables in the model along with DMIO treatment.

¹⁵ $p < .03$

Appendix D shows DMIO treatment significantly reduced “any new recidivism,” a measure that includes misdemeanor or felony recidivism.¹⁶ Compared with CTS subjects, DMIO treated subjects were only about 43 percent as likely to commit any new offense. The DMIO treatment effect size was -.41, even larger than that for felony recidivism.

The DMIO program did not reduce violent felony recidivism.¹⁷ As mentioned previously, the short 18-month follow-up period, coupled with the very low rate of new violent felony convictions in both groups (6 percent—24 new violent felony convictions by 387 subjects) did not permit a true test of the effects of the DMIO program on violent felony conviction.

Analysis of Time to Failure

In addition to conducting logistic regression analyses of *probability of recidivism*, we also examined time (in days) to recidivism failure. These analyses were conducted using proportional hazards regression (Cox regression). Before presenting these results, it is important to note that subjects were followed for only 18 months. Consequently, our analyses of time to recidivism failure must be considered quite tentative, representing only the early post-release picture.

The proportional hazards regressions of time-to-failure were conducted in a manner that paralleled the logistic regression analyses. Control variables representing pre-existing differences between the groups were entered along with DMIO treatment. Details of this analysis are presented in Appendix D.

Overall, the findings from the analyses of time-to-failure were quite similar to those for the logistic regression of recidivism. DMIO treatment not only reduced the probability of any re-offense and felony re-offense but also reduced the speed with which any new offenses occurred,¹⁸ and it had a marginally significant effect in reducing the speed of felony re-offense.¹⁹

Supervision Violations

As mentioned earlier, community corrections officers (CCOs) have the authority both to supervise and support offenders on their caseload. Under the Offender Accountability Act (OAA), passed by the Washington State Legislature in 1999 and effective in 2000, DOC staff set the level of supervision by calculating offenders’ risk levels.

Conditions of supervision are established at the time of release and modified thereafter, based on the offender’s behavior and DOC policies. When offenders violate these conditions, sanctions are determined and higher levels of supervision are assigned; if judged necessary, offenders may be returned to prison for brief periods or, when violations are serious and repeated, for the remainder of their maximum sentences. Some DMIO

¹⁶ p <.011

¹⁷ p >.12

¹⁸ p =.017

¹⁹ p =.063

participants were being supervised under the requirements of previous legislation and thus could serve a violation sentence in jail.²⁰

Because fewer CTS subjects had sex or violent index felonies, this group received post-release supervision in lower proportions than DMIO participants (56 percent versus 80 percent, respectively). Furthermore, the OAA resulted in a thorough overhaul of policies governing supervision. Along with changes in policy have come changes in recording and reporting, so we have not attempted detailed comparisons of supervision violations between the two groups.

There were 23 percent of DMIO participants supervised under the community placement system, 52 percent under OAA, and 5 percent on parole. CTS subjects and DMIO participants subject to supervision were equally likely to have at least one recorded violation: 91 out of 161 CTS subjects (56 percent), and 47 out of 80 DMIO participants (59 percent).

In the DMIO program, five types of supervision violations were recorded:

- Escape (absconding, failing to report);
- Violation of a court order;
- Failing to comply with treatment;
- Changing residence without permission; and
- Substance abuse (including alcohol, depending on conditions of supervision).

Among those participants found to violate conditions, multiple violations of different types were common. The average number of violations per violator was 4.23 (with a median of 3). One participant had 21 violations. Violating a court order was the most common infraction (39 percent), followed by substance abuse (31 percent), and failure to comply with treatment conditions (29 percent).

Because multiple violations were common, so was the sanction of jail or return to prison. Of the 37 DMIO participants receiving community supervision, the case management study found 22 (59 percent) were jailed or returned to prison at some point for violating conditions of community supervision.

DMIO participants were far more likely to violate conditions of community supervision than to commit new offenses: 59 percent versus 22 percent with misdemeanors, 14 percent with felonies. We cannot assess how these sanctions influenced the rates of recidivism. Nevertheless, the total number of violations is highly correlated with felony recidivism.²¹ This statistic suggests that offenders with multiple violations of supervision conditions are likely to later be convicted of a crime.

²⁰ Under previous laws, offenders released before their maximum date with good time credit had community placement status and could be returned to prison for violations; after their maximum prison term had expired, they were placed on post-release supervision and hearings regarding alleged violations of conditions were conducted in Superior Court and jail terms could be imposed for violations.

²¹ $r = .373, p = .001$

Mental Health and Social Services

Compared with 287 CTS subjects, the 100 DMIO participants released to Washington communities received social and financial services far more quickly and steadily. Two key factors influenced this finding:

- 1. Pre-Release Coordination.** For each DMIO participant, an interagency team was identified as soon as possible to establish arrangements for the person's treatment and support in the community after release. The team²² included mental health providers, other service providers, and DOC staff. By meeting with the person at the prison during the months before release, the team intended to engage the individual and encourage cooperation.
- 2. Medicaid Eligibility.** Administrators at DSHS-MHD worked with the Economic Services Administration to waive the 90-day waiting period normally required for the applicant to receive a certification of medical necessity, the key criteria for Medicaid eligibility. Funds for mental health treatment of non-Medicaid applicants are limited, so this eligibility step is important. Setting up medical coverage before release allowed DMIO participants to receive services upon release or within a week in most cases.

Mental Health Services

Community Mental Health Service. Eighty-five DMIO participants (85 percent) received pre-release community mental health service compared with 30 CTS subjects (10 percent) (see Exhibit 9). DMIO participants were also more likely to receive steady service the first year after release (76 percent) compared with 15 percent of CTS subjects (steady service defined as nine or more months).

Exhibit 9
Transitional Community Mental Health Services

	DMIO (N=100) Average	CTS (N=287) Average
First year service months (average)	9.3	3.0
Total hours, first three months	30.5	5.5
Total hours, in prison	12.9	0.7
First year average hours per service month	9.0	2.5
Days to first community mental health service	15	185

p = .000

The case management study revealed that DOC staff had more than twice the number of contacts with social service agents, especially community mental health staff, both before and after release. Contacts consisted of telephone conversations (not messages) or face-

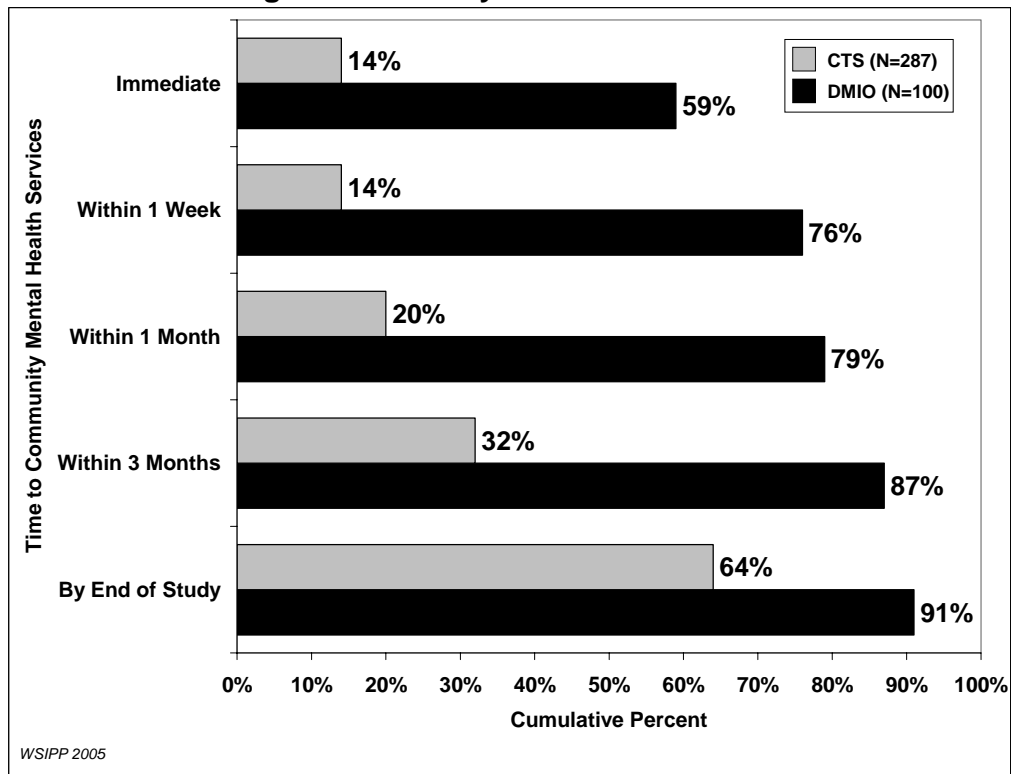
²² See Phipps et al., *Washington's Dangerous Mentally Ill Offender Law* for more detail on this process (pp. 15-16).

to-face meetings; these contacts do not include housing providers, a major focus of transitional activity in the DMIO program.

DOC staff documented an average of 4.8 contacts with social service providers during the pre-release period and 14.2 post-release contacts (compared with averages of 2 and 6.9 contacts for CTS case management study subjects).

As stated earlier, joint planning between staff of correctional and social service agencies for DMIO participants is initiated in the months before release. To the extent possible, services are intended to begin immediately after the person is released. As Exhibit 10 illustrates, this objective was usually achieved; in general, DMIO participants were served far more rapidly, and in higher proportions, than CTS subjects.

Exhibit 10
Timing of Community Mental Health Services



Inpatient Care. The legislation directed that interagency planning teams consider whether DMIO participants should be evaluated for civil commitment. It appears that the additional scrutiny of DMIO participants by these teams during the pre-release stage led to greater initial use of civil commitment for persons who were deemed insufficiently stable for release to the community. Those returned to the community on Least Restrictive Order (LRO) status made a successful adjustment. Long-term mental health civil commitments were equally uncommon for both CTS and DMIO subjects.

