Community Metrics

2016 Summary Statistics

The data suggest there are increased demands on the east metro mental health system and capacity is not meeting this demand

Executive summary

Project description

The East Metro Mental Health Roundtable is a collaboration of law enforcement, social service agencies, health systems, hospitals, and others who address mental health care in the Twin Cities east metro in Minnesota. A subcommittee of the Roundtable, the Measurement Committee, was charged with quantifying the effects of the Roundtable's efforts to reduce barriers to patient flow between hospitals and community services, better match available resources to needs, and reduce gaps in the continuum of care.

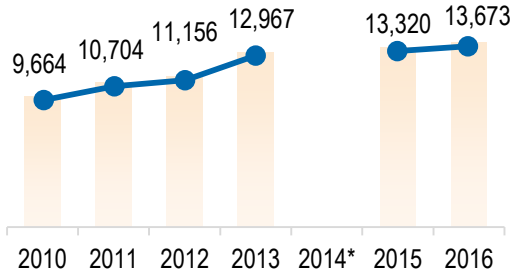
The subcommittee identified key community metrics to track quarterly progress toward the above goals. Data collection for most metrics began January 1, 2010. This summary briefly highlights key findings from data collected through December 2016.

Summary of key trends

Each of the community metrics describes an important piece of information that can be used to better understand the availability of mental health services and overall capacity of the adult mental health system in the east metro. However, this report does not explore potential reasons for changes in referral patterns and wait times.

Since 2010, the overall number of emergency department behavioral health visits has increased, though there is evidence of a slight decrease at Regions and United in 2015. Overall, the combined number of visits for Regions, United, and St. Joseph's in 2010 was 9,664 and in 2016 it rose to 13,673. Most of the increase from 2015 to 2016 was driven by increases at United (Figure 5).

Total behavioral health patient visits in emergency department



* St. Joseph's Hospital does not have data available for 2014, so a combined total is not available.

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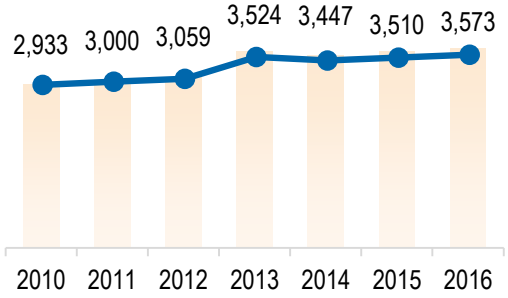
Emergency department wait times have also increased. In 2016, average wait times at St. Joseph's was 22.5 hours, a 492 percent increase from 2010, when we started reporting this data. The median wait time at United was 5.7 hours, which is a 19 percent increase from 2010. The average wait time was not available for the full year at Regions in 2016, but as of June, the average was 12.9 hours, a 61 percent increase since 2010 (Figure 6).

The number of behavioral health admissions from the ED at Regions has been relatively stable in recent years. It appears that the behavioral health beds are consistently at or above capacity due to the high number direct diverts for behavioral health transfers and admissions. This may be attributed, at least in part, to the increasing number of potentially avoidable days, which take up bed space preventing other patients from accessing the beds (Figures 7, 8, & 16).

Number of behavioral health admissions from emergency department: Regions Hospital



Regions reported a steady increase in the number of behavioral health admissions from the emergency department through 2013, when the number leveled off at about 3,500 admissions. The total number of Non-Qualified Admissions (NQAs) for behavioral health has remained relatively low at Regions, and it dropped to 0 in 2016 (Figures 14 & 15).

Wait times for psychiatry at Urgent Care decreased in 2016, along with the total number of psychiatry visits. After increasing to their highest level in early 2016, wait times for psychiatry were at their lowest level by the end of 2016. The total number of psychiatry visits was also at the lowest level since 2014 (Figures 9 & 10).

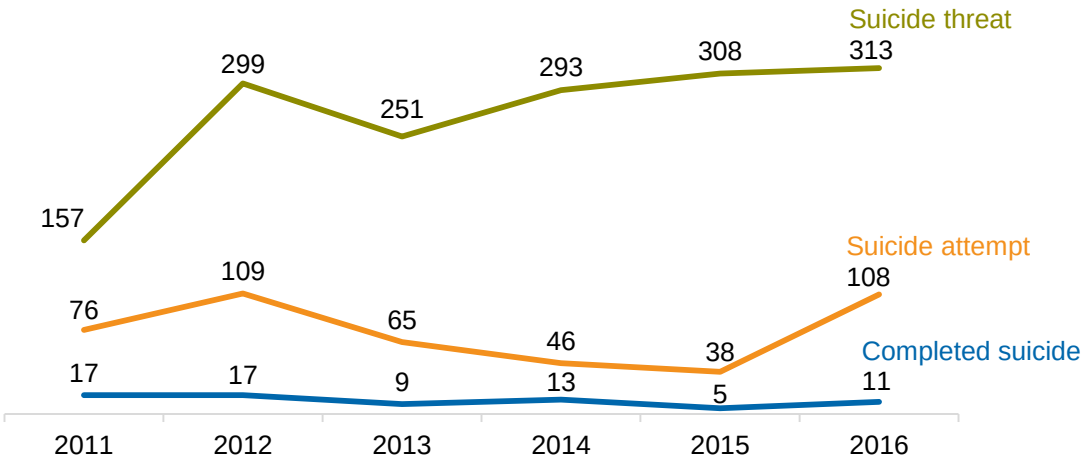
In 2016, only 4 percent of statewide admissions to AMRTC came from St. Paul hospitals, even though these hospitals made 25 percent of all statewide referrals. Similarly, only 11 percent of statewide admissions came from east metro counties, while 27 percent of statewide referrals did (Figure 21).

