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Expedited Medicaid, Mental Health Service Use, and Criminal Recidivism among Released Prisoners with Severe Mental Illness

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Abstract

Objective—To investigate whether Washington State's 2006 policy of expediting Medicaid enrollment for offenders with severe mental illness released from state prisons increased Medicaid access and use of community mental health services while decreasing criminal recidivism.

Methods—A quasi-experimental design with linked administrative data was used to select all prisoners with a severe mental illness (schizophrenia or bipolar disorder) released during the policy's first two years (January 1, 2006 through December 31, 2007), separating those referred for expedited Medicaid (n= 895) from a propensity-weighted control group of those not referred (n= 2191). Measures included binary indicators of Medicaid enrollment; other public insurance enrollment; post-release use of inpatient and outpatient health services; and any post-release criminal justice contacts. All data were collapsed to person-level observations during the 12 months following index release and outcomes were estimated via propensity-weighted logit models.

Results—Referral for expedited Medicaid upon release from prison greatly increased Medicaid enrollment ($p < .01$) and use of community mental health and medical services ($p < .01$) for persons with severe mental illness. No evidence was found that expediting Medicaid reduced criminal recidivism.

Conclusions—Expediting Medicaid was associated with increased Medicaid enrollment and mental health service use but study findings strongly suggest that, rather than relying on indirect spill-over effects from Medicaid to reduce criminal recidivism, advocates and policymakers would

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better address the needs of offenders with severe mental illness through direct interventions targeted at underlying causes of recidivism.

Introduction

The United States is the world's leader in incarceration with 2.2 million people currently in the nation's prisons or jails -- a 500% increase over the past thirty years (1). Although the number of admissions to prisons has begun to decline in recent years, there were still more than 630,000 offenders in 2012 who were returned from prisons to local communities (2). Current estimates suggest that about half of released prisoners will be arrested for a new crime within six months and two-thirds will be arrested within three years (3). The National Research Council of the National Academies (4) has characterized the successful reintegration of former prisoners as one of the most formidable challenges facing society today.

Persons with severe mental illness are disproportionately represented in the criminal justice population. At any given time, there are over 100,000 persons with mental illness in jails, over 250,000 in prisons and over one million on probation or parole (5–7). Persons with mental illness are three times more likely to be incarcerated compared to the general population (5–9) and probationers with mental illness have higher recidivism and revocation rates compared to probationers without a mental illness (10).

Almost all offenders with severe mental illness depend on public sector mental health services supported primarily through Medicaid or unreimbursed charity care, if uninsured (11–14). Medicaid coverage can be suspended after 30 calendar days in a month in jail or prison and these benefits are terminated outright after 12 continuous months of suspension. A recent survey of practices in 42 of the 50 state prison systems found that two-thirds of the states terminate Medicaid benefits and about one-fifth suspend benefits (15). Consequently, with average time served of 28 months nationally, the vast majority of prison inmates have either lost or been disconnected from Medicaid before they are released (16).

Lack of health insurance is often described as one of the largest barriers to timely and continuous access to needed mental health care for individuals with severe mental illness who are transitioning from prison to community living (17–21). Policy groups and advocates believe that the lack of Medicaid upon release from jails and prisons is a major factor contributing to high rates of recidivism among this population (17, 22–25). Medicaid expansion under the Affordable Care Act is expected to have a similar impact for the many thousands of individuals in criminal justice settings who do not qualify for traditional Medicaid (17, 26–28).

In the last decade, states have begun to expedite Medicaid coverage prior to prison release for persons with severe mental illness on the assumption that Medicaid would promote use of community mental health services and interrupt the revolving door of repeated incarcerations. Only recently have researchers begun to examine the effectiveness of these efforts. A pilot study in three Oklahoma prisons found that a discharge planning program for inmates with serious mental illness increased both Medicaid enrollment and mental health

service use by 16% within 90-days of release (29). Our prior research on prisons in Washington State also showed that expediting Medicaid for offenders with severe mental illness was associated with increased Medicaid enrollment by 15% and increased outpatient mental health service use by 13% in the 90 days following release from state prison (30). However, no prior research on state prisoners has addressed the question of whether expediting Medicaid benefits actually leads to reduced criminal recidivism for offenders with severe mental illness.