Four CTS subjects and two DMIO participants were committed for the entire study period. An additional six DMIO participants were committed at release to a state hospital for varying amounts of time, ranging from one month to almost a year. None committed new felonies during the study period.

Individuals transferred from the state hospital to the community on LRO status typically require intensive mental health supervision and frequently return to the hospital after release. To evaluate DMIO program effects, therefore, we omitted these six subjects released directly from state hospitals from the comparisons of subsequent inpatient stays in Evaluation and Treatment (E&T) Centers, community hospitals, or state hospitals.

Of the subjects released directly from prison to the community, it appears that DMIO program participation made little difference to inpatient service costs. Among both DMIO participants and CTS subjects released from prison to the community, 25 percent had some inpatient care during the 18-month study period. For those individuals who were subsequently provided inpatient care, the average days hospitalized was 49 for CTS subjects and 42 for DMIO participants.

Sexual Predator Commitments. As explained in Appendix A, a record of sexual or other violent felonies was a principal factor in the Statewide Review Committee's selection of individuals for the DMIO program and a major difference between the DMIO and CTS groups. It is not surprising, therefore, that six DMIO participants were civilly committed as sexual predators. Data on which CTS subjects were considered for sexual predator civil commitment were not available.

Chemical Dependency Treatment

Alcohol and drug abuse are widely viewed as important factors in criminality and recidivism. Among offenders with mental illness, the CTS study found very strong associations between felony recidivism and the number of past drug-related felonies.²³ Because of high rates of illegal drug involvement among CTS subjects, agency administrators who reviewed the CTS findings were concerned that so few of the individuals were treated after release from prison. As noted in Section II, the CTS study included a large number of substance-abusing women with diagnoses of depression, and DMIO selection tended to exclude persons with records of drug and property offenses in favor of persons with violent or sexual offense records.

We do not have assessment data on substance abuse for all subjects in both groups, but we have several reasons to believe illegal drug abuse was more common among CTS subjects than among DMIO participants:

- 128 of the CTS subjects (45 percent) had past drug offenses compared with 19 percent of DMIO participants.
- Among CTS subjects, 69 percent of the women and 39 percent of the men reported abuse of stimulants, cocaine, or opiates during prison admission interviews.

²³ Lovell et al., "Recidivism and Service Use Among Mentally Ill Offenders."

- Of 41 CTS case management study subjects with community supervision records, 24 (60 percent) were classified as severely drug-involved after release from prison compared with 5 (14 percent) of 37 DMIO participants with community supervision records.²⁴ Eighteen CTS subjects (44 percent) and 11 DMIO subjects (30 percent) failed urinalysis (UA) tests while under supervision.
- Use of alcohol, however, was more common among DMIO participants than among CTS subjects with community supervision records (46 percent vs. 22 percent).

The case management study provides more detail on chemical dependency services for DMIO participants. In addition to reports from the Division of Alcohol and Substance Abuse's (DASA) database, we know that some community mental health agencies working with DMIO participants offered certified chemical dependency treatment. There were 17 DMIO participants for whom DASA reported treatment (outpatient, long-term residential, intensive outpatient, intensive inpatient) in the first year, but community health providers reported on substance abuse treatment for another seven. Exhibit 11 combines data from both sources to compare the case management CTS and DMIO groups in rates of first-year treatment.

Exhibit 11
Chemical Dependency Treatment in the
First Year After Release From Prison

Any Treatment	Group		Totals
	DMIO (N=45)	CTS (N=48)	
Yes	24 (53%)	9 (19%)	33 (35%)
No	21 (47%)	39 (81%)	60 (65%)
Totals	45	48	93

$\chi^2=12.1, p=0.001, \text{odds ratio}=5.2$

Average time to first treatment contact was significantly lower for DMIO participants (61 compared with 142 days) and 15 of the 17 DMIO participants whose treatment was recorded in the DASA database completed treatment in the first year.

Summary. Because the selection criteria for DMIO participants emphasize dangerousness, it would not be surprising to learn that substance abuse rates were lower for DMIO participants than for CTS subjects. Nevertheless, DMIO participants were far more likely to receive substance abuse treatment. In the case management study, 53 percent of DMIO participants compared with 19 percent of CTS subjects received substance abuse treatment in the first year after release from prison. The DMIO program appears to have improved access to chemical dependency services.

²⁴ Subjects were classified as drug-involved if they were arrested on drug charges or UA failures or other reports indicated use of heroin, amphetamines, or cocaine. Occasional use of marijuana was not sufficient to classify the subject as a drug abuser.

Economic Services

Seriously mentally ill offenders who are released from prison are often unable to obtain and keep paid employment, and few have family or private resources. Public sources often become their source of food and shelter. Although access to subsistence programs does not by itself guarantee social stability, its absence can create more barriers. As the CTS study noted:

*Persons with mental illness who are incarcerated are often without housing, family, or friends. Stable connections with treatment providers may also be uncommon. For many, life on the street or in shelters is punctuated by arrests and jail stays, and imprisonment is little more than an extended break in this pattern. The vast majority of their offenses, such as public intoxication, trespassing, possession of drugs, and aggressive panhandling, are...a reflection of a marginal urban existence....*²⁵

Subsistence Programs. The CTS study found that subjects qualified for a variety of public subsistence programs, including Aid to the Aged, Blind and Disabled and Aid to Families with Dependent Children, which was replaced by Temporary Assistance for Needy Families. The most common forms of public subsistence support are General Assistance–Unemployable (GAU) and Food Stamps; comparative data is available on program enrollment for CTS and DMIO groups.

Eligibility criteria for these programs are established at both state and federal levels. To qualify for Food Stamps (a state program supervised and supported by the U.S. Department of Agriculture), individuals need to demonstrate economic need and may be required to work or register for work training unless they are disabled. Persons considered unemployable by virtue of a disability such as mental illness are provided GAU with the understanding that they will eventually qualify for the Supplemental Security Income (SSI) program offered as part of the federal social security system. Persons with mental illness often need assistance to complete the application paperwork required to access these programs.

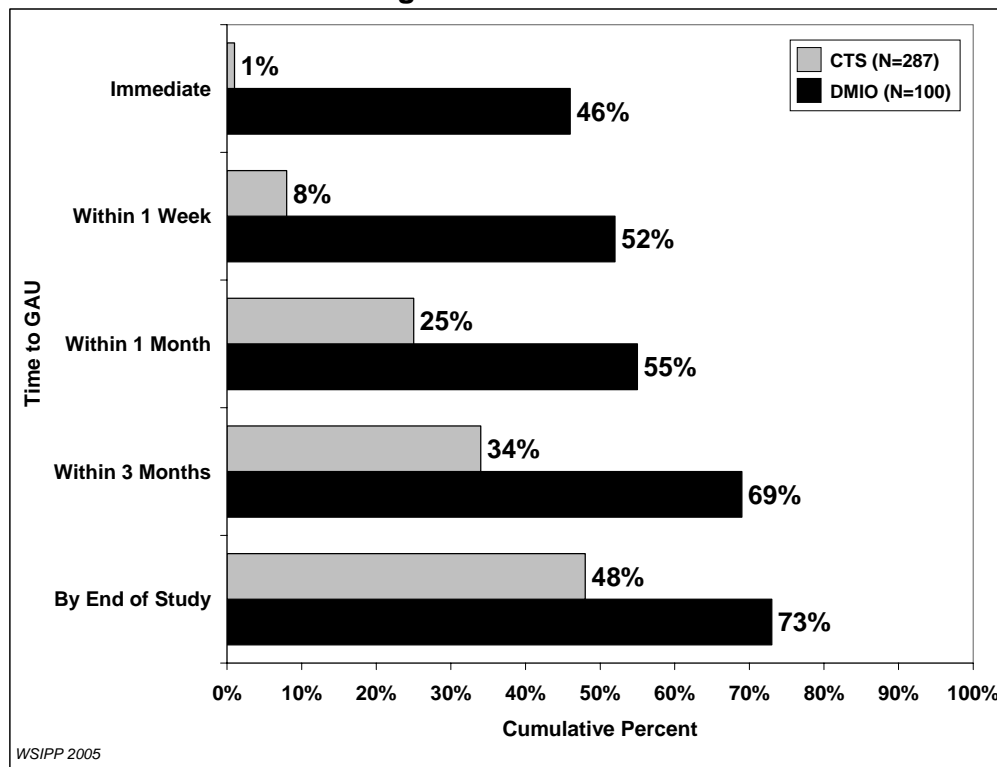
Once applicants are enrolled in SSI, the Social Security Administration reimburses the state for GAU payments previously provided while the applicant awaited an SSI determination. Thus there are economic incentives for the state to tailor its program criteria to federal standards. Washington's economic need and categorical disability criteria for GAU replicate the federal criteria for Medicaid eligibility. Enrollment in GAU, therefore, gives applicants priority for Medicaid eligibility determinations. Beyond the initial GAU determination, Medicaid eligibility requires examination by a physician to certify that the applicant meets federal disability criteria. For Medicaid-eligible clients, the federal government shares mental health treatment costs with the state; state funds for treatment of non-Medicaid eligible clients are limited. Medicaid eligibility, therefore, is usually, though not absolutely, viewed as a prerequisite for community mental health services.

²⁵ Lovell et al., "Recidivism and Service Use Among Mentally Ill Offenders," p. 1296.

Without public subsistence support, offenders with serious mental illness are unlikely to afford their food and shelter needs. Rapid access to Food Stamps and GAU, therefore, can be valuable aids in a smooth transition from prison for these individuals. While offenders are institutionalized, however, they cannot apply for subsistence programs; normally applicants must wait 90 days before Medicaid eligibility determinations can be made. The agency representatives working on the DMIO program focused their collaborative planning on ways to eliminate these timing obstacles.

