Outcomes for Persons Discharged from Community Psychiatric Hospitals

Findings from Washington State

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REDUCING PSYCHIATRIC HOSPITAL READMISSIONS is an important policy objective because readmissions reflect adverse experiences for patients who are hospitalized and put stress on psychiatric inpatient capacity within the public mental health system. This report examines the experiences of persons discharged from community psychiatric hospitals and evaluation and treatment facilities in Washington State, to help identify strategies that might improve post-discharge patient outcomes. This report is a companion to a recent study examining the experiences of persons discharged from non-forensic State Hospital settings.[1]

This study examines the relationship between post-discharge patient outcomes and the following post-discharge quality of care indicators:

- Timely post-discharge enrollment in Medicaid coverage.
- Timely post-discharge receipt of outpatient mental health services.
- Timely post-discharge receipt of substance use disorder treatment among patients with co-occurring substance use disorders.
- Post-discharge medication adherence among patients with a history of receiving psychotropic medication prior to their hospitalization.

Analyses focus on the following post-discharge outcomes: homelessness, arrests, mortality and psychiatric hospital readmission (including admissions to community psychiatric, evaluation and treatment facility and state hospital settings). We examined 32,999 discharges from community psychiatric hospitals and evaluation and treatment facilities from July 1, 2009 to June 30, 2012, tracking patient outcomes for up to 540 days after discharge.

Key Findings

1. **A third (31 percent) of persons discharged from a community psychiatric hospital or evaluation and treatment facility setting were rehospitalized in a comparable setting within 365 days.** Extending the readmission metric to include admissions to a State Hospital, 34 percent of persons discharged from a community psychiatric hospital or evaluation and treatment facility setting were readmitted to a psychiatric inpatient setting within 365 days.
2. As was observed in a previous study of discharges from State Hospital settings, **timely post-discharge access to outpatient mental health care is not associated with lower psychiatric readmission rates, but is associated with better client outcomes in other measurement areas.**

[1] https://www.dshs.wa.gov/sesa/rda/research-reports/quality-indicators-and-outcomes-persons-discharged-state-psychiatric-hospitals.

Persons who receive timely outpatient mental health care had higher readmission rates, but lower post-discharge rates of mortality, arrest and homelessness. These findings suggest that psychiatric readmissions are averting other adverse patient outcomes.

3. **Persons with co-occurring substance use disorders had significantly higher psychiatric readmission rates than persons without substance use disorders (42 percent versus 32 percent readmitted within 540 days).** However, timely post-discharge engagement in substance use disorder treatment was not associated with lower psychiatric hospital readmission rates. This finding is in contrast to the experience of persons discharged from State Hospital settings, for whom timely post-discharge engagement in substance use disorder treatment was found to be associated with lower psychiatric hospital readmission rates. This finding suggests there may be opportunities to improve the effectiveness of treatment for persons with co-occurring disorders discharged from community psychiatric inpatient settings.
4. **Patients who were on psychotropic medication in the 30 days prior to admission but who did not receive medication in the 30 days after discharge had high readmission rates.** For example, among patients previously receiving antipsychotic medication, those not filling an antipsychotic medication in the first 30 days after discharge had an 11 percent 90-day psychiatric hospital readmission rate, compared to readmission rates of less than 3 percent for patients with 30-day post-discharge possession ratios of 60 percent or above.

Descriptive profile of discharges from community psychiatric hospitals and evaluation and treatment facilities

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

- Persons discharged from community psychiatric inpatient and evaluation and treatment settings are slightly more likely to be male than female (52 percent versus 48 percent). Male patients have somewhat higher readmission risk (as indicated by the higher proportion of males in the subset of the population experiencing a readmission event).
- Most discharged persons (63.5 percent) were aged 25 to 54; 23.5 percent were under 25, 10 percent were aged 55 to 64, and 3 percent were aged 65 or above.
- About three-quarters (78 percent) of discharged persons had Medicaid coverage in the year prior to their admission, while 21 percent 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 significantly after the implementation of Medicaid expansion in January 2014 under the Affordable Care Act.
- A third of persons (32 percent) discharged were of a minority race/ethnicity background. African American, American Indian and Alaska Native patients have higher readmission risk than White or Hispanic patients.
- More than half (59 percent) of persons admitted to a community psychiatric hospital or evaluation and treatment facility had substance use disorder risk indicators in the two years leading up to their admission. An almost equivalent proportion (56 percent) had an indication of a substance use disorder in administrative data in the 12 months after their discharge. Persons with substance use disorders have elevated readmission risk.
- One in six persons (16 percent) discharged were identified as homeless or unstably housed in the month prior to their admission. Unstably housed persons have higher readmission risk.

