

Expedited Medicaid Enrollment, Mental Health Service Use, and Criminal Recidivism Among Released **Prisoners With Severe Mental Illness**

Joseph P. Morrissey, Ph.D., Marisa E. Domino, Ph.D., Gary S. Cuddeback, Ph.D.

Objective: This study investigated 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

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), and those referred for expedited Medicaid (N=895) were separated from a propensity-weighted control group of those not referred (N=2,191). Measures included binary indicators of Medicaid enrollment, other public insurance enrollment, postrelease use of inpatient and outpatient health services, and any postrelease criminal justice contacts. All data were collapsed to person-level observations during the 12 months after the index release, and outcomes were estimated via propensity-weighted logit models.

Results: Referral for expedited Medicaid on release from prison greatly increased Medicaid enrollment (p<.01) and use of community mental health and general 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 both mental health and general medical service use, but study findings strongly suggest that rather than relying on indirect spillover effects from Medicaid to reduce criminal recidivism, advocates and policy makers would better address the needs of offenders with severe mental illness through direct interventions targeted at underlying causes of recidivism.

Psychiatric Services 2016; 67:842-849; doi: 10.1176/appi.ps.201500305

The United States is the world's leader in incarceration. A total of 2.2 million people are currently in the nation's prisons or jails-a 500% increase over the past 30 years (1). The number of admissions to prisons has begun to decline in recent years. In 2012, more than 630,000 offenders 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 has characterized the successful reintegration of former prisoners as one of the most formidable challenges facing society today (4).

Persons with severe mental illness are disproportionately represented in the criminal justice population. At any given time, there are more than 100,000 persons with mental illness in jails, more than 250,000 in prisons, and more than one million on probation or parole (5-7). Persons with mental illness are three times more likely to be incarcerated. compared with the general population (5–9), and probationers

with mental illness have higher recidivism and revocation rates, compared with probationers without mental illness (10).

Almost all offenders with severe mental illness depend on public-sector mental health services supported primarily by Medicaid or by unreimbursed charity care if the offender is uninsured (11-14). Medicaid coverage can be suspended after a covered individual spends a full calendar month in jail or prison, and these benefits can be 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). Therefore, because the average duration of a prison sentence is 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 on release from jails and prisons is a major factor contributing to high rates of recidivism in this population (17,22–25). Many thousands of individuals in criminal justice settings who do not qualify for traditional Medicaid will be eligible for coverage in states that have opted for Medicaid expansion under the Affordable Care Act; however, these individuals will be subject to the same suspension and termination rules if they spend time incarcerated (17,26–28).

In the past decade, states have begun to expedite Medicaid coverage before prison release for persons with severe mental illness on the assumption that Medicaid coverage will 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 a 15% increase in Medicaid enrollment and a 13% increase in outpatient mental health service use 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 those with severe mental illness.

This study addressed these issues with further research on the expedited Medicaid program in Washington State. Our study design was enhanced with several improvements over our prior research. We employed a quasi-experimental design that used administrative data and a propensityweighted control group that adjusted for selection artifacts, thereby allowing for causal inferences about the effects of expediting Medicaid. Further, we narrowed the focus to offenders with schizophrenia or bipolar disorder (those most likely to be referred for expedited Medicaid in our prior research [30]), expanded the sample from one to two years, lengthened the follow-up period from three to 12 months, and included measures of criminal recidivism during the 12-month follow-up period. The following hypothesis guided our research: 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 after 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, at the time of this study, 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 after 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 that included Medicaid claims; records of DSHS services received, with beginning and end dates; demographic characteristics; 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 and using inverse probability of treatment weights (IPTW) (propensity scores) to balance treatment and comparison groups on a large number of baseline covariates.

