

Adult Inpatient Psychiatric Readmissions FY2013 Quarters 1-3 (July 2012- March 2013)

The percentage of persons who are readmitted to a hospital within a short period (typically 30 days) is a key measure of the effectiveness of healthcare systems.¹ The percentage of persons readmitted over a longer period, such as 180 days, is also used as a health outcome measure. Research suggests that persons who receive quality care at a hospital as well as effective community-based treatment at the appropriate level of care have fewer 180-day readmissions than those that do not.² This report examines readmissions within 30 days and within 180 days across all the adult inpatient psychiatric facilities in Maine. There are three types of adult psychiatric inpatient facilities in Maine including seven community hospitals with inpatient units, two private psychiatric hospitals and two state-run inpatient psychiatric facilities.

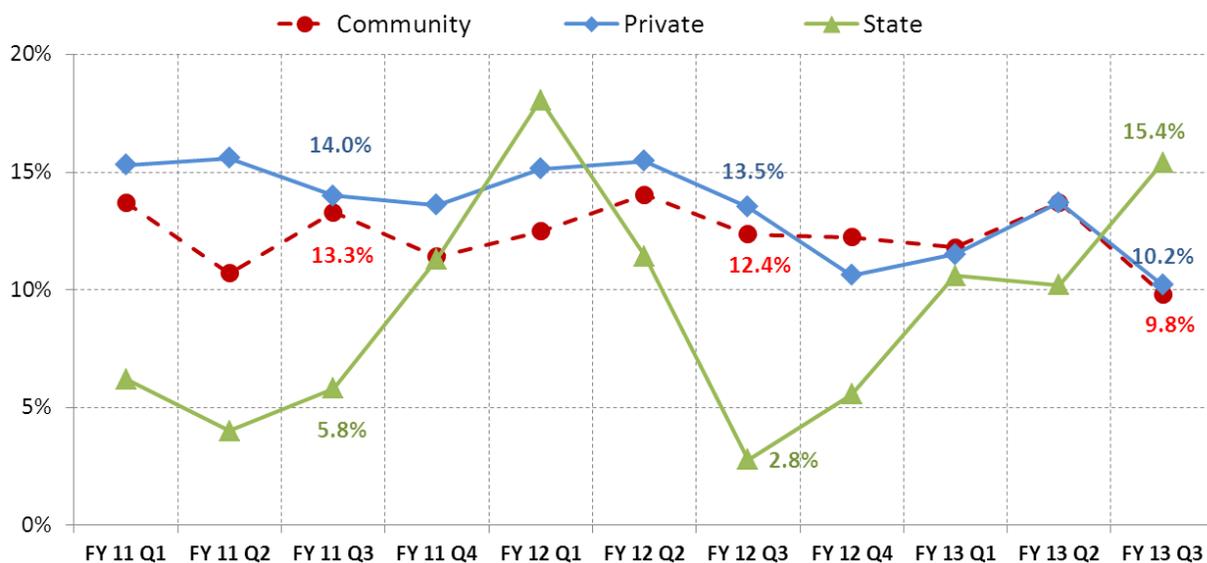
Key Findings for Adult Readmissions to Inpatient Psychiatric Facilities in FY 2013 Quarters 1, 2 & 3

- The rate of 30-day readmissions was more than one percentage point lower for the first 3 quarters of FY 2013, at 11.8% compared to 13.0% for all of FY 2012.
- The 180-day readmission rate for all hospitals combined has been declining. It was at 27.7% for FY 2013 Quarter 1, compared to 30.7% for FY 2012 and 31.7% for FY 2011.
- Private hospitals have had statistically significant decreases in the rates of both 30-day and 180-day readmissions. Their 30-day readmission rates are now on par with community hospitals.
- For the 12 month period 4/1/2012- 3/31/2013, there have been 20 people with 3 or more 30-day readmissions. This 1% of the adults with an inpatient admission, (20/2,344) account for 21% of all 30-day readmissions. Last fiscal year, there were 29 people with three or more 30-day readmissions.
- Men are more likely to readmit within 30 days than women are. (13.6% men versus 10.1% women) for first three quarters of FY 2013.

Section 1 30-Day Readmissions to Adult Inpatient Psychiatric Services

The graph below shows the rates of readmission to any adult inpatient psychiatric facility within 30 days by type of hospital since FY 2011, Quarter 1. That was the first full quarter that APS had authorization data for all Maine hospitals that provide inpatient psychiatric care.

Graph 1: Rate of 30-Day Readmissions by Hospital Type & by Quarter FY 11 Q1- FY 13 Q3



There is not a statistically significant change in the overall rates of 30-day readmissions, for all hospitals combined, however;

- The state hospital rate has been increasing 5 quarters in a row. One reason the state hospital rates may be rising is that the data is more complete. For FY 2012 and subsequent quarters, APS Healthcare has linked people at Riverview with their MaineCare numbers, even if no MaineCare was reported at Riverview. This has made it possible to find subsequent readmissions to other hospitals.
- The two private hospitals combined– Spring Harbor and Acadia– have had a statistically significant decline in the rate of 30-day readmissions since FY 2011 Quarter 1.³
- In this fiscal year, all three types of hospitals have similar rates of 30-day readmissions. In the past, community hospitals consistently had lower rates of 30-day readmissions than private hospitals.