The current study addresses these issues with further research on the expedited Medicaid program in Washington State. Our study design is enhanced with several improvements over our prior research. We employ a quasi-experimental design using administrative data with a propensity-weighted control group that adjusts for selection artifacts, thereby allowing for causal inferences about the effects of expediting Medicaid. Further, we narrow the focus to offenders with schizophrenia or bipolar disorder (those most likely to be referred for expedited Medicaid in our prior research [30]), expand the sample from one to two years, lengthen the follow-up period from three to 12 months, and include measures of criminal recidivism during the 12-month follow-up period. The hypothesis that guided our research is: Offenders with severe mental illness who were referred for expedited Medicaid prior to release from prison will have greater Medicaid access, more use of community mental health services, and lower criminal recidivism rates in the 12-months following release than offenders with severe mental illness who were not referred for expedited Medicaid.

Methods

Policy Context

Washington State's expedited Medicaid program was inaugurated in January 2006 for state prisons as well as for jails and psychiatric hospitals. In state prisons, corrections mental health staff first identified offenders with mental illness, assisted them with Medicaid applications, and referred them to Community Service Offices where offenders had to appear following release for approval determinations. Further details about the policy context are available elsewhere (30).

Design and data

We obtained administrative data (31) from the Washington State Department of Social and Health Services (DSHS) to create a person-specific file including Medicaid claims, records of DSHS services received with beginning and end dates, demographics, diagnostic information, and costs. We designed a quasi-experiment to assess the validity of our hypothesis – comparing released prisoners with severe mental illness in 2006–2007 who were referred for expedited Medicaid with released prisoners with severe mental illness who were not referred for expedited Medicaid – using inverse probability of treatment weights (IPTW) (propensity scores) to balance treatment and comparison groups on a large number of baseline covariates (Table 1).

For purposes of this study, DSHS linked the services data with files we obtained from the Department of Corrections containing all releases from Washington State prisons from

2002–2010. Probabilistic matching methods were used with common data elements (e.g., name, DOB, race, gender) across multiple public sectors. Mismatches were low (less than 5%) and these cases were eliminated during data cleaning and validation processes. We then identified 3,086 offenders who were released from prison during the first two years (January 1, 2006-December 31, 2007) of the expedited Medicaid policy who had a diagnosis of severe mental illness (schizophrenia or bipolar disorder) recorded either in prison records or in DSHS files. We then separated the 3,086 released individuals (Table 1) into two groups: (1) those who were referred for expedited Medicaid (n= 895) and (2) those who were not referred (n=2191). During early implementation, as corrections' staff adjusted to new policy and procedures, many prisoners who otherwise met criteria were released without having been referred for expedited Medicaid. Since our goal was to evaluate the expedited Medicaid policy, we conducted an intent-to-treat analysis on DOC referrals for expedited Medicaid, without regard to ultimate approval status, using control observations on prisoners with severe mental illness who were not referred for expedited Medicaid.

We first ran a logistic regression model to estimate the predicted probabilities or propensity scores of referral for expedited Medicaid. Covariates in the propensity score (logit) model (Table 1) included more than 50 baseline (prior to index prison release) measures including demographic characteristics, diagnoses, criminal justice history, charges for index incarceration, health insurance history, mental health, and medical history. All baseline measures were balanced in the IPTW sample, with all standardized differences less than 10% (see Table 1).

