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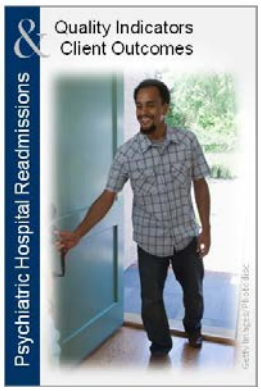

Quality Indicators and Outcomes for Persons Discharged from State Psychiatric Hospitals

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In collaboration with the Washington State Department of Social and Health Services Division of Behavioral Health and Recovery (DBHR)

THIS REPORT examines the experiences of persons discharged from a state psychiatric hospital in Washington State, to help identify interventions that might improve post-discharge client outcomes. The following post-discharge client service experiences were examined:

- Timely enrollment in Medicaid coverage.
- Timely follow-up in outpatient mental health services.
- Timely engagement in substance use disorder treatment.
- Filling of psychotropic medication (adherence).

We focused on the following post-discharge outcomes: psychiatric readmission (including admissions to community psychiatric or evaluation and treatment facility settings), homelessness, arrest, and death. We examined 4,195 non-forensic discharges from Eastern and Western State psychiatric hospitals from July 1, 2009 to June 30, 2012, tracking outcomes for up to 540 days after discharge.

Key Findings

- **State psychiatric hospital readmissions are not uncommon.** A third of persons discharged from a state hospital setting were readmitted to a state hospital within 540 days. Extending the metric to include community psychiatric hospital or evaluation and treatment facility settings, 44 percent of discharged persons were readmitted within 540 days.
- **For State psychiatric hospital episodes, timely post-discharge access to outpatient mental health care may not reduce psychiatric readmission rates, but appears to improve other client outcomes.** Persons who receive timely outpatient care had higher readmission rates, but lower rates of mortality and lower mortality-adjusted rates of homelessness and arrest. These findings suggest that psychiatric readmissions are averting other adverse outcomes.
- **Persons with substance use disorders had significantly higher psychiatric readmission rates** than persons without co-occurring substance use disorders.
- **Timely post-discharge engagement in substance use disorder treatment is likely to reduce psychiatric readmission rates.** Nearly half of persons admitted to a state hospital ward had a substance use disorder identified in their recent pre-admission service experience. Most of these individuals presented substance use disorder risk indicators following discharge, but few engaged in timely post-discharge substance use disorder treatment. Those who did engage in timely post-discharge treatment had significantly better outcomes including lower psychiatric readmission rates and lower rates of arrest and homelessness.

Background

Reducing readmissions to state psychiatric hospitals is an important policy objective because readmissions reflect adverse experiences for patients who are hospitalized, and consume limited psychiatric inpatient capacity within the public mental health system. Reducing rates of readmission for persons discharged from psychiatric inpatient settings could help reduce "boarding" and related consequences stemming from lack of psychiatric inpatient bed capacity.

This report examines the experiences of persons discharged from Eastern and Western State hospitals in Washington State. To identify interventions that might improve post-discharge client outcomes, we examined the post-discharge client service experience in the following areas:

- Enrollment in Medicaid coverage.
- Use of outpatient mental health services.
- Engagement in substance use disorder treatment.
- Filling of psychotropic medication (adherence).