The table below shows 30-day readmission rates by hospital and by type of hospital for the first three quarters of FY 2013 and is compared to the FY 2012 rates.

Table 1: 30-Day Readmissions to Adult Inpatient Psychiatric Facilities

Facility & Type & Number of Discharges FY 2013 Quarter 1-3	FY 13 Q3			FY 13 Q2	FY 13 Q1	FY 12 Q1-Q3	All FY 2012
	# of 30-day readmissions	# of discharges	%	%	%	%	%
Maine General Medical Center	10	102	9.8%	11.4%	9.1%	10.1%	11.3%
Maine Medical Center	0	3	0.0%	0.0%	25.0%	7.7%	8.7%
Mid Coast Hospital	6	58	10.3%	19.1%	9.7%	13.3%	18.9%
Northern Maine Medical Center	2	49	4.1%	9.1%	5.7%	6.4%	13.9%
Penobscot Bay Medical Center	7	53	13.2%	9.1%	11.8%	11.6%	9.1%
Southern Maine Medical Center	3	50	6.0%	22.5%	6.1%	10.8%	11.4%
St. Marys Regional Medical Center	15	122	12.3%	14.4%	20.7%	15.6%	13.5%
Community Hosp. 1,354 discharges in 3 quarters	43	437	9.8%	13.7%	11.8%	11.8%	12.8%
Acadia Hospital	5	54	9.3%	11.7%	13.6%	11.6%	14.4%
Spring Harbor Hospital	22	211	10.4%	14.4%	10.8%	11.8%	13.6%
Private Psych Hosp. 759 discharges in 3 quarters	27	265	10.2%	13.7%	11.5%	11.7%	13.8%
Dorothea Dix Psychiatric Center	6	38	15.8%	9.1%	10.0%	11.6%	8.1%
Riverview Psychiatric Center	2	14	14.3%	12.5%	12.5%	13.0%	15.0%
State Facilities 167 discharges in 3 quarters	8	52	15.4%	10.2%	10.6%	12.0%	11.2%
All Inpatient Psychiatric Facilities	78	754	10.3%	13.5%	11.6%	11.8%	13.0%
3 Quarters of FY 2013	269	2280					

For the first three quarters of FY 2013,

- There were 2,280 discharges and 269 readmissions for an overall rate of 11.8% (to the same or a different hospital) within a 30-day period following discharge. All zero and one day transfers are excluded from the results.⁴ Last year, the overall rate was 13.0%.
- 55 transfers were made from one inpatient psychiatric facility to another facility. 29 people were transferred to Dorothea Dix and 20 others were transferred to Riverview. Four other hospitals received 1 or 2 clients from other hospitals so far this fiscal year.

Some trends in the rates of 30-day readmissions are:

- The latest quarter had the lowest 30-day readmission rate for all hospitals combined (10.3%) since APS began receiving this data. This included the lowest rate for private hospitals (10.2%) and for community hospitals (9.8%).

- Northern Maine Medical Center had a lower rate of 30-day readmission than other community hospitals, while St. Mary’s had a rate above the community hospital rate for all quarters.
- Though still above the state-wide average, Mid Coast Hospital has shown improvement from its 18.9% rate in FY 2012 to 13.3% so far this fiscal year.
- In the most recent 3 quarters, state hospitals had 30-day readmission rates of 12.0%. This is above last year’s rate of 11.2%.

Discharges

If FY 2013 continues at the same rate for the rest of the year, then there will be fewer discharges from hospitals than in FY 2011 or FY 2012.⁵

Table 2: Discharges & 30-Day Readmissions by Fiscal Year

Fiscal Year	# of Discharges	# of 30 Day Readmissions	30-Day Readmission Rate
FY 2011	3,949	503	12.7%
FY 2012	3,482	454	13.0%
FY 2013 (3 quarters)	2,280	269	11.8%
<i>FY 2013 projected</i>	<i>3,040</i>	<i>359</i>	<i>11.8%</i>

Multiple 30-Day Readmissions

Since the fiscal year is not complete, APS examined the last 12 months of data (April 1, 2012- March 31, 2013) to look at the pattern of multiple 30-day readmissions. For this 12 month period, there were 2,344 unique people with adult inpatient admissions for psychiatric services.⁶ For the most part, people do not typically cycle in and out of inpatient psychiatric hospitals. In the last 12 months, (April 2012- March 2013)

- **88%** of the people had no 30-day readmissions at all. (2,074/2,344)
- 56% of those who were readmitted within a 30-day period had only one such 30-day readmission. (208/270) =**78%**.
- 270 individuals had a total of 370 occurrences of 30–day readmissions. For the same twelve month period the previous year, (thru March 31, 2012), there were 349 individuals with a total of 487 occurrences of 30–day readmissions.
- 20 individuals had 3 or more 30-day readmissions. Together, these 20 individuals had 78 of the 30–day readmissions, or 21% of all 30–day readmissions.