Outcome Measures

We used binary (0,1) indicators of federal Medicaid enrollment at release; 30 days post-release; and Medicaid enrollment at any time during 12 months post release. We also examined partial Medicaid enrollment (those with only a subset of benefits such as the pregnancy waiver) and any dual Medicare enrollment by 12 months post-release. In addition, we examined receipt of state-funded alternatives to Medicaid including enrollment in general assistance (GAU) or substance use assistance through the state's Alcohol and Drug Abuse Treatment Services Act (ADATSA). These plans are similar to Medicaid, except are funded by state dollars with benefit designs only slightly less generous than Medicaid coverage. We also created an aggregate measure of coverage by any of the above public insurance programs (Medicaid, GAU, ADATSA) excluding partial Medicaid enrollment.

We used binary indicators of outpatient mental health, medical care, and emergency department, state psychiatric hospitals and local general hospitals for psychiatric diagnoses corresponding to any use recorded in the administrative data sources during the 12-month follow-up period. Our focus was on access, whether or not people received any type of mental health service, not on the quality or quantity of services used. In future work we will examine intensity of service receipt. Measures of health service use aside from state psychiatric hospitalizations are only detected through enrollment in public programs, and thus are confounded with program participation; the use of these measures reflects a government payor perspective.

Criminal recidivism (re-arrest and reentry to criminal justice supervision) was also measured at 12-months post release by binary indicators of any arrests for felonies or gross misdemeanors, any jail days, or any prison incarcerations. The jail data were only available for 18 of the 24-month accrual period. Thus, we were only able to observe a full 12-month post-release follow-up of jail contacts for offenders released from prison during the first six months of the study.

Sample characteristics

Means and percentage distribution of variables corresponding to both unweighted and weighted baseline characteristics (prior to the index release) are reported in Table 1. Overall, IPTW markedly diminished the magnitude of differences between groups resulting in a balanced profile on observable characteristics.

Analyses

All data were collapsed to the person level, with each observation reflecting the use of public programs and services during the 12 months following index release. All outcome measures are binary, thus were estimated via logit models with IPTW. Average marginal effects are reported in Tables 2 and 3.

The research was conducted with the approval of Institutional Review Boards at the Washington State Department of Social and Health Services and at University of North Carolina at Chapel Hill.

Results

Sixty percent (60.2%) of the referred group were enrolled in Medicaid on the day of their release (Table 2). Controlling for baseline differences through propensity weighting, this is 35 percentage points higher than the rate of Medicaid enrollment in the control group ($p < .01$). By 30 days post-release, the difference increased slightly to 36%. At 12 months post-release, almost 81% of the referred group had received Medicaid coverage at some time during the 12-month follow-up; coverage increased even faster in the control group, thus reducing the difference between groups to 30 percentage points ($p < .01$).

Enrollment in several other public insurance programs was also related to referral for expedited Medicaid. ADATSA (alcohol and drug abuse) enrollment declined 4.5 percentage points in the referred group compared to 8.9% in controls, thus likely indicating that the state was able to shift some of the potential state-funded ADATSA enrollees onto Medicaid. GAU (general assistance), partial Medicaid enrollment, and dual enrollment in Medicaid/Medicare showed no difference between groups. Overall, 92% of the unweighted referred group and 64% of the controls were covered by one or more of the public insurance programs during 12 months post-release, yielding an adjusted difference between groups of 24 percentage points ($p < .01$).

Greater insurance coverage translated to greater services use, at least as funded through public programs. About 69 percent of the referred group used outpatient mental health services in the 12 months following release as compared to 37 percent of the controls (Table

3), reflecting an adjusted 26 percentage point increase over controls (p<.01). For prescription fills, almost half of the referred group received antipsychotic medications and slightly less than half received antidepressant medications, reflecting an adjusted 19–21 percentage point increase over controls. All medication classes other than ADHD medications had significantly higher reported use by referred subjects as compared with IPTW controls (p<.01).

