THE CECIL G. SHEPS CENTER FOR HEALTH SERVICES RESEARCH OF NORTH CAROLINA AT CHAPEL HILL

UNC

Using DSHS's Integrated Database to Examine Criminal Justice – Mental Health Issues

Joseph P. Morrissey, Ph.D.
Gary S. Cuddeback, Ph.D.

Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill
725 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27599-7590

Tel. 919/966-5829
Fax 919/966-1634
joe_morrissey@unc.edu

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Executive Summary

Project Scope

States throughout the country are focusing attention on the rapid growth and accelerating costs of managing persons with mental illness and substance abuse disorders who are detained in jails and prisons or who are under community supervision arrangements (probation and parole). Policy and programmatic interventions are based upon both front-door (diversion) and back-door (reentry) management strategies. Persons with mental illness who are involved in the justice system have been a major concern in these efforts. Washington State has responded to these needs with HB1290, which authorized expedited restoration of Medicaid benefits for incarcerated and hospitalized individuals, and a Prison Reentry initiative targeted at reducing currently high rates of recidivism. This report presents preliminary findings about the impact of HB1290 and the community reentry of prisoners with mental illness.

Methods

Analyses were conducted with data obtained from the DSHS's integrated administrative database maintained by the Research and Data Analysis Division. This database assigns common identifiers to service users across DSHS agency information systems so that service records can be linked across agencies and over time. The Mental Health Transformation Project has recently expanded these databases by adding records from jails located in the largest population centers of the state as well as from Department of Corrections facilities.

Main Findings

In CY 2006, of the 2,516 persons referred for expedited Medicaid restoration, over 70% came from criminal justice facilities; jails accounted for 51%, prisons for 21%, and psychiatric hospitals for 28%. However, the restoration rates were much lower for jails (57%) than for either psychiatric hospitals (91%) or prisons (79%) reflecting difficulties with full assessments in the quick turnaround setting of most jails. Restored benefits did have small positive impacts of subsequent use of services and in increasing time-in-community prior to next arrest. Persons whose benefits were restored were significantly more likely to receive one or more outpatient mental health services within 90-days post-release (75%) versus those without restored benefits (45%). Over a six-month follow-up period, 24% (n= 420) of individuals with restored benefits were detained in jail versus 34% (n= 247) of those who did not have their benefits restored.

In 2006, approximately 8600 individuals were released from Washington State prisons. Fully 80% of these individuals had at least one lifetime service contact with a program operated by the Department of Social and Health Services (DSHS) and nearly 80% had a mental health or substance abuse diagnosis. Only about 1% had a diagnosis of mental illness alone, 27% a dual diagnosis of mental illness and substance abuse, and 50% substance abuse alone. The findings presented below suggest that there is a high degree of overlap among public health and welfare (i.e., DSHS) and the DOC systems. Moreover, an increasing number of individuals with mental health and substance abuse disorders are being admitted and released from DOC prison facilities over time and there is a high degree of recidivism among these persons within twelve months of release.

Policy Recommendations

The preliminary findings presented in this report suggest that expedited Medicaid restoration is beneficial with respect to increased access to services and fewer admissions to inpatient treatment facilities and jails for persons with mental illness and substance abuse disorders; however, Medicaid restoration is a necessary but not sufficient part of the solution to keeping persons with mental illness and substance abuse disorders out of institutional settings such as hospitals and jails. Similarly, rates of prison recidivism among persons with mental health and substance abuse disorders remain high. In addition to Medicaid benefits, a variety of housing, employment, and other social services are also needed by persons with mental illness and substance abuse disorders to decrease their involvements in the criminal justice system. However, more knowledge needs to be developed about risk factors for recidivism among persons with mental illness both for jails and prisons. Much of the available information focuses on felony convictions which represent the most serious offenders, but only a small segment of the total number of persons with mental illness involved in the justice system. New attention must be focused on jail populations and the many individuals under community supervision by state and local authorities and those involved in the juvenile justice system. Continuing analyses supported by the Mental Health Transformation Project will examine jail and prison reentry as well as transitions from the juvenile to the adult corrections system.

ACKNOWLEDGEMENTS

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1. Report Overview

This is the final report on the University of North Carolina (UNC) 02 Year subcontract with the Washington State Mental Health Transformation Project that covers the period from December 1, 2006 through December 31, 2007. There were a number of delays in obtaining information and data needed from Washington State and the research team at UNC has not had sufficient time to fully understand the data and their strengths and limitations. Therefore, the findings in this report should be considered preliminary and should be interpreted with caution. As a part of its continued work with Washington State, the UNC research team will continue to refine and validate the analyses and findings contained in this report.

During the 02 contract year, the UNC-CH research team focused on three tasks: (1) developing mental health need, workforce and shortage estimates for Washington State, (2) examining the impact of Washington State's HB1290 Expedited Medicaid Restoration program, and (3) examining the characteristics and service utilization patterns of justice-involved persons with mental illness (alone or in combination with co-occurring mental illness and substance abuse disorders) who were released from the Washington State prison system. This report focuses on tasks two (2) and three (3). A previous report addressed task 1.

2. Background

Nationally, on any given day there are approximately 93,000 people with mental illness in state and federal prisons, 44,000 in jails, and 320,000 under corrections supervision in the community. In contrast, there are now only 54,000 patients on any given day in state mental hospitals. Moreover, there are about 13 million detentions each year in U.S. jails, and, based on best screening estimates, approximately 500,000 persons with severe mental illness account for about one million of these detentions (GAINS Center, 2002; Teplin, 1990; Teplin, Abram, & McLelland, 1996).

More knowledge needs to be developed about these populations of persons with mental illness – those incarcerated and released from jails, those incarcerated and released from prisons, and those on community supervision – and about interventions that can improve public health and public safety outcomes. Moreover, there is an exodus of persons with mental illness from the criminal justice system, particularly prisons, that mirrors the deinstitutionalization phenomenon associated with our state hospitals that started over thirty years ago. Once again, the responsibility of caring for these individuals will fall on the communities to which persons with mental illness exiting the justice system return.

Washington State is not alone in its struggle to manage and serve justice-involved persons with mental illness, as all states are being challenged by the large and increasing numbers of persons with mental illness or co-occurring mental illness and substance abuse disorders who come in contact with the criminal justice system and the management of these persons as they leave local jails and state prisons and reenter their communities. Consequently, across the country, a variety of efforts have been made, pre- and post-booking, to divert the large and increasing numbers of persons with mental illness from the criminal justice system or to facilitate the community reintegration of persons with mental illness that are discharged from the criminal justice system. These efforts encompass interventions situated at one or more of the sequential intercept points (Munetz & Griffin, 2006) in criminal justice processing. Four main types of interventions – police-based, court-based, community mental health system-based, and probation and parole-based – are often used alone or in combination to help divert or facilitate reentry for justice-involved persons with severe mental illness.