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 to 2010. Probabilistic matching methods were used with common data elements (for example, name, date of birth, race, and 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, to December 31, 2007) of the expedited Medicaid policy and 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 into two groups-those who were referred for expedited Medicaid (N=895) and those who were not referred (N=2,191). During early implementation, as corrections' staff adjusted to the new policy and procedures, many prisoners who otherwise met criteria were released without having been referred for expedited Medicaid. Because our goal was to evaluate the expedited Medicaid policy, we conducted an intent-to-treat analysis on Department of Corrections referrals for expedited Medicaid without regard to ultimate Medicaid approval status, using control observations of 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 included more than 50 baseline measures (prior to the index prison release), including demographic characteristics, diagnoses, criminal justice history, charges for index incarceration, health insurance history, and mental health and general medical histories. All baseline measures

TABLE 1. Characteristics at baseline of state prisoners with mental illness referred to expedited Medicaid enrollment or in a propensity-weighted control group of those not referred^a

	Unweighted data			Weighted data		
Characteristic	Referred group (N=895)	Control group (N=2,191)	Standardized difference (× 100)	Referred group (N=895)	Control group (N=2,191)	Standardized difference (× 100)
Diagnostic and demographic (%)						
Bipolar disorder	43	59	32	55	55	<1
Psychotic disorder	57	41	32	45	45	<1
Alcohol or drug use disorder	89	82	19	84	84	<1
Age at release (M±SD)	$36.9 \pm .3$	35.6±.2	13.8	$36.3 \pm .4$	36.2±.3	1.1
Race (%)						
White	70	73	7	72	72	<1
African American	25	18	15	20	20	<1
Other race	6	9	11	8	8	<1
Ethnicity (%)						
Latino	5	7	6	6	6	1
Not Latino	95	93	6	94	94	1
Female (%)	24	28	9	26	27	1
Disability indicator (%)	48	33	32	38	37	1
Ever homeless (%)	54	52	5	53	52	3
Any paid work (%)	48	58	18	54	54	1
Criminal justice						
Time served during index incarceration (M±SD days)	548.1±10.2	483.4±11.6	11.5	524.8±18.3	579.6±62.9	9.8
DOC days (M±SD) ^b						
Total	167.8 ± 9.1	141.8 ± 5.2	10.3	154.9 ± 9.2	149.9 ± 6.0	2.0
For criminal charges	150.1±8.7	128.9 ± 5.0	8.7	141.3 ± 8.9	135.8 ± 5.8	2.2
For technical violations	17.4±1.6	$12.7 \pm .7$	12.2	13.4±1.2	13.8±.9	1.0
Arrests (M±SD)						
Total	$5.2 \pm .2$	$5.0 \pm .1$	5.1	5.1±.2	$5.0 \pm .1$	2.9
For criminal charges	$4.4 \pm .1$	4.2±.1	5.1	4.3±.1	4.2±.1	2.6
For technical violations	.7±<.1	.8±<.1	1.6	.8±.1	.7±<.1	1.7
For local ordinance violations	.1±<.1	.1±<.1	10.9	.1±<.1	.1±<.1	.9
Jail days (M±SD)	89.0±5.2	74.3 ± 3.0	10.2	79.8 ± 4.9	78.1±3.6	1.2
No prior DOC history (%)	50	51	2	51	51	<1
Criminal conviction associated with						
index incarceration (%)						
Aggravated assault	20	16	10	16	17	1
Burglary	9	10	<1	10	10	<1
Drug offense	20	24	8	23	22	1
Domestic violence	4	4	1	5	4	3
Forgery	4	5	10	5	5	<1
Larceny or theft	6	9	10	9	8	2
Rape	4	2	13	3	3	1
Robbery	8	9	3	8	9	1
Sex offense other than rape	5	3	12	3	3	1
Stolen property	4	5	3	4	5	2
Weapon	4	6	8	6	5	2
Other	6	5	4	5	5	1
Insurance before index incarceration (M±SD)						
Months on Medicaid	12.0±.5	$10.4 \pm .3$	10.7	$10.7 \pm .7$	$10.6 \pm .3$.4
Months on general assistance	$1.4 \pm .1$	$1.3 \pm .1$	2.5	$1.4 \pm .2$	$1.3 \pm .1$	2.3
Months on ADATSA ^c	.9±.1	$1.0 \pm .1$	6.2	$1.0 \pm .1$	$1.0 \pm .1$.6
Months on partial Medicaid	.4±.1	.6±.1	7.1	.5±.1	.5±.1	2.1
Months with dual Medicaid and Medicare	2.6±.3	$1.3 \pm .1$	17.0	1.6±.2	$1.5 \pm .2$	1.3
Mental health and general medical history before index incarceration						
State hospital days (M±SD)	7.6 ± 1.1	$3.9 \pm .7$	10.9	4.9±.7	4.6±.9	1.0
Any use of local hospital with a psychiatric diagnosis (%)	10	5	18	7	6	2
Any public outpatient mental health visit (%)	76	69	17	70	70	1 continued