Outpatient medical use rates were similarly high as outpatient mental health services use, possibly reflecting the high level of medical comorbidities in persons with severe mental illness. About 64% of the referred group and 42% of the controls received at least one medical service funded through the public system, reflecting an adjusted difference of nearly 16 percentage points (p<.01). Emergency department use for medical conditions was approximately 15 percentage points higher than the 35.2% observed in controls (p<.01), despite the greater level of outpatient use. Use of state psychiatric hospitals and local hospitals for psychiatric services was less than 5 percent and any inpatient medical care less than 12%, with no significant between-group differences.

In contrast to these large enrollment and service use differences, referral for expedited Medicaid did not reduce criminal justice involvements. Over half of the participants in each group had at least one arrest in the 12 months following the index prison release with no significant between-group differences. However, participants in the referred group were 13 percentage points more likely to be admitted to jail (p<.01) and about seven percentage points more likely to be admitted to prison (p<.01) than were those in the control group, whose unadjusted rates were 33.5% and 46.1% respectively.

Discussion

Referral for expedited Medicaid did lead to much higher rates of enrollment and service use in the 12 months following prison release but it did not significantly reduce criminal recidivism. The high rates of Medicaid enrollment among the referred group indicate that the expedited Medicaid policy in Washington State was successful in ensuring greater access to Medicaid upon release from prison. Further, on 10 of the 13 service measures examined in this study, the utilization levels of the referred group were significantly higher than those of the control group (Table 3). This includes greater observed use of the emergency department, consistent with the findings from the Oregon experiment on Medicaid expansion, indicating that the greater outpatient use did not decrease the use of emergent care (32).

With regard to criminal justice involvement, over half of each group was re-arrested during the 12-month follow-up period, nearly half had a prison stay, and over a third had a jail stay. Unexpectedly, jail and prison stays were higher in the referred group (Table 1), suggesting perhaps that treatment can lead to closer behavioral supervision and thus greater risk of parole violations (33). Further inspection revealed that most of the between-group difference in prison days in Table 3 was due to noncompliance with conditions of parole (technical violations) on existing convictions rather than new crimes. Nonetheless, it is clear from these

findings that Medicaid benefits alone are not enough to reduce arrests or keep people with severe mental illness out of jail or prison.

Several limitations to our study need to be acknowledged. This research is based upon the experiences of a single state. Although our sample size and statewide coverage represent a gain over prior research, the experience of other states with varying Medicaid benefits and correctional programs may differ from those reported here. While we used a rich set of covariates in the propensity model, it is possible that we omitted risk factors correlated with service use that remain unbalanced between those receiving expedited services and controls. Health status or quality of life, either prior to or post incarceration, were not available in our data. Further, there is an important caveat about several of the health care measures used in this study. Outpatient medical and mental health care, emergency medical, local inpatient care, and prescription drug measures were derived from administrative payments through the health insurance programs we are measuring (Medicaid, GAU, ADATSA) and county mental health services. Consequently, these analyses reflect only a government payor perspective and do not capture the full array of services used outside the public sector.

This also means that some of these measures of services use are confounded with the measure of Medicaid coverage. If we assume that study participants receive few services or medications through other sources such as private insurance, self pay, or unreimbursed charity care, then the reported service use indicators will be close to actual service use. Prior research is supportive of this assumption. Persons with severe mental illness who are uninsured have one-sixths the odds of using specialty mental health care as those covered by public insurance (12); persons with severe mental illness are less likely to have private insurance and only one-fifth of uninsured people with severe mental illness use any mental health services (13); and uninsured persons with schizophrenia spectrum disorders were less likely to use community-based services (34).

Use rates for the uninsured in these studies were low, but not zero. It is likely, then, that our measures are underreporting service use and that this underreporting disproportionately occurs in the control group, which had a much lower rate of insurance coverage (43% vs 81% in Table 2) during follow-up. If, however, the level of service use for controls uncovered by the public insurance programs examined here were actually similar to those referred for expedited benefits, then this lack of difference in utilization could explain the lack of reductions in criminal justice outcomes. We therefore urge caution in interpreting the results on these services. The indicator of state psychiatric hospitalizations is not subject to this limitation.