Jail diversion and jail and prison re-entry programs can be strengthened by developing policies that are designed to facilitate the diversion of persons with mental illness from the criminal justice system or facilitate the community reintegration of persons with mental illness who are released from jails and prisons. Unfortunately, despite the significant overlap between mental health, substance abuse and criminal justice caseloads, policies that are intended to benefit one system can have negative consequences for another. For example, one policy at the interface of the criminal justice and mental health systems is the Social Security Administration (SSA) program that rewards jails and prisons with up to $400 per detainee for reporting incarcerated persons who are receiving Supplemental Security Income (SSI) or Social Security Disability Income (SSDI). According to a U.S. General Accounting Office report, 3,115 correctional facilities had signed agreements to report, which has resulted in 39,137 SSI benefit suspensions and a cost savings of $37.6 million in inappropriate SSI payments (United States General Accounting Office, 1999).

The concern here is that persons with mental illness will lose their Medicaid benefits along with their income supports as a result of their incarceration (Bazelon Center for Mental Health Law and Policy, 2001). The stated intent of the SSA program is to prevent the fraudulent receipt of monthly income benefits while an individual is incarcerated. SSA uses a full calendar month cut-off—the so-called inmate exclusion rule—whereby persons on SSA benefits who exceed this interval may be suspended from SSI and SSDI. For adult males (who constitute the largest proportion of jail detainees), Medicaid enrollment is tied to SSA disability benefits. So if income benefits were being terminated on a large scale, then medical benefits would also be disrupted when vulnerable populations such as persons with severe mental illness are detained in jail. Although individuals who are disenrolled may apply for re-enrollment subsequent to release, eligibility determinations frequently take a significant amount of time, and by law the process can extend as long as 90 days (42 CFR 435.911, 2002).

One potential solution would be for jails, in particular, to modify the policy such that income support could be suspended but the associated health insurance benefits remain intact for persons with mental illness who are incarcerated. A policy modification such as this is unlikely, so, communities that are struggling with management of persons with mental illness who are released from institutional setting into their communities must find ways to expedite the restoration of health insurance benefits once these individuals are released. The timely restoration of benefits can help persons with mental illness who are released from jail and other institutional settings gain quicker access to much-needed community-based services.

For example, our prior research (Morrissey, Steadman et al., 2006; Morrissey, Dalton et al., 2006) assessed two concerns: first, how often do jail detainees with mental illness lose Medicaid benefits during incarceration; and second, do those who have Medicaid upon jail release have greater access and use of mental health services? Our findings indicate that, of all detainees with severe mental illness who were booked into two large urban jails over a two-year period, fully 97% were released with their Medicaid benefits intact (Morrissey, Dalton et al., 2006). The 3% who lost their benefits while incarcerated had significantly longer jail stays as compared to those who did not lose their benefits. Further, those detainees who had Medicaid at jail release accessed services more quickly and more often in a 90-day post-release period than those who were not on Medicaid (Morrissey, Steadman et al., 2006).

No one intervention or policy has emerged as the panacea for the large and growing problem of persons with mental illness in our criminal justice system. More research needs to be conducted to examine the effectiveness of policies and interventions designed to divert persons with mental illness from local jails and facilitate the community re-integration of persons with

mental illness. It is clear, however, that the responsibility of serving the needs of persons with co-occurring mental health and substance abuse disorders who are involved in the criminal justice system does not fall solely on the shoulders of the mental health system.

Unlike 50 years ago when persons with severe mental illness were served in large state hospitals, today persons with mental illness and substance use disorders are diffused among multiple public sectors outside of the mental health system, including criminal justice, emergency medical services, vocational rehabilitation, substance abuse, education, and the Veterans Administration's health and mental health care system. Community-wide collaboration and innovative planning is required to address this large and growing problem, and this needs to occur in the context of shrinking budgets and scarce resources across each service sector.

In this context, Washington State recently passed HB1290, which requires DSHS to establish new rules focused on expediting new applications or reinstating Medicaid benefits for persons with mental illness discharged from any institutional setting such as jails, state correctional facilities or state hospitals. Principals from the Washington State Department of Social and Health Services Research and Data Analysis Division (RDA) was commissioned to conduct an evaluation of HB1290, and found that persons referred from local jails to benefit eligibility specialists for expedited benefit restoration are less likely to receive DSHS medical coverage or mental health medications soon after release (Mancuso, 2007). However, persons referred from jails are about as likely as persons referred from Department of Correction (DOC) facilities to receive RSN outpatient mental health services soon after release. In addition, persons with long jail stays and breaks in DSHS coverage are getting their benefits reinstated upon release as a result of the HB1290 program. And, more persons with prior indications of need for substance abuse treatment are getting treatment soon after release from jail.

As a part of its ongoing work and collaboration with the Mental Health Transformation Project in Washington State, the research team at UNC carried out further analyses of the HB1290 program using data assembled as a part of RDA's integrated database in order to learn more about individuals referred to the HB1290 program and the impact of the HB1290 program on mental health, substance abuse and jail utilization for persons with mental health and substance abuse disorders. Innovative policies such as HB1290 are an important part of the solution to serving justice-involved persons with mental illness but must be accompanied by appropriate and effective community-based services if they are to work. These policies, however, must be evaluated to determine if they are effective towards their desired outcomes, namely, improved access to community-based services and decreased recidivism.

Worth noting in interpreting the results reported here, the authors had access to data only for offenders who had been referred for expedited eligibility determinations. Preliminary analyses recently shared with us by RDA suggests that a high percentage of offenders who might be eligible for these expedited determinations are not referred for consideration, perhaps as few as one in five. Because the findings of this study indicate that good outcomes are associated with expedited eligibility determinations better understanding of the referral process and barriers to referral is warranted.

In addition to the analysis of the HB1290 program, the UNC research team received data from RDA's integrated database and data from the DOC. The purpose of obtaining these linked data was begin to examine the overlap between the mental health and substance abuse and state prison systems with respect to detainees with mental illness and to learn about factors affecting community reentry. The responsibility of providing care for these individuals will fall on the communities to which persons with mental illness exiting the justice system return. More

knowledge needs to be developed about their demographic and clinical characteristics and post-institution service needs so that communities can be better equipped to facilitate the reentry of this vulnerable population.

This report is structured as follows. First, findings from the HB1290 Expedited Benefits Restoration program are discussed (Section 3), which is followed by a presentation of findings from the prison reentry work (Section 4). Policy implications of the findings from these two projects are discussed in Section 5.

3. HB1290 Medicaid Restoration

3.1 *Study Design and Samples*

A quasi-experimental design was used to examine the service utilization and jail detention patterns of individuals who were institutionalized and released from one of three settings: DOC facilities, psychiatric hospitals or local jails. Specifically, 2,516 individuals who were released from 60 different institutional settings at some point during calendar year 2006 were included in the study. These individuals were referred to benefit eligibility specialists in the community after their release as a part of Washington State's HB1290 legislature which calls for expedited restoration of Medicaid benefits. To better understand the impact of these Medicaid restoration efforts, the mental health and substance abuse services and jail utilization patterns were examined for individuals who had their Medicaid benefits restored (n = 1,759) and those who did not (n = 717) upon release from jails, psychiatric hospitals or DOC facilities. First, however, the institutions and the individuals referred to HB1290 are described below.