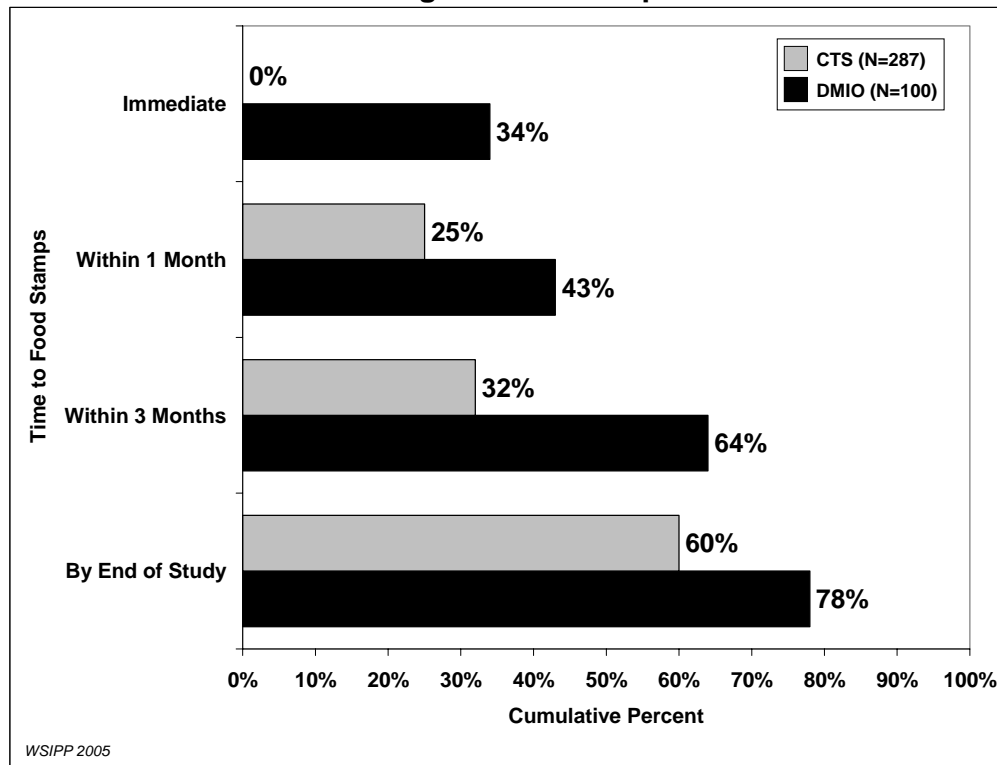
Exhibit 12 displays the contrasting timing for GAU enrollment for DMIO participants and CTS subjects. As with community health services, DMIO participants enrolled sooner in GAU and in greater proportions. We have noted the correspondence in criteria between GAU, Medicaid eligibility, and access to mental health treatment; this linkage influences the outcomes for GAU enrollment as well as community receipt of mental health services.

Exhibit 12
Timing of GAU Enrollment



Food Stamps. Although they did not receive food stamps as quickly as GAU enrollment occurred, the same pattern of earlier receipt was found when comparing DMIO participants and CTS subjects (see Exhibit 13).

Exhibit 13
Timing of Food Stamps



Case Management and Housing

As with mental health services, the planning process established by the DMIO program resulted in a substantial increase in contacts between correctional and community mental health providers, both before and after release. Although contacts sometimes covered mental health needs and related risks, they more commonly concerned issues such as housing, community supervision violations, access to entitlements, and compliance with sex offender or chemical dependency treatment. The case management study documented extensive efforts by correctional and mental health professionals in these areas.

In this section, the numbers of reported subjects vary according to the type of information at issue. Not all DMIO participants were released to the community, and, in both groups, some subjects were not under active correctional supervision after release (due to their original sentence).

- Case management information is reported for 45 DMIO participants. Of the original 53 DMIO participants in the case management study, two were sent out of state and

six were civilly committed upon release: three under RCW 71.05 (mental illness) and three under RCW 71.09 (sexual predator).²⁶

- Correctional supervision topics cover subjects actively supervised in the community after their release from prison: 41 CTS subjects and 37 DMIO participants.

The DMIO program found housing for its participants, with generally successful results. Community corrections officers from DOC worked with mental health case managers to locate appropriate housing options, to ensure that rent was paid regularly (often using DMIO special funds), and to intervene in crisis situations.

Numbers in this portion of the report are reported without percentages to avoid suggesting inferences about comparative rates.

Case Management by Mental Health Providers. The extent of mental health case management services cannot be compared between the two groups because different data collection methods were used. Monthly surveys of providers were used for the DMIO program, and a single retrospective survey or interview was used for CTS subjects. We do know that housing, substance abuse treatment, and financial services were concerns for mental health case managers in both studies, and that for CTS subjects with mental health provider surveys, 18 had help gaining access to entitlements. Exhibit 14 displays assistance with auxiliary services for DMIO case management study participants.

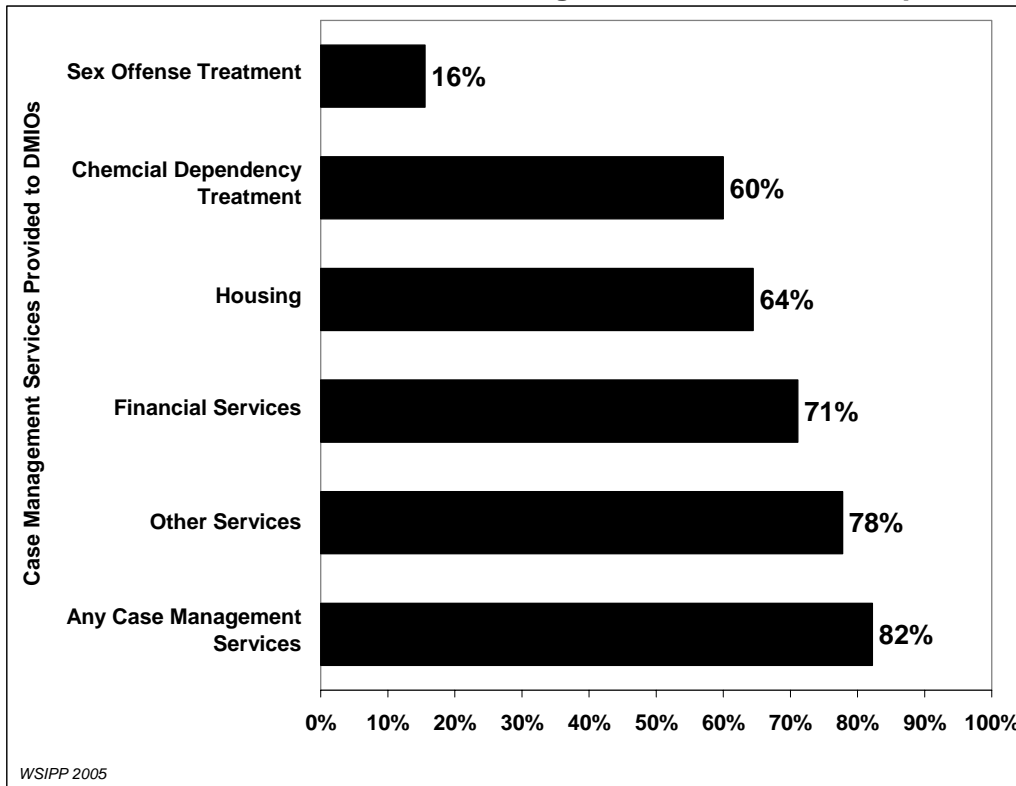
In the DMIO program, contacts with sex offender treatment and substance abuse providers were often managed by community mental health providers, and substance abuse treatment was also often provided by mental health agencies.

Correctional Case Management and Housing. The principal objective of community corrections is public safety; CCOs are expected to use both supportive and custodial interventions to manage risk and protect the public. Custodial interventions are covered in the section on recidivism.

A major focus of supportive intervention was housing. Because events were tabulated similarly for both CTS and DMIO groups, we can compare efforts and results. Reports are derived from correctional supervision narratives and mental health case manager surveys.

²⁶ As reported under inpatient services, only two DMIO participants were civilly committed for the entire study period; the case management study included both of these and another committed for most of the 14-month case management study period.

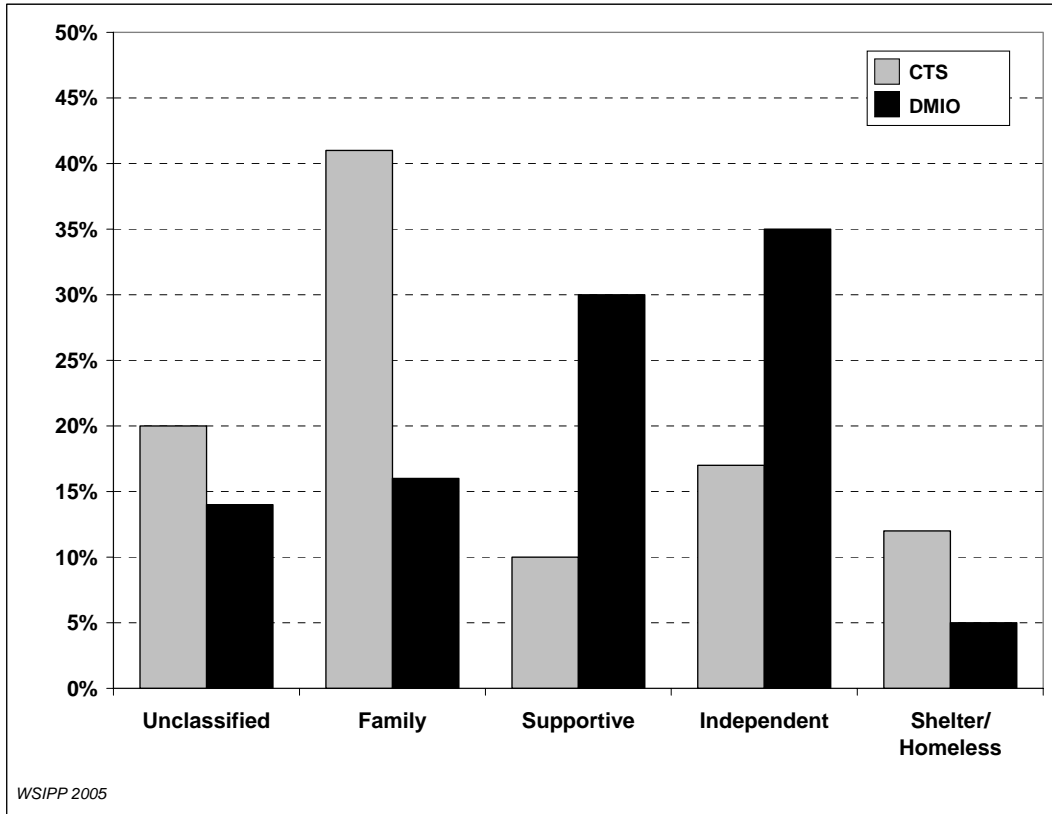
Exhibit 14
Mental Health Provider Case Management for DMIO Participants



For 18 DMIO participants and 12 CTS subjects, the reporters described experiences of housing “failure” where the person had to move or placement plans had to be changed. Many DMIO participants with histories of sexual or violent offenses were in this group. Placement plans had to be changed because the community opposed the placement, landlords changed their minds, or participants were evicted.