TABLE 1

Overall Readmission Population Characteristic Profile

For community mental health hospital discharges July 1, 2009 through June 30, 2012

	All Discharges		Discharges without Psychiatric Readmission in 540 Days		Discharges with Psychiatric Readmission in 540 Days	
	NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
TOTAL READMISSIONS	**32,999**	**100.0%**	**20,168**	**100.0%**	**12,831**	**100.0%**
Gender						
Female	15,938	48.3%	9,934	49.3%	6,004	46.8%
Male	17,061	51.7%	10,234	50.7%	6,827	53.2%
Age Group						
0-17	3,234	9.8%	2,163	10.7%	1,071	8.3%
18-20	1,671	5.1%	1,070	5.3%	601	4.7%
21-24	2,826	8.6%	1,633	8.1%	1,193	9.3%
25-34	7,864	23.8%	4,404	21.8%	3,460	27.0%
35-44	6,692	20.3%	3,956	19.6%	2,736	21.3%
45-54	6,386	19.4%	3,924	19.5%	2,462	19.2%
55-64	3,297	10.0%	2,189	10.9%	1,108	8.6%
65-74	692	2.1%	522	2.6%	170	1.3%
75+	337	1.0%	307	1.5%	30	0.2%
Medical Coverage in 12 Months Prior to Admission (patient may be dually eligible for Medicaid and Medicare)						
Medicaid	25,838	78.3%	14,965	74.2%	10,873	84.7%
Medicare	6,866	20.8%	3,871	19.2%	2,995	23.3%
Minority Race/Ethnicity						
Any minority race or ethnicity	10,409	31.5%	6,084	30.2%	4,325	33.7%
Non-Hispanic White alone	22,590	68.5%	14,084	69.8%	8,506	66.3%
Hispanic Ethnicity						
Hispanic/Latino	2,540	7.7%	1,626	8.4%	914	7.2%
Not Hispanic/Latino	29,630	89.8%	17,792	91.6%	11,838	92.8%
Unknown	829	2.5%	750	3.7%	79	0.6%
Race (may be more than one)						
White	29,114	89.1%	17,729	89.2%	11,385	88.8%
African American	3,641	11.1%	2,050	10.3%	1,591	12.4%
American Indian/Alaska Native	3,505	10.7%	1,917	9.6%	1,588	12.4%
Asian/Native Hawaiian/Pacific Islander	2,221	6.8%	1,288	6.5%	933	7.3%
Substance Use Disorder Risk Flag Observed						
24 months prior to admission	19,571	59.3%	11,286	56.0%	8,285	64.6%
12 months after discharge	18,621	56.4%	10,393	51.5%	8,228	64.1%
Broad Housing Instability Indicator						
Month prior to admission	5,394	16.3%	3,078	15.3%	2,316	18.1%

Overall post-discharge outcomes

About a third (31 percent) of persons discharged from a community psychiatric inpatient setting were rehospitalized in a comparable setting within 365 days. Extending the readmission metric to include subsequent State Hospital admissions, 34 percent were readmitted within 365 days. In addition:

- 3 percent of persons discharged died within 540 days of discharge.
- 28 percent of persons discharged were arrested at least once within 540 days of discharge.
- One in four patients was identified as unstably housed within 540 days of discharge, and one in six showed an indication of homelessness at some point over that time horizon.