3.1.1 ***Institutions***. A total of 60 jail, DOC and inpatient treatment facilities made referrals to the HB1290 program during CY 2006: 16 DOC facilities; 7 inpatient behavioral health facilities, including Eastern and Western State Hospitals; and 37 local police departments, jails or other county facilities. These 60 institutions made a total of 2,516 referrals that were associated with a benefits restoration approval or disapproval decision (see Table 1 below).[1]

Table 1: Selected HB1290 Referral Characteristics by Institution Type – CY2006

Indicator	Department of Corrections	Psychiatric Hospitals	City or County Jails
# of referrals (n = 2516)	21% (527)	28% (697)	51% (1292)
Successful referrals (n = 1759)	79% (415)	91% (611)	57% (773)
# of duplicate referrals (n = 413)	14% (59)	34% (140)	52% (214)
Days b/w referral & application (M(SD))	21 (56.63)	15 (28.53)	30 (61.90)

Further, 21% (n = 527) of referrals came from DOC facilities, 28% (n = 697) originated from psychiatric hospitals, and 51% (n = 1,292) came from local jails. Also shown in Table 1, most of the 2,516 referrals represented unique persons (84%, n = 2,103) whereas duplicate referrals made up 16% (n = 413) of all referrals. Jails were more likely to make duplicate referrals (52%, n = 214) as compared to 14% (n = 59) from DOC facilities and 34% (n = 140) from psychiatric hospitals.[2]

[1] Data regarding referral approval or disapproval status were missing for 40 (2%) referrals.
[2] A chi-square test was used to examine the differences among the three institutions with respect to duplicate referrals. Local jails were significantly more likely than other facilities to make duplicate referrals ($X^2(2) = 17.33$, $p < .001$).

Also shown in Table 1, the average length of time between the institutional release date and the HB1290 application date for all institutions was about 24 days (SD = 54.27). That is, in general, referrals were made close to a month prior to institutional release. The average length of time between release and HB1290 application was 15 days (SD = 28.53) for psychiatric hospitals, 21 days (SD = 56.63) for DOC facilities, and 30 days (SD = 61.90) days for city or county jails.

Although not shown in Table 1, the five counties associated with the largest number of individuals referred to the HB1290 program were King (25%, n = 543), Spokane (17%, n = 356), Pierce (11%, n = 240), Yakima (10%, n = 208), and Snohomish (6%, n = 121). These same five counties had the most individuals return to their communities post-institutional release: King (27%, n = 644); Spokane (15%, n = 370); Pierce (12%, n = 288); Yakima (9%, n = 207); and Snohomish (6%, n = 152).

3.1.2. *Individuals referred to HB1290*. As shown in Table 2, among those referred to HB1290, 73% (n = 1,841) were white, 17% (n = 434) were black, 4% (n = 110) were Native American, 2% (n = 50) were Asian or Pacific Islanders and 3% (n = 76) were categorized as Other. Data for race were missing for five individuals (< 1%). Also, 72% (n = 1,800) of the individuals referred were male and 28% (n = 716) were female. The average age of those referred was 36 (SD = 10.80) and, although not shown in Table 2, the average length of stay associated with an HB1290 referral was 226 days (SD = 552.54).

Table 2: HB1290 Referral Characteristics (Individuals) – CY 2006

Indicator	All Referrals (N = 2516)
Demographic Information	**% (N)**
White	73% (1841)
Black	17% (434)
Native American	4% (110)
Asian / Pacific Islands	2% (50)
Other	3% (76)
Male	72% (1800)
Age (M(SD))	36 (10.80)
Clinical Information	
MH + SA	48% (1209)
MH Only	13% (335)
SA Only	33% (839)
DSHS Eligibility Information	
Disabled/Blind	58% (1457)
General Assistance	16% (398)
ADATSA	15% (371)
Other	12% (290)

Also shown in Table 2, with respect to mental health or substance abuse diagnoses, 48% (n = 1,209) had a co-occurring mental health and substance use disorder, 33% (n = 839) had a substance abuse or dependence disorder only, 13% (n = 335) had a mental health disorder only and 5% (n = 133) had no evidence of either a substance abuse or mental health disorder. Although not shown in Table 2, 40% (n = 995) of the HB1290 referrals were for persons with depression, 38% (n = 961) were for persons with psychotic disorders (e.g., schizophrenia) and 30% (n = 757) were for persons with affective disorders (e.g., major depression), and approximately 23% (n = 271) of the sample experienced homelessness at some point prior to their institutionalization.[3]

[3] Data regarding homelessness were missing for 54% (n = 1,357) of the sample.

All of the individuals referred to the HB1290 program had DSHS medical eligibility at some point prior to their institutionalizations (100%, n = 2,516). As shown in Table 2, over half of HB1290 referred persons were categorized as disabled or blind (58%, n = 1,457), 16% (n = 398) were categorized as general assistance, 15% (n = 371) were categorized as ADATSA, and the remaining referrals were associated with a variety of other categories (12%, n = 290).

3.2 *Data Analysis*

Bivariate and multivariate analyses were conducted to model differences with respect to demographic and clinical characteristics and mental health and substance abuse and jail utilization among individuals whose DSHS Medicaid was restored after institutional release (n = 1,759) compared to those who were referred but did not have their benefits restored (n = 717). Chi-square tests and t-tests were used to examine the relationships between approval status (coded yes or no) and gender, race, age, diagnosis, previous DSHS eligibility status type, institutional referral source and other variables.

Multivariate analyses were used to examine five primary outcomes: outpatient mental health services access, outpatient mental health services utilization, inpatient treatment utilization, substance abuse treatment utilization and criminal justice recidivism. To examine these outcomes, two-part models were used to examine the probability of an event and the intensity of an event. For example, to model the probability of inpatient treatment over a three-month post-institutional release period, hospitalization (coded as yes or no) was regressed on the available demographic (i.e., age, race, gender), clinical (i.e., diagnosis, DSHS eligibility category), institutional variables (i.e., facility type) and HB1290 approval status (coded as yes for approved or no for not approved) in a binary logit regression model (Part I). Then, intensity of inpatient services for those who had any inpatient services – measured in terms of hospital days – was regressed on the same set of variables listed above using an Ordinary Least Squares regression or a count model depending on the distribution of the dependent variable (Part II). These analyses were repeated for all of the primary outcomes enumerated above.

3.3 *Results*

The results of the bivariate and multivariate analyses are presented below. Analyses related to successful HB1290 referrals are presented first (Section 3.3.1), followed by outpatient mental health services access and utilization (Section 3.3.2), alcohol and drug treatment access and utilization (Section 3.3.3), inpatient behavioral health services (Section 3.3.4), and criminal justice recidivism (Section 3.3.5).