It is clear from the findings reported here that the expedited Medicaid benefits policy in Washington State operated the way health insurance should, namely, increasing access to and use of medical and mental health services. But while health insurance such as Medicaid may be necessary for offenders with severe mental illness to obtain needed services, it alone is not sufficient to reduce their criminal justice involvements. This finding challenges the advocacy by both correctional and mental health authorities concerning mentally ill persons in the justice system. Much of the excitement around Medicaid expansion under the

Affordable Care Act for criminal justice populations also assumes that better healthcare is a prophylactic for criminal recidivism.

However, rather than placing unrealistic hopes on indirect spillovers from health insurance, our study findings strongly suggest that advocates and policymakers would better address the needs of offenders with severe mental illness through direct interventions targeted at underlying causes of recidivism. While those causes have long been recognized (35,36), effective means of transitioning offenders with severe mental illness from prisons to the community and, once there, helping them to reduce their risk of arrest and subsequent incarceration remain to be developed and tested. Finding what works, for whom, and under what circumstances still requires urgent attention from the criminal justice and mental health research community.

Conclusion

Expediting Medicaid increases mental health and medical service use but does not reduce criminal recidivism among released prisoners with severe mental illness.

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Table 1

Sample description/risk factors from up to 48 months prior to index release in 2006–2007 from Washington State prisons (All variables used in the propensity score model)

Variable	Unweighted mean±SD or proportion in referral group (n=895)	Unweighted mean ±SD or proportion in control group (n=2191)	Standardized difference in unweighted means(*100)	Weighted mean ±SD or proportion in referral group (n=895)	Weighted mean ±SD or proportion in control group (n=2191)	Standardized difference in weighted means (*100)
Demographics and Diagnoses						
Bipolar (Psychosis referent)	43.5%	59.2%	31.60	54.8%	54.7%	0.15
Alcohol or Drug Abuse diagnoses	88.7%	81.7%	19.12	83.7%	83.6%	0.33
Age at release	36.9±0.3	35.6±0.2	13.75	36.3±0.4	36.2±0.3	1.11
African American	24.5%	18.4%	15.02	20.2%	20.2%	0.15
Other race	5.7%	8.7%	11.23	7.9%	7.9%	0.16
Latino	5.4%	6.7%	5.53	6.4%	6.3%	0.58
Female	24.0%	28.1%	9.13	26.3%	26.6%	0.54
Disability indicator	48.3%	33.0%	31.55	37.5%	36.8%	1.46
Ever homeless	54.2%	51.8%	4.87	53.4%	52.1%	2.62
Any paid work	48.4%	57.5%	18.34	53.7%	54.4%	1.48
Criminal Justice History prior to index release						
Time served during index release (days)	548.1±10.2	483.4±11.6	11.52	524.8±18.3	579.6±62.9	9.76
Number of DOC days	167.8±9.1	141.8±5.2	10.26	154.9± 9.2	149.9±6.0	2.00
Number of DOC days for criminal charges	150.1±8.7	128.9±5.0	8.74	141.3±8.9	135.8±5.8	2.23
Number of DOC days for technical violations	17.4±1.6	12.7±0.7	12.16	13.4±1.2	13.8±0.9	1.03
Number of arrests	5.2±0.2	5.0±0.1	5.12	5.1±0.2	5.0±0.1	2.85
Number of arrests for criminal charges	4.4±0.1	4.2±0.1	5.11	4.3±0.1	4.2±0.1	2.63
Number of arrests for technical violations	0.7±<0.1	0.8±<0.1	1.55	0.8±0.1	0.7±<0.1	1.69
Number of arrests for local ordinance violations	0.1±<0.1	0.1±<0.1	10.94	0.1±<0.1	0.1±<0.1	0.91
Jail days	89.0±5.2	74.3±3.0	10.23	79.8±4.9	78.1±3.6	1.21
No prior DOC history	50.4%	51.3%	1.73	50.7%	50.6%	0.24
Criminal conviction associated with index incarceration+						
Aggravated assault	19.8%	15.9%	10.23	16.2%	16.8%	1.45
Burglary	9.4%	9.6%	0.83	9.8%	9.6%	0.56

