Community Metrics

2016 Summary Statistics: January through June

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

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 June 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 Hospital in 2015. Overall, the combined number of visits for Regions, United, and St. Joseph's Hospitals in 2010 was 9,664, and in 2015 rose to 13,320. The first half of 2016 appears on track for a similar rate (Figure 4).

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Emergency department wait times have also increased. From January through June 2016, the average wait time at Regions was nearly 13 hours, while at St. Joseph's it was 20 hours. The median wait time at United was nearly 6 hours. Compared to 2010, this accounts for a 426 percent increase in average wait times for St. Joseph's, a 61 percent increase in average wait times for Regions, and a 21 percent increase in median wait times for United (Figure 5).

In 2016, all three St. Paul hospitals started using mental health closure status (i.e., psych diverts), in which patients are diverted to other hospitals for mental health issues because the emergency departments are over capacity**.** In the first half of 2016, the three St. Paul hospitals diverted emergency responders 339 times (Figure 6).

During a 46-day pilot study, the **three east metro hospitals and Anoka Metro Regional Treatment Center (AMRTC) east metro patients had a total of 1,482 potentially avoidable days, accounting for 16 percent of their total bed days** (Figure 14). Potentially avoidable days are days in which is patient is ready to be discharged, but internal or external factors are preventing the discharge. One in five days at St. Joseph's and United were potentially avoidable. The most common reason for delays was a lack of bed space in chemical dependency treatment (21%), AMRTC (19%), Intensive Residential Treatment Services (IRTS; 14%), and group homes (14%; Figure 15).

Wait times for psychiatry at Urgent Care are higher than in years past. The average wait time for psychiatry at Urgent Care was 6.2 days in the first half of 2016, which is longer than the average wait times in 2015 (5.8 days) and 2014 (3.8 days; Figure 10).

To address the potentially avoidable days estimated in a 46-day pilot study, there **would need to be an additional projected 32 AMRTC beds, 26 IRTS beds, and 24 chemical dependency treatment beds** to serve the east metro alone (Figure 16). It should be noted that these are estimates and the actual need may vary.

In the first half of 2016, only 2 percent of statewide admissions to AMRTC came from St. Paul hospitals, even though these hospitals made 25 percent of all statewide referrals. Similarly, only 9 percent of statewide admissions came from east metro counties, while 29 percent of statewide referrals did (Figure 17). The three patients who were admitted from Saint Paul hospitals in the second quarter of 2016 waited 8 days, on average, before admission. This is down from a wait time of about a month in the first quarter of the year.

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 the first half of 2016, completed suicides are already as high as in 2015, and suicide attempts are already nearly twice as high (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	2012	2013	2014	2015	Jan-Jun 2016
Completed suicide	17	17	9	13	5	5
Suicide attempt	76	109	65	46	38	61
Suicide threat	153	299	251	295	308	200

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).

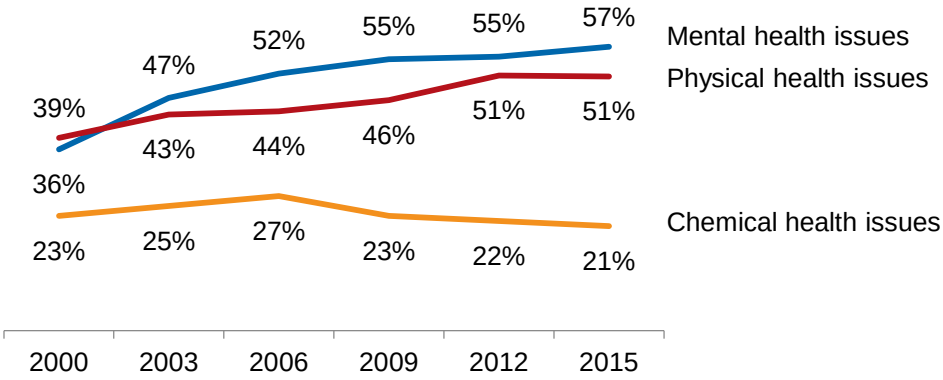
2. Number of suicides, 2009-2015

	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).

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



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. However, there was a decrease in 2015 at Regions and an increase at United and St. Joseph's. Preliminary figures for the first half of 2016 appear to indicate that all three hospitals may have decreases in behavioral health-related emergency department visits, but it is important to note that the estimate from United is not complete due to a lag in coding cases (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 the first half of 2016 (Figure 5), despite similar rates of patients being served from 2015. During the first half of 2016, average wait times have increased by 426 percent from 2010 for St. Joseph's and by 61 percent since 2010 for Regions. The median wait time has increased by 21 percent since 2010 for United.