3.3.1 *Successful referrals – institutions and individuals*. Of all the referrals made, 71% (n = 1,759) were approved for Medicaid restoration and 29% (n = 717) were not approved. As shown in Figure 1 below, by institution, city and county jails were less likely to have their referrals approved (57%, n = 733) compared to psychiatric hospitals (91%, n = 611) and DOC facilitates (79%, n = 415).[4]

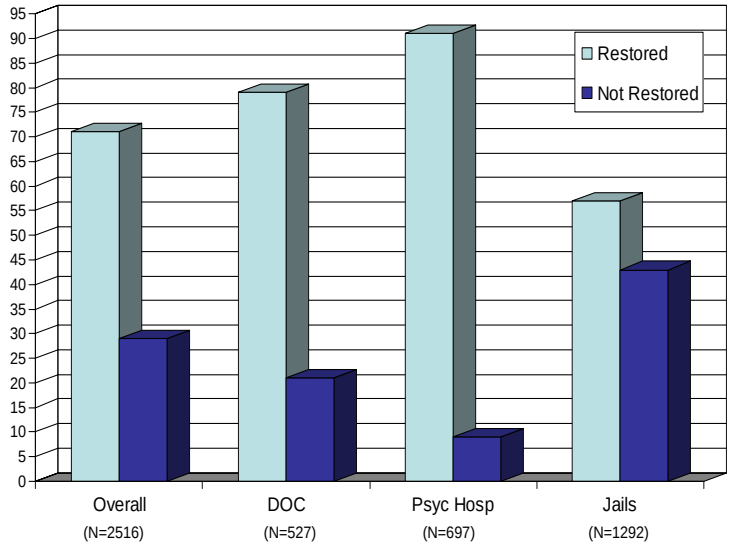
Among those who had Medicaid restored, individuals classified as white had significantly higher approval rates (73%, n = 1,388), followed by African Americans (66%, n = 322), and

[4] A chi-square test was used to examine the differences among the three institutions with respect to successful referrals. Local jails were less likely to have successful referrals compared to DOC facilities and psychiatric hospitals ($X^2(2) = 268.03$, $p < .001$).

persons of other races/ethnicities (52%, n = 49).[5] Females were more likely than males (78% vs. 68%, respectively) to have their Medicaid restored.[6] Persons with successful referrals were slightly older (M = 36.18, SD = 10.90) compared to persons who were not approved for Medicaid restoration (M = 34.82, SD = 10.28).[7]

As a group, persons with mental illness had the highest percentage of HB1290 approvals (89%, n = 290), followed by persons with co-occurring mental health and substance abuse or dependence disorders (78%, n = 930) and persons with no evidence of mental health or substance abuse or dependence disorders (66%, n = 87). Persons with substance abuse or dependence disorders, with no evidence of a co-occurring mental illness, had the lowest percentage of HB1290 approvals (54%, n = 452).[8] Also, individuals who did not experience homelessness prior to institutionalization were more likely to be approved for Medicaid through HB1290 compared to those who did experience homelessness (68 versus 58%, respectively).[9]

Figure 1: Percent Medicaid Restoration Status by Referral Facility



With respect to pre-institutionalization DSHS medical access categories, persons categorized as blind or disabled were more likely to have their Medicaid restored (85%, n = 2,111), compared to persons categorized as general assistance (59%, n = 231) or ADATSA (28%, n = 104).[10] Among persons who were approved for restoration, 76% (n = 1,820) had Medicaid in the first 30 days after institutional release, 84% (n = 2,004) had Medicaid within 60 days, and 86% (n = 2,063) had Medicaid within 90 days of their release.

Next, to predict successful HB1290 referrals, approval status (coded yes or no) was regressed on the available demographic (i.e., age, race, gender), clinical

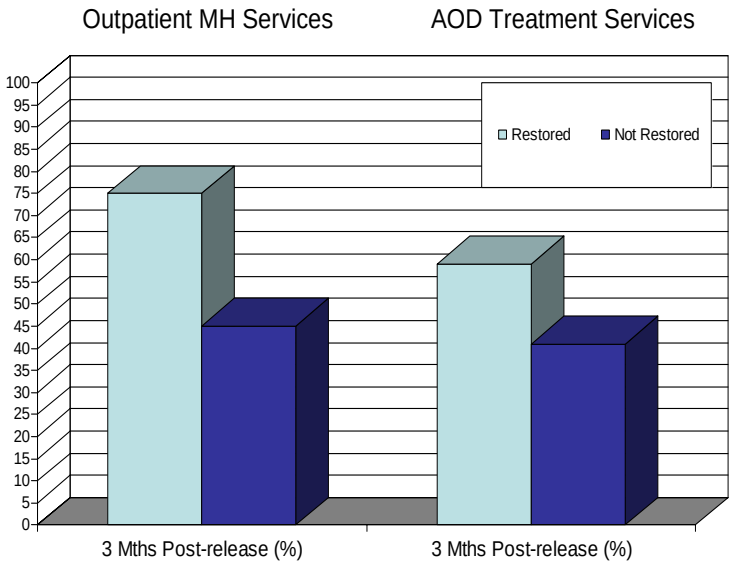
[5] A chi-square test was used to examine the differences among whites, African Americans and other races/ethnicities with respect to successful benefit restoration. Whites were more likely than other groups to have their benefits restored ($X^2(2) = 26.91$, $p < .001$).
[6] A chi-square test was used to examine the differences among males and females with respect to successful benefit restoration. Females were more likely than males to have their benefits restored ($X^2(1) = 20.70$, $p < .001$).
[7] An independent groups t-test was used to examine differences in age among those whose benefits were and were not restored. Those with restored benefits were slightly older ($t(2474) = -2.84$, $p < .01$); however, it is important to note that this difference is statistically but most likely not clinically significant.
[8] A chi-square test was used to examine the relationship between mental health and substance abuse diagnosis with respect to successful benefit restoration ($X^2(3) = 197.75$, $p < .001$).
[9] A chi-square test was used to examine the relationship between homelessness and benefit restoration ($X^2(1) = 10.46$, $p < .01$); however, these results warrant cautious interpretation given the large amount of missing data for the homeless status variable.
[10] A chi-square test was used to examine the relationship between pre-institutionalization DSHS medical eligibility status and successful benefit restoration ($X^2(3) = 483.91$, $p < .001$).

(i.e., diagnosis, DSHS eligibility category and homelessness) and institutional variables (i.e., facility type) in a binary logit regression model. Data on the dependent variable were missing for 40 observations. Thus, 2,476 observations (i.e., referrals) were used.

Findings suggest that, when controlling for all other variables, compared with whites, individuals whose race was classified as Other were less likely to have their Medicaid restored. There were no differences among whites and African Americans with respect to approval status. Also, females were more likely to be approved versus males. Compared to individuals with co-occurring mental health and substance abuse disorders, those with just substance abuse disorders were less likely to be approved. Also, compared to individuals with a DSHS eligibility category of disabled, individuals who were classified as general assistance, ADATSA, or other DSHS categories were less likely to receive DSHS benefits. Finally, psychiatric hospitals and DOC facilities were more likely to have successful HB1290 referrals compared to jails.