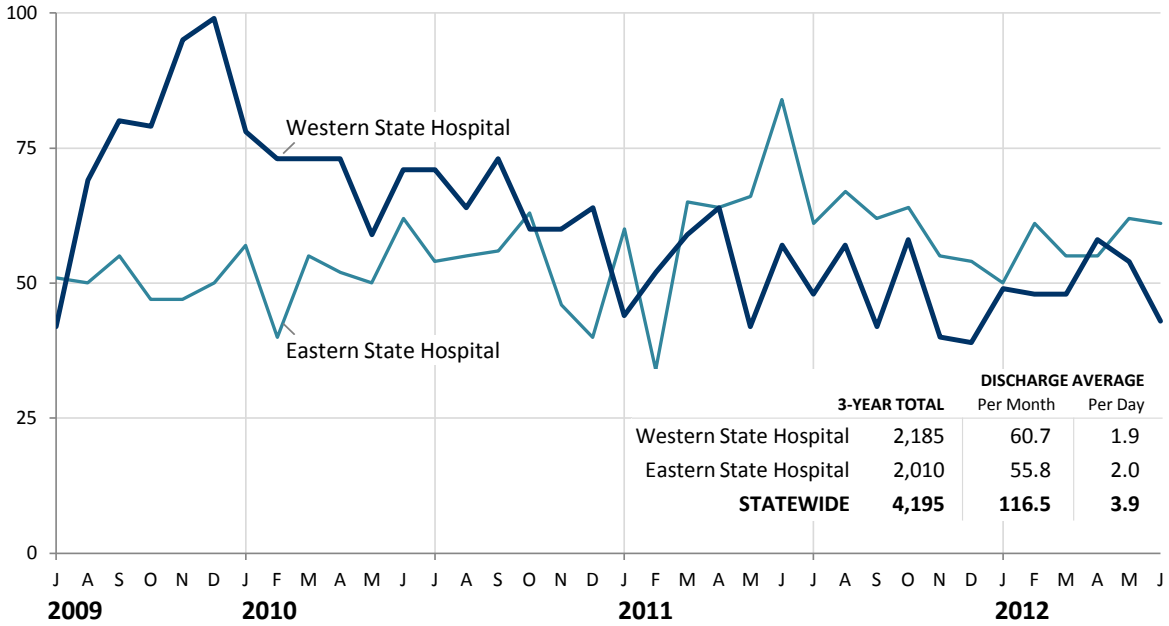
We assessed the association between the above service experiences and the following outcomes: readmission to a state psychiatric hospital or other psychiatric inpatient setting; homelessness; arrest and death.

Outcomes for persons discharged from a Hospital ward in the period from July 1, 2009 to June 30, 2012 were tracked for up to 540 days after discharge. A total of 4,195 discharges were studied, roughly evenly distributed between Western and Eastern State hospitals (Figure 1). Because analyses make use of information about experiences observed in claims and encounter data in the 24-month period *before* admission, we dropped discharges of persons from long stays for which pre-admission data would be less complete. Specifically, 126 discharges from admissions occurring prior to July 1 2006 were dropped. This represents about three percent of the total number of discharges observed over the three-year period. This restriction excluded five percent of the potential observations from Western State, and one percent of potential observations from Eastern State, reflecting differences in length of stay for patients discharged from the two hospitals.

FIGURE 1.

Monthly non-forensic state psychiatric health hospital discharges

July 1, 2009 through June 30, 2012



	3-YEAR TOTAL	DISCHARGE AVERAGE Per Month	Per Day
Western State Hospital	2,185	60.7	1.9
Eastern State Hospital	2,010	55.8	2.0
STATEWIDE	**4,195**	**116.5**	**3.9**

Descriptive profile of non-forensic discharges from state psychiatric hospitals

Table 1 provides descriptive information about the discharges comprising the study population.

- Discharged persons were more likely to be male than female (59 percent versus 41 percent).
- Most discharged persons (76 percent) were aged 25-64; 13 percent were aged 18-24, while 11 percent were aged 65 or above.
- Two-thirds (65 percent) of discharged persons had Medicaid coverage in the year prior to their admission, while a third were Medicare enrolled prior to admission. Most Medicare-enrolled persons were dually eligible for Medicare and Medicaid. The share of discharged persons who are Medicaid eligible is likely to increase under Medicaid expansion.
- A third of persons (31 percent) discharged were of a minority race/ethnicity background.
- Nearly half (45 percent) of persons admitted to a state hospital ward had substance use disorder risk indicators in the two years leading up to their admission.
- 10 percent of persons discharged were identified as homeless or unstably housed in the month prior to their state hospital admission.

TABLE 1.