4. Total behavioral health patient visits in emergency department, 2010-2016, to date

	2010	2011	2012	2013	2014	2015	Jan-Jun 2016
Regions – ER Crisis Program	6,664	6,903	7,034	7,482	7,550	7,470	3,628
St. Joseph's[a]	1,119	1,463	1,424	1,343	N/A	1,835	590
United	2,113	2,438	3,016	4,142	4,304	4,513	1,990[b]
Combined	9,664	10,704	11,156	12,967	N/A	13,320	6,208[b]

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

[b] *United Hospital back-codes data for patient type in the ED and there is a six-month lag in processing data, so this estimate is likely to increase after all data has been coded.*

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

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

	2010	2011	2012	2013	2014	2015	Jan-Jun 2016
Average wait in hours at Regions	8	8.6	9.3	9.1	10	11.7	12.9
Average wait in hours at St. Joseph's	3.8	4.4	4.6	5.4	N/A	16	20
Median wait in hours at United	4.8	4.9	5.8	4	4.5	5.2	5.8[a]

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.

[a] *United Hospital back-codes data for patient type in the ED and there is a six-month lag in processing data, so this estimate is likely to increase after all data has been coded.*

Note: 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.

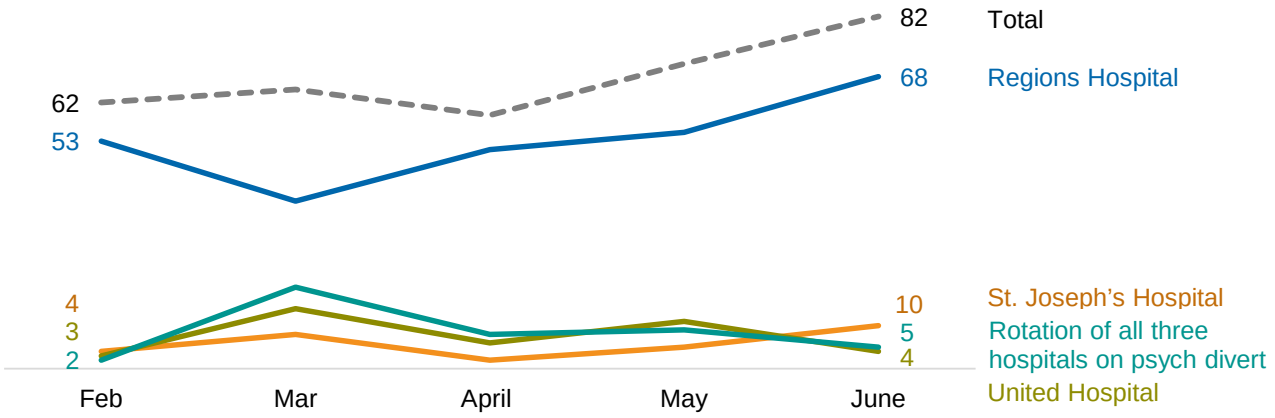
Hospitals turning patients away (diverts)

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. 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.

In January 2016, Regions diverted emergency responder 26 times, while neither United nor St. Joseph's had any diversions. The total number of diverts was highest in June (82 diversions). There were the most instances with all three hospitals on psych divert rotation in March (19 diversions), after which diverts dropped to between 5 and 9 times per month. Regions has had the most psych diverts each month (Figure 6).

6. Number of psych diverts, 2016



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. Throughout 2015, Regions hospital diverted a total of 1,935 requests for transfer. This number is on track for a large increase through August 2016 (Figure 7).

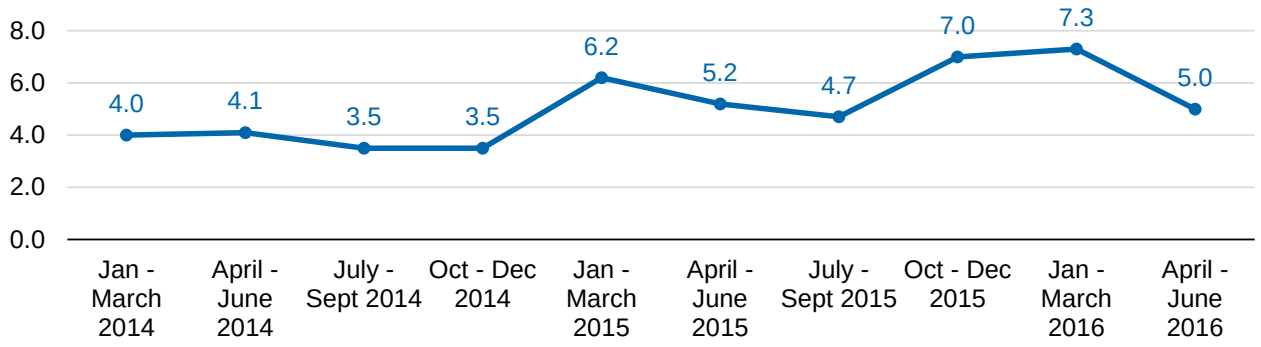
7. Direct diverts for transfer/admission: Regions

	Jan-Dec 2015	Jan-Aug 2016
Regions Hospital	1,935	1,558

Urgent Care utilization

The average wait time for psychiatry at Urgent Care was 6.2 days for the first half of 2016. This is longer than the average wait times in 2015 (5.8 days) and 2014 (3.8 days) (Figure 8).