Age and Gender of Persons in Adult Inpatient Psychiatric Facilities

The table below shows the gender and age of the individuals who had one or more 30-day readmissions in FY 2012.⁷ If a person has more than one admission, they are counted more than once.

Table 3: 30-Day Readmissions by Age and Gender FY 2012 Quarter 1, 2 & 3⁸

Age Group	Adults with inpatient psychiatric discharge FY 2013 Q1, Q2 & Q3					
	Readmit Females	All Females	% Readmit <30 days	Readmit Males	All Males	% Readmit <30 days
18 -20	6	77	7.8%	12	91	13.2%
21- 44	62	652	9.5%	81	631	12.8%
45 -64	46	387	11.9%	57	382	14.9%
65 & over ⁹	2	36	5.6%	3	24	12.5%
Total by Gender	116	1152	10.1%	153	1128	13.6%

So far in FY 2013, trends suggest that:

- Males age 45-64 had the highest rates of 30-day readmissions.
- For every age group, males are more likely to readmit than females.
- For women under 65, the older the age group, the higher the rates of readmission.

Readmissions within 30 days to the same or different hospitals FY 2013 Quarters 1 -3

- Overall, people who were readmitted returned to the same hospital about two-thirds of the time.
- The hospitals of Riverview, Northern Maine Medical Center, Maine Medical Center and Dorothea Dix were the most likely to have people who return to the same hospital that they were discharged from rather than be admitted to a different hospital,
- Acadia, Maine General and Southern Maine Medical Center were the least likely to have people return to the same hospital.

Table 4: 30-Day Readmissions to Same and Different Hospitals for FY 2013 Q1, Q2 & Q3

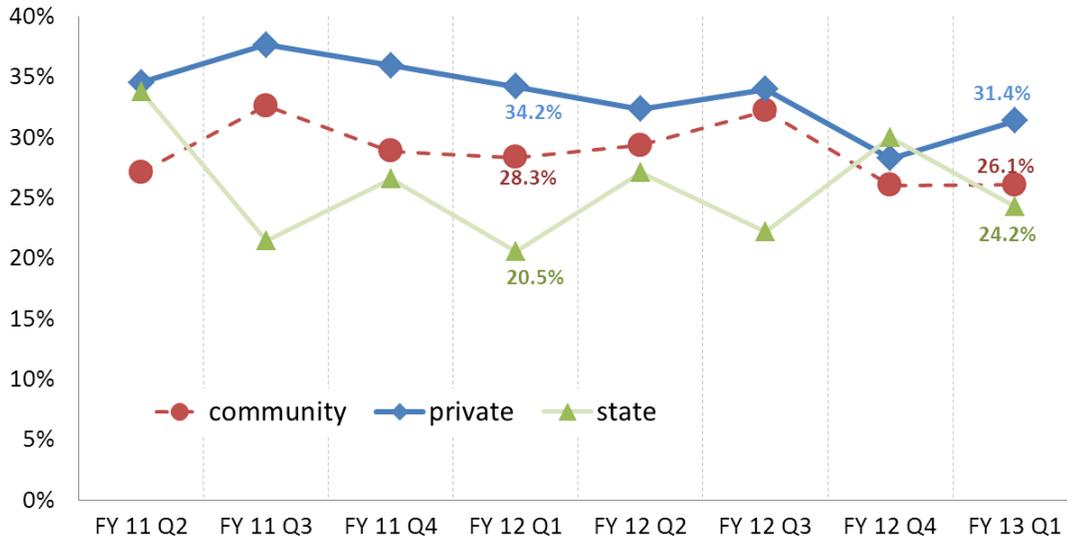
Facility and Type	% readmitted to same hospital	Same hospital	Different hospital
Maine General Medical Center	46%	13	15
Maine Medical Center	100%	1	0
Mid Coast Hospital	65%	17	9
Northern Maine Medical Center	100%	4	0
Penobscot Bay Medical Center	71%	15	6
Southern Maine Medical Center	53%	9	8
St. Marys	86%	42	7
Community Hospitals	69%	101	45
Acadia Hospital	39%	12	19
Spring Harbor Hospital	64%	50	28
Private Psychiatric Hospitals	57%	62	47
Dorothea Dix Psychiatric Center	91%	10	1
Riverview Psychiatric Center ¹⁰	100%	3	0
State-run Hospitals	93%	13	1
All Inpatient Psychiatric Hospitals	65%	176	93

Section 2 180-Day Readmissions to Adult Inpatient Psychiatric Services

The graph below shows whether persons admitted to Maine’s adult inpatient psychiatric facilities had a subsequent readmission to any inpatient psychiatric facility within 180 days. It includes FY 2011¹¹, FY 2012, and the first quarter of FY 13, since not enough time has passed to see if people later in FY 2013 readmit within 180 days.¹²

- There has been a statistically significant¹³ decrease in the rate of 180-day readmission for private hospitals.