Overall Discharge Population Characteristic Profile

For non-forensic state mental health hospital discharges July 1, 2009 through June 30, 2012

	NUMBER	PERCENT OF TOTAL
TOTAL DISCHARGES	**4,195**	**100%**
Gender		
Female	1,707	41%
Male	2,488	59%
Age Group		
18-20	169	4%
21-24	358	9%
25-34	962	23%
35-44	752	18%
45-54	870	21%
55-64	614	15%
65+	470	11%
Medical Coverage *In 12 months prior to admission (patient may be dually eligible for Medicaid and Medicare)*		
Medicaid *(including dually eligible)*	2,726	65%
Medicare *(including dually eligible)*	1,361	32%
No Medicaid or Medicare coverage	912	22%
Minority Race/Ethnicity		
Any minority race or ethnicity	1,293	31%
Non-Hispanic White	2,902	69%
Hispanic Ethnicity		
Hispanic/Latino	274	7%
Not Hispanic/Latino	3,884	93%
Unknown	37	1%
Race *May be more than one*		
White	3,729	89%
African American	454	11%
American Indian/Alaska Native	418	10%
Asian/Native Hawaiian/Pacific Islander	305	7%
Substance Use Disorder risk flag observed in		
24 months prior to admission	1,908	45%
Broad housing instability indicator		
Month prior to admission	427	10%

Overall post-discharge outcomes

Table 2 shows the proportion of discharged persons experiencing different outcomes over post-discharge follow-up windows ranging from 30 to 540 days.

- Psychiatric readmissions are not an uncommon occurrence. One-third (32 percent) of persons discharged from a state hospital setting were readmitted to a state hospital within 540 days. Nearly half (44 percent) were readmitted in any psychiatric inpatient setting (including state mental hospital, community psychiatric hospital or evaluation and treatment facility settings) within 540 days.
- 6 percent of persons discharged died within 540 days of discharge.
- 25 percent of persons discharged were arrested at least once within 540 days of discharge.
- One in six were identified as unstably housed within 540 days of discharge, and about half that number showed an indication of homelessness at some point over that time horizon.

TABLE 2.

Post-Discharge Outcomes, Full Study Population

For non-forensic state mental health hospital discharges July 1, 2009 through June 30, 2012

	NUMBER	PERCENT OF TOTAL
TOTAL DISCHARGES	**4,195**	**100%**
Percent with State Hospital Readmission within . . .		
30 days of discharge	220	5.2%
90 days of discharge	516	12.3%
365 days of discharge	1,108	26.4%
540 days of discharge	1,335	31.8%
Percent with any Psychiatric Hospital Readmission within . . .		
30 days of discharge	391	9.3%
90 days of discharge	804	19.2%
365 days of discharge	1,611	38.4%
540 days of discharge	1,859	44.3%
Percent dying within . . .		
30 days of discharge	81	1.9%
90 days of discharge	110	2.6%
365 days of discharge	208	5.0%
540 days of discharge	269	6.4%
Percent arrested within . . .		
Month of discharge or month after discharge	303	7.2%
First 3 months beginning with month of discharge	380	9.1%
First 12 months beginning with month of discharge	852	20.3%
First 18 months beginning with month of discharge	1,045	24.9%
Percent with broad housing instability indicator in . . .		
Month of discharge or month after discharge	371	8.8%
First 3 months beginning with month of discharge	423	10.1%
First 12 months beginning with month of discharge	611	14.6%
First 18 months beginning with month of discharge	696	16.6%
Percent with narrow homelessness indicator in . . .		
Month of discharge or month after discharge	161	3.8%
First 3 months beginning with month of discharge	187	4.5%
First 12 months beginning with month of discharge	306	7.3%
First 18 months beginning with month of discharge	358	8.5%

Timely enrollment in Medicaid coverage and post-discharge client outcomes

Timely post-discharge enrollment in Medicaid coverage is expected to improve post-discharge outcomes by increasing access to physical and behavioral health care in the community. Table 3 shows how post-discharge outcomes differ between persons who were enrolled in Medicaid coverage in the month they were discharged, relative to those who were not as quickly enrolled.

These analyses were restricted to persons who were enrolled in Medicaid immediately prior to their state hospital admission, to limit the population to persons who were highly likely to be eligible for Medicaid following discharge. The vast majority of clients (92 percent) re-enrolled in Medicaid at discharge. Those who quickly re-enrolled experienced somewhat better outcomes along several measurement dimensions. Timely Medicaid enrollment was associated with:

- Slightly lower psychiatric readmission rates.
- Lower arrest likelihood in the year after discharge, although this difference did not persist through the full 18-month measurement window.
- Lower rates of housing instability at the 12-month and 18-month follow-up windows; and lower rates of homelessness at all follow-up windows.

TABLE 3.