8. Average wait time for psychiatry at Urgent Care. January 2014 – June 2016



Service utilization at Urgent Care remained relatively stable from 2012 through 2015 (Figure 8). The number of assessments completed during the first half of 2016 is higher than the number completed during the same time period last year. So far in 2016, Urgent Care is on track to provide more face-to-face assessments than in past years, likely because emergency dispatchers have begun to triage calls to the crisis team.

9. Services received at Urgent Care, January 2012- June 2016

	2012	2013	2014	2015	Jan – June 2016
Assessment	1,500	1,358	1,503	1,573	1,021
Stabilization	360	500	520	506	271
Psychiatry[a]	677[b]	642	733	698	270

[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 the first half of 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 10). Although wait times for behavioral health patients at emergency departments have gone up, the Urgent Care continues to divert some consumers from emergency departments.

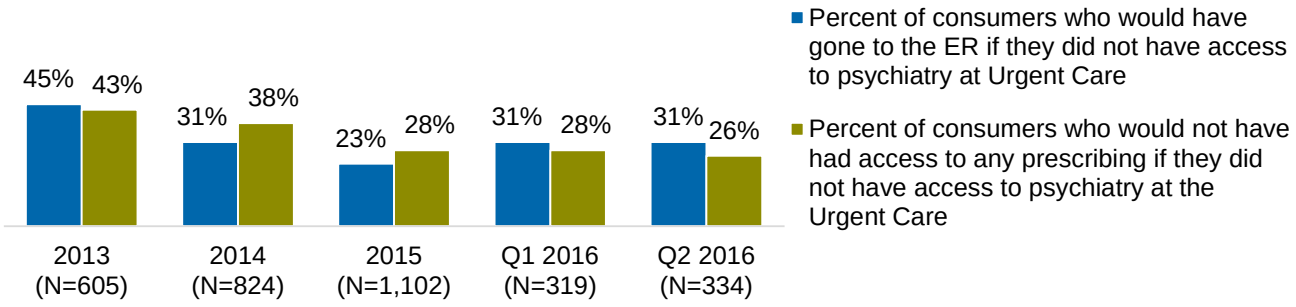
10. Number and percentage of people who would have gone to an emergency department or called 911 if Urgent Care was not available, January 2012 – June 2016

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) %	Q1 2016 (N=251) %	Q2 2016 (N=195) %
Gone to the emergency department	26%	17%	14%	15%	15%	18%
Called 911	6%	2%	4%	1%	2%	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. During the first half of 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 11).

11. Access to psychiatry services from Urgent Care, January 2013 – June 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 the first half of 2016 (Figure 12).

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

	2010	2011	2012	2013	2014	2015	Jan-Jun 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 but then remained relatively stable through 2015. Based on the first half of 2016, admissions are on track to increase slightly (Figure 13).

13. Number of behavioral health admissions from ED: Regions, 2010-2016, to-date

	2010	2011	2012	2013	2014	2015	Jan-Jun 2016
Number of behavioral health admissions from ED	2,933	3,000	3,062	3,524	3,445	3,310	1,792

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 it is on track to increase 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 14).

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

	2010	2011	2012	2013	2014	2015*	Jan-Jun 2016
Number of PADs	2,010	1,743	1,450	2,675	2,886	2,370	1,905
Percent of total days that were PADs	23%	19%	15%	20%	17%	7%	10%

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

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 15).

15. 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 16).

16. 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 17).

17. 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 (24-29%) of AMRTC's statewide referrals in 2014, 2015, and the first half of 2016 are for people from the east metro (Figure 18). 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 the first half of 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 2 percent of all admissions were from St. Paul hospitals, despite one-quarter of referrals coming from these hospitals. Furthermore, there were no admissions from Washington County or St. Joseph's Hospital in the first half of 2016. 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.

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

	2014	2015		Jan-Jun 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=343)	Percent of statewide admissions (N=127)
From the east metro	24%	24%	11%	29%	9%
Dakota County	8%	8%	3%	11%	3%
Ramsey County	14%	14%	6%	16%	6%
Washington County	2%	2%	2%	4%	0%
From Saint Paul hospitals	21%	19%	5%	25%	2%
Regions Hospital	13%	10%	3%	16%	2%
St. Joseph's Hospital	4%	4%	1%	4%	0%
United Hospital	4%	5%	1%	6%	1%
From corrections/jail statewide	9%	15%	53%	18%	39%

Compared to all AMRTC admissions in the first half of 2016, the individuals referred from Saint Paul hospitals had longer average waits before being admitted, though it should be noted that the averages are based on very few cases. Individuals from east metro counties had varied wait times, depending on the quarter (Figure 19).

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

	Average number of days	
	Jan-Mar 2016	Apr-Jun 2016
Days between referral and removal from wait list (statewide)	38.73	29.37
Days between referral and admission		
Statewide admissions (N=61, 66)	24.52	21.42
Admissions for people from east metro counties (N=8, 3)	28.25	8.00
Admissions referred from Saint Paul hospitals (N=2, 1)	80.50	101.00

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OCTOBER 2016