Graph 2: Rate of 180-Day Readmissions by Hospital Type & by Quarter



The table below shows the 180-day readmissions rates by hospital for FY 2012 and for FY 2013 Quarter 1. For FY 2012, the overall rates are shown in the last column.

Table 5: FY 2012 & FY 2013 Quarter 1 180-Day Readmissions to Adult Inpatient Psychiatric Services

Facility & Type & Discharges in FY 2011	FY 13 Q1			FY 2012
	# of discharges	# of 180-day readmissions	%	%
Maine General Medical Center	110	24	21.8%	27.5%
Maine Medical Center	4	2	50.0%	21.7%
Mid Coast Hospital	61	15	24.6%	37.3%
Northern Maine Medical Center	53	6	11.3%	24.6%
Penobscot Bay Medical Center	76	23	30.3%	26.9%
Southern Maine Medical Center	49	10	20.4%	29.3%
St. Marys Regional Medical Center	111	41	36.9%	31.7%
Community Hosp. 2,097 discharges in FY 12	464	121	26.1%	29.8%
Acadia Hospital	59	21	35.6%	29.1%
Spring Harbor Hospital	199	60	30.2%	33.4%
Private Psych Hosp. 1,171 discharges in FY 12	258	81	31.4%	32.3%
Dorothea Dix Psychiatric Center	50	10	20.0%	30.3%
Riverview Psychiatric Center	16	6	37.5%	31.0%
State Facilities 203 discharges in FY 12	66	16	24.2%	30.5%
All Inpatient Psychiatric Facilities	788	218	27.7%	30.7%

For FY 2012 180-day readmissions:

- Private psychiatric hospitals had higher rates of 180-day readmissions (32.3%) than either community hospitals (29.8%) or state hospitals (30.5%).

- The state hospitals had the fewest number of discharges (203 in FY 2012). Smaller numbers are more subject to statistical variation, so that may be why the rates of state hospitals vary more by quarter.
- Among the community hospitals, Mid Coast Hospital had the highest rate of 180-day readmission in FY 2012, at 37.3%, but in the most recent quarter, this hospital was below the state wide average.

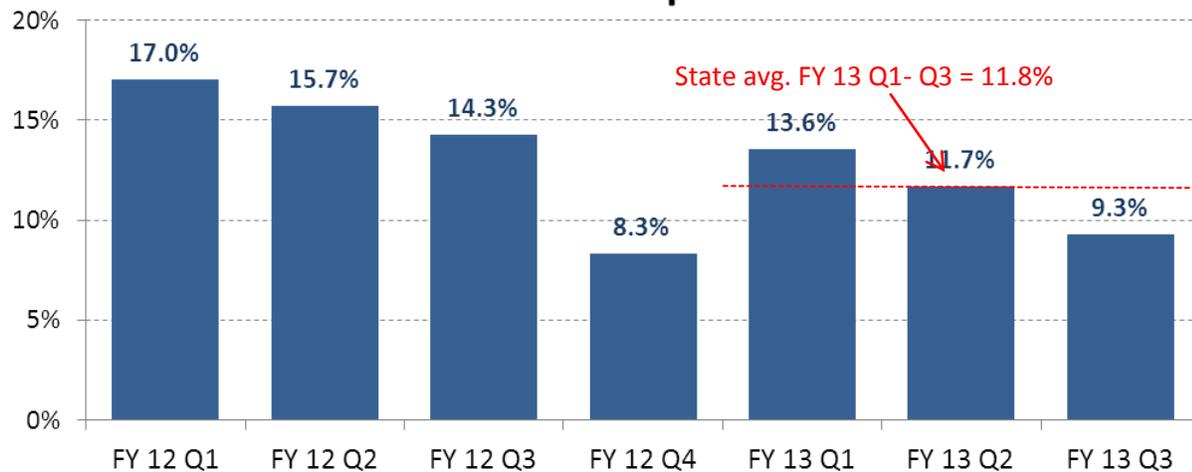
Section 3: 30-Day Readmission Rates to Individual Hospitals for Inpatient Psych

The graphs on the next 4 pages display the quarterly trends in the 30-day readmission rates for each Maine hospital that offers adult inpatient psychiatric services.¹⁴ Individual hospitals can use this information to make quality improvements. Note that the smaller the number of discharges, the more the results may be subject to random statistical variations.