Timely post-discharge enrollment in Medicaid and client outcomes

Non-forensic state psychiatric hospital discharges from July 1, 2009 through June 30, 2012 where the discharged person was enrolled in Medicaid in the month of admission or the month prior to the month of admission

Enrollment in Medicaid in month of release?	NO		YES	
	PERCENT	NUMBER	PERCENT	NUMBER
TOTAL	**7.7%**	**209**	**92.3%**	**2,517**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	11.5%	24	10.4%	263
90 days of discharge	23.0%	48	21.7%	545
365 days of discharge	45.5%	95	42.9%	1,081
540 days of discharge	51.2%	107	48.7%	1,226
Percent dying within . . .				
30 days of discharge	3.3%	7	1.5%	39
90 days of discharge	3.3%	7	2.3%	59
365 days of discharge	5.3%	11	4.3%	109
540 days of discharge	5.3%	11	5.9%	149
Percent arrested within . . .				
Month of discharge or month after discharge	10.5%	22	7.3%	183
First 3 months beginning with month of discharge	12.9%	27	9.3%	234
First 12 months beginning with month of discharge	22.5%	47	21.3%	537
First 18 months beginning with month of discharge	26.3%	55	26.1%	657
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	7.7%	16	9.6%	241
First 3 months beginning with month of discharge	9.1%	19	10.7%	269
First 12 months beginning with month of discharge	16.7%	35	15.4%	387
First 18 months beginning with month of discharge	19.6%	41	17.6%	443
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	4.8%	10	3.5%	88
First 3 months beginning with month of discharge	5.3%	11	4.1%	102
First 12 months beginning with month of discharge	10.0%	21	7.0%	176
First 18 months beginning with month of discharge	11.5%	24	8.4%	211

Timely use of outpatient mental health services and client outcomes

Table 4 compares post-discharge outcomes between persons who received Regional Support Network (RSN) outpatient mental health services within seven days of discharge, relative to those who did not meet this service standard. Analyses were restricted to persons who were enrolled in Medicaid immediately prior to their state hospital admission, to limit the population to persons who were likely to be eligible for RSN-funded outpatient mental health services following discharge. Services counting toward this metric included treatment, medication management, and other services reflecting engagement in outpatient services delivered through the RSN system. For example, crisis services were excluded from this metric.

- Nearly three-quarters of persons discharged from a state hospital received RSN-funded outpatient mental health services with seven days of discharge.
- Persons who received timely outpatient care had higher psychiatric readmission rates and significantly lower rates of mortality at all follow-up intervals.
- The two client groups had similar proportions experiencing arrests or housing instability following discharge. Adjusting for the differential mortality rates would move these outcomes to be more favorable for persons who received timely outpatient care.

These findings indicate that more timely post-discharge access to outpatient mental health care for people discharged from State psychiatric hospitals may not reduce psychiatric readmission rates, but appear to improve other key outcomes.

TABLE 4.

Timely post-discharge use of outpatient mental health services and client outcomes

Non-forensic state psychiatric hospital discharges from July 1, 2009 through June 30, 2012 where the discharged person was enrolled in Medicaid in the month of admission or the month prior to the month of admission

Receipt of Outpatient Mental Health Treatment within 7 days of discharge?	**NO**		**YES**	
	PERCENT	NUMBER	PERCENT	NUMBER
TOTAL	**27.6%**	**752**	**72.4%**	**1,974**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	8.8%	66	11.2%	221
90 days of discharge	19.5%	147	22.6%	446
365 days of discharge	36.8%	277	45.5%	899
540 days of discharge	41.8%	314	51.6%	1,019
Percent dying within . . .				
30 days of discharge	4.7%	35	0.6%	11
90 days of discharge	5.7%	43	1.2%	23
365 days of discharge	9.4%	71	2.5%	49
540 days of discharge	11.3%	85	3.8%	75
Percent arrested within . . .				
Month of discharge or month after discharge	7.8%	59	7.4%	146
First 3 months beginning with month of discharge	10.1%	76	9.4%	185
First 12 months beginning with month of discharge	22.2%	167	21.1%	417
First 18 months beginning with month of discharge	26.2%	197	26.1%	515
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	10.0%	75	9.2%	182
First 3 months beginning with month of discharge	10.6%	80	10.5%	208
First 12 months beginning with month of discharge	16.0%	120	15.3%	302
First 18 months beginning with month of discharge	17.3%	130	17.9%	354
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	5.1%	38	3.0%	60
First 3 months beginning with month of discharge	5.5%	41	3.6%	72
First 12 months beginning with month of discharge	8.4%	63	6.8%	134
First 18 months beginning with month of discharge	9.6%	72	8.3%	163