844 ps.psychiatryonline.org

TABLE 1, continued

	Unweighted data			Weighted data		
Characteristic	Referred group (N=895)	Control group (N=2,191)	Standardized difference (× 100)	Referred group (N=895)	Control group (N=2,191)	Standardized difference (× 100)
Any public outpatient mental health visit in 12 months before index incarceration (%)	56	43	26	46	5	<1
Medication management visits (M±SD)	4.8 ± 1.4	$1.2 \pm .1$	15.2	2.2±.5	$1.6 \pm .2$	2.6
Minutes of medication management (M±SD)	78.5 ± 11.4	28.2±2.4	24.1	41.4±4.6	35.2±3.6	3.0
Prescription fills (M±SD)						
Antipsychotic	$4.5 \pm .4$	$1.9 \pm .1$	29.0	$2.6 \pm .2$	$2.4 \pm .2$	2.4
Antimania	.5±.1	$.3 \pm .05$	7.3	$.4\pm.1$	$.4 \pm .1$	1.1
Antidepressant	$4.2 \pm .4$	$2.9 \pm .2$	14.5	$3.3 \pm .3$	$3.2 \pm .2$	1.7
Antianxiety	$1.0 \pm .1$.8±.1	4.8	$.9 \pm .1$	$.9 \pm .1$.9
Other control variable						
Months observed (M±SD)	40.7±.4	$40.9 \pm .2$	1.9	40.7±.4	40.4±.4	2.8
County indicators ^d	nr		Max=25.03			Max=2.94

a Data are for up to 48 months prior to the index release in 2006–2007 from Washington State prisons. Variables listed were used in the propensity score model. Age and number of months observed were included in the propensity score model in quadratic form.

were balanced in the IPTW sample, with all standardized differences less than 10%.

Outcome Measures

We used binary (0 and 1) indicators of federal Medicaid enrollment at release, 30 days after release, and any time during the 12 months after release. We also examined partial Medicaid enrollment (individuals with only a subset of benefits, such as the pregnancy waiver) and any dual Medicare enrollment by 12 months postrelease. In addition, we examined receipt of state-funded alternatives to Medicaid, including enrollment in general assistance-unemployable (GA-U) or assistance for substance abuse treatment through the state's Alcohol and Drug Abuse Treatment Services Act (ADATSA). These plans are similar to Medicaid, except they 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 these public insurance programs (Medicaid, GA-U, and ADATSA), excluding partial Medicaid enrollment.

We used binary indicators of use of outpatient mental health care, general medical care, and emergency department services and of stays in state psychiatric hospitals and local general hospitals for psychiatric diagnoses. These indicators reflected 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. Except for state psychiatric hospitalizations, use of health services is detected only through enrollment in public programs, and thus service use is confounded with program participation. Therefore, the measures used reflect only a government payer perspective.

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

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 the index release. All outcome measures were binary and thus were estimated via logit models with IPTW. Average marginal effects are reported. The research was conducted with the approval of institutional review boards at the Washington State Department of Social and Health Services and at the University of North Carolina at Chapel Hill.

RESULTS

Table 1 presents baseline data (prior to the index release) on characteristics of the group referred to expedited Medicaid and the control group. Overall, the IPTW strategy markedly diminished the magnitude of differences between groups, which resulted in similar profiles of observable characteristics.