The initial housing placement plans of DMIO participants (Exhibit 15) were often developed by case managers. Compared with CTS subjects, DMIO participants were less likely to use shelters or rely on family members for housing. DMIO participants were also more likely to be placed independently or in service-enriched housing, such as with landlords who had established relationships with DOC staff or with community mental health providers whose buildings housed high numbers of agency clients and who hired house managers and others to support the resident’s adjustment to the community. Overall, DMIO participants maintained more stable housing than CTS case management subjects.

Exhibit 15
Initial Housing Placements



Although more DMIO participants had problems with initial placements or evictions than CTS subjects, they moved less often: two moves per case compared with four for CTS subjects. There were 19 CTS and nine DMIO subjects with four or more housing changes. As Exhibit 16 demonstrates, DMIO participants were less likely to experience episodes of homelessness during the case management study period.

Exhibit 16
Numbers of Subjects With Homelessness Episodes

Homeless	Group		Totals
	DMIO	CTS	
Yes	4	12	16
No	33	29	62
Totals	37	41	78

$\chi^2=4.06, p<0.05, \text{odds ratio}=3.4$

Summary of Social Service Findings

The legislation directed DSHS-MHD and DOC to collaborate in identifying potentially dangerous mentally ill offenders and recruiting volunteers from that group to participate in a supportive program after their release from prison. Additional funds were allocated to the Mental Health Division to purchase services from community mental health providers and to pay for special needs, such as housing. The intent was to reduce delays and improve access to mental health, chemical dependency, financial, housing, and other services needed to promote participants' transition to the community. Pre-release planning brought mental health providers into prison to work with offenders before release, removed barriers to Medicaid eligibility determination through pre-release application, and waived waiting periods. The study identified that the following legislative goals were achieved:

- Community mental health service for DMIO participants usually began immediately upon release; participants received greater amounts of service on a more steady basis than CTS subjects.
- CTS subjects had more severe drug abuse histories before going to prison; however, after release from prison, more DMIO participants received chemical dependency treatment and fewer had drug-related problems.
- Economic services were provided more rapidly and to more DMIO participants than to CTS subjects, and there were few delays between state program enrollment and Medicaid eligibility for DMIO participants.
- The majority of subjects in the case management study received assistance with sex offender and drug abuse treatment, housing, and access to entitlements. DMIO participants were difficult to place in housing because of their criminal history; substantial efforts were devoted to finding places for them to live and maintaining their housing. Although numbers are too low to permit confident comparisons, DMIO participants moved less often and were less likely to become homeless than CTS subjects.

Validity of Department of Corrections' Risk Tool

The LSI-R is a 54-item instrument developed by researchers in Canada. In addition to total scores, found in a number of studies to correlate with recidivism, the LSI-R is divided into ten domains or subscales such as criminal history, criminal associates, family problems, and alcohol and drug problems; the predictive power for each domain can be tested separately from the total score.

The validity of the LSI-R for Washington State offenders has been under investigation by the Institute as part of an ongoing evaluation of the Offender Accountability Act (RCW 9.94A.010). In its December 2003 report,²⁷ the Institute tested the predictive validity of the LSI-R for 22,533 offenders placed in the community in 1999 who had been at risk to re-offend for three years. The Institute found that the LSI-R is a moderately good predictor of

²⁷ Steve Aos and Robert Barnoski. 2003. *Washington's Offender Accountability Act: An Analysis of the Department of Corrections' Risk Assessment*. Olympia: Washington State Institute for Public Policy.

future misdemeanor or felony recidivism, but it is a weak predictor of violent felony recidivism. The criminal history score was the best subscale for predicting violent felony recidivism.

Additional demographic variables (age at placement, male gender, and prison sentence) and more detailed criminal history variables substantially improve the predictive accuracy of the LSI-R with respect to felony and violent felony recidivism.

LSI-R scores were available only for DMIO participants. This group of 100 offenders is far too small to constitute an adequate psychometric validation sample for the instrument. We can report, however, on how well it predicted recidivism in this group.

Predictive Validity of the LSI-R for DMIO participants

For the 100 DMIO participants in this study, the LSI-R total score was significantly associated with felony recidivism and violent felony recidivism, but it had only a marginally significant relationship with any recidivism. (Appendix D presents measures of strength of association and statistical significance for associations between prediction instruments and categories of recidivism.)

Only three of the LSI-R subscales were correlated with recidivism. The LSI-R “Criminal Companions” subscale was correlated with felony recidivism, and the LSI-R “Financial” subscale was negatively correlated with any recidivism and felony recidivism. None of the LSI-R subscales was correlated with violent felony recidivism.

By comparison, the CTS felony equation score was also significantly associated with felony recidivism, any recidivism, and violent felony recidivism. Also, the CTS violence equation score was positively associated with both violent felony recidivism and felony recidivism. However, the number of prior misdemeanor adjudications was moderately correlated with any recidivism, felony recidivism, and violent felony recidivism.

When the LSI-R total score was added to a simple logistic regression model that contained only the number of past misdemeanor adjudications, it failed to add any predictive power to the model for “any recidivism” or for “violent recidivism,” but it did marginally enhance the validity of felony recidivism predictions.

Summary of LSI-R Findings. The LSI-R total score predicts recidivism about as well for DMIO participants as it did for the 22,533 general population offenders in the Institute’s 2003 study of the LSI-R. However, in this small, highly selected group of DMIO participants, the LSI-R was no better a predictor of recidivism than a simple tally of the number of past misdemeanor adjudications.

Summary of Recidivism Findings

Substantial and highly significant differences were found between DMIO participants and CTS subjects in the most reliable measure of recidivism—conviction for a new felony. There were also significant differences in the proportion of the DMIO group who were

convicted of any new offenses. There was no difference between DMIO and CTS subjects in terms of violent felony recidivism. The mean-adjusted recidivism rates for the two groups were as follows:

- Fourteen percent of DMIO participants had new felony offenses during the 18-month follow-up period compared with 28 percent of CTS subjects.
- After controlling for differences between the groups in other factors that predict new felony offenses, DMIO treatment had a substantial felony recidivism effect size of -0.34.
- DMIO participants not only re-offended at much lower rates, but they tended to survive in the community longer before committing any offense. There was a marginally significant trend toward surviving in the community longer before committing a new felony offense but not before committing a new violent felony offense.
- New violent felonies were rare among both groups of mentally ill offenders. There was no significant difference in rate, perhaps due to the short follow-up of 18 months and the very low frequency of violent felony recidivism.

Community supervision violations were far more prevalent than new offenses among DMIO participants and CTS subjects. Among DMIO supervision violators, most had multiple violations, and a substantial majority of case management study subjects were jailed or returned to prison at some point for this reason.

As with general offenders, the LSI-R was associated with DMIO recidivism but it was no better a predictor of recidivism than a simple tally of the number of misdemeanor adjudications. There was a marginally significant enhancement in predictive validity when the LSI-R score was added to a felony recidivism prediction model that included the number of past misdemeanor adjudications.

Case Management Study

This section describes issues reported by case managers after DMIO participants were released to the community. These observations were derived from case management summaries and chronologies from mental health providers and DOC staff.

DOC chronologies consist of notes recorded by prison and community corrections staff about contacts made and actions taken during the community transition process.²⁸ The case management notes from mental health providers consisted of monthly summaries of successes and challenges, often covering periods after correctional supervision ended. For this portion of the study, two reviewers read every chronology, comparing impressions as they proceeded and identifying themes in the material.

²⁸ These files were downloaded and printed out, beginning six months before a participant was scheduled for release from prison and continuing for 14 months. The sample included the first 53 individuals admitted into the program between September 2000 and January 2002. For several participants profiled here, we retrieved notes for subsequent months in order to assess further developments.

The case management study in the CTS used a similar two-reviewer process for the DOC narratives and also employed summary reports (overall, not monthly) by mental health providers.²⁹ The two sets of narratives told different stories: compared with the CTS case management study, in which lack of system support was a factor in 40 percent of the cases, system support was not a salient theme in the DMIO study.

In the CTS case management study, system support was coded by answering the question: Did correctional and social service agents assist the subject, or were they antagonistic, indifferent, or unable to intervene decisively when needed? Where both system support and acceptance of intervention by the client were present,³⁰ success was likely. Success was unlikely if either factor was negative. The comparative success of clients and case managers in forming a working partnership forms the principle difference between the two sets of population studies. This observed difference between the two sets of narratives was supported by quantitative comparisons of interagency collaboration and social service coverage.