Community needs

Suicide calls to law enforcement

The number of police calls that are suicide-related threats, attempts, and completions are tracked and reported by the Saint Paul Police Department. Suicide threats have continued to increase since 2011. In 2016, completed suicides were about double what they were in all of 2015, and suicide attempts were three times higher than in 2015 (Figure 1). Since 2011, the total number of suicide-related calls has accounted for approximately one call per every 1,000 Saint Paul residents.

1. Saint Paul Police Department suicide and suicidal behavior tracking, 2011-2016



Suicide rates

According to the Minnesota Department of Health natality and mortality data, the statewide suicide rate has increased since 2012. The rates for Dakota and Ramsey counties increased notably in 2014 and stayed consistent in 2015, while rates in Washington County have remained stable over time (Figure 2).

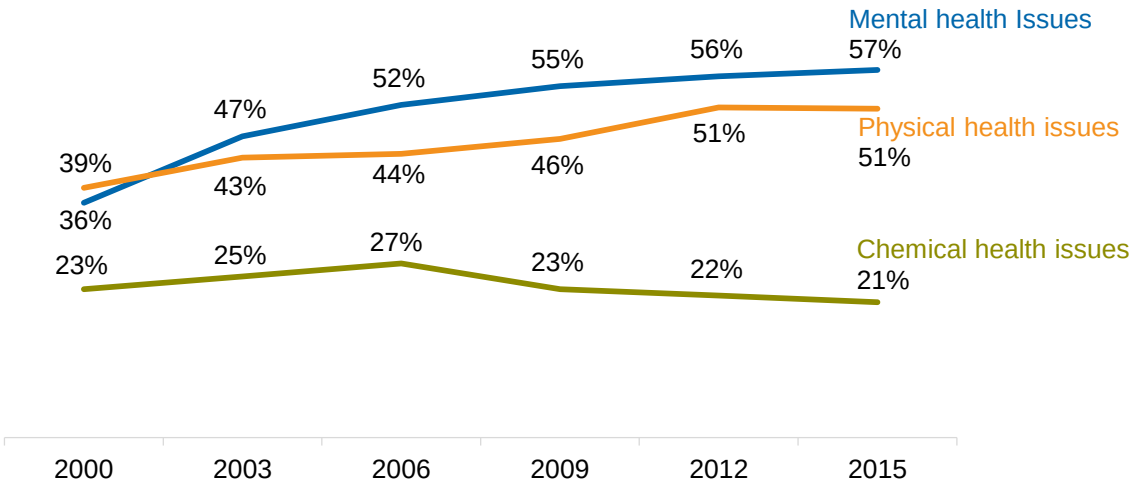
2. Number of suicides, 2009-2015

	2009	2010	2011	2012	2013	2014	2015
Minnesota	584	606	683	656	678	686	726
Dakota County	43	41	63	45	42	52	54
Ramsey County	48	53	58	52	49	71	69
Washington County	23	22	29	25	28	25	21

Homelessness and mental illness

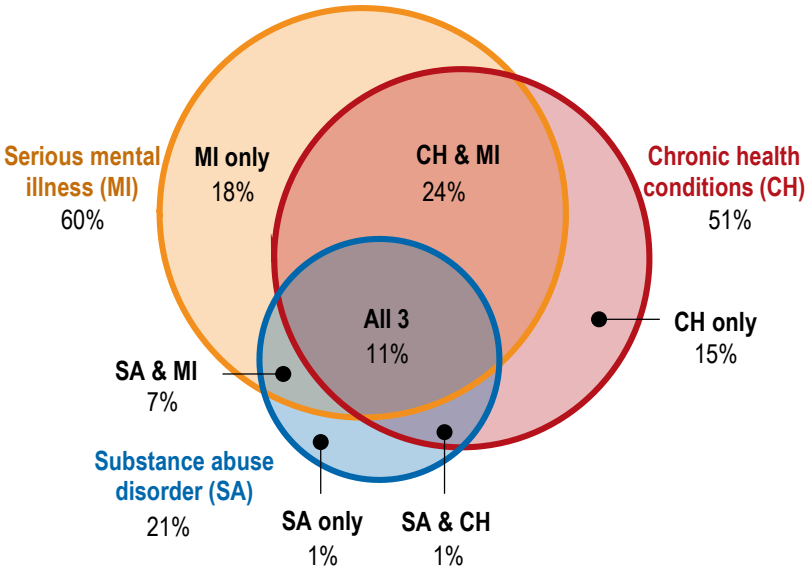
Since 2000, the proportion of homeless adults with mental health and physical health issues has increased in every survey administration. In 2015, over half of adults experiencing homelessness in Minnesota had mental health issues and over half had physical health issues (Figure 3). In 2012, among those adults experiencing homelessness and a serious mental illness, 24 percent also had a chronic health condition, and seven percent also had a substance abuse disorder. Eleven percent had a serious mental illness, chronic health condition, and substance abuse disorder (Figure 4).