3.3.2 *Outpatient mental health services access and utilization*. As shown in Figure 2, compared to those without Medicaid, individuals with Medicaid were more likely to receive outpatient mental health services within 90-days post-release (75% versus 45%).[11] In addition, those who had their Medicaid benefits restored received services, on average, within 45.31 days of institutional release (SD = 77.15), compared to 77.57 days (SD = 97.34) for those without Medicaid.[12]

Figure 2: Percent Subsequent Service by Medicaid Restoration Status



To model the probability of outpatient mental health services received within the first seven days of institutional release, service receipt within seven days (coded as yes or no) was regressed on the available demographic, clinical, and institutional variables and HB1290 approval status (coded yes or no) in a binary logit regression model.

When controlling for all other variables, having a substance use only diagnosis and being released from a DOC facility was associated with a lower probability of receiving any mental health services within the first seven days post-institutional release. Conversely, being released from a psychiatric hospital and having Medicaid benefits restored was associated with a greater probability of receiving mental health services.

[11] A chi-square test was used to examine the relationship between DSHS medical eligibility status and receipt of mental health services ($X^2(1) = 144.14$, $p < .001$).

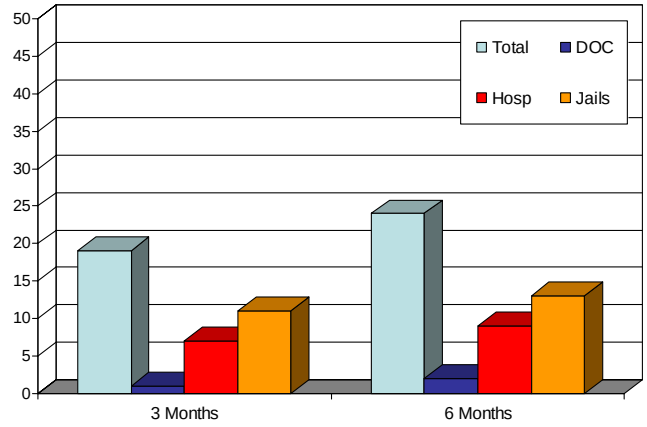
[12] An independent groups t-test was used to examine differences in time to first mental health service among those whose benefits were and were not restored ($t(322) = 4.98$, $p < .001$).

Results were similar at 30-days post-release with two exceptions. Those released from a DOC facility were not less likely to receive mental health services at 30 days compared to individuals released from psychiatric hospitals, and Medicaid restoration was not associated with a greater probability of receipt of mental health services.

3.3.3 *Alcohol and/or drug (AOD) treatment*. Among the 2,516 persons referred to the HB1290 program, approximately 25% (i.e., 571) had some alcohol or drug treatment costs within the first three months, and these costs ranged from $7.12 to $9,460.70. As shown in Figure 2 above, a greater percentage of persons who had their benefits restored (approximately 65%) received AOD treatment services over a three-month period compared to those who did not have their Medicaid restored (approximately 45%).

In addition, when controlling for all other variables, women were more likely to receive AOD treatment in the three-month post-release period compared to men. Moreover, compared to individuals who had evidence of co-occurring mental health and substance abuse disorders, all other groups – those with mental illness only, those with substance abuse only and those with no indication of substance abuse or mental illness disorders – were less likely to receive AOD services. Also, individuals who had a prior DSHS eligibility category of ADATSA were more likely to get AOD treatment compared to those who were categorized as disabled/blind. Moreover, compared to those released from jails, individuals who were released from prisons or hospitals were less likely to receive AOD treatment.

Figure 3: Percent Subsequent Psychiatric or Substance Abuse Inpatient Treatment by Facility Type



With respect to the intensity of services, individuals with Medicaid benefits, on average, had $1,166.50 (SD = $1,403.30) in AOD treatment services in the first three months post-institutional release, compared to $1,443.00 (SD = $1,472.30) for those without benefits.[13] These trends continued over the six-month period; however, these differences were not significant.

Multivariate results suggest, when controlling for all variables, individuals who were eligible for ADATSA prior to their institutionalization had greater treatment costs over a three-month period compared to those who were disabled. Also, individuals released from prisons, versus those released from jails, had lower treatment costs. Having Medicaid restored was associated with less substance abuse spending, but this was not a significant finding. In general, findings at six months were similar.

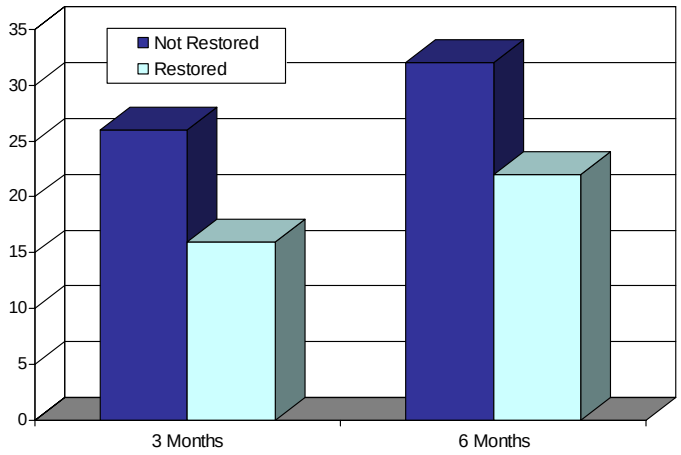
3.3.4 *Inpatient mental health or substance abuse services*. With respect to psychiatric hospitalization and/or inpatient substance abuse detoxification or residential treatment, approximately 395 out of 2,074 persons (approximately 19%) returned to an inpatient mental health or substance abuse facility within the first 90 days after discharge from their institutional

[13] An independent groups t-test was used to compare alcohol and drug treatment costs over three- and six-month periods among those whose benefits were and were not restored ($t(566) = 2.26$, $p < .05$).

settings: 6% (n = 23) from DOC facilities, 38% (n = 151) from psychiatric hospitals, and 56% (n = 221) from county and city jails. These trends were consistent at 180 days in that 479 individuals returned to an inpatient facility after discharge from their institutional settings: 10% (n = 48) from DOC facilities, 37% (n = 179) from psychiatric hospitals and 53% (n = 252) from county and city jails. Data were missing for 442 individuals at 90 days and 533 individuals at 180 days, however, and these results should be interpreted with caution.

Individuals who did not have their Medicaid benefits restored were more likely to return to a psychiatric or substance use inpatient facility within the first 90 days following their institutional release. Specifically, as shown in Figure 4 below, approximately 26% (n = 132) of individuals who had their benefits restored had an inpatient event compared to 16% (n = 260) of those who were approved for Medicaid.[14] These findings were similar at six months. Approximately 32% (n = 151) of those who were not approved for Medicaid benefits had an inpatient event compared to 22% (n = 324) of those who were approved.[15]

Figure 4: Inpatient Treatment by Medicaid Restoration Status



Results from the multivariate analyses suggest that, when controlling for all other variables, males, compared to females, were less likely to experience an inpatient event, individuals with substance abuse only diagnoses, compared to individuals with co-occurring mental health and substance abuse disorders, individuals with mental illness only or no mental illness or substance abuse diagnosis were less likely to be hospitalized, and individuals released from DOC facilities, compared to those released from jails, were less likely to experience an inpatient event. Conversely, individuals whose prior benefit eligibility category was ADATSA and those released from psychiatric hospitals were more likely to experience an inpatient event within the first three months following institutional release.