As shown in Table 2, 60% of the referred group was enrolled in Medicaid on the day of their release. When the analysis controlled for baseline differences through propensity weighting, this rate was 35 percentage points higher than the rate of Medicaid enrollment in the control group

b DOC, Department of Corrections. Indicators for arson, homicide, motor vehicle theft, and prostitution were included in the propensity score model but were less than 2% of the study sample and are not reported.

^c Received assistance for substance abuse treatment through the state's Alcohol and Drug Abuse Treatment Services Act (ADATSA).

^d Dummy indicators for each county of release from prison were included in the statistical models (nr, not reported).

TABLE 2. Postrelease enrollment in insurance programs among state prisoners with mental illness referred to expedited Medicaid or in a propensity-weighted control group of those not referred^a

	Unweight	ed mean %	
Outcome	Referred group (N=895)	Control group (N=2,191)	Average effect (percentage points) ^b
Medicaid enrollment			_
On day of release	60	18	35*
In 30 days postrelease	69	25	36*
In 12 months postrelease	81	43	30*
General assistance enrollment	26	26	2
ADATSA enrollment ^c	3	9	-5*
Partial Medicaid enrollment	3	3	<1
Dual Medicaid and Medicare enrollment	14	7	2
Any public insurance enrollment ^d	93	64	24*

^a Data reflect any enrollment during the 12 months postrelease, unless otherwise indicated.

(p<.01). By 30 days postrelease, the difference increased slightly to 36 percentage points. At 12 months postrelease, 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 at 12-month follow-up (p<.01).

Enrollment in several other public insurance programs was also related to referral for expedited Medicaid. Over the 12 months, the adjusted percentage-point difference in ADATSA (alcohol and drug abuse) enrollment was -4.5 (p<.01), reflecting unweighted rates of 3% ADATSA enrollment in the referred group compared with 9% in the control group. This finding likely indicates that the state was able to shift some of the state-funded ADATSA enrollees onto Medicaid. No significant 12-month differences between groups were noted for GA-U enrollment, partial Medicaid enrollment, and dual enrollment in Medicaid and Medicare. Overall, unweighted data indicated that 93% of the referred group and 64% of the control group were covered by one or more public insurance programs during the 12 months postrelease, yielding an adjusted difference between groups of 24 percentage points (p<.01).

Greater insurance coverage translated to greater services use, at least as funded by public programs. As shown in Table 3, 69% of the referred group used outpatient mental health services in the 12 months postrelease, compared with 37% of the control group, reflecting an adjusted increase of 26 percentage points (p<.01). For prescription fills, almost half of the referred group received antipsychotic (46%) or antidepressant (47%) medications, reflecting an adjusted increase of 19 to 21 percentage points over the control group. Use of all other medications, except for those used to treat attention-deficit hyperactivity disorder, was significantly

higher in the referred group compared with the control group (p<.01).

Use of outpatient general medical care was also significantly higher in the referred group over the 12-month follow-up, which may reflect the high level of general medical comorbidities among persons with severe mental illness. As shown in Table 3, 64% of the referred group and 42% of the control group received at least one general medical service funded through the public system, reflecting an adjusted difference of 16 percentage points (p<.01). Emergency department use for general medical conditions was approximately 15 percentage points higher in the referred group (p<.01; unadjusted rates of 55% in the referred group compared with 35% in the control group), despite the greater level of outpatient use in the referred group. Use of state psychiatric hospitals and local hospitals for psychiatric services was less than 5% for both groups,

and use of inpatient general medical care was less than 12%, with no significant between-group differences.

Even though referral for expedited Medicaid was associated with large differences in enrollment and service use, referral did not reduce criminal justice involvement (Table 3). More than half of the participants in each group had at least one arrest in the 12 months after the index prison release, with no significant between-group differences. However, for jail days, the difference between the referred and control groups was 13 percentage points (p<.01; unadjusted rates of 43% and 34%, respectively). For days in the state prison, the difference between the referred and control groups was 7 percentage points (p<.01; unadjusted rates of 56% and 46%, respectively).

DISCUSSION

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

With regard to criminal justice involvement, over half of each group was rearrested during the 12-month follow-up

^b Average marginal effects of expedited Medicaid from propensity score analysis.