Variable	Unweighted mean±SD or proportion in referral group (n=895)	Unweighted mean ±SD or proportion in control group (n=2191)	Standardized difference in unweighted means(*100)	Weighted mean ±SD or proportion in referral group (n=895)	Weighted mean ±SD or proportion in control group (n=2191)	Standardized difference in weighted means (*100)
Drug offenses	20.3%	23.7%	8.11	23.0%	22.7%	0.75
Domestic violence	4.4%	4.2%	0.56	4.9%	4.3%	3.27
Forgery	4.4%	4.6%	1.00	4.6%	4.5%	0.25
Larceny/theft	6.3%	8.9%	9.82	8.8%	8.2%	2.33
Rape	4.1%	2.1%	12.57	3.0%	3.1%	0.74
Robbery	8.2%	8.9%	2.80	8.3%	8.6%	1.19
Sex offense other than rape	5.0%	2.8%	12.32	3.1%	3.3%	1.18
Stolen property	4.2%	4.8%	2.60	4.0%	4.5%	2.38
Weapon	3.8%	5.5%	7.71	5.5%	5.0%	2.38
Other	5.9%	5.1%	3.81	4.9%	5.0%	0.73
Insurance History prior to index incarceration						
Number of months on Medicaid	12.0±0.5	10.4±0.3	10.69	10.7±0.7	10.6±0.3	0.41
Number of months on GAU	1.4±0.1	1.3±0.1	2.52	1.4±0.2	1.3±0.1	2.25
Number of months on ADATSA	0.9±0.1	1.0±0.1	6.16	1.0±0.1	1.0±0.1	0.64
Number of months partial Medicaid	0.4±0.1	0.6±0.1	7.10	0.5±0.1	0.5±0.1	2.05
Number of months dually	2.6±0.3	1.3±0.1	17.03	1.6±0.2	1.5±0.2	1.28
Medicaid/Medicare enrolled						
Mental Health and Medical History prior to index incarceration						
Number of state hospital days prior	7.6±1.1	3.9±0.7	10.89	4.9±0.7	4.6±0.9	0.96
Any use of local hospitals with a psychiatric diagnosis	9.9%	5.4%	18.22	6.7%	6.3%	1.61
Any public outpatient mental health visit	76.3%	68.5%	17.16	70.1%	69.8%	0.83
Any public outpatient mental health visit in 12 months prior to index incarceration	55.5%	42.8%	25.59	45.8%	45.6%	0.27
Medication management visits	4.8±1.4	1.20.1	15.20	2.2±0.5	1.6±0.2	2.60
Medication management minutes	78.5±11.4	28.2±2.4	24.14	41.4±4.6	35.2±3.6	2.99
Antipsychotic fills	4.5±0.4	1.9±0.1	29.04	2.6±0.2	2.4±0.2	2.37
Antimania fills	0.5±0.1	0.3±0.05	7.32	0.4±0.1	0.4±0.1	1.10
Antidepressant fills	4.2±0.4	2.9±0.2	14.54	3.3±0.3	3.2±0.2	1.71
Antianxiety fills	1.0±0.1	0.8±0.1	4.77	0.9±0.1	0.9±0.1	0.90

Variable	Unweighted mean±SD or proportion in referral group (n=895)	Unweighted mean ±SD or proportion in control group (n=2191)	Standardized difference in unweighted means(*100)	Weighted mean ±SD or proportion in referral group (n=895)	Weighted mean ±SD or proportion in control group (n=2191)	Standardized difference in weighted means (*100)
Other control variables						
Number of months observed	40.7±0.4	40.9±0.2	1.94	40.7±0.4	40.4±0.4	2.77
County indicators	Means not reported		Max = 25.03			Max=2.94

Note: Table displays characteristics of offenders with severe mental illness who were referred for expedited Medicaid from Washington State prisons and an inverse probability of treatment weighted (IPTW) control group of offenders with severe mental illness who were not referred.