TABLE 2

Post-Discharge Outcomes, Full Study Population

For mental health hospital discharges July 1, 2009 through June 30, 2012

	NUMBER	PERCENT OF TOTAL
TOTAL DISCHARGES	**32,999**	**100.0%**
Percent with readmission in a community psych or E&T setting		
30 days of discharge	3,266	9.9%
90 days of discharge	5,654	17.1%
365 days of discharge	10,346	31.4%
540 days of discharge	11,892	36.0%
Percent with readmission in community psych, E&T or State Hospital setting		
30 days of discharge	3,541	10.7%
90 days of discharge	6,245	18.9%
365 days of discharge	11,276	34.2%
540 days of discharge	12,831	38.9%
Percent dying within . . .		
30 days of discharge	114	0.3%
90 days of discharge	271	0.8%
365 days of discharge	728	2.2%
540 days of discharge	998	3.0%
Percent arrested within . . .		
Month of discharge or month after discharge	2,804	8.5%
First 3 months beginning with month of discharge	3,587	10.9%
First 12 months beginning with month of discharge	7,597	23.0%
First 18 months beginning with month of discharge	9,074	27.5%
Percent with broad housing instability indicator in . . .		
Month of discharge or month after discharge	5,654	17.1%
First 3 months beginning with month of discharge	6,028	18.3%
First 12 months beginning with month of discharge	7,927	24.0%
First 18 months beginning with month of discharge	8,682	26.3%
Percent with homelessness indicator in . . .		
Month of discharge or month after discharge	3,347	10.1%
First 3 months beginning with month of discharge	3,592	10.9%
First 12 months beginning with month of discharge	4,879	14.8%
First 18 months beginning with month of discharge	5,417	16.4%

Timely enrollment in Medicaid coverage

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 hospital admission, to limit the population to persons who were likely to be eligible for Medicaid following discharge. The vast majority of clients (98 percent) were enrolled in Medicaid at discharge. Those who quickly re-enrolled experienced slightly higher psychiatric readmission rates, but lower arrest and housing instability risk in the 18 months after discharge.

TABLE 3

Timely Post-Discharge Enrollment in Medicaid and Client Outcomes

Community 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 or month after release?	NO		YES	
	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL	NUMBER
TOTAL	**2.0%**	**479**	**98.0%**	**23,903**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	10.2%	49	11.8%	2,810
90 days of discharge	19.2%	92	20.7%	4,954
365 days of discharge	34.9%	167	37.3%	8,905
540 days of discharge	41.5%	199	42.1%	10,063
Percent dying within . . .				
30 days of discharge	0.0%	0	0.4%	89
90 days of discharge	0.4%	2	0.9%	209
365 days of discharge	1.7%	8	2.3%	544
540 days of discharge	2.3%	11	3.2%	766
Percent arrested within . . .				
Month of discharge or month after discharge	11.7%	56	8.6%	2,052
First 3 months beginning with month of discharge	15.2%	73	11.0%	2,626
First 12 months beginning with month of discharge	31.5%	151	23.8%	5,690
First 18 months beginning with month of discharge	36.1%	173	28.5%	6,821
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	23.6%	113	17.5%	4,190
First 3 months beginning with month of discharge	25.7%	123	18.6%	4,454
First 12 months beginning with month of discharge	35.1%	168	24.5%	5,863
First 18 months beginning with month of discharge	38.6%	185	26.9%	6,420
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	13.2%	63	10.3%	2,455
First 3 months beginning with month of discharge	14.4%	69	11.0%	2,619
First 12 months beginning with month of discharge	21.1%	101	14.9%	3,567
First 18 months beginning with month of discharge	23.6%	113	16.6%	3,972

Timely use of outpatient mental health services

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 standard. Analyses were restricted to clients enrolled in Medicaid immediately prior to admission, to limit the analysis to persons likely to be eligible for RSN-funded outpatient mental health services following discharge. Services counting toward this metric included treatment, medication management, and other modalities reflecting engagement in outpatient care.

Only half of persons discharged from community hospital or evaluation and treatment facility settings received RSN-funded outpatient mental health services with seven days of discharge. Persons who received timely outpatient care had *higher* psychiatric readmission rates at all follow-up intervals, but experienced lower post-discharge rates of mortality, arrest and homelessness. These findings indicate that more timely post-discharge access to outpatient mental health care may not reduce psychiatric readmission rates, but appears to improve other key patient outcomes.