3. Physical, mental, and chemical health issues among homeless adults, 2000-2015



Source. Homelessness in Minnesota, 2015 results. Wilder Research, 2016.

4. Incidence and co-occurrence of health conditions among homeless adults



Source. Homelessness in Minnesota, 2015 results. Wilder Research, 2016.

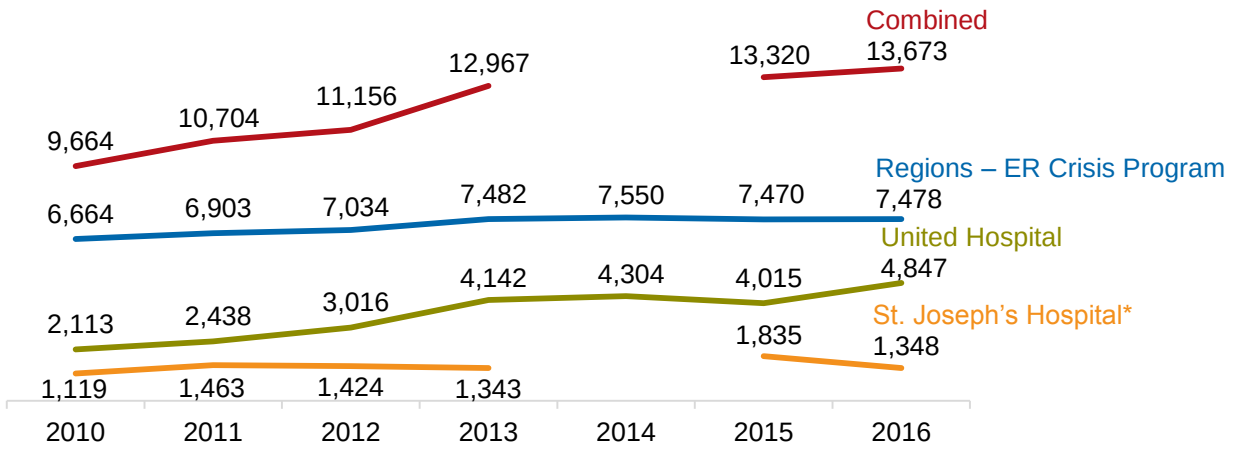
Behavioral health services

Behavioral health-related emergency department (ED) visits

Data collected from east metro hospitals showed an increase in the total number of behavioral health-related emergency department visits over time. The number of behavioral health patients in the ED has remained consistent at Regions, while in 2016 the number increased at United and decreased at St. Joseph's (Figure 4). Urgent Care for Adult Mental Health, which serves any adult experiencing a mental health crisis in Ramsey, Dakota, and Washington Counties, opened in 2011. While the need for emergency department visits continued to increase after that time, the impact of Urgent Care on the number of emergency department visits is evident (Figure 9).

Although there are some data limitations to consider, the data reported by hospitals demonstrate that average (or median) wait times for behavioral health emergency department visits have increased over time. This increase has continued into 2016 (Figure 5), despite similar rates of patients being served from 2015. In 2016, average wait times have increased by 492 percent from 2010 for St. Joseph's. The median wait time has increased by 19 percent since 2010 for United. The average wait time was not available for the full year at Regions in 2016, but as of June, the average was 12.9 hours, a 61 percent increase since 2010.

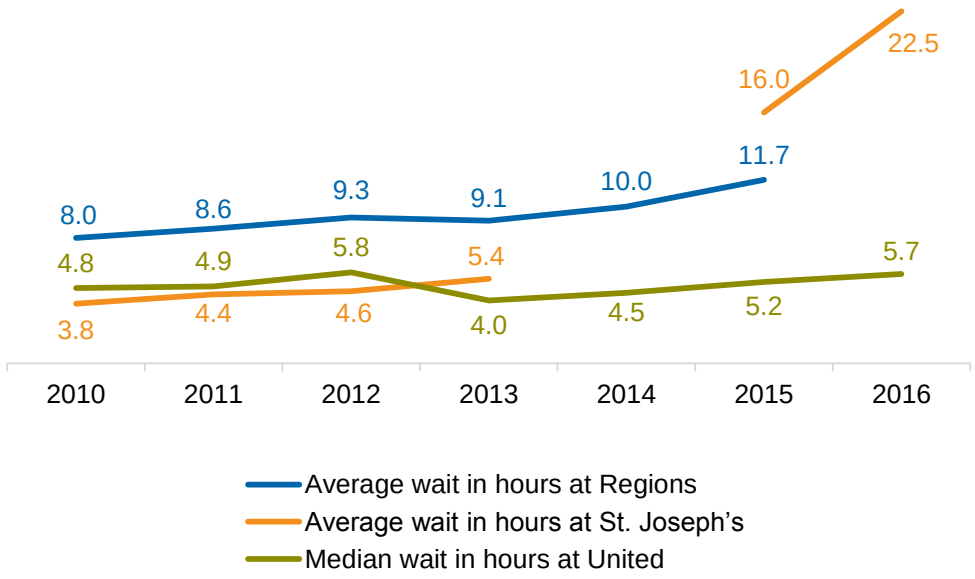
5. Total behavioral health patient visits in emergency department, 2010-2016