Timely use of substance use disorder treatment and client outcomes

Table 5 compares post-discharge outcomes between persons who received DBHR-funded substance use disorder (SUD) treatment services within 30 days of discharge, relative to those who did not meet this service standard. Analyses were restricted to persons who presented a SUD risk factor in both the 24 months prior to admission and the 12 months after discharge, to limit the population to persons likely to need SUD treatment in the post-discharge period.

- Patients with SUD had significantly higher psychiatric readmission rates than the general population discharged from non-forensic state psychiatric hospital settings.
- Most clients with SUD do not engage in timely SUD treatment following discharge. Only 24 percent enter treatment within 30 days of discharge, and only 43 percent entered treatment within 365 days of discharge.
- Timely post-discharge engagement in substance use disorder treatment is associated with significantly lower psychiatric readmission rates.
- Timely post-discharge engagement in substance use disorder treatment is also associated with significantly lower risk of arrest and homelessness.
- Mortality differences were not significant.

TABLE 5.

Timely post-discharge use of substance use disorder treatment and client outcomes

Non-forensic state psychiatric hospital discharges from July 1, 2009 through June 30, 2012 where the discharged person had a substance use disorder risk factor in the 24 months prior to admission and the 12 months after discharge

Receipt of Substance use Disorder treatment within 30 days of discharge?	**NO**		**YES**	
	PERCENT	NUMBER	PERCENT	NUMBER
TOTAL	**75.8%**	**901**	**24.2%**	**287**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	16.9%	152	11.1%	32
90 days of discharge	32.0%	288	26.1%	75
365 days of discharge	60.5%	545	44.6%	128
540 days of discharge	66.6%	600	52.3%	150
Percent dying within . . .				
30 days of discharge	0.1%	1	0.3%	1
90 days of discharge	1.0%	9	0.3%	1
365 days of discharge	2.1%	19	1.0%	3
540 days of discharge	3.2%	29	3.1%	9
Percent arrested within . . .				
Month of discharge or month after discharge	14.3%	129	7.0%	20
First 3 months beginning with month of discharge	18.1%	163	9.4%	27
First 12 months beginning with month of discharge	38.6%	348	27.2%	78
First 18 months beginning with month of discharge	45.5%	410	35.9%	103
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	13.5%	122	17.4%	50
First 3 months beginning with month of discharge	15.6%	141	20.6%	59
First 12 months beginning with month of discharge	24.5%	221	27.9%	80
First 18 months beginning with month of discharge	28.9%	260	30.7%	88
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	6.2%	56	4.9%	14
First 3 months beginning with month of discharge	7.4%	67	7.0%	20
First 12 months beginning with month of discharge	14.1%	127	10.5%	30
First 18 months beginning with month of discharge	16.4%	148	11.8%	34

Post-discharge medication prescribing patterns and client outcomes

Table 6 examines the relationship between psychotropic adherence metrics and readmission rates in the first 30 days after discharge. Medication adherence is measured based on the pattern of prescription fills and the associated days supplied. Adherence metrics were developed separately for clients with a history of receiving antipsychotic and antidepressant medications. Analyses were restricted to clients holding these medications in the 30 days prior to admission, to focus measurement on a population likely to be prescribed these medications following discharge. Analyses were also restricted to clients who were enrolled in Medicaid coverage at discharge and not dually eligible for Medicare because Medicare pharmacy records were not available for analysis.

For this report, we used "possession ratios" as our measure of adherence. Possession ratios are calculated based on the timing of medication fills and the associated days supplied, and are a standard concept representing medication adherence used in metrics such as NCQA HEDIS antidepressant and antipsychotic medication management measures. The adherence metric reported here is a medication possession ratio that represents the proportion of days holding the reference medication class in the first 30 days after discharge. For example, if a client filled a 30-day antipsychotic prescription the day after their discharge day, they would have a 100 percent 30-day possession ratio. In contrast, if a client only filled a 30-day prescription of a medication on the 16th day after discharge, they would have a possession ratio of 50 percent in the 30-day post-discharge period (they would be identified as holding medication from day 16 through day 30 of the 30-day post-discharge period). Medications received while in a state hospital setting are not observed, and do not count toward the possession ratio calculation.