These results were consistent at six months, with a few exceptions. Compared to those with co-occurring mental health and substance abuse disorders, those with substance use only disorders were less likely to experience an inpatient event and individuals released from DOC facilities compared to those released from jails were less likely to experience an inpatient event. With respect to the intensity of inpatient days, for those who had any, results suggest that individuals with restored benefits had longer inpatient episodes (approximately 20 days) compared to those without expedited benefits.

[14] A chi-square test was used to examine the relationship between DSHS approval status and the probability of an inpatient psychiatric or substance abuse treatment event (coded yes or no) within a three-month period ($X^2(1) = 23.68$, $p < .001$).

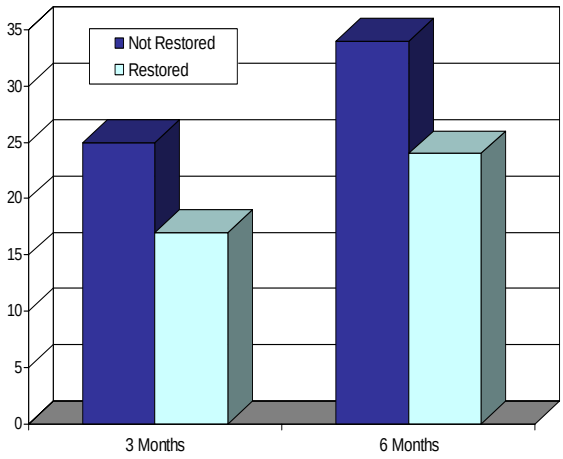
[15] A chi-square test was used to examine the relationship between DSHS approval status and the probability of an inpatient psychiatric or substance abuse treatment event (coded yes or no) within a six-month period ($X^2(1) = 19.20$, $p < .001$).

With respect to time to local or state hospitalization, on average those with Medicaid stayed in the community on average 121 (SD = 125.48) days before being hospitalized compared to about 105 (SD = 99.69) days for individuals without Medicaid; however, these differences were not statistically significant.

3.3.5 *Criminal justice recidivism*. Approximately 20% (n = 479) of those released from jails, DOC facilities or psychiatric hospitals were detained in jail within three months and 28% (n = 667) were detained within six months. As shown in Figure 5, compared to those without Medicaid, those with Medicaid were less likely to be detained (17% vs. 25%, respectively) over a three-month period.[16] These findings were similar over a six-month follow-up period: 24% (n = 420) of individuals with Medicaid were detained vs. 34% (n = 247) without Medicaid.[17]

Findings suggest, when controlling for all other variables, African Americans were more likely to be detained in jail in the three-month post-release period compared to whites. Females, compared to males, were less likely to be detained. Moreover, compared to individuals who had evidence of co-occurring mental health and substance abuse disorders, those with mental health disorders were less likely to be detained. Also, individuals released from a psychiatric hospital were less likely to be detained compared to those who were released from jails. DSHS eligibility did not have a significant relationship with jail detention over the three-month post-release period.

Figure 5: Percent with Jail Recidivism by Medicaid Restoration Status



These findings were similar for the six-month post-release period, with two exceptions. First, individuals who had no evidence of a mental illness or substance abuse disorder previous to their index institutionalization were less likely to be detained in the six-month post-release period compared to individuals with co-occurring mental health and substance abuse disorders. Also, individuals who were released from prison were less likely to be detained in jail in the six-month post-release period compared to those who were released from local jails.

3.4 *Summary*

During calendar year 2006, 2,516 individuals were referred to benefit specialists from local jails, psychiatric hospitals and DOC facilities as a part of Washington State's HB1290 expedited Medicaid restoration effort. Almost three-quarters of these individuals had their Medicaid benefits restored. To better understand the impact of these Medicaid restoration efforts, the

[16] A chi-square test was used to examine the relationship between DSHS approval status and the probability of a jail incarceration (coded yes or no) within a three-month period ($X^2(1) = 21.45$, $p < .001$).
[17] A chi-square test was used to examine the relationship between DSHS approval status and the probability of a jail incarceration (coded yes or no) within a six-month period ($X^2(1) = 28.93$, $p < .001$).

mental health and substance abuse services and jail utilization patterns were examined for individuals who had their Medicaid restored (n = 1,759) and those who did not (n = 717) upon release from local jails, psychiatric hospitals or DOC facilities.

Having Medicaid was associated with a greater probability of receiving outpatient mental health and substance abuse services and quicker access to these services upon release. Moreover, those who did not have their Medicaid benefits restored were more likely to return to a psychiatric or substance use inpatient facility within the first 90 days following their institutional release. Also, compared to those without Medicaid, those with Medicaid were less likely to be detained in jail over three- and six-month post-release periods.

As previously mentioned, there is some preliminary evidence that only a portion of institutionalized persons who might be eligible for restored benefits are referred to local benefit eligibility specialists upon their release (Mancuso, 2007). Thus the extent to which the sample of 2516 referrals used in the analyses is representative of all HB1290-eligible persons is unclear. Further analyses are needed to assess the effect of selection bias on the current set of findings.

Persons with mental illness, substance abuse or dependence disorders or co-occurring mental health and substance abuse issues who are institutionalized in local jails, state prisons or psychiatric hospitals need assistance if they are to become successfully reintegrated in the communities to which they return. In most cases this means having access to quality services, housing and other supports that will help prevent them from returning to the institutional settings they left. Policies such as those created by Washington State's HB1290 legislation are an innovative and important step in facilitating the community reentry of persons with mental illness and substance abuse disorders. As evidenced by the preliminary results presented above, Medicaid benefits are associated with a number of advantages for persons with mental health and substance abuse disorders who are released from jails, hospitals and prison facilities.

4. Prison Reentry for Persons with Mental Illness and Substance Abuse Disorders

4.1 *Study Design and Sample*

The purpose of this exploratory study was to enumerate and describe persons with mental illness and substance abuse disorders who were released from Washington State Department of Corrections (DOC) facilities over the last several years. Specifically, administrative data from the DOC were obtained for an 11-year period (1997 – 2006) and these data were linked to the Department of Social and Health Services Research and Data Analysis Consumer Outcomes Database (CODB).

4.2 Data Analysis

As stated above, data from the Washington State DOC (1997 – 2006) were obtained for the purposes of enumerating and describing persons with mental illness detained in and released from Washington State prisons. The UNC research team has not had sufficient time to fully explore and understand the data it obtained from the Department of Corrections. Thus, only simple trends and descriptive statistics are presented in the Results section below. The exploratory analyses here focus on four areas: (1) the overlap among DOC and DSHS caseloads, (2) DOC admissions of persons with mental illness and substance abuse disorders, (3) DOC releases of persons with mental illness and substance abuse disorders, and (4) jail detention of individuals with mental illness and substance abuse disorders released from DOC.