Note. The totals refer to the number of patient visits, not unique patients seen at each hospital.

* St. Joseph's Hospital does not have data available for 2014, so a combined total is not available.

6. Average or median time behavioral health patients spent in emergency departments, 2010-2016



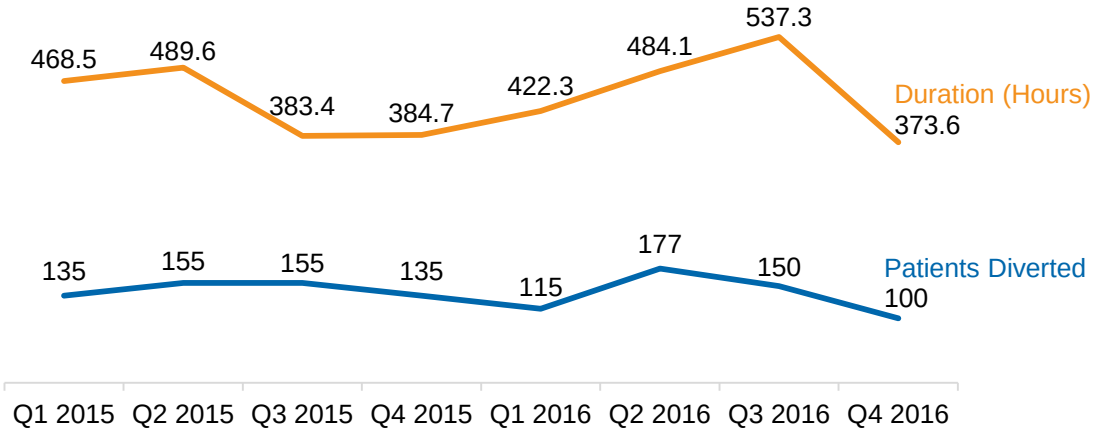
Note. Regions Hospital and St. Joseph's Hospital provided average length of stay rather than median length of stay. United Hospital provided median length of stay rather than average length of stay. St. Joseph's Hospital does not have data available for 2014, and Regions Hospital does not have data available for 2016.

Time spent in the ED was not collected and reported for all patients; patients with invalid or illogical dates/times were excluded from the average. This data should be interpreted with caution by an internal audience only.

Beginning in January 2015, Regions began tracking their mental health closure practice in which the hospital can use a "closed mental health" status (also known as "psych diverts") when the number of mental health patients who are in the emergency department exceeds the department's capacity by 25 percent. When this status is used, emergency personnel (i.e., ambulance and police) with mental health patients who do not require medical intervention will be told to divert the patients to another hospital. As of January 1, 2016, both United and St. Joseph's are also implementing closed mental health status, but their data was unavailable for this report. Prior to January 1, 2016, Regions' closed mental health status included accepting every third patient while on divert. Currently, if a hospital is on closed mental health status, all patients are diverted and if all three hospitals use this status at the same time, patients will be rotated among the hospitals.

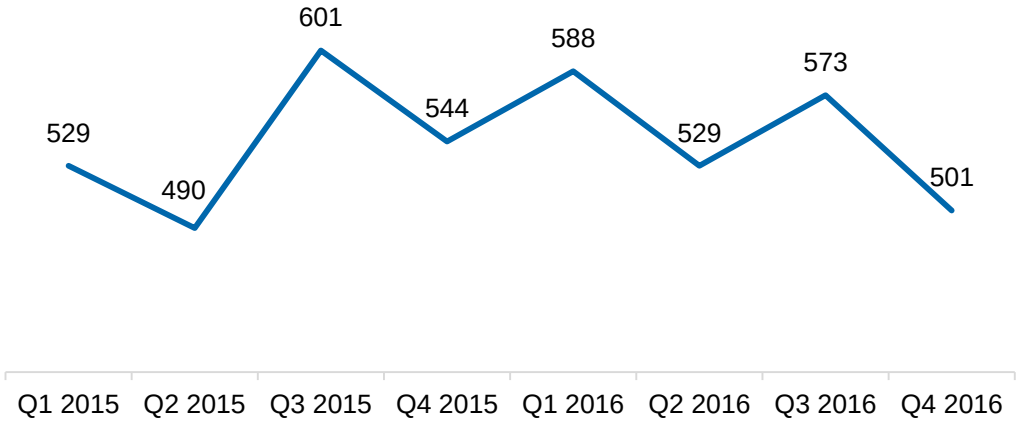
The number and duration of psych visits varied by quarter, with a high in the number of diverts in the second quarter of 2016 and a high in the duration of psych diverts in the third quarter of 2016, before dropping the lowest number and duration in the last quarter of 2016. Over time, the average length of the psych diverts by patient was approximately three hours (Figure 7).