With some exceptions, DOC case managers in the DMIO program were far better informed than their CTS counterparts about the challenges posed by mental illness and, consequently, both more realistic and less judgmental in their assessments; and mental health providers, with few exceptions, tried persistently to engage clients rather than dropping them from service for lack of attendance or compliance.³¹

Particular themes that affect the workings of the DMIO program are described in the next section.

Case Management Issues

Several themes (events or processes influencing community adjustment) recur in DMIO case management narratives. The focus here is on challenges and obstacles; therefore, the more difficult cases are presented. Some DMIO participants presented challenges under more than one treatment type. While it would be hasty to draw policy conclusions from a handful of cases, these themes do raise questions for future policy development and research.

²⁹ David Lovell, Pete Wood, Katrina Moore, and Genevieve Arnaut. 2000. *Mentally Ill Offender Community Transitions*. Seattle: The Washington Institute for Mental Illness Research and Training, University of Washington (March).

³⁰ Acceptance of intervention meant that the client believed the efforts of correctional and social service agents were intended to help him, not that the client was compliant.

³¹ Of 36 CTS case management study subjects with post-release mental health services, 22 had services discontinued or were not served after initial contacts were made. Reasons for discontinuing service were found in 18 cases. Resistance by the client was the most common: ten refused, did not show up, or were otherwise deemed noncompliant; the others moved away from the service area (five cases) or were judged as not needing services (three).

Drug and Alcohol Abuse. About one-third of the 37 participants for whom we had detailed correctional supervision narratives had problems with drug and alcohol abuse.

Mr. Anderson³² was seen as cognitively impaired, but no comprehensive psychological evaluation was available to case managers that shed light on his hostility to management and treatment. His first major failure occurred after coming home drunk, grabbing a knife, cutting himself, and threatening to kill the relative who had taken him in. After being released from jail, he was arrested on five other occasions for violating conditions by drinking or refusing treatment, for fourth degree assault, and for harassment. Once, Mr. Anderson was placed in residential alcoholism treatment in lieu of jail, but he refused to continue the program after release; on another occasion, drunk and suicidal, he was returned to prison. Though repeated jail terms did not strike case managers as an effective intervention, neither did the available alternatives. At the end of the study period, despite accumulating misdemeanors and supervision violations, Mr. Anderson had no new felonies.

DMIO participants had more access to chemical dependency treatment than CTS subjects. But providing access, even using jail and supervision violations as sanctions, provides no guarantee of successful treatment.

Mental Health Breakdowns. For a variety of reasons, about one-third of the 37 participants had episodes of escalating bizarre, delusional, or extremely irrational behavior that required crisis intervention. This return of severe symptoms of mental illness is called “decompensation.”

One night Mr. Bennett caused a ruckus in the apartment complex where he lived with his family. Police were called and left after a few minutes, believing he had calmed down. But the behavior escalated, disrupting the entire complex and causing his eviction. It was discovered the next day that, perhaps signaling the imminent collapse, Mr. Bennett had nailed to a nearby phone pole a magazine, an ace of clubs, union cards, magazine articles, and a receipt for beer. It appears, therefore, that his later episode reflected a psychotic process and that, if police had understood what was going on, a different intervention may have occurred, with a different outcome.

Mr. Carter spent much of his prison term in maximum security. Interviewed in segregation, he described his mother as a whore and himself as someone who was not to be trifled with, speculating that he could break out of his cage if angered; but he later broke down in tears and indicated that he sometimes heard voices. Whatever the appropriate diagnosis, it was clear Mr. Carter was prone to paranoid and grandiose interpretations of his situation. After release, Mr. Carter moved in with family and resumed drinking and smoking marijuana. Mental health providers were both scared of him and reluctant to see him as seriously mentally ill. He lost a place to live and supportive relations with his family when his paranoia escalated during a family quarrel, which concluded by his threatening to kill everybody.

³² All names are fictitious.

These two examples differ in that the first (Mr. Bennett) represents a common form of mental health emergency, while the second (Mr. Carter) proved unresponsive to both custodial and mental health interventions. Mr. Carter also exemplifies the tendency of dangerous offenders, with extreme and apparently irrational behavior, to evoke disagreements over responsibility among mental health providers. Participants who experienced psychological breakdowns were an obvious challenge. Most also eventually committed new offenses; that only four (out of 12) committed new felonies may be considered an achievement.

Brain Damage/Developmental Disability. Eleven DMIO participants received treatment after release related to a developmental disability, and three were in the case management study. The records of an additional six DMIO case management study participants showed evidence of cognitive impairment due to traumatic brain injury as young adults or chronic alcohol or methamphetamine abuse. Four were sex offenders and very closely supervised (one was civilly committed under RCW 71.09). Case management study subjects with brain damage or developmental disabilities, though they required substantial support and supervision, were rarely antagonistic toward case managers, and none committed new felonies.

Decompensating in Jail. As noted earlier in the case management study, 22 of 37 DMIO participants with correctional supervision in the community were jailed or returned to prison for violations, and others were jailed short-term for misdemeanors. In seven cases, not a majority but enough to raise policy concerns, the participants decompensated while in jail. In several cases, participants were transferred back and forth between jail and hospital.

The narratives indicated that the participants decompensated because they decided to discontinue medications, because staff were unaware of an authorized prescription, or because they were already agitated and placement in jail exacerbated their condition. Community adjustment was severely disrupted when participants decompensated while in jail.

Use of Hospitalization. As mentioned earlier, some DMIO participants were civilly committed upon prison release for most of the case management study period. For eight additional cases, hospitalization was an issue: consideration or use of hospitalization upon release, transfers between jail and hospital, short-term detentions, or attempts to have participants committed. In some cases, participants were detained for a week or two at a state hospital and returned to the community more stable than when they left prison. In other cases, however, it appeared participants were released before they were ready.

As Ms. Dixon neared release, DOC staff expressed their concern that she was not ready for community living by attempting to have her civilly committed or prosecuted for custodial assault. She was committed briefly upon release, then jailed, where she refused all medications and was returned to a hospital; she was then released to an assisted living facility where she had problems with roommates. She moved from one facility to another for nine months until, during her case manager's absence, she discontinued one medication. Soon her landlord reported that she "has been walking in and out of neighbors' housing and keeping tenants up during the night, ... has been running around telling people she was a witch, has been ... chanting all through the night, ... and was throwing furniture out of her house." She was civilly detained and hospitalized briefly, then released, and soon she decompensated again. She

then stayed in the hospital ten days on a 30-day commitment and functioned well for a time afterwards, but when she reacted badly to a medication change, she was committed for six months. Two years after her prison release, Ms. Dixon was gradually transitioning out of the state hospital through the Program for Adaptive Living Skills (PALS).

Ms. Dixon's case is noteworthy because of repeated rounds of attempted civil commitment, brief detention, release, and jailing. It appears that decision-makers associated with civil commitment eventually decided that she needed a supportive, gradual release strategy.

Summary. The case management issues discussed in this section were selected for two reasons. First, they reveal obstacles to successful community adjustment that are worth the attention of case managers and administrators as the program moves forward. Second, they illustrate the difficulties faced by participants and case managers, suggesting that positive outcomes are hard won and not always possible, even with the most strenuous efforts.

Examples of Failure and Success

The cases described in the previous section illustrate recurrent themes. Two failures and two successes are presented more fully here, not as illustrations of particular themes, but to assist a realistic assessment of the accomplishments and limitations of a DMIO program.

Failure Scenario 1

Mr. Edwards was diagnosed with schizophrenia but also suffered seizures, the causes of which are not documented. He held conspiratorial racist views and lapsed readily into paranoia when angry. For the most part, however, Mr. Edwards cooperated with medication and avoided drugs and alcohol. Furthermore, he voluntarily accepted continuation of post-release supervision even when the charge on his previous conviction was reduced, making supervision no longer mandatory.

Mr. Edwards was initially placed in a supportive housing setting, with the proviso that he remain free of violence. Four weeks after his release, he began to waiver, ranting and threatening, but was talked down by his CCO. Several months later, he was arrested and jailed due to a squabble in the building, but charges were dropped because it appeared he was not entirely to blame. After a month in another group home, a radio story provoked another outburst and he left, headed for Canada. Arrested after his return, he refused medications in jail.

Nevertheless, he was accepted back at his previous residence and stayed there for two months; by this time, discontinuation of DMIO supplemental funds had made the search for housing more difficult. When he wore out his welcome at home #2, he found an independent apartment and shortly afterwards a girlfriend in the same building. The following month, after getting angry at her, he wrote a letter to the government declaring that he had murdered and cannibalized his lover. A month later, drunk and apparently decompensating, he let it be known that he had a bow and arrow, which CCOs removed. Weeks later he got into a fight, trying to control another agitated resident and was evicted. The team found him a studio apartment and helped him move. His CCO and mental health counselor were not present, however, when the landlord told him about the rent amount. Mr. Edwards got angry, declared he had had enough, and took his backpack and left. While CCOs and police were looking for him, he called and said he was quitting the program. The next time he called, he said he was in Wisconsin.

Mr. Edwards's major crime occurred several months after he departed and was no longer being served by the program.³³ CCOs attempted to track him down in Wisconsin, to no avail, and in any case his index offense did not provide a legal basis for extradition. Three months after leaving town, Mr. Edwards called DOC from a jail in another state; evidently, he had gotten into a fight in a bar and stabbed three people, one of them nearly fatally, and is now serving a five-year prison term.

Both DOC and mental health case managers put extensive effort into finding places for Mr. Edwards to live and calming him down when he became agitated. It is possible that continuation of DMIO supplemental funding would have enabled Mr. Edwards to stay in the area, where case managers could respond to him, but it appears, from the record, that his community adjustment would have remained precarious. On the one occasion that his case managers were not available to talk him through a crisis, Mr. Edwards left the state.

