Community Metrics

2017 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 2017.

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.

There has been a consistent increase in the total number of behavioral health-related emergency department visits since 2010 at Regions and United. However, St. Joseph's is on track for a notable decrease from 2016 to 2017. This and the decrease in ED wait times are likely attributed to 12 new behavioral health inpatient beds opening in August 2016 (Figure 4).

Emergency department wait times have decreased slightly after years of notable increases. The average wait times for behavioral health patients in the emergency department have increased steadily from 2010 through 2016. However, during the first half of 2017, the average wait times have decreased for St. Joseph's and Regions, while the median wait times have remained consistent for United (Figure 5).

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 6, 7, & 12).

The total number of psychiatry visits at Urgent Care has decreased throughout 2016 and 2017. In the first half of 2017, the total number of psychiatry visits was at the lowest level since 2014 (Figure 9).

In the first half of 2017, only 5 percent of statewide admissions to AMRTC came from St. Paul hospitals, even though these hospitals made 26 percent of all statewide referrals. Similarly, only 13 percent of statewide admissions came from east metro counties, while 28 percent of statewide referrals did (Figure 8).

Community needs

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 1).

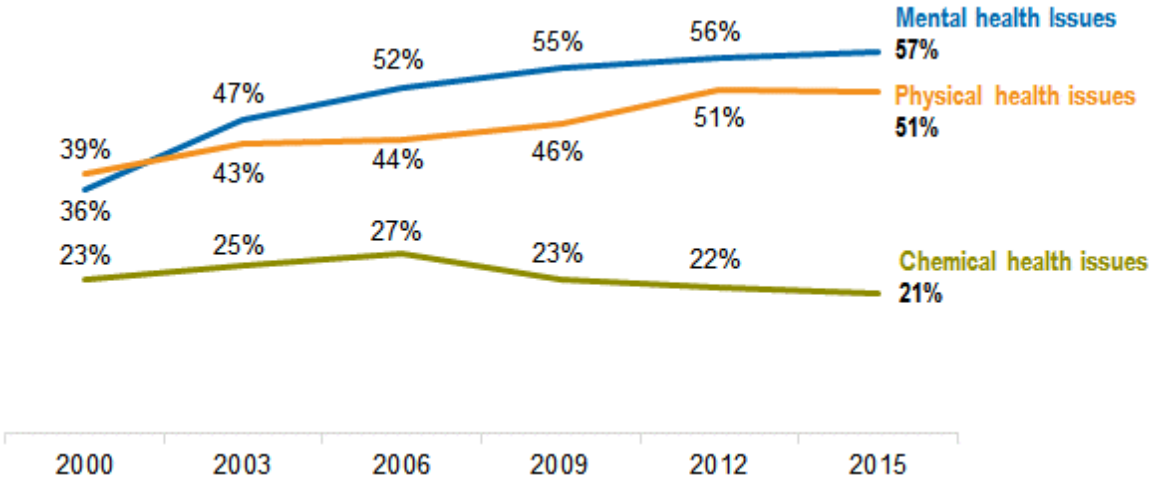
1. Number of suicides, 2009-2015

	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

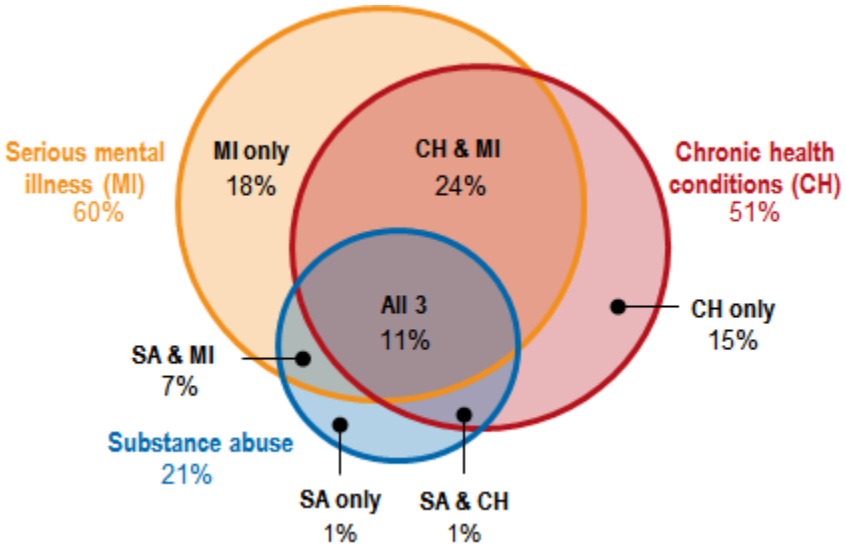
Since 2000, the proportion of homeless adults with mental health and physical health issues has increased in every survey administration. In 2015, over half of adults experiencing homelessness in Minnesota had mental health issues and over half had physical health issues (Figure 2). Among those adults experiencing homelessness, 24 percent had both a serious mental illness and 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 3).