4.3 *Results*

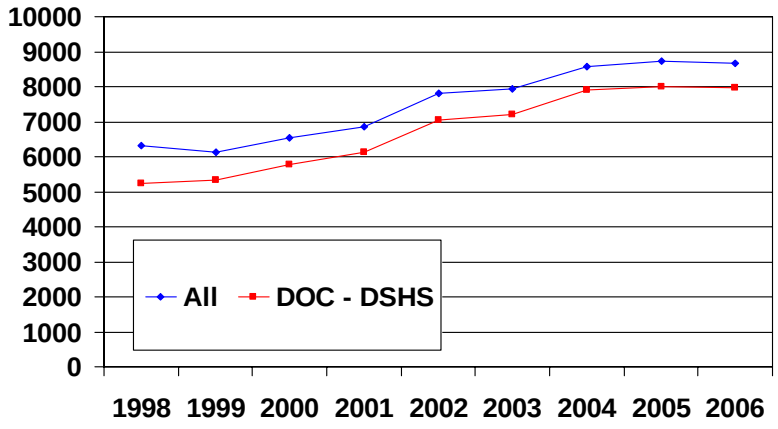
A total of 78,224 admission records were obtained over the study period: 57,487 (73.49%) represented unique individuals and 20,737 (26.51%) represented re-admissions. There were limited demographic and clinical data available from the DOC; however, 86.69% (49,837) of the sample of 57,487 (i.e., the unduplicated sample) was male and approximately 18.64% (10,717) were given a diagnosis of a mental illness or substance abuse disorder by DOC staff.

The most common admission type was a new admission (81.28%, n = 46,727), followed by readmission (17.98, n = 10,338), and other admission types including violations of probation and parole arrangements (.74%, n = 422). Approximately 86% (n = 49,600) had some involvement with the Department of Social and Health Services Mental Health Division prior to their prison incarceration. Approximately 24% (n = 13,768) had contact with the Department of Social and Health Services (DSHS) Division of Alcohol and Substance Abuse.

As stated above, the analyses for this study were limited to an examination of trends and simple descriptive statistics. The overlap between the DOC and DSHS systems are presented first (Section 4.3.1), followed by a presentation of trends related to DOC admissions and persons with mental health and substance abuse issues (Section 4.3.2). Trends with respect to DOC releases and persons with mental illness and substance abuse disorders are presented next (Section 4.3.3), and this section is concluded with an examination of recidivism rates among persons with mental health and substance abuse disorders who are released from Washington State prisons (Section 4.3.4).

4.3.1 *DOC – DSHS Overlap*. The overlap between DOC and DSHS caseloads was examined across a nine-year period. Data from 1997 and 2007 were not available for their full calendar years, so these years were eliminated from the study period. As shown in Figure 6, there was a significant overlap between the DOC and DSHS systems across the study period. The overlap in caseloads ranged from 65.66% in calendar year 1998 to 79.61% in calendar year 2006. Across all years of the study, the average overlap between the caseloads of the two systems was approximately 76%. Interestingly, the two trend lines are nearly parallel to each other suggesting that the extent of overlap has remained consistent over this time period. In other words, as the overall prison population increased over these years so did the numbers of people who had DSHS contacts, but the rate of overlap remained the same. The implications of the overlap between DSHS and DOC will be discussed below.

Figure 6: DOC – DSHS Admissions (1998 – 2006)



4.4.2 *DOC admissions*. As previously mentioned, the DOC data were linked to data from RDA's CODB database. Thus, it was possible to enumerate those prison inmates who had a mental illness, substance abuse disorders or co-occurring mental illness and substance abuse disorders in the DOC admission data over the course of the study period. As stated before, data

from 1997 and 2007 were not available for their full calendar years, so these years were eliminated from the study period. Figure 7 below shows the admission trends for persons with mental illness, substance abuse disorders and co-occurring disorders, as well as trends specific to the total number of admissions and admissions for all persons with a behavioral health (i.e., mental health and/or substance abuse) diagnoses.

Figure 7: DOC Admissions (1998 – 2006)

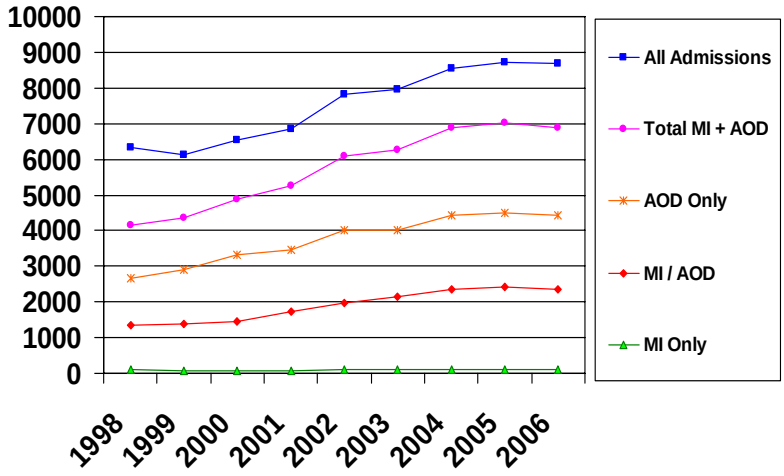
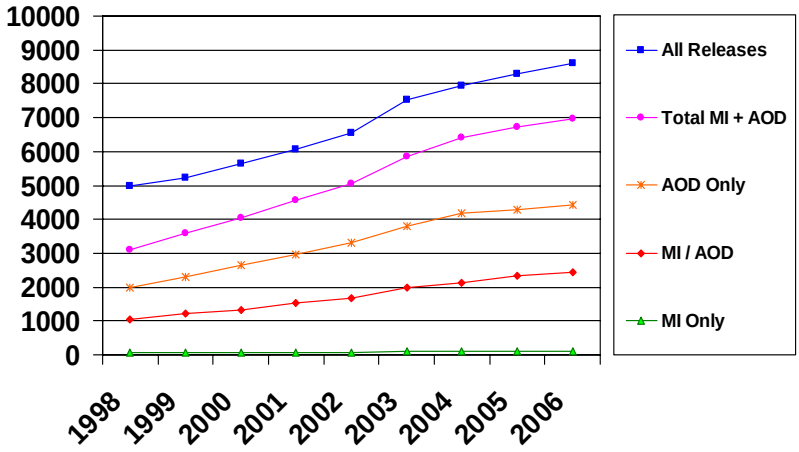


Figure 7 reveals the same parallelism between trend lines for all subgroups that was noted earlier. Admission trends for those with mental health, substance abuse or co-occurring disorders are increasing over time; however, the rate of increase is proportionate to the overall prison population growth and there does not appear to be any differential increases among these groups.