Failure Scenario 2

Mr. Foster differed from most prisoners in that he had maintained a middle-class job and an unhappy but stable marriage until a combination of work and family-related stress triggered a complete breakdown. He became depressed, suicidal, unable to work, and so needy, insisting that his wife remain near him at all times, that she finally divorced him. He would not accept separation and assaulted her while attempting to get her to take him back. Concerns about his obsession with her and fears for her safety provided the principal agenda for CCOs, followed by encouraging Mr. Foster to remain in treatment for depression and become engaged in other activities.

Ruminating, obsessive, and prone to suicidal discourse upon release, Mr. Foster was returned to prison shortly afterwards for attempting to get in touch with his ex-wife. He responded well to residential mental health treatment in prison. After the second release, he qualified for substantial disability payments, bought a car, and began regular participation at a mental health center. His CCO monitored the mileage meter every day to ensure that Mr. Foster wouldn't travel far enough to reach the city where his ex-wife was living. After a few months, Mr. Foster began to talk again of his depression and loneliness, expressed a wish to return to prison, started missing mental health appointments, and finally disappeared for a day. The CCO and Mr. Foster's ex-wife had established enough of a working relationship so that, when her son reported seeing Mr. Foster in the neighborhood, she called the CCO who advised her to call 911. Shortly afterwards, Mr. Foster was arrested near his ex-wife's home and was later sentenced to prison for felony violation of a protection order.

Mr. Foster's CCO maintained a supportive approach in his interactions with Mr. Foster, while at the same time watching him very closely and, on one occasion, using the threat of jail to get him to resume mental health treatment. Mr. Foster is classified as a program failure because he was convicted of a new felony,³⁴ but it can also be argued that the one person most endangered by Mr. Foster, besides himself, was protected because of support provided by the program.

³³ Nevertheless, it is included among felony recidivism events in our statistics.

³⁴ This event occurred after the 18-month recidivism study period and thus was not included in our statistics.

Success Scenario 1

Diagnosed with schizoaffective disorder, Mr. Gibson has a record of six violent felonies, all recent, including custodial assault in prison. When he does not take his medications he becomes manic, grandiose, disorganized, and paranoid, but his criminal record is due to violent reactions to people in uniform when they attempt to control him. Mr. Gibson was released to a rural community where he had lived and owned a home for a long time and first placed in a hotel. He was returned to his home after his mental health agency used DMIO funds to prevent repossession of his house and to repair damage caused by vandals while Mr. Gibson was in prison. So the housing problems that complicated adjustment for so many others were avoided. But Mr. Gibson's transition has been bumpy.

Due to a mix-up, no one had been available to escort Mr. Gibson upon release, and he later claimed that the resulting stress caused his mood rapidly to deteriorate during his first meeting with the CCO, which began with a declaration of love and ended with swearing and threats. Mr. Gibson was returned to prison for a month and proved calmer, but difficulties finding the most effective medication and keeping him on it has resulted in breakdowns. Six months after release, his mental health counselor notified the CCO that he "went off his meds Saturday, is armed with a knife, sword, and staff, has been assaultive...is hyper-sexual." Mr. Gibson was briefly hospitalized, his medications adjusted, and a few weeks later, he "seems to have leveled off well."

Reflecting on his continuing mood swings, Mr. Gibson's mental health counselor reported that he has "zero insight into illness." Yet, despite his episodes, Mr. Gibson is well known and tolerated in the community, spending part of every day at one of two cafés where he is a regular customer. The staff at the café where he had appeared with the knife and sword commented that Mr. Gibson "had been so good the last few months."

Mr. Gibson's illness is clinically as complicated as the others described here, and, when he wasn't managing it well, he was prone to violent encounters that might have ended very badly for himself and others. Yet Mr. Gibson has a home in a community where people understand his patterns and know whom to call when he begins to lose control; thus far these assets have compensated for his clinical instability.

Success Scenario 2

Mr. Harris was profiled in an early evaluation of the McNeil Island mental health program in 1995. Now in his late 30s, he has been incarcerated more or less continuously in the juvenile and adult systems, unsuccessfully paroling twice in the mid-1980s and returning to prison with new convictions for assault and robbery. He reported a history of abandonment, neglect, and physical and sexual abuse as a child. His many other problems, including prescription drug abuse, may have masked his underlying illness until he was well into his prison career. When profiled earlier, he had accumulated 101 major prison infractions, including seven instances of assault resulting in hospitalization.

Mr. Harris presented himself as an intelligent, thoughtful man who had insight into his background and appreciated his mental health program experiences, but he preferred then, and continuing through his release over five years later, to attribute his schizophrenic symptoms to trauma rather than to chronic illness. The earlier profile commented:

"His history of drug abuse, his wavering acceptance of his condition as an illness, his predilection for conspiracy theories, and his past violence all suggest a high risk of failure despite his current efforts. Because the criminal justice system will not have any hold over him upon his release, his case argues the need for statutes and policies that will provide the means for intensive mental health support and monitoring in the community."

Mr. Harris was able to transition through work release, although he was first denied because of questions about his acceptance of illness. He had no formal correctional supervision after release, but DOC staff worked with mental health providers to find temporary housing. There have been setbacks: no permanent housing after six months in the community because of his criminal background, and his record also prevented him from being hired at a local sheltered workshop. But he was sponsored by prison ministries and attended church regularly; his mental health counselor reported that he had “successfully engaged with chemical dependency treatment, and is thriving at his residential placement... Great guy!”

For a number of years, Mr. Harris has been regarded with affection by the staff who work with him. But his troubled history, his violent record, and his unwillingness to accept his illness made his case an illustration of the argument for the DMIO program. Because of his willingness to accept intervention and his interest in personal change, one might have said that “all he needed was a little help.” So far, it appears this judgment would be correct.

Program Costs

The DMIO legislation established additional payments to Regional Support Networks (RSNs) or, in some cases, particular providers who contracted with DSHS to provide special support services for program participants. The legislation stipulated up to \$10,000 per participant per year, for a maximum of five years, indicating that services were to begin during the pre-release transition planning period. The specific formula established by DSHS-MHD worked as follows:

- Providers of special services during the three months just before and just after prison release were reimbursed \$6,000 to engage the participant.
- After these three months, providers were reimbursed \$700 per month for special DMIO service for Medicaid-eligible participants and \$900 per month for non-Medicaid-eligible participants.

Program costs during the first 18 months of the DMIO study were estimated because, for the first 2 1/2 years of the program, reimbursements were attributed to groups of participants signed up by the billing agencies rather than to individual participants. Estimates were derived by extrapolation from individual-level billing records for program participants during a 15-month period running from mid-2003 to the fall of 2004. We estimated a total 18-month program cost of \$1.5 million or **\$15,000 per participant**.

Because cost estimates were extrapolated, some assumptions were necessary to derive this estimate.

- For a variety of reasons—periods returned to prison or in jail, program refusal by the participant, delayed enrollment in the program, rejection of contracts by the RSN for liability reasons—full reimbursements were not made for every participant every month.

- Since \$6,000 start-up payments were made for only 75 percent of participants whose program entry was covered by the 2003–04 data, we estimated average start-up payments at \$4,500.
- Average monthly payment rates were estimated from the available data and applied to the 100 DMIO participants in this study, except where their actual payments, during the first 18 months after release, were included in the 2003–04 spreadsheets provided by DSHS-MHD.
- Of the 100 DMIO study subjects, 33 were no longer enrolled in the DMIO program by July 2003. Lacking specific program dropout dates, we assumed they continued until that date.

Because detailed records are not maintained on individual expenditures at the state level, cost information had to be estimated. We imputed average monthly costs to participants unless we had specific evidence that funds were not spent. The cost estimate, therefore, likely overstates the cost per participant; but we have no information on which to base a lower estimate.

DOC Bed Space Savings

Earlier we reported that 80 percent of DMIO participants were subject to community supervision after release. All offenders sentenced since the Sentencing Reform Act (SRA) took effect in 1984 have an early release date with good conduct credit (“good time”) adjusted for good time lost due to infractions in prison.

Under the previous community placement law, offenders could be held past their good-time release date, up to their maximum sentence expiration date, if their placement plans failed to meet conditions established by the court at sentencing. Offenders sentenced under OAA could also be held past their good-time release date unless placement plans met conditions established by DOC risk management procedures.³⁵ Because many offenders with mental illness have difficulty establishing acceptable release plans, it was hoped that the transition planning generated by the DMIO program would save DOC bed space costs by preventing delays in prison release.

DMIO participants appeared slightly less likely than CTS subjects to be released on their early release dates. Average delay past the early release date was 67 days for the CTS sample, 75 for DMIO participants. Unfortunately, data used to compare good-time and actual release dates are limited and provide little basis for concluding that the DMIO program has saved bed space costs by reducing prison release delays.

While it may still be hoped that earlier identification of DMIO candidates would facilitate planning that reduced release delays, several factors may place constraints on this process, including rapid turnover in prison populations. Offenders in prison often have difficulty lining up options for employment and housing prior to release. Unpredictable events are likely to

³⁵ For the few offenders remaining under the pre-SRA parole system, community release plans are a critical element in discretionary Indeterminate Sentence Review Board decisions about the timing of release, but because of the broader range of release discretion, there is no way to assess the specific role played by community placement plans.

occur between the date that DMIO participants are identified and their expected release, meaning that plans must be revised, often on short notice.

Early Medicaid Savings

Earlier we reported that special pre-application arrangements, along with waivers of the 90-day waiting period for Medicaid eligibility determinations, resulted in prompt coverage for most DMIO participants after release from prison. We lacked comparable data for CTS subjects about gaps between state and federal eligibility determinations, but DMIO participants were enrolled much more quickly than CTS subjects in GAU, which is correlated with predicted Medicaid eligibility.

Based on comparisons between the two groups on GAU and Medicaid eligibility, DMIO participants obtained eligibility in greater proportions and more rapidly.