7. Limited ED psych diverts for first responder calls: Regions



In addition, Regions is the only St. Paul hospital that currently tracks direct diverts, which are diverted requests for transfer or admission from other facilities, usually other hospital inpatient units, emergency departments, or primary care clinics. Since 2015, each quarter, there are between approximately 500 and 600 patients diverted from psychiatric transfer or admission (Figure 8). This reflects a high level of need that is unable to be met due to a lack of bed space.

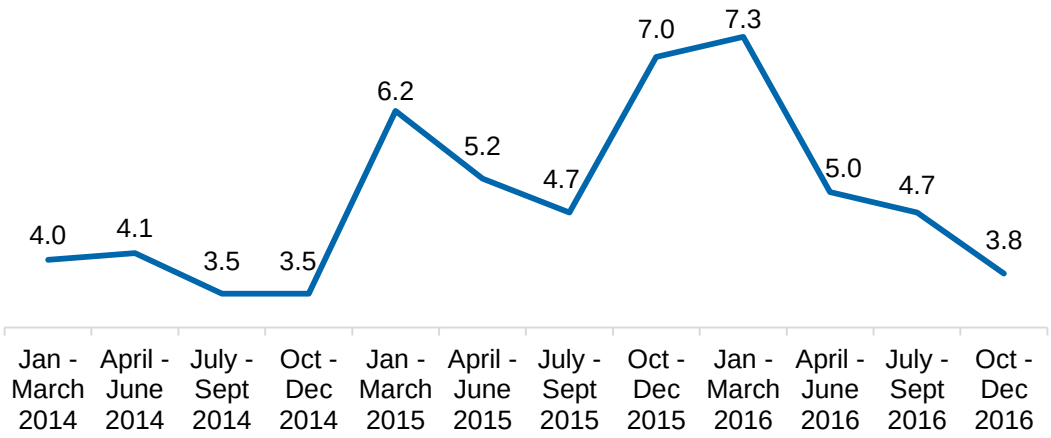
8. Direct diverts for transfer/admission: Regions



Urgent Care utilization

The average wait time for psychiatry at Urgent Care peaked at 7.3 days in the first quarter of 2016. Since then, wait times for psychiatry have been steadily decreasing. The average wait time for psychiatry was 3.8 days for the last quarter of 2016. This is the lowest average wait time in two years (Figure 9).

9. Average wait time for psychiatry at Urgent Care. January 2014 – December 2016



Service utilization at Urgent Care remained relatively stable from 2012 through 2015, and increased in 2016. The Urgent Care completed over 300 more assessments in 2016 than in 2015. This increase is likely because emergency dispatchers have begun to triage calls to the crisis team. Fewer psychiatry visits occurred in 2016 than in past years (Figure 10). This is attributed to a decrease in psychiatry staffing from 2.1 FTE in April 2015 to 0.8 FTE in December 2016.

10. Services received at Urgent Care, January 2012- December 2016

	2012	2013	2014	2015	2016
Assessment	1,500	1,358	1,503	1,573	1,907
Stabilization	360	500	520	506	PENDING
Psychiatry[a]	677[b]	642	733	698	527

[a] Psychiatry appointments were difficult to track in 2012 and 2013. Differences in changes from year to year may be a reflection of differences in how these appointments have been counted/collected, rather than true changes in the amount of service provided.

[b] Does not include November-December 2012

Impact of Urgent Care services

Figure 10 shows likely outcomes for patients if they would not have had access to Urgent Care. This information is gathered using a brief written survey which asks consumers what they would have most likely done if they were unable to receive Urgent Care services. The proportions of consumers in 2016 who reported they would have gone to the emergency department or called 911 if Urgent Care was not available was similar to the last two years (Figure 11).

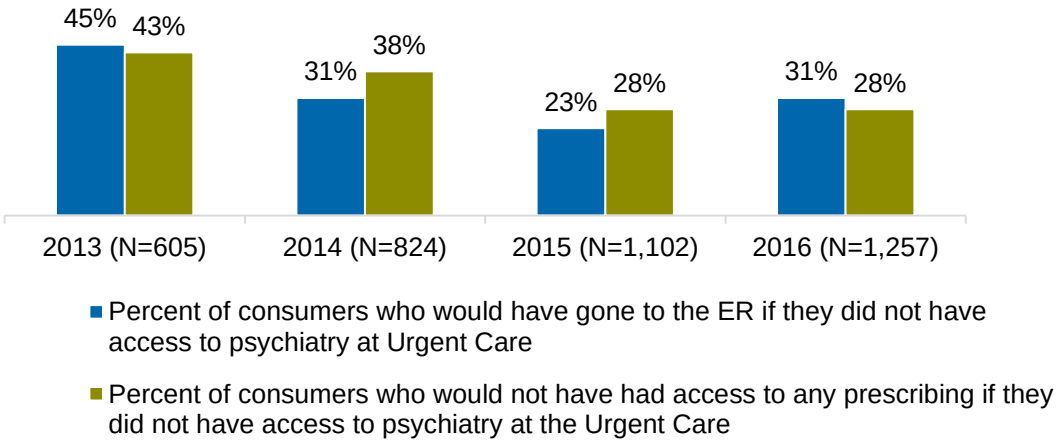
11. Number and percentage of people who would have gone to an emergency department or called 911 if Urgent Care was not available, January 2012 – December 2016