- Clients who were on antipsychotic medication in the 30 days prior to admission but who did not receive antipsychotic medication in the 30 days after discharge had relatively high psychiatric readmission rates (26 percent within 90 days).
- There was no systematic relationship between antidepressant medication adherence and readmission risk.

TABLE 6.

Relationship between post-discharge medication adherence and readmission risk

Non-forensic state psychiatric hospital discharges from July 1, 2009 through June 30, 2012, restricted to clients (1) holding medication in the reference medication class during the 30 days leading to admission, (2) with Medicaid eligibility and not dually eligible for Medicare in the discharge month

MPR = Medication Possession Ratio

		MPR greater than . . .		
		0%	**60%**	**80%**
		. . . and less than or equal to . . .		
	MPR = **0%**	**60%**	**80%**	**100%**
Antipsychotics	NUMBER	NUMBER	NUMBER	NUMBER
TOTAL	**107**	**152**	**182**	**162**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	10.3%	9.9%	6.0%	6.2%
90 days of discharge	26.2%	16.4%	11.0%	14.8%
365 days of discharge	47.7%	40.8%	31.3%	36.4%
540 days of discharge	51.4%	48.0%	34.1%	45.1%
Antidepressants				
TOTAL	**109**	**44**	**54**	**77**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	4.6%	13.6%	3.7%	3.9%
90 days of discharge	13.8%	18.2%	11.1%	15.6%
365 days of discharge	29.4%	40.9%	29.6%	37.7%
540 days of discharge	39.4%	43.2%	31.5%	44.2%

Discussion

Reducing readmissions to state psychiatric hospitals is an important policy objective because these events reflect adverse health outcomes for the patients who are hospitalized, and consume limited psychiatric inpatient capacity within the publically funded mental health system. Key study findings include the following:

- Psychiatric readmissions are a not uncommon. A third of persons discharged from a state hospital setting were readmitted to a state hospital within 540 days. Extending the metric to include community psychiatric hospital or evaluation and treatment facility settings, 44 percent of discharged persons were readmitted within 540 days.
- A third of persons discharged from a state hospital setting were Medicare eligible. For persons dually eligible for Medicaid and Medicare, coordination of services between payers is likely to be an important facet of intervention strategies aimed at reducing psychiatric readmissions.
- The vast majority of clients with pre-admission Medicaid coverage were enrolled in Medicaid at discharge. Those who quickly re-enrolled in Medicaid experienced better outcomes along several measurement dimensions.
- For state psychiatric discharges, more timely post-discharge access to outpatient mental health care does not appear to reduce psychiatric readmission rates, but appears to improve other outcomes. Persons who receive timely outpatient care had higher psychiatric readmission rates, but significantly lower rates of mortality and lower mortality-adjusted rates of homelessness and arrest. These findings suggest that psychiatric readmissions are averting other adverse outcomes. We emphasize that this finding pertains to persons discharged from non-forensic state hospital settings, and experiences may differ for persons discharged from community psychiatric hospital or evaluation and treatment facility settings.
- Persons with substance use disorders had significantly higher psychiatric readmission rates than persons without co-occurring substance use disorders, and more timely post-discharge engagement in substance use disorder treatment is likely to reduce psychiatric readmission rates. Nearly half of persons admitted to a non-forensic state hospital ward had a substance use disorder identified in their recent pre-admission service experience. Most of these individuals presented substance use disorder risk indicators following discharge, but few engaged in timely post-discharge substance use disorder treatment. Those who did engage in timely post-discharge treatment had significantly lower psychiatric readmission rates and lower risk of arrest and homelessness.
- Clients who were on antipsychotic medication in the 30 days prior to admission but who did not receive antipsychotic medication in the 30 days after discharge had high psychiatric readmission rates.