^c Received assistance for substance abuse use treatment through the state's Alcohol and Drug Abuse Treatment Services Act (ADATSA).

^d Enrollment in Medicaid, general assistance, or ADATSA (does not include partial Medicaid enrollment)

^{*}p<.01

period, about half had a prison stay, and over a third had a jail stay. Unexpectedly, jail and prison stays were higher in the referred group, perhaps suggesting that treatment can lead to closer behavioral supervision and thus greater risk of parole violations (33). Further inspection indicated that most of the betweengroup difference in prison days (Table 3) was the result of noncompliance with conditions of parole (technical violations) for 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 was based on experiences in a single state. Although our sample size and statewide coverage represented a gain over prior research, experiences in other states with varying Medicaid benefits and correctional programs may differ from those reported here. Although we used a rich set of covariates in the propensity model, it is possible that we omitted risk factors associated with recidivism that remained unbalanced between those referred to expedited Medicaid and the control group. Data on health status or quality of life, either before or after incarceration, were not available in our

data set. Furthermore, an important caveat should be noted in regard to several of the health care measures used in this study. Data for outpatient general medical and mental health care, emergency medical care, local inpatient care, and prescription drug measures were derived from administrative payments through the health insurance programs examined in this study (Medicaid, GA-U, and ADATSA) and county mental health services. Consequently, these analyses reflect only a government payer perspective and do not capture the full array of services used outside the public sector.

This limitation also means that some of the measures of service use were confounded with the measure of Medicaid coverage. If we assume that study participants received few services or medications through other sources, such as private insurance, self-pay, or unreimbursed charity care, then the reported service use indicators are close to actual service use. Prior research is supportive of this assumption. Persons with severe mental illness who are uninsured are about onesixth as likely as those covered by public insurance to use specialty mental health care (12); persons with severe mental illness are less likely to have private insurance, and only onefifth of uninsured persons with severe mental illness use any mental health services (13). In addition, uninsured persons with schizophrenia spectrum disorders have been shown to be less likely than those with public insurance to use communitybased services (34).

TABLE 3. Postrelease service use and criminal recidivism among state prisoners with mental illness referred to expedited Medicaid or in a propensity-weighted control group of those not referred

Outcome	Referred group (unweighted mean %) (N=895)	Control group (unweighted mean %) (N=2,191)	Average effect (percentage points) ^b
Service use			_
Any outpatient mental health	69	37	26*
Any prescription fill			
Antipsychotic	46	19	19*
Antidepressant	47	26	21*
Antimania	9	4	6*
ADHD	4	3	2
Sedative	20	9	9*
Anxiolytic	17	9	8*
Narcotic	44	31	11*
Any outpatient general medical	64	42	16*
Any emergency general medical	55	35	15*
Any use of state hospital	4	2	1
Any use of local hospital with a psychiatric diagnosis	4	2	1
Any inpatient general medical	12	9	2
Criminal recidivism			
Any arrest	59	54	4
Any days in jail ^c	43	34	13*
Any days in state prison	56	46	7*

^a Data reflect service use and criminal justice encounters during the 12 months postrelease.

Use rates for the uninsured in these studies were low, but not zero. It is likely, then, that our measures underreported service use and that this underreporting disproportionately occurred in the control group, which had a much lower rate of insurance coverage compared with the referred groups (43% versus 81%) during follow-up. If, however, the level of service use for participants in the control group who were not covered by the public insurance programs examined here was actually similar to the level of 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 regarding use of these services. The indicator of state psychiatric hospitalizations was not subject to this limitation because state hospital use is recorded in a separate data system unrelated to insurance status.

It is clear from the findings reported here that the expedited Medicaid benefits policy in Washington State operated the way health insurance should-namely, by increasing access to and use of general medical and mental health services. However, even though health insurance such as Medicaid may be necessary for offenders with severe mental illness to obtain needed services, it alone was not sufficient to reduce their criminal justice involvement. This finding challenges the advocacy by both correctional and mental health authorities concerning persons with mental

^b Average marginal effects of expedited Medicaid from propensity score analysis.