If this person had not been seen by staff from the Urgent Care Center, they would have:	2012 total (N=540) %	2013 total (N=794) %	2014 total (N=962) %	2015 total (N=818) %	2016 total (N=867) %
Gone to the emergency department	26%	17%	14%	15%	16%
Called 911	6%	2%	4%	1%	1%

Note. Other possible response options included: gone to a therapist/other mental health provider, gone to a primary care physician, other, done nothing/don't know. Consumers could select multiple response options.

Another key outcome is to assess potential alternative outcomes for patients who access psychiatry services through Urgent Care. In 2016, staff reported that 31 percent of consumers would have likely needed to go to the emergency department if they had been unable to access services from Urgent Care, an eight percentage point increase from 2015 (Figure 12).

12. Access to psychiatry services from Urgent Care, 2013 – 2016



Note. Some staff may have selected multiple options. Forms received from Urgent Care were assumed to be intake forms unless data from a follow-up visit was included.

Behavioral health hospital admissions

Non-qualified admissions (NQAs)

A Non-Qualified Admission (NQA) occurs when a patient is admitted to inpatient care, but does not meet inpatient admission criteria. The total number of NQAs is relatively low (<1%); however, NQAs increased in 2014 before dropping to zero in 2015 and 2016 (Figure 14).

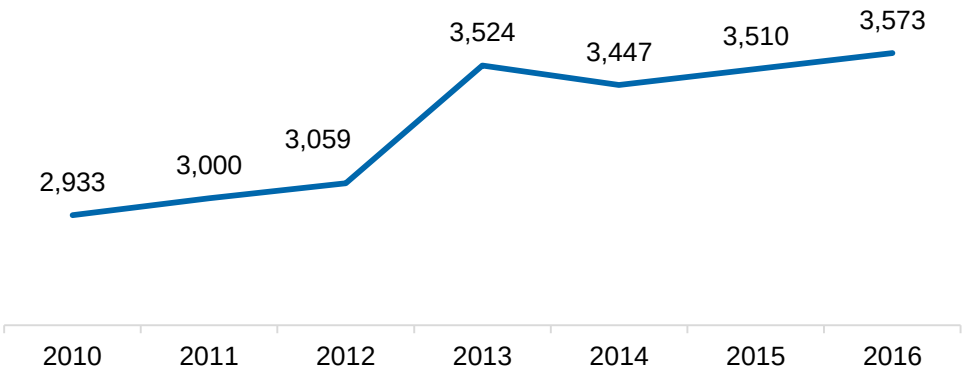
14. Behavioral health Non-Qualified Admissions (NQAs) from ED: Regions, 2010-2016

	2010	2011	2012	2013	2014	2015	2016
Number of NQAs	12	16	10	5	19	0	0
Percent of NQAs	0.4%	0.5%	0.3%	0.1%	0.6%	N/A	N/A

Number of admissions

Behavioral health admissions from the ED rose between 2012 and 2013, when four new beds were opened, but then remained relatively stable through 2016 (Figure 15). It is important to note that the number of potentially avoidable days (PADs) has increased (Figure 16), meaning that patients are staying in the hospital after they are eligible to be discharged. This leaves fewer beds open for new admissions.