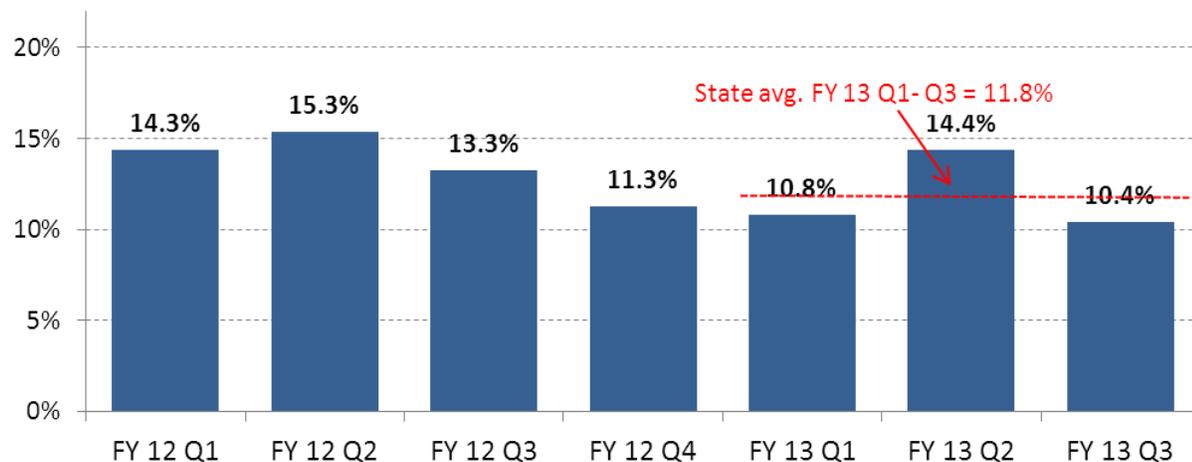
- Two hospitals, Acadia and Northern Maine Medical Center, had statistically significant reductions in the rates of 30-day readmissions since FY 2012 Q1.¹⁵