+ indicators for arson, homicide, motor vehicle theft, and prostitution were included in the IPTW propensity model but were less than 2% of the study sample and are not reported in the table. Age and number of months observed were included in the IPTW propensity model in quadratic form.

Table 2

Medicaid and state insurance enrollment outcomes

Outcome	Unweighted mean in referred group (n=895)	Unweighted mean in controls (n=2191)	Average effect of expedited Medicaid from propensity score analysis
Medicaid enrollment			
Medicaid enrollment on day of release	60.2%	18.1%	34.8 **% points
Medicaid enrollment 30 days post release	68.5%	25.1%	36.2 **% points
Medicaid enrollment during 12 months	80.8%	43.0%	30.1 **% points
GAU enrollment	26.0%	25.6%	2.2% points
ADATSA enrollment	3.0%	8.9%	−4.5 **% points
Partial Medicaid enrollment	3.1%	2.9%	0.08% points
Dual Medicaid/Medicare enrollment	13.5%	7.1%	2.3% points
Any public insurance enrollment	92.5%	63.7%	23.9 **% points

Note: Reported effects are average marginal effects from inverse probability of treatment weighted (IPTW) logit regression models of binary outcomes comparing offenders with severe mental illness released in 2006–2007 from Washington State prisons who were referred for expedited Medicaid and a control group of offenders with severe mental illness who were not referred. All outcomes reflect any enrollment during the 12 months post-release, unless otherwise indicated. Any public insurance indicates enrollment in Medicaid, GAU, or ADATSA; it does not include partial Medicaid enrollment.

** =p<0.01;

* =p<0.05

Table 3

Effects of expedited Medicaid enrollment on service use outcomes and criminal recidivism

Outcome	Unweighted mean in referred group (n=895)	Unweighted mean in controls (n=2191)	Average effect of expedited Medicaid from IPTW propensity score analysis
Service use outcomes			
Any outpatient mental health treatment	69.1%	36.9%	26.3** % points
Any prescription fills, by class:			
Antipsychotics	45.6%	18.5%	19.2** % points
Antidepressants	46.9%	25.7%	20.5** % points
Mania	9.1%	3.7%	5.7** % points
ADHD	4.2%	2.7%	1.6 % points
Sedatives	19.6%	9.1%	8.8** % points
Anxiolytics	16.9%	9.2%	7.8** % points
Narcotics	44.2%	31.0%	11.3** % points
Any outpatient medical care use	64.1%	41.9%	16.2** % points
Any emergency medical care use	54.5%	35.2%	14.9** % points
Any use of state hospitals	4.2%	2.1%	0.6% points
Any use of local hospitals with a psychiatric diagnosis	3.5%	2.2%	1.0% points
Any inpatient medical care use	11.7%	8.7%	1.6% points
Criminal recidivism			
Any arrest	59.3%	54.3%	4.1% points
Any days in jail (prior to July 2007; n=957)	42.6%	33.5%	13.3** % points
Any days in state prison	55.8%	46.1%	6.5** % points

Note: Reported effects are average marginal effects from inverse probability of treatment weighted (IPTW) logit regression models of binary outcomes for offenders with severe mental illness released in 2006–2007 from Washington State prisons who were referred for expedited Medicaid and a control group of offenders with severe mental illness who were not referred. All outcomes reflect services use and criminal justice encounters during the 12 months post-release period. Data on jail days were only available for the first 18 months of the post period from January 1, 2006 through June 30, 2007.

** =p<0.01;

* =p<0.05