15. Number of behavioral health admissions from ED: Regions, 2010-2016

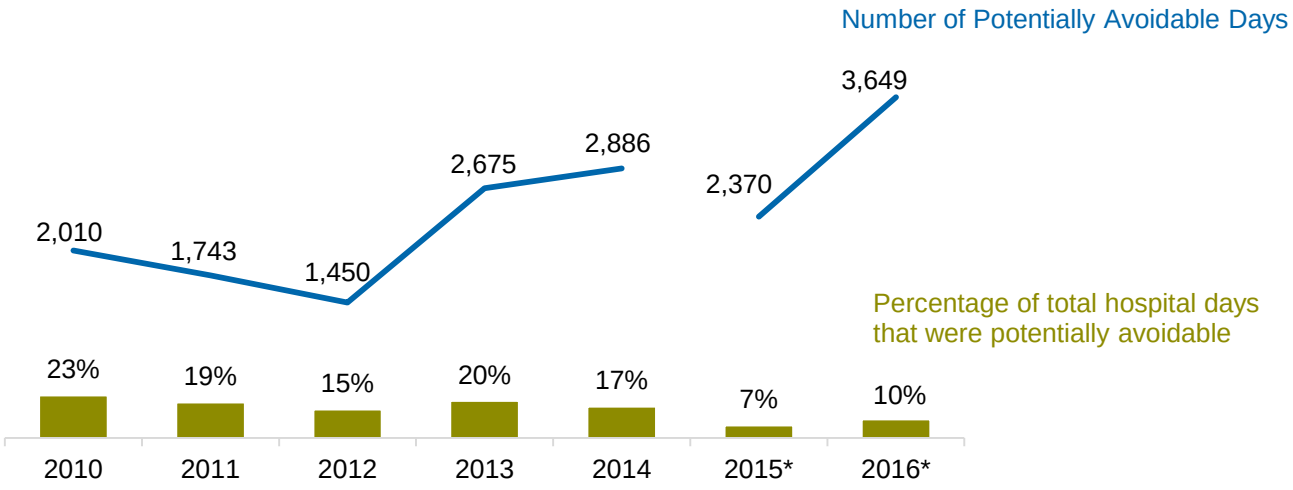


Potentially avoidable days (PADs)

Regions potentially avoidable days over time

Regions also provided data describing the total number of potentially avoidable days (PADs) attributed to behavioral health inpatient stays. A PAD occurs when a patient is stabilized and ready to be discharged to a less intensive level of care, but is unable to be discharged due to internal or external factors. The number and percentage of Regions Hospital PADs decreased in 2015, though they then increased by over 50 percent in 2016. It is important to note that these data changed in February 2015 because Regions social work staff stopped tracking potentially avoidable days due to AMRTC wait lists because patients were rarely, if ever, admitted (Figure 16).

16. Potentially-avoidable days (PADs) for behavioral health patients: Regions, 2010-2016 to-date



* In February 2015, Regions social work staff stopped tracking potentially avoidable days due to AMRTC wait lists.

Overall, the top reasons for potentially avoidable days have stayed consistent from 2015 to 2016. In both years, bed availability at AMRTC was the top reason, with bed availability in chemical dependency treatment, group homes, and IRTS also in the top. In 2016, the proportion of PADs attributed to CADI approvals more than doubled and the proportion attributed to waiting for an IRTS bed was one and a half times greater.

17. Most common reasons for PADs: Regions, 2016

	2015			2016		
	Number of patients*	Number of days	Percent of PADs	Number of patients*	Number of days	Percent of PADs
State psychiatric hospital bed unavailable at AMRTC	15	916	39%	28	1140	31%
IRTS bed not available	21	200	8%	38	440	12%
Chemical dependency treatment bed not available	27	346	15%	25	395	11%
Group home bed not available	10	343	14%	21	416	11%
Awaiting CADI approval	10	113	5%	19	398	11%
Delay due to patient legal involvement, including civil commitment	10	109	5%	8	269	7%
Nursing home bed not available	13	178	8%	13	215	6%
Waiting for a social service or government agency to identify an IRTS placement	8	63	3%	13	157	4%
Hospital bed not available/delay in transfer to medical bed (awaiting accepting MD decision)	2	4	0%	6	98	3%
Non-adherence to plan of care	1	1	0%	7	91	2%
Outpatient service or provider unavailable	7	87	4%	5	29	1%
Awaiting insurance authorization	2	10	0%	1	1	0%

* Patients could have more than one reason for potentially avoidable days during a single stay and more than one stay during the year, so this number is likely duplicated, but it serves as the maximum number of patients per reason.

Minnesota Hospital Association PADs study

From March 15 through April 30, 2016, Regions, St. Joseph's, and United Hospitals, and Anoka Metro Regional Treatment Center (AMRTC) collected PADs as part of a Minnesota Hospital Association statewide pilot study. During the 46-day pilot, these three St. Paul hospitals and AMRTC patients from the east metro had a total of 1,482 potentially avoidable days, which accounted for 16 percent of their total bed days. St. Joseph's, United, and AMRTC's east metro patients had one in five days that were potentially avoidable (Figure 18).

18. Potentially avoidable days (PADs) for behavioral health patients: March 15-April 30, 2016

	Number of PADs	Percent of total days that were PADs
Regions Hospital	631	13%
St. Joseph's Hospital	380	19%
United Hospital	236	21%
AMRTC patients from the east metro	235	22%
Total	1,482	16%

The most common reason for delays during the pilot study was a lack of bed space in chemical dependency treatment (21%), AMRTC (19%), IRTS (14%), and group homes (14%). St. Joseph's was particularly likely to cite bed availability in chemical dependency treatment (46%) as a reason for PADs, while United most commonly cited group home bed space (50%) and Regions cited AMRTC bed space (38%). However, it should be noted that United did not attribute any PADs to AMRTC bed space, which may be due to their staff practice of no longer making referrals to AMRTC due to the significant wait times. This may have also led to under-reporting AMRTC PADs for Regions and St. Joseph's (Figure 19).