Private Hospitals 30-Day Readmissions Rate Trends

Acadia Hospital

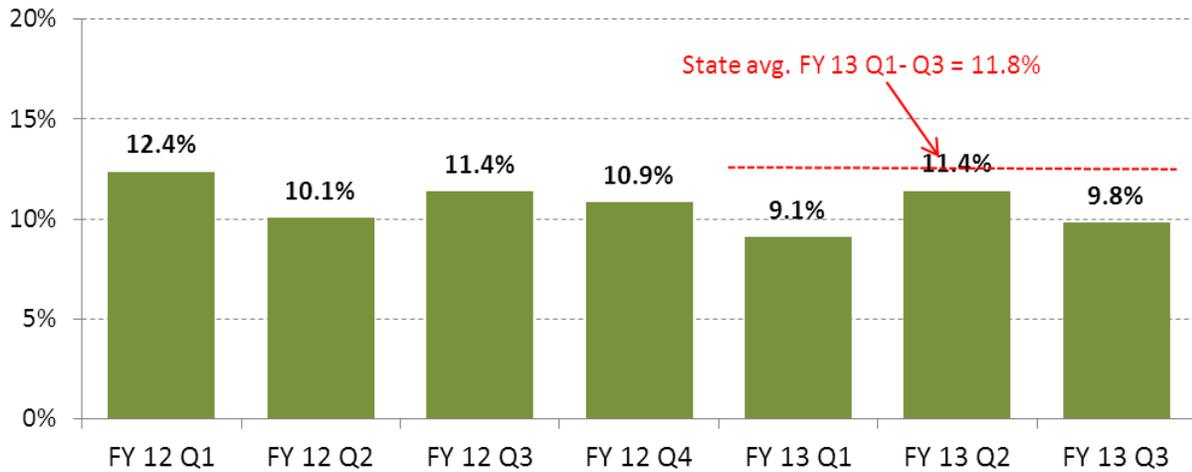


Spring Harbor Hospital

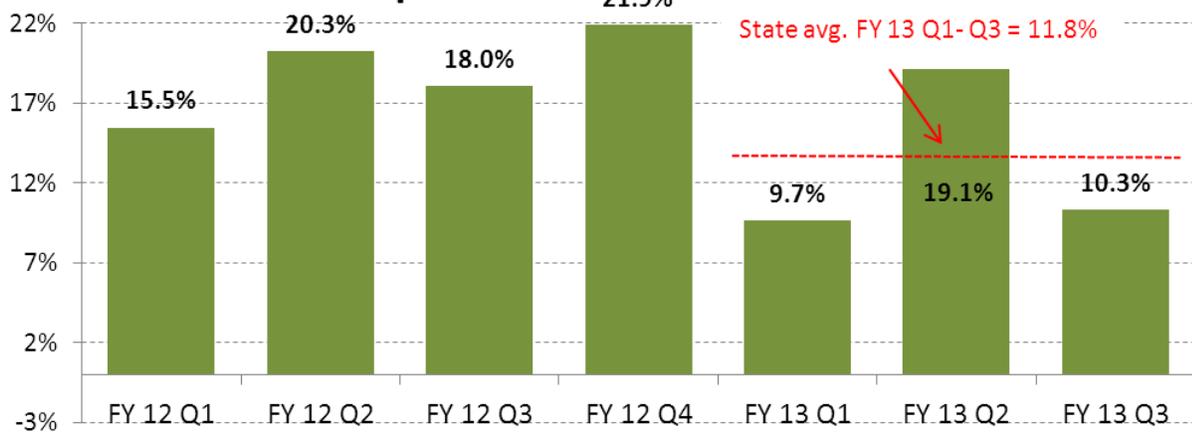


Community Hospitals 30-Day Readmissions Rate Trends

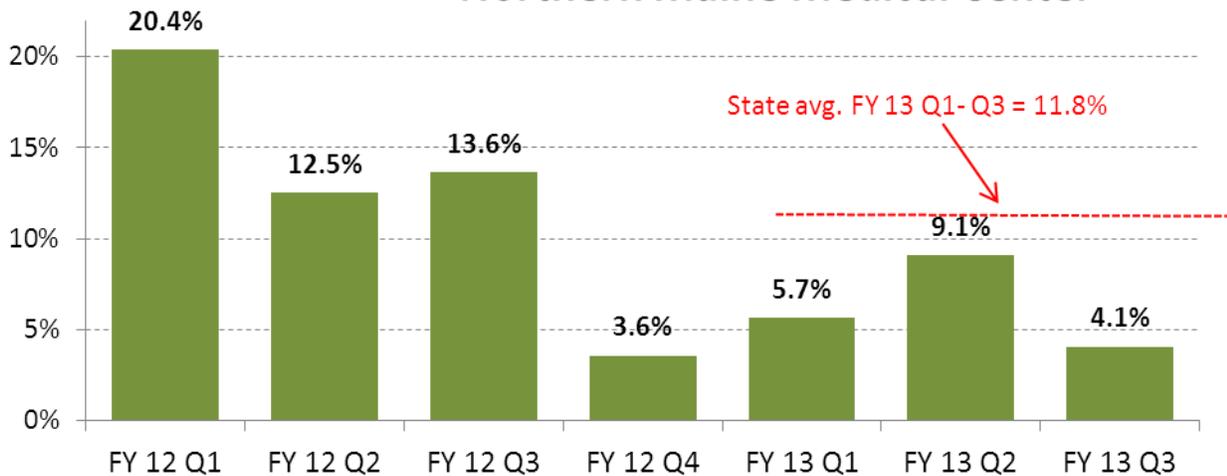
Maine General Medical Center



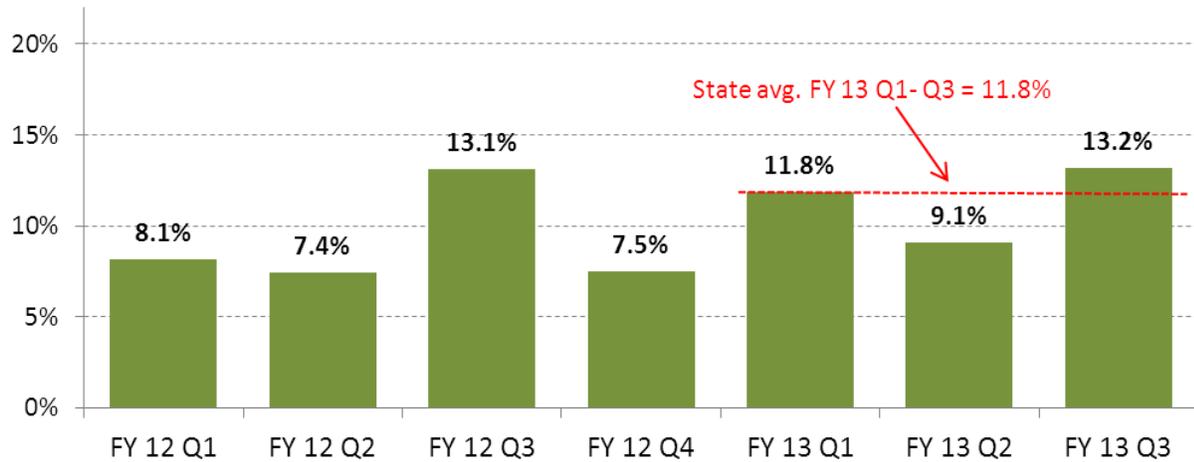
Mid Coast Hospital



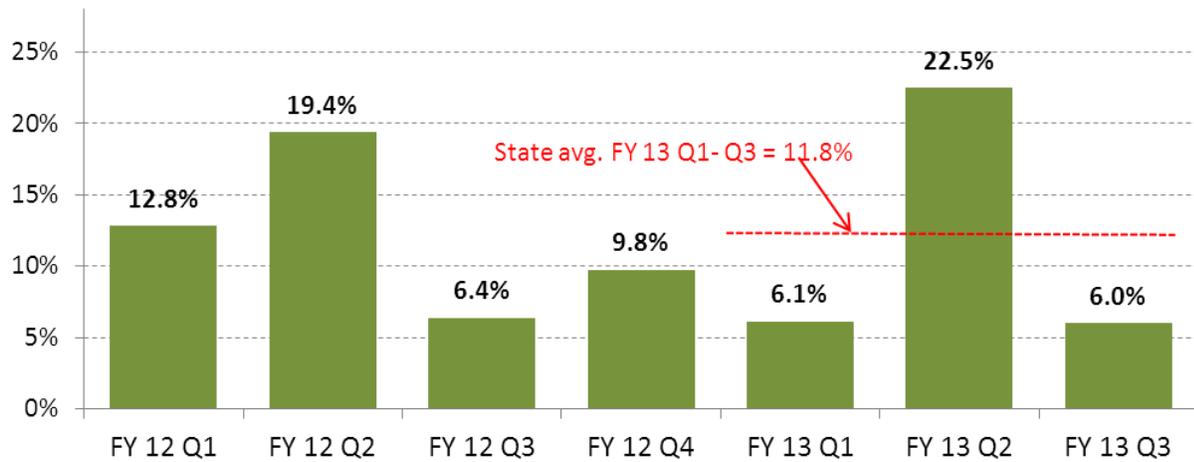
Northern Maine Medical Center



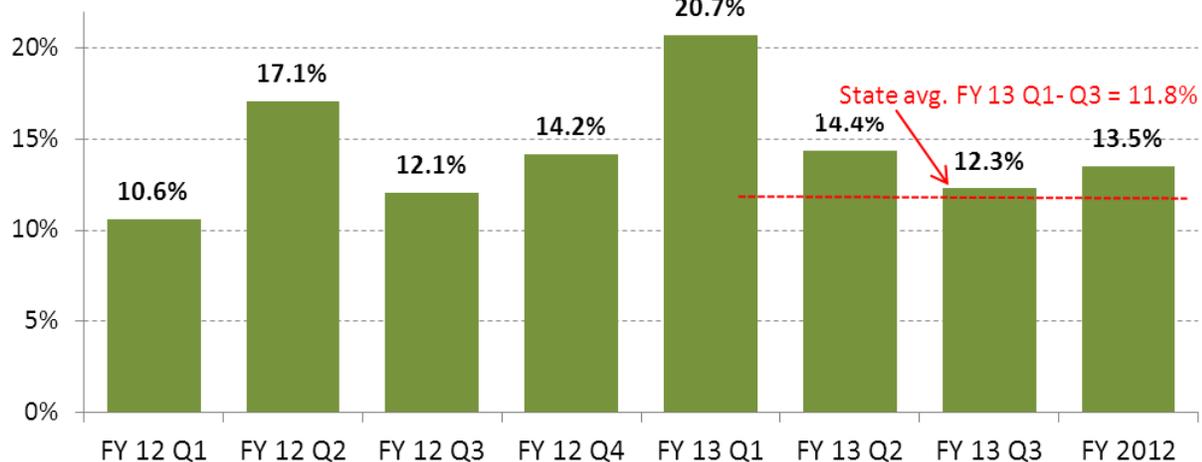
PenBay



Southern Maine Medical Center

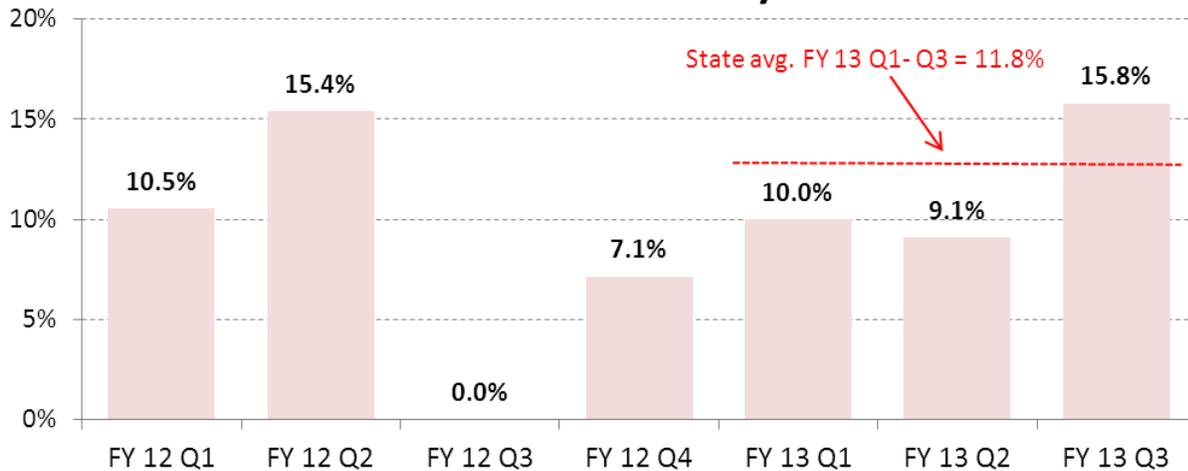


St. Marys Regional Medical Center

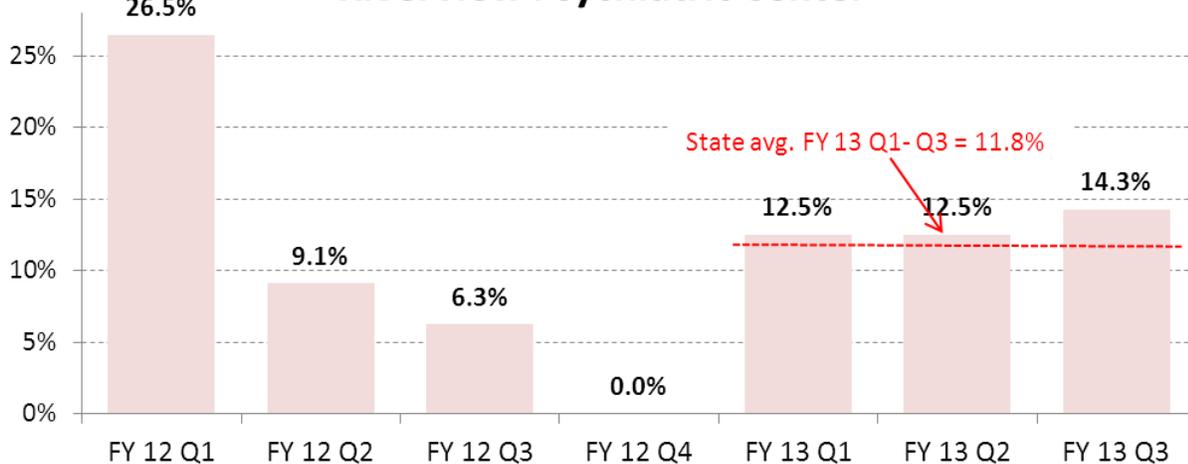


State Hospitals 30-Day Readmissions Rate Trends

Dorothea Dix Psychiatric Center



Riverview Psychiatric Center



¹ No national benchmarks use the same definition of readmission as this report does. The Agency for Healthcare Research and Quality <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb89.jsp> reported that in a ten-state study in 2007, the rate of 30-day readmissions for mental disorders for Medicaid recipients ages 21 – 64 was 11.9%. It calculated readmittance after an inpatient psychiatric admission to the same hospitals for psychiatric or for other medical reasons. SAMHSA reports a 30-day readmission rate of 9.4% for state hospitals returning to the same hospital.