TABLE 4

Timely Post-Discharge Use of Outpatient Mental Health Services and Client Outcomes

Community 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 OF TOTAL	NUMBER	PERCENT OF TOTAL	NUMBER
TOTAL	**48.8%**	**11,909**	**51.2%**	**12,473**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	9.4%	1,121	13.9%	1,738
90 days of discharge	17.0%	2,027	24.2%	3,019
365 days of discharge	31.6%	3,766	42.5%	5,306
540 days of discharge	36.2%	4,311	47.7%	5,951
Percent dying within . . .				
30 days of discharge	0.5%	65	0.2%	24
90 days of discharge	1.2%	138	0.6%	73
365 days of discharge	2.9%	343	1.7%	209
540 days of discharge	4.0%	476	2.4%	301
Percent arrested within . . .				
Month of discharge or month after discharge	9.3%	1,113	8.0%	995
First 3 months beginning with month of discharge	12.0%	1,425	10.2%	1,274
First 12 months beginning with month of discharge	26.0%	3,093	22.0%	2,748
First 18 months beginning with month of discharge	30.8%	3,670	26.6%	3,324
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	21.6%	3,547	13.9%	1,733
First 3 months beginning with month of discharge	22.9%	3,836	14.8%	1,848
First 12 months beginning with month of discharge	29.8%	1,533	19.9%	2,484
First 18 months beginning with month of discharge	32.2%	1,637	22.2%	2,769
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	12.9%	1,533	7.9%	985
First 3 months beginning with month of discharge	13.7%	1,637	8.4%	1,051
First 12 months beginning with month of discharge	18.5%	2,206	11.7%	1,462
First 18 months beginning with month of discharge	20.3%	2,417	13.4%	1,668

Timely use of substance use disorder treatment

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.

Most clients with SUD do not engage in timely SUD treatment following discharge, with only 18 percent enter treatment within 30 days of discharge. However, timely post-discharge engagement in substance use disorder treatment was not associated with significantly lower psychiatric hospital readmission rates. This finding is in contrast to the experience of persons discharged from State Hospital settings, for whom engagement in substance use disorder treatment was found to be associated with lower psychiatric hospital readmission rates.

TABLE 5

Timely Post-Discharge Use of Substance Use Disorder Treatment and Client Outcomes

Community 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 OF TOTAL	NUMBER	PERCENT OF TOTAL	NUMBER
TOTAL	**82.5%**	**14,022**	**17.5%**	**2,971**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	12.2%	1,715	11.6%	344
90 days of discharge	21.4%	3,000	19.4%	576
365 days of discharge	38.2%	5,359	36.6%	1,088
540 days of discharge	42.9%	6,009	41.8%	1,242
Percent dying within . . .				
30 days of discharge	0.3%	45	0.1%	3
90 days of discharge	0.8%	111	0.4%	12
365 days of discharge	2.3%	327	2.0%	59
540 days of discharge	3.3%	456	3.2%	96
Percent arrested within . . .				
Month of discharge or month after discharge	12.2%	1,713	10.0%	297
First 3 months beginning with month of discharge	15.5%	2,177	14.1%	418
First 12 months beginning with month of discharge	31.8%	4,454	34.4%	1,023
First 18 months beginning with month of discharge	37.3%	5,236	41.6%	1,235
Percent with broad housing instability indicator in . . .				
Month of discharge or month after discharge	23.7%	3,322	26.1%	776
First 3 months beginning with month of discharge	25.1%	3,523	27.9%	830
First 12 months beginning with month of discharge	32.8%	4,598	37.2%	1,104
First 18 months beginning with month of discharge	35.7%	5,008	41.1%	1,220
Percent with narrow homelessness indicator in . . .				
Month of discharge or month after discharge	14.7%	2,065	15.1%	448
First 3 months beginning with month of discharge	15.7%	2,199	16.4%	487
First 12 months beginning with month of discharge	21.1%	2,956	23.8%	707
First 18 months beginning with month of discharge	23.3%	3,269	26.9%	798

Post-discharge medication prescribing patterns

Table 6 examines the relationship between psychotropic medication adherence and readmission rates in the first 30 days after discharge. Adherence is measured based on the pattern of prescription fills and the associated days supplied. Separate metrics were developed for clients receiving antipsychotic or antidepressant medications in the 30 days prior to admission, to focus measurement on patients likely to be prescribed these medications following discharge. Analyses were further restricted to clients who were enrolled in Medicaid coverage at discharge and not dually eligible for Medicare.

Possession ratios are a standard concept used in metrics such as NCQA HEDIS antidepressant and antipsychotic medication management measures. The metrics reported here represent the proportion of days holding medication in the 30 days after discharge. For example, a client filling a 30-day prescription the day after discharge 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. Medications received while in an inpatient setting do not count toward the possession ratio calculation.