^c Data on jail days were available only for the first 18 months of the postrelease period (January 1, 2006, through June 30, 2007). Thus this information was available for only 31% of the total sample (N=957).

^{*}p<.01

illness in the justice system. Much of the excitement about Medicaid expansion under the Affordable Care Act for criminal justice populations rests on the assumption that access to behavioral health care is a prophylactic for criminal recidivism.

However, our study findings strongly suggest that rather than placing unrealistic hopes on indirect spillovers from health insurance, advocates and policy makers would better address the needs of offenders with severe mental illness through direct interventions targeted at underlying causes of recidivism. Although 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 requires urgent attention from the criminal justice and mental health research communities.

CONCLUSIONS

Expediting Medicaid increased use of mental health and general medical services but did not reduce criminal recidivism among released prisoners with severe mental illness.

AUTHOR AND ARTICLE INFORMATION

Dr. Morrissey and Dr. Domino are with the Department of Health Policy and Management, Gillings School of Global Public Health, Dr. Cuddeback is with the School of Social Work, and all three are with the Cecil G. Sheps Center for Health Services Research, University of North Carolina, Chapel Hill (e-mail: joe_morrissey@unc.edu).

This work was supported by grant 1R01-MH086232 from the National Institute of Mental Health. The assistance of staff at the Washington State Department of Social and Health Services and the Washington State Department of Corrections in data retrieval, linkage, and documentation is gratefully acknowledged. The findings and interpretations reported here are those of the authors and do not imply endorsement by Washington State agencies.

The authors report no financial relationships with commercial interests. Received July 29, 2015; revision received October 30, 2015; accepted November 20, 2015; published online March 15, 2016.

REFERENCES

- Incarceration. Washington, DC, The Sentencing Project, 2014. Available at www.sentencingproject.org/template/page.cfm?id=107. Accessed Nov 15, 2014
- Carson E, Golinelli D: Prisoners in 2012: Trends in Admissions and Releases, 1991–2012. Washington, DC, US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2013
- 3. Durose MR, Cooper AD, Snyder HN: Recidivism of Prisoners Released in 30 States in 2005: Patterns From 2005 to 2010. Washington, DC, US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2014
- National Research Council of the National Academies: Parole, Desistance From Crime, and Community Integration. Washington, DC, National Academies Press, 2007
- Crilly JF, Caine ED, Lamberti JS, et al: Mental health services use and symptom prevalence in a cohort of adults on probation. Psychiatric Services 60:542–544, 2009