² There are fewer studies of 180-day readmission rates. SAMHSA reports a 21.5% 180-day readmission rate among state hospitals. It does not include readmissions to other hospitals. <http://www.samhsa.gov/dataoutcomes/urs/2009/Maine.pdf> An Australian study, reported a 30% 180-day readmission rate across different hospitals for inpatient psychiatric services in Australia. http://amhocn.org/static/files/assets/11e3b1b0/28day_readmit_final_report_14112008.pdf

³ When the R squared value for a trend line is above .5, this indicates a statistically significant trend. For private hospitals FY 11 Q1- FY 13 Q3, the R squared value was .5625.

⁴ When calculating readmission rates, both transfers to different hospitals and the zero to one-day readmissions to the *same* hospital *are not counted* in the total discharges, since the disposition of these cases was something other than readmission or no readmission. Zero to one day readmissions to the same hospital are likely continued stays. This methodology matches that of national studies. So far in FY 2013, there are 2,280 discharges counted in this report. There were 66 discharges not counted, including 55 transfers and 11 that were readmitted to the same hospital on the same day, so presumably continued stays.

⁵ See footnote 3. A case must include an actual discharge date entered in APS CareConnection system to be counted.

⁶ Not every readmission is counted— instead it counts only those that occurred within 30 days of a discharge.

⁷ Age at the time of discharge is shown.

⁸ Zero and one day discharges are excluded, to be consistent with the rest of this report.