The Department and the Health Care Authority have made investments in technology and service intervention strategies that present opportunities to reduce psychiatric readmissions and improve other outcomes in this population. Specifically, the PRISM clinical decision support application integrates Medicare and Medicaid health service data to allow authorized users to view health risk factors, including the presence of a co-occurring substance use disorders in this population. PRISM access for state hospital staff could improve the identification of substance use disorder risk, and help support intervention strategies to improve post-discharge rates of engagement in substance use disorder treatment. Given that only 43 percent of clients with identifiable substance use disorder risk in both the pre-admission and post-discharge period enter treatment within 365 days of discharge, intervention in this area appears to present a particular opportunity.

STUDY POPULATIONS

Data were derived from the DSHS Integrated Client Database, including state hospital and psychiatric inpatient data derived from the DBHR Mental Health Consumer Information System. Outcomes for persons discharged from a non-forensic State Psychiatric Hospital ward from July 1, 2009 to June 30, 2012 were tracked for up to 540 days after discharge. A total of 4,195 discharges were studied. To allow an adequate window for measurement of pre-admission risk factors, 126 discharges from admissions occurring prior to July 1 2006 were dropped. Additional exclusion restrictions were imposed to help ensure that analyses were restricted to appropriate populations:

- **Post-discharge enrollment in Medicaid coverage.** Analyses were restricted to persons who were enrolled in Medicaid immediately prior to their state hospital admission, to limit the population to persons who were highly likely to be eligible for Medicaid following discharge.
- **Post-discharge use of outpatient mental health services.** Analyses were restricted to persons who were enrolled in Medicaid immediately prior to their state hospital admission, to limit the population to persons who were likely to be eligible for RSN-funded outpatient mental health services following discharge.
- **Post-discharge use of substance use disorder treatment.** Analyses were restricted to persons who presented a SUD risk factor in both the 24 months prior to admission and the 12 months after discharge, to limit the population to persons likely to need SUD treatment in the post-discharge period.
- **Post-discharge medication prescribing patterns.** Adherence metrics were developed separately for clients with a history of receiving antipsychotic and antidepressant medications. Analyses were restricted to clients holding these medications in the 30 days prior to admission, to focus measurement on a population likely to be prescribed these medications following discharge. Analyses were also restricted to clients who were enrolled in Medicaid coverage at discharge and not dually eligible for Medicare.

SERVICE QUALITY METRIC DEFINITIONS

- **Post-discharge enrollment in Medicaid coverage.** Measurement was restricted to coverage categories associated with full-scope Medicaid benefits (e.g., family-planning-only coverage was excluded).
- **Post-discharge use of outpatient mental health services.** Services counting toward this metric included treatment, medication management, and other services reflecting engagement in outpatient services delivered through the RSN system. For example, crisis services were excluded from this metric.
- **Post-discharge use of substance use disorder treatment.** SUD treatment need was defined by the occurrence of any of the following in the specified measurement windows: (1) diagnosis of a drug or alcohol use disorder in any observed health service event; (2) receipt of a substance use disorder treatment service; (3) receipt of brief intervention services; (4) receipt of detox services; or (5) arrest for a substance use related offense (e.g., DUI or drug possession). Substance use disorder treatment is defined to include the following service modalities: (1) inpatient or residential treatment services; (2) outpatient treatment services; (3) opiate substitution treatment services; (4) case management; or other medication-assisted treatment (e.g., buprenorphine)
- **Post-discharge medication prescribing patterns.** Possession ratios are calculated based on the timing of medication fills and the associated days supplied. The possession ratio represents the proportion of days holding the reference medication class in the first 30 days after discharge. Medications received while in a state hospital setting are not observed, and do not count toward the possession ratio calculation.

OUTCOME METRIC DEFINITIONS

- **Psychiatric inpatient readmission.** Derived from the DBHR Mental Health Consumer Information System (MH-CIS). Adjacent inpatient stays reflecting facility transfers were combined into a single inpatient spell. Forensic State Psychiatric Hospital admissions occurring in the post-discharge follow-up window were counted as a State Psychiatric Hospital readmission event, along with readmissions to non-forensic wards.
- **Homelessness.** Derived from living arrangement data from the DSHS Automatic Client Eligibility System. The homelessness metric includes shelter stays and living arrangements identified as “homeless without housing.” The broader housing instability metric adds “homeless with housing” to the qualifying living arrangement set.
- **Arrests.** Derived from Washington State Patrol arrest data.
- **Death.** Derived from Washington State Department of Health death certificate records.

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