Patients who were on psychotropic medication in the 30 days prior to admission but who did not receive medication in the 30 days after discharge had higher readmission rates. For example, patients not refilling an antipsychotic medication in the first 30 days after discharge had an 11 percent 90-day readmission rate, compared to 90-day readmission rates of less than 3 percent for patients with possession ratios of 60 percent or above. Similarly, patients not refilling an antidepressant medication in the first 30 days after discharge had an 8 percent 90-day readmission rate, compared to 90-day readmission rates of less than 2 percent for patients with possession ratios of 60 percent or above.

TABLE 6

Relationship between Post-Discharge Medication Adherence and Readmission Risk

Community 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	**564**	**660**	**341**	**2,050**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	6.6%	2.7%	0.6%	0.6%
90 days of discharge	11.0%	4.8%	2.9%	2.3%
365 days of discharge	22.9%	13.9%	9.4%	9.7%
540 days of discharge	27.0%	17.3%	15.2%	14.4%
Antidepressants				
TOTAL	**675**	**787**	**379**	**2,193**
Percent with any Psychiatric Hospital Readmission within . . .				
30 days of discharge	4.3%	1.8%	1.1%	0.3%
90 days of discharge	8.1%	2.7%	1.8%	1.2%
365 days of discharge	14.7%	7.8%	7.4%	6.3%
540 days of discharge	17.8%	9.8%	11.6%	9.5%

Discussion

Reducing psychiatric hospital readmissions is an important policy objective, both because readmissions reflect adverse patient experiences and because readmissions put strain on psychiatric inpatient capacity within the public mental health system. This report examined the experiences of persons discharged from community psychiatric hospitals and evaluation and treatment facilities in Washington State, to help identify interventions that might improve post-discharge patient outcomes and reduce readmission rates. Key study findings include:

- A third (31 percent) of persons discharged from a community psychiatric hospital or evaluation and treatment facility setting were rehospitalized in a comparable setting within 365 days. Extending the readmission metric to include admissions to a State Hospital, 34 percent of persons discharged from a community psychiatric hospital or evaluation and treatment facility setting were readmitted to a psychiatric inpatient setting within 365 days.
- As was observed in a previous study of discharges from State Hospital settings, timely post-discharge access to outpatient mental health care is not associated with lower psychiatric readmission rates, but is associated with better client outcomes in other areas. Persons who receive timely outpatient mental health care had higher readmission rates, but lower post-discharge rates of mortality, arrest and homelessness. These findings suggest that psychiatric readmissions are averting other adverse patient outcomes.
- Persons with co-occurring substance use disorders had significantly higher psychiatric readmission rates than persons without substance use disorders. However, timely post-discharge engagement in substance use disorder treatment was not associated with lower psychiatric readmission rates. This is in contrast to the experience of persons discharged from State Hospital settings, for whom timely post-discharge engagement in substance use disorder treatment was associated with lower psychiatric hospital readmission rates. This finding suggests there may be opportunities to improve the effectiveness of treatment for persons with co-occurring disorders discharged from psychiatric inpatient settings.
- Patients who were on psychotropic medication in the 30 days prior to admission but who did not receive medication in the 30 days after discharge had high readmission rates. Patients with high post-discharge medication adherence rates had low readmission rates.
- One in five persons discharged from a community psychiatric hospital or evaluation and treatment facility 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.

TECHNICAL NOTES

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 Community Psychiatric Setting or evaluation and treatment event from July 1, 2009 to June 30, 2012 were tracked for up to 730 days after discharge. A total of 32,999 discharges were studied. 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 Community Setting admission, to limit the population to persons who were highly likely to be eligible for Medicaid following discharge (Total = 24,382).
- **Post-discharge use of outpatient mental health services.** Analyses were restricted to persons enrolled in Medicaid immediately prior to Community Setting admission, to limit the population to persons who were likely to be eligible for RSN-funded outpatient mental health services following discharge (Total = 24,382).
- **Post-discharge use of substance use disorder (SUD) 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 (Total = 16,993).
- **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 (Antipsychotic Rx Total = 3,615, Antidepressants Rx Total = 4,034).

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). SUD 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. All types of State Psychiatric Hospital and Community Setting admissions (including E&T) occurring in the post-discharge follow-up window from Community Setting discharges (including E&T) were counted as a Post-Community Setting readmission event.
- **Homelessness.** Derived from living arrangement data from the DSHS Automatic Client Eligibility System (ACES). 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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