⁹ Persons age 65 & over with MaineCare only are shown here. Persons age 65 & over who are dually eligible for MaineCare and Medicare or have Medicare only are not included since Medicare will likely pay for the hospital stay and this info is not reported to APS Healthcare.

¹⁰ Persons sentenced to Riverview forensics were excluded.

¹¹ Pen Bay did not record any discharges in APS CareConnection in FY 11 Q1 & Q2. For just these 2 quarters and just for Pen Bay, members with an authorization date were included as if they were discharged. Other numbers may have changed from previous reports about these prior quarters. One reason is that more discharges have been entered into the APS system. Also, in previous reports, some records at Spring Harbor with no MaineCare Ids may have been included and now they are excluded.

¹² For this report, a person must have a MaineCare ID and the case must include an actual discharge date entered in APS CareConnection system to be counted.

¹³ When the R squared value for a trend line is above .5, this indicates a statistically significant trend. For private hospitals FY 11 Q1- FY 13 Q1, the R squared value for 180-day readmissions was .6025.

¹⁴ Maine Medical Center is not shown since they have fewer than 10 discharges per quarter.

¹⁵ When the R squared value for a trend line is above .5, this indicates a statistically significant trend. For Acadia FY 12 Q1- FY 13 Q3, the r squared value for 30-day readmissions was .588. For Northern Maine Medical Center for the same period, the R-squared value was .6495.