4.4.3 *DOC releases*. Figure 8 shows the release trends for Washington State Department of Corrections facilities from 1998 through 2006. Data from 1997 and 2007 were not available for their full calendar years, so these years were eliminated from the study period. As illustrated above, the release trends for persons with mental illness, substance abuse disorders and co-occurring disorders, as well as trends specific to the total number of releases and releases for those with a mental health and/or substance abuse diagnosis are increasing; however, there does not appear to be any differential increases among these groups.

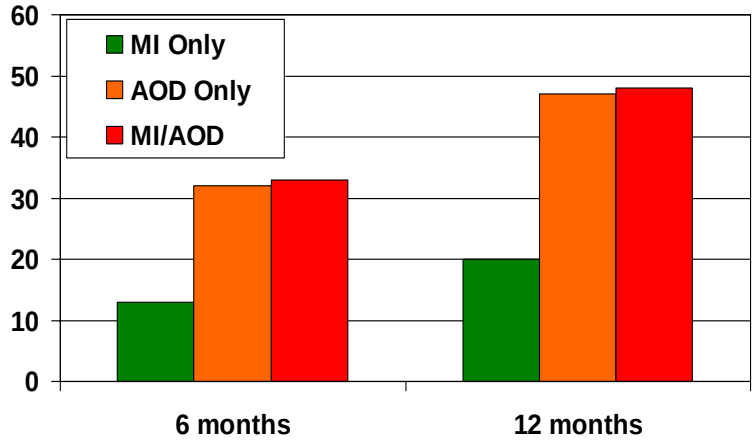
Figure 8: DOC Releases (1998 – 2006)



4.4.4 *Recidivism*. To understand the recidivism rates of persons with behavioral health issues who are released from prisons, recidivism among individuals who appeared in both the DOC and DSHS systems and who were released from DOC facilities were examined. Specifically, the recidivism of releasees who had mental illness diagnoses, substance abuse diagnoses or co-occurring mental health and substance abuse diagnoses were examined over six- and twelve-month post-release periods. There were approximately 1,031 individuals with mental illness diagnoses only who were released from DOC facilities over the study period (1998 – 2006), 32,174 individuals with substance abuse only, and approximately 16,951

individuals with co-occurring mental health and substance abuse disorders. Approximately 13% (n = 139) of those with mental illness without co-occurring substance use was jailed within six months of prison release and 21.24% (n = 219) were jailed within 365 days (see Figure 9). The comparable numbers for those with substance abuse disorders without a mental health diagnosis were 32.13% (n = 10,338) at six months and 47.20% (n = 15,187) at 365 days post-release. Among persons with mental health and substance abuse disorders, 32.85% (n = 5,568) were detained at six months and 48.62% (n = 8,242) were detained within 365 days.

Figure 9: Percent DOC-DSHS Releasees w/Jail Recidivism



4.4 *Summary*

Facilitating community reentry from prisons among persons with mental health and substance abuse issues is a pressing concern at the local, state, and national levels. However, more knowledge needs to be developed about the demographic and clinical profiles of these individuals, their service needs and their post-release experiences in order to understand better how to facilitate their reentry to our communities. Here, preliminary analyses of data from the Washington State DOC were examined to begin to understand the admission and release patterns of persons with mental illness and substance use disorders and the overlap among DOC and DSHS caseloads. The findings presented here suggest that there is a high degree of overlap among public health and welfare (i.e., DSHS) and the DOC systems. Moreover, an increasing number of persons with mental health and substance abuse disorders are being admitted and released from prison over time. Further, there is a high degree of recidivism among these individuals within 365 days of release.

Again, in interpreting these results, it is worth noting that the authors had access to data only for offenders who had been referred for expedited eligibility determinations. Preliminary analyses recently shared with us by RDA suggests that a high percentage of offenders who might be eligible for these expedited determinations are not referred for consideration, perhaps as few as one in five. Because the findings of this study indicate that good outcomes are associated with expedited eligibility determinations, better understanding of the referral process and barriers to referral is warranted.

5. Policy Implications of Preliminary Findings for HB1290 and Prison Reentry

Persons with mental illness and substance use disorders in our criminal justice system is one of the most pressing public health and public safety issues faced by most of our communities today. Moreover, managing the release and facilitating the community reintegration of these individuals is a challenge for most communities. The responsibility for caring for these individuals no longer rests solely on the shoulders of the community mental health system. Persons with mental illness and substance abuse disorders impact multiple systems, including behavioral health, primary care, criminal justice, vocational rehabilitation,

housing, education, economic assistance and others. Integrating and coordinating care for these individuals among these multiple systems will take innovative and transformative thinking.

Washington State's HB1290 Expedited Benefit Restoration program is one example of the kind of innovative policies that has the potential to improve public health and public safety outcomes for persons with mental illness and substance abuse disorders. Expedited Medicaid restoration was found to be associated with a number of positive outcomes, including greater utilization of and quicker access to outpatient services and lower inpatient and jail utilization. Based on these preliminary findings, funding for the benefit specialists associated with the HB1290 legislation should continue.

However, these results also suggest that Medicaid restoration alone is not enough to keep people with mental illness out of our jails and hospitals. This is not surprising because no one would expect that simply having Medicaid would result in positive public health and public safety outcomes. Nevertheless, the point here is that Medicaid benefits are a necessary but not a sufficient part of the solution towards successful reintegration of persons who are released from institutional settings. In addition to Medicaid benefits, a variety of housing, employment, and other social services are also needed by persons with mental illness to decrease their involvements in the criminal justice system. And, just as Washington State is expediting the restoration of Medicaid benefits, access to quality services, housing, supported employment and other services should be expedited as well.

Based on the prison reentry analyses above, it is clear that there is a significant overlap between the DOC and DSHS systems. This overlap underscores the need for integration, collaboration and information sharing within and across multiple systems. The care of persons with mental illness and substance abuse disorders now falls on the shoulders of multiple systems. Can these multiple systems work to overcome policies and operational and financial barriers to better serve the complex needs of individuals with mental health and substance abuse disorders? This is one of the most pressing questions facing many communities today.

Collaboration and integration requires information sharing and Washington State has been a leader in this respect with the creation of the Consumer Outcomes Database by the Research and Data Analysis Division. The CODB is a useful tool toward understanding the demographic, clinical, and service needs of persons with mental illness and substance use disorders who impact multiple systems and toward understanding the post-release outcomes and community trajectories of these individuals. This is important because more knowledge needs to be developed about risk factors for recidivism of persons with mental illness both for jails and prisons and the role of restored benefits and access to housing, supported employment and quality services in facilitating the community reintegration of this vulnerable population.

Much of the available information focuses on felony convictions which represent the most serious offenders, but only a small segment of the total number of persons with mental illness involved in the justice system. New attention must be focused on jail populations and the many individuals under community supervision by state and local authorities and those involved in the juvenile justice system. Continuing analyses supported by the Mental Health Transformation Project will examine jail and prison reentry as well as transitions from the juvenile to the adult corrections system.

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