The federal Social Security system reimburses the state for past subsistence payments, such as GAU, for Medicaid-eligible recipients when they are admitted to the Supplemental Security Income (SSI) program. For monthly cash subsistence payments to Medicaid-eligible recipients, the timing of Medicaid eligibility imposes no additional costs to the state, since such payments are reimbursed regardless of when benefits began. By the same token, the DMIO program's success in speeding up Medicaid eligibility did not actually save costs for the state.

Because mental health treatment services provided before recipients become Medicaid-eligible are not subject to federal cost-sharing, delays in Medicaid eligibility cost the state money if mental health services are provided in the interim. Because state funds to support mental health services for non-Medicaid-eligible clients were also limited during the CTS, as they are now, it is unlikely that many CTS subjects were served before Medicaid eligibility determinations. Only one DMIO participant used non-reimbursable mental health services.

Because the state takes advantage of federal cost-sharing, regardless of the timing of Medicaid eligibility, the success of the DMIO program in speeding Medicaid eligibility determinations is unlikely to have saved the state either cash support or mental health service expenditures.

Recidivism Cost Savings

Program Costs and Recidivism Savings. The program costs are estimated at \$1.5 million for the first 18 months, or \$15,000 per participant. As noted earlier, we estimate that the DMIO program results in a statistically significant reduction in recidivism rates. The research question is whether the value of this recidivism reduction outweighs the costs.

To answer this question, we employed the Institute's benefit-cost model.³⁶ When there is less crime, taxpayers spend less on the criminal justice system. Fewer crimes also mean there are fewer crime victims. The present value of life-cycle avoided costs is estimated to both taxpayers and crime victims. From the present-value sum of these benefits (avoided

³⁶ The Institute's benefit-cost model is described fully in Aos et al., *Benefits and Costs of Prevention*.

costs), we then subtract the \$15,000 cost of the DMIO program to determine the economic “bottom line” of the program.

When research is based on a less-than-randomized research design, we know the results have a larger margin of error. Since random assignment was not possible for this study, we reduce the estimated effect size of the observed differences in recidivism by 50 percent when calculating the benefit-cost analysis; this step accounts for unobserved selection bias that we could not control for in our multivariate analyses.³⁷ That is, since we cannot control for all selection bias, and since the likely direction of that bias would result in an overestimation of the effectiveness of the program,³⁸ we apply a 50 percent discount factor to the program effect when we perform our benefit-cost analysis.

This benefit-cost evaluation only estimates the effect of the program on crime outcomes. We did not measure the program’s effects on all potential outcomes, such as decreases in substance abuse or other public sector costs.

We estimate that the DMIO program costs about \$15,000 per participant during the first 18 months. As noted, at 18 months, we estimate that the DMIO program reduces recidivism rates. This generates reductions in taxpayer costs for the criminal justice system and additional benefits because there are fewer crime victims. We estimate that the \$15,000 per participant cost of DMIO produces \$11,100 in crime-reduction benefits. Of these total benefits, \$5,418 accrues to taxpayers in the form of reduced criminal justice system expenditures that will be avoided because crime is lower. Fewer crime victims are expected because the program lowers crime; we estimate these benefits to be \$5,682 per participant. This results in an overall return of 74 cents per dollar of DMIO program cost. As mentioned before, this estimate reflects the first 18 months of DMIO operation; only a longer-term evaluation will be able to assess the full impact of the five-year DMIO program.

Expanding DMIO Services to Other Classifications of Offenders

The legislation directed the Institute to address whether the services provided to DMIO participants should be expanded to include other offenders, such as juveniles, felons not sentenced to confinement, and felons in county jails, and, if so, the cost estimates for expansion. The information and analysis generated for this study, however, provide limited guidance for these decisions:

- Because of the short period for follow-up, the small number of subjects, and insufficient details on which subjects received which supplemental benefits (e.g., housing support, interagency collaboration, additional case management hours not

³⁷ We explain in Aos et al., “Benefits and Costs of Prevention” our rationale for using a 50 percent reduction. For random assignment studies, we do not discount findings. For non-random assignment studies that have a comparison group and some indication that the groups are equivalent or have a basic set of variables controlled in a multivariate analysis, we discount observed findings by 50 percent. This 50 percent factor has been confirmed in the meta-analytic studies of Mark Lipsey, see: M.W. Lipsey. 2003. “Those Confounded Moderators in Meta-analysis: Good, Bad, and Ugly.” *The Annals of the American Academy of Political and Social Science* 587(1): 69-81. For studies whose evaluation design is somewhere between these two categories, we apply a 25 percent reduction.

³⁸ Ibid.

billed through normal channels), we are unable to determine which aspects of the DMIO program were responsible for its effect on levels of felony recidivism.

- Although the case management study suggests that particular interventions are probably instrumental in helping offenders with mental illness in their community adjustment, we do not have enough information about the characteristics of the other populations, to which the program might be extended, to make recommendations tailored to their specific criminogenic needs.³⁹

Nevertheless, some aspects of the DMIO program have potential applicability to other populations:

- **Pre-Release Coordination.** Transition from one setting to another often causes the most difficulties for individuals receiving care or supervision. This finding is true for people moving from hospitals to nursing homes, as well as those leaving prison to return home. The DMIO model stresses the value of transition preparation. Interagency teams, including social service providers and DOC community staff, met with prospective DMIO participants several months before the prison release date (when possible). When the person was released, connections with providers had already occurred and the transition to community services was not nearly as difficult.
- **Medicaid Eligibility.** Administrators at DSHS-MHD worked with the Economic Services Administration to waive the 90-day waiting period normally required before applicants for social services can be reviewed by a physician and certified as meeting medical necessity criteria for Medicaid eligibility. This innovation drastically improved access to social and economic services after release.

These systemic innovations of the DMIO program improved access by offenders with mental illness to financial, chemical dependency, and mental health services to which they are entitled by virtue of disability and economic need. There are other offenders, disabled by physical ailments or chemical dependency, who also qualify for such entitlements and may benefit by similar systemic innovations.

The case management study suggests that the systemic innovations improved the chances of a working alliance between offender and provider, which may have helped prevent felony recidivism. Other programs underway in Washington extend the advantages of pre-release planning and interagency collaboration to felons in county jails (e.g., the Transition Options Program in Pierce County).

Recommendations for the Next Phase of the DMIO Program

This study covered the first 18 months of the DMIO program and generally found that its legislative goals have been achieved. To draw more conclusive findings, a follow-up evaluation could be done after a sufficient number of participants have been enrolled for a full five-year period.

³⁹ D.A. Andrews and J. Bonta. 2003. *The Psychology of Criminal Conduct*. Cincinnati: Anderson Publishing Company.

In the course of this evaluation, questions about the program were raised that could not be answered by existing records and data systems. The interagency group overseeing the program may want to consider changes to allow more detailed examination of program aspects and services. For example:

- DMIO participants receive drug and alcohol assessment and treatment funded by both the Division of Alcohol and Substance Abuse (DASA) as well as mental health providers who contract with certified providers. Thus, the administrative data from DASA on treatment categories and duration does not cover the full DMIO population. To analyze the full picture of drug and alcohol assessment and treatment, a system to collect this data would be necessary.
- Detailed expenditure information for each participant would allow identification of exact amounts as well as the category of funding. At present, we cannot report the proportion of funds spent on housing, for example.

We recommend that the interagency oversight committee discuss whether to implement changes in recordkeeping and data collection to cover these factors. With a larger pool of participants, future analysis of the DMIO program can also examine whether the type of service provider (RSN versus individual contractors) influences the outcomes. For this study, the number of subjects in certain categories was too small to allow statistically valid comparisons.

APPENDIX A: DMIO IDENTIFICATION AND SELECTION⁴⁰

Prison systems are designed to manage and supervise offenders in terms of custody and safety issues, not to assess and treat illness. In Washington's Department of Corrections, as in other criminal justice systems, formal methods of screening, evaluating, and tracking the mental health status of offenders are a recent development, and no single item in DOC's data system reliably identifies offenders with serious mental illness. Consequently, for the Community Transition Study (CTS), methods were developed to identify subjects in a two-step process: first, possible subjects were identified from DOC records using an algorithm operating on available indicators; second, possible subjects were included in the study through case-by-case review of medical charts. These methods were adapted for the DMIO program.

Algorithms for Detecting Possible Serious Mental Illness From DOC Records.

Possible DMIO candidates were identified from DOC's OBTS records by an algorithm using a database "flag" indicating that intake screening suggests possible mental illness, mental health need scores by intake interviewers, mental health bed residency records, dynamic scores of level of medical need, recorded diagnosis, and an "Interview Confirms SMI" (serious mental illness) item entered by mental health professionals upon assessment of an offender.

Like many screening tools, the original algorithm tended to identify large numbers of offenders who, upon further review, were determined not to qualify as meeting the operational definition of seriously mentally ill for this law (i.e., suffering from a major thought or mood disorder that substantially impairs functioning and requires continuing treatment).

A more selective algorithm, developed by University of Washington researchers for an empirical survey of serious mental illness,⁴¹ is now being tested in the DMIO program. It uses psychotropic medication records in combination with the OBTS variables most strongly associated with mental illness (as validated by medical chart reviews): mental health bed residency, recorded diagnosis, and Interview Confirms SMI.

Selection Process. Two stages occur in the DMIO selection process:

1. DOC staff identify candidates and present information about these individuals to an inter-agency Statewide Review Committee (SRC);
2. The SRC decides which candidates qualify for program services, applying two key considerations: the person is mentally ill (or developmentally disabled) and dangerous.

The SRC reviewed detailed medical and behavioral records in making their decisions.

⁴⁰ A full description of the selection process was presented in our two preliminary reports. See: Phipps et al., *Implementation of Washington's Dangerous Mentally Ill Offender Law*, and Phipps, et al., *Washington's Dangerous Mentally Ill Offender Law*.

⁴¹ David Lovell. 2003. *Identification of Offenders With Serious Mental Illness in Washington Department of Corrections Facilities*. Olympia, WA: Department of Corrections.