19. Most common reasons for PADs: March 15-April 30, 2016

	Percent of days				
	Regions Hospital (N=631)	St. Joseph's Hospital (N=380)	United Hospital (N=236)	AMRTC patients from the east metro (N=211)[b]	Total (N=1458)
Chemical dependency treatment bed not available	18%	46%	9%	0%	21%
State psychiatric hospital bed unavailable at AMRTC[a]	38%	11%	0%	NA	19%
Group home bed not available	8%	0%	50%	18%	14%
IRTS bed not available	14%	17%	14%	7%	14%
Waiting for funding (including CADI waivers and insurance authorization)	4%	8%	0%	27%	8%
Delay due to patient legal involvement (including civil commitment, Rule 20, and patient criminal histories)	<1%	7%	7%	10%	5%
Waiting for a social service or government agency to identify an IRTS placement	10%	0%	0%	2%	4%
Child or adult foster care bed not available	0%	0%	0%	20%	3%

[a] Social work staff reported that AMRTC delays may be under-represented because staff have stopped referring patients to AMRTC due to long wait lists and lack of bed space.

[b] Of the 235 potentially avoidable days for patients in AMRTC from the east metro, 211 had reasons that aligned with the reasons for St. Paul hospitals.

Projected additional beds to address PADs

This pilot study data was also used to estimate the number of additional beds needed in chemical dependency treatment, IRTS, and AMRTC to address the east metro potentially avoidable days attributed to those facilities. The estimated number of beds takes into account the estimated number of patients with PAD days for each reason, as well as the average length of stay in each facility to account for the rate of patient turnover. It should be noted that: these estimates are based on a 46-day sample that may not represent a full year; the average length of stay may not represent the full range of patient turnover; there may be duplication between patients during the 46-day study; and estimates for AMRTC likely under-represent the need because hospitals have stopped viewing AMRTC as a viable referral option. Based on these estimates, there would need to be an additional 32 AMRTC beds, 26 IRTS beds, and 24 chemical dependency treatment beds to serve the east metro alone (Figure 20).

20. Projected bed need to address PADs

	Estimated number of patients	Average length of stay[a]	Estimated number of additional beds needed
CD treatment bed	26 patients	43 days	24 beds
IRTS bed	18 patients	66 days	26 beds
AMRTC bed	11 patients	133 days	32 beds

[a] The average length of stay was provided by the Minnesota Department of Human Services and Anoka Metro Regional Treatment Center

Referrals made to Anoka Medical Regional Treatment Center (AMRTC)

At least one-quarter (24-27%) of AMRTC's statewide referrals in 2014, 2015, and 2016 are for people from the east metro (Figure 21). The east metro population is approximately 21 percent of Minnesota's population, so the rate of referral is greater than the percentage of the population. Regions has consistently referred far more patients to AMRTC than either United or St. Joseph's.

However, in both 2015 and 2016, the proportion of patients admitted to AMRTC from east metro counties or hospitals is lower than the proportion referred. This means that patients from the east metro are not being admitted at the rate they are referred. In particular, only four percent of all admissions were from St. Paul hospitals in 2016, despite one-quarter of referrals coming from these hospitals. This is in contrast to admissions from corrections, in which the proportion admitted exceeds the proportion of patients referred statewide. This is likely due in large part to the 48-hour rule, which gives priority for admission to people from corrections.

21. Percent of people referred and admitted to AMRTC from the East Metro

	2014	2015		2016	
	Percent of statewide referrals (N=1,063)	Percent of statewide referrals (N=892)	Percent of statewide admissions (N=278)	Percent of statewide referrals (N=654)	Percent of statewide admissions (N=252)
From the east metro	24%	24%	11%	27%	11%
Dakota County	8%	8%	3%	9%	4%
Ramsey County	14%	14%	6%	16%	6%
Washington County	2%	2%	2%	2%	2%
From Saint Paul hospitals	21%	19%	5%	25%	4%
Regions Hospital	13%	10%	3%	16%	3%
St. Joseph's Hospital	4%	4%	1%	4%	0%
United Hospital	4%	5%	1%	5%	1%
From corrections/jail statewide	9%	15%	53%	17%	48%

Average wait times between referral and admission for individuals from St. Paul hospitals and east metro counties have far exceeded the statewide averages most quarters of 2016 (Figure 22). The only exception was from July to September 2016. It should be noted that the average wait times, especially for east metro counties and St. Paul hospitals, are based on a very small number of individuals.

22. Average number of days between referral and AMRTC admission or removal from wait list

	Average number of days							
	Jan-Mar 2016		Apr-Jun 2016		Jul-Sept 2016		Oct-Dec 2016	
	N	Days	N	Days	N	Days	N	Days
Days between referral and removal from wait list (statewide)	109	38.7	107	29.4	82	34.2	104	33.2
Days between referral and admission								
Statewide admissions	61	24.5	66	21.4	68	26.8	57	23.2
Admissions for people from east metro counties	8	28.3	3	8.0	12	28.5	5	55.0
Admissions referred from Saint Paul hospitals	2	80.5	1	101.0	6	23.3	1	81.0

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