- Ditton P: Mental Health and Treatment of Inmates and Probationers. Washington, DC, US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 1999
- Steadman HJ, Osher FC, Robbins PC, et al: Prevalence of serious mental illness among jail inmates. Psychiatric Services 60:761–765, 2009
- Teplin LA: The prevalence of severe mental disorder among male urban jail detainees: comparison with the Epidemiologic Catchment Area Program. American Journal of Public Health 80:663–669, 1990
- James D, Glaze L: Mental Health Problems of Prison and Jail Inmates. Washington, DC, US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2006
- Skeem JL, Louden JE: Toward evidence-based practice for probationers and parolees mandated to mental health treatment. Psychiatric Services 57:333–342, 2006
- Lamb HR, Weinberger LE, Gross BH: Community treatment of severely mentally ill offenders under the jurisdiction of the criminal justice system: a review. Psychiatric Services 50:907–913, 1999
- McAlpine DD, Mechanic D: Utilization of specialty mental health care among persons with severe mental illness: the roles of demographics, need, insurance, and risk. Health Services Research 35:277-292, 2000
- Garfield RL, Zuvekas SH, Lave JR, et al: The impact of national health care reform on adults with severe mental disorders. American Journal of Psychiatry 168:486–494, 2011
- 14. Wang PS, Lane M, Olfson M, et al: Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. Archives of General Psychiatry 62:629-640, 2005
- Rosen DL, Dumont DM, Cislo AM, et al: Medicaid policies and practices in US state prison systems. American Journal of Public Health 104:418–420, 2014
- Visher C, Travis J: Life on the outside: returning home after incarceration. Prison Journal 9:102S-119S, 2011
- Medicaid and Financing Health Care for Individuals Involved With the Criminal Justice System. New York, Council of State Governments Justice Center, 2013
- 18. Hoge S: Providing transition and outpatient services to the mentally ill released from correctional institutions; in Public Health Behind Bars: From Prisons to Communities. Edited by Greifinger R. New York, Springer, 2007
- Visher C, Mallik-Kane K: Reentry experiences of men with health problems; in Public Health Behind Bars: From Prisons to Communities. Edited by Greifinger R. New York, Springer, 2007
- Freudenberg N: Community capacity for environmental health promotion: determinants and implications for practice. Health Education and Behavior 31:472–490, 2004
- 21. Hammett T, Roberts C, Kennedy S: Health-related issues in prisoner reentry. Crime and Delinquency 47:390–409, 2001
- Morrissey JP, Cuddeback GS, Cuellar AE, et al: The role of Medicaid enrollment and outpatient service use in jail recidivism among persons with severe mental illness. Psychiatric Services 58: 794–801, 2007
- Criminal Justice Experts Call for Immediate Reinstallment of Federal Benefits for People With Serious Mental Illness Leaving Prisons or Jails. Washington, DC, Bazelon Center for Mental Health Law, 2010
- Access to Benefits for Offenders With Mental Illness Leaving State Prisons. Presented at the State and Federal Policy Forum, Council of State Governments, New York, Sept 13–14, 2004
- Koyanagi C: Finding the Key to Successful Transition From Jail to the Community: An Explanation of Federal Medicaid and Disability Program Rules. Washington, DC, Bazelon Center for Mental Health Law, 2001
- DuBose M: Medicaid expansion and the local criminal justice system. American Jails, Nov/Dec, 2011, pp 8–11

- 27. Blair P, Greifinger R, Stone TH, et al: Increasing Access to Health Insurance Coverage for Pre-Trial Detainees and Individuals Transitioning From Correctional Facilities Under the Patient Protection and Affordable Care Act. Washington, DC, American Bar Association, 2011
- 28. Opportunities for Criminal Justice Systems to Increase Medicaid Enrollment, Improve Outcomes, and Maximize State and Local Budget Savings. New York, Council of State Governments Justice Center, 2013
- 29. Wenzlow AT, Ireys HT, Mann B, et al: Effects of a discharge planning program on Medicaid coverage of state prisoners with serious mental illness. Psychiatric Services 62:73-78,
- 30. Cuddeback GS, Morrissey JP, Domino ME: Enrollment and service use patterns among persons with severe mental illness receiving expedited Medicaid on release from state prisons, county jails, and psychiatric hospitals. Psychiatric Services 67 (Epub ahead of print, March 15, 2016)

- 31. Mueser P, Troske K, Gorislavsky A: Using state administrative data to measure program performance. Review of Economics and Statistics 89:761-783, 2007
- 32. Solomon P, Draine J: One-year outcomes of a randomized trial of case management with seriously mentally ill clients leaving jail. Evaluation Review 19:256-273, 1995
- 33. Taubman SL, Allen HL, Wright BJ, et al: Medicaid increases emergency-department use: evidence from Oregon's Health Insurance Experiment. Science 343:263-268, 2014
- 34. Yanos PT, Lu W, Minsky S, et al: Correlates of health insurance among persons with schizophrenia in a statewide behavioral health care system. Psychiatric Services 55:79-82, 2004
- 35. Bonta J, Law M, Hanson K: The prediction of criminal and violent recidivism among mentally disordered offenders: a meta-analysis. Psychological Bulletin 123:123-142, 1998
- 36. Lamberti JS: Understanding and preventing criminal recidivism among adults with psychotic disorders. Psychiatric Services 58: 773-781, 2007

Coming in September

- National trends in ADHD diagnosis and treatment, 1999–2010
- Best practices in the psychiatric care of college student populations
- Predictors of mental health service use by young adults: a systematic review
- Fidelity scale for first-episode psychosis services: development and testing