To allow a minimally adequate (18-month) period for community follow-up, this study was restricted to DMIO participants reviewed and released from prison between the program's beginning in September 2000 until December 2002. The selection algorithm identified 1,875 cases reviewed during the study period. Of these, DOC staff referred 203 candidates for SRC review. Of those referred, the SRC selected 140 for program participation, and of those selected, 113 were released by the December 31, 2002, cut-off date.

Selected Versus Non-Selected Cases. In examining a program that selects its participants, it is often revealing to learn how those who are selected compare with the comparison group. Accepted DMIO cases were older, had been in prison longer, were more likely to satisfy strong mental illness algorithm criteria, such as mental health bed residence, and exhibited higher prison infraction rates. Criminal history also played an important role. Women constituted 23 percent of the DMIO pool but only 8 percent of those selected for review.

At the DOC screening stage, drug offenders were less likely than others to be referred for review because few had records of violence, and offenders with a history of violence were more likely to be referred. Of particular interest was the index offense (the offense for which an offender had been serving time when released during the designated prison release period). Because an extensive history of drug and other nonviolent offenses is associated with a higher risk of felony recidivism, offenders referred to the SRC actually had a lower actuarial risk of felony recidivism than those not referred.

At the SRC review stage, committee members were inclined to select offenders with a violent index offense. Because such offenses usually incur long prison terms, candidates selected for DMIO services tended to be older. As a result of these selection procedures, cases selected by the SRC actually had a *lower* actuarial risk of felony recidivism than non-selected cases.

The fact that selected cases had a lower actuarial risk of recidivism than non-selected cases may be understood in terms of several factors. First, there was often stronger evidence of mental illness for long-term prisoners with violent index offenses than for younger candidates with lower-level felonies, such as drug offenses; but the latter are statistically more likely to commit new felonies. Second, the committee was concerned not simply with how likely a new offense would be committed but with how severe it might be: a possibility for which a shocking or violent index offense may offer a warning. The seriousness of the index offense is correlated with long terms in prison and greater age at release, which reduces the likelihood of recidivism. Nevertheless, it may have appeared as important to guard against an unlikely severe failure as against a likely lesser one. Because violent felonies were so rare in the CTS group, we were not able to produce valid actuarial estimates of violent felony risk in the CTS; nor have other studies been conducted of felony violence risk among offenders with mental illness released from prison. For these reasons, we cannot say whether DMIO participants had a higher or lower actuarial risk of violent felony recidivism than CTS comparison subjects.

APPENDIX B: COMMUNITY TRANSITION STUDY COMPARISON GROUP

The Community Transition Study (CTS) was initiated in 1998 by the Washington Institute for Mental Illness Research and Training (WIMIRT) to investigate possible relationships between the social services that subjects received, especially community mental health services, and post-release offenses; to establish performance standards for social service providers; to develop methodologies for identifying mentally ill offenders across systems and assembling and processing data from multiple sources; and to provide baseline data for subsequent program interventions. The study was funded by the Department of Corrections (DOC) and the Department of Social and Health Services Mental Health Division.

When the CTS began, it was more difficult to identify possible mentally ill offenders from DOC data sources. From lists provided by DOC's Office of Planning and Research, researchers used a set of indicators of mental illness retrieval from OBTS and health care records—mental health bed residency, use of any psychotropic medications, and intake screening notes or “flags” of possible mental illness—to identify 590 offenders released in 1996 and 1997 likely to be mentally ill. Archived medical charts were reviewed for more conclusive evidence, such as prescriptions for specific antipsychotic, mood stabilizing, or antidepressant medications; or a psychiatric evaluation by an M.D. or Ph.D. with a diagnosis of psychotic disorders, bipolar disorder, major depression, dementia, or borderline personality.

Researchers considered as mentally ill any offender who met both of these criteria or who met one in combination with mental health program residency. There were 259 subjects qualified by medical chart review; an additional 78, whose charts were unavailable, were qualified as mentally ill on the basis of additional OBTS information either because of reported behavior or DSHS-MHD records of past community mental health treatment.

Compared with all offenders released during the same period, slightly more CTS subjects were white, fewer were African American, and fewer were Hispanic. Sex offenses were more prevalent and drug offenses slightly less prevalent among CTS subjects. The group had also served more time in prison by the time they were released from their index offense. The biggest difference, however, was in the proportion of women. Only 9 percent of the total prison release cohort in 1996 and 1997 were women compared with 30 percent of CTS subjects.

Compared with male CTS subjects, women tended to be diagnosed with depression rather than thought disorders and had less residential mental health bed treatment, higher reported rates of drug abuse, and fewer post-release community mental health services. The large number of women with diagnoses of depression and histories of drug abuse represent the most obvious difference between the CTS comparison group and the DMIO program participants.

From the original 337 CTS subjects, the number was reduced to 287 by eliminating four who were hospitalized the entire time, one officially released but held in prison as a parole violator, 24 released out of state, 15 referred to immigration authorities, and six who died within 18 months.

APPENDIX C: CASE MANAGEMENT STUDY

The case management study examined factors not captured in the agency databases, including substance abuse, attitudes toward treatment, types of services offered or received, and housing needs. Coordination among criminal justice and social service agencies was also reviewed.

Fifty-three DMIO participants were selected for the program between September 2000, when the program began, and January 2002; we began collecting and analyzing data in the spring of 2003. This group was compared with a group of 48 mentally ill offenders released during 1996 who were part of the CTS group.⁴² From offenders released in 1996, the 48 CTS offenders had been selected in 1998 to cover the full range of recidivism and service use outcomes.

To compare the CTS and DMIO case management study groups, we reviewed and coded the case notes of corrections staff, both prison staff and community corrections officers. For DMIO participants, case notes covered a period beginning six months before release and extending for 14 months afterward release. For the CTS group, case notes began six months before release and ended July 1, 1998, an average of 21 months of post-release exposure.

Collecting and coding this information allowed us to compare the two groups on community adjustment variables, particularly housing. Community mental health providers returned monthly questionnaires describing the amounts and kinds of service DMIO participants received. Because of timing and other issues, DMIO participants had questionnaire results covering varying periods of time, so these data were used to describe types rather than amounts of service provided.

In addition to reviewing DOC case notes, we reviewed monthly summaries from the community mental health provider survey that identified client challenges or barriers and successes. We then identified themes: repeated patterns of events, or ways of describing subjects, found in the DOC case notes and community mental health case management summaries. This inductive procedure, common to most forms of qualitative research, offers the opportunity to describe issues that emerged after the research agenda was set, as well as observe connections between events over time with subjects. We developed chronologies and identified themes and turning points. We present four case studies, two apparent successes and two apparent failures, as a means to illustrate the challenges of community transition for offenders and their case managers.

⁴² Lovell et al., *Mentally Ill Offender Community Transitions*. The earlier study was commonly known as the "N of 50 Study"; since its completion, further review of the files led to removal of two subjects who did not meet generally applied criteria of mental illness.

APPENDIX D: ANALYSIS RESULTS

Exhibit D-1

Logistic Regression of Variables Associated With Felony Recidivism

Variable	Beta	Beta (S.E.)	Wald	df	p	Exp(B)
Number of previous felony convictions	.239	.051	21.627	1	.000	1.27
DMIO treatment	-1.060	.347	9.35	1	.002	.347
Index offense is first felony sex conviction	-2.17	.748	8.38	1	.004	.115
Young age at release (age ≤ 25 years old)	.772	.323	5.70	1	.017	2.17
Older age at first offense (age ≥ 36 years old)	-1.35	.633	4.53	1	.03	.259
Constant	-2.64	.406	42.18	1	.000	.072
Model fit	χ² value	df	p			
Hosmer and Lemeshow test	6.88	8	.550			
	R² value					
Adjusted R squared (Nagelkerke)	.302					

Exhibit D-2

Cox Proportional Hazards Regression of Variables Associated With Felony Recidivism

Variable	Beta	Beta (S.E.)	Wald	df	p	Exp(B)
Number of previous felonies	.144	.030	23.19	1	.000	1.16
Young age at release (age ≤ 25 years old)	.638	.231	7.65	1	.006	1.894
Index offense is first felony sex conviction	-1.91	.723	7.00	1	.008	.148
DMIO treatment	-.774	.303	6.52	1	.011	.461
Number of previous drug felony convictions	.148	.064	5.45	1	.0219	1.16
Low infraction rate (≤ 1 infraction per year)	-.481	.217	4.91	1	.027	.618

Exhibit D-3

Variables Associated With Misdemeanor Recidivism

Variable	Beta	Beta (S.E.)	Wald	df	p	Exp(B)
Prior misdemeanor property adjudications	.127	.044	8.26	1	.004	1.14
Time served (in months) on the index offense	-.011	.005	5.19	1	.023	.99
Criminal versatility score (1-4)	.394	.172	5.24	1	.022	1.48
Older age (≥ age 36) at first offense	-.978	.473	4.27	1	.039	.376
DMIO treatment	-.501	.293	2.92	1	.088	.606
Constant	-1.25	.363	11.86	1	.001	.286
Model fit	χ² value	df	p			
Hosmer and Lemeshow test	3.46	8	.902			
	R² value					
Adjusted R squared (Nagelkerke)	.152					

Exhibit D-4
Associations of Prediction Instruments With Recidivism

Prediction Score	Type of Recidivism	Strength of Association (r)	Significance (p)
LSI-R Total Score	Felony	.288	.004
	Violent Felony	.213	.033
	Any Recidivism	.191	.056
LSI-R Companions Subscale	Felony	.241	.016
	Felony	-.240	.016
LSI-R Financial Subscale	Any	-.257	.010
	Felony	.264	.008
CTS Felony Equation	Any	.202	.044
	Violent Felony	.210	.036
	Felony	.283	.004
CTS Violence Equation	Violent Felony	.266	.008
	Felony	.360	.000
Number of Misdemeanors	Any	.350	.000
	Violent Felony	.366	.000