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



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

3. 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

Behavioral health visits in emergency departments has been tracked consistently for Regions and United since 2010 and for St. Joseph's since 2016. Data collected from Regions and United showed an increase in the total number of behavioral health-related emergency department visits over time (Figure 4). However, St. Joseph's is on track for a decrease in the first half of 2017, which is likely do in part to the addition of 12 new inpatient beds which opened in August 2016.

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 generally increased over time. However, the average wait time at St. Joseph's has decreased by 40 percent and the average wait time at Regions decreased by 20 percent during the first half of 2017, while the median wait time at United remained consistent with 2016 (Figure 5). Again, this is likely attributed to increased inpatient bed availability at St. Joseph's and concentrated efforts to reduce wait times at Regions.

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

	2010	2011	2012	2013	2014	2015	2016	Jan-Jun 2017
Regions – ER Crisis Program	6,664	6,903	7,034	7,482	7,550	7,470	7,478	3,880
St. Joseph's[a]	N/A	N/A	N/A	N/A	N/A	N/A	572	153
United	2,113	2,438	3,016	4,142	4,304	4,513	4,847	2,437[b]
Combined Regions and United	8,777	9,341	10,050	11,624	11,854	11,983	12,325	6,317[b]
Combined all three hospitals	N/A	N/A	N/A	N/A	N/A	N/A	12,897	6,470[b]

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

[a] St. Joseph's Hospital began tracking emergency department visits and wait times for behavioral health differently in 2016, so data previous to that date 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.

5. Average or median time behavioral health patients spent in emergency departments, 2010-2017, to-date

	2010	2011	2012	2013	2014	2015	2016	Jan-Jun 2017
Average wait in hours at Regions	8.0	8.6	9.3	9.1	10.0	11.7	12.5	9.9
Average wait in hours at St. Joseph's[a]	N/A	N/A	N/A	N/A	N/A	N/A	25.8	14.4
Median wait in hours at United	4.8	4.9	5.8	4.0	4.5	5.2	5.7	5.8[b]

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.

[a] St. Joseph's Hospital began tracking emergency department visits and wait times for behavioral health differently in 2016, so data previous to that date is not available.

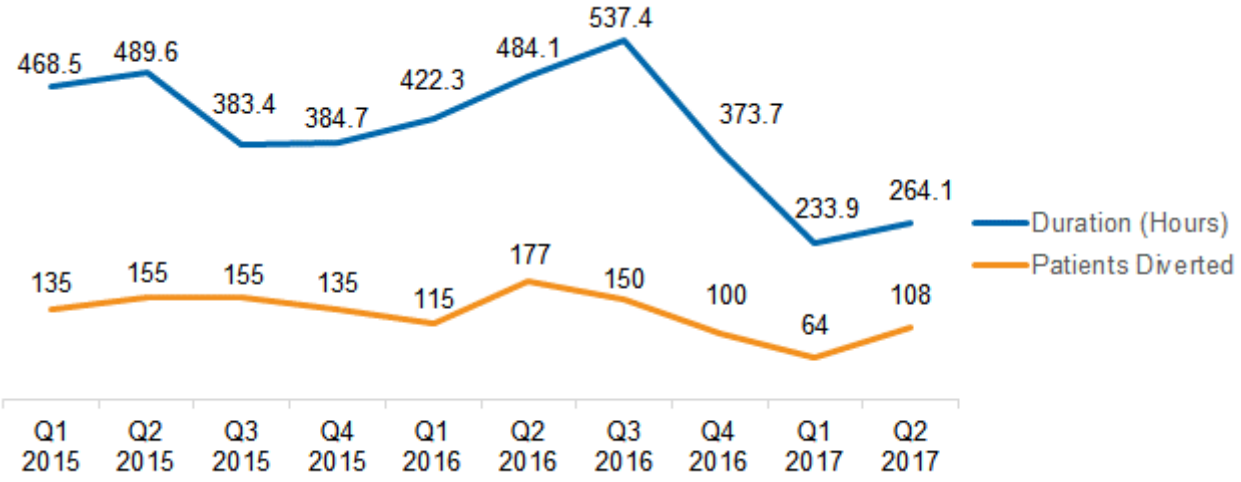
[b] United Hospital back-codes data for patient type in the ED and there is a six-month lag in processing data, so this estimate is likely to increase after all data has been coded.

Behavioral health emergency department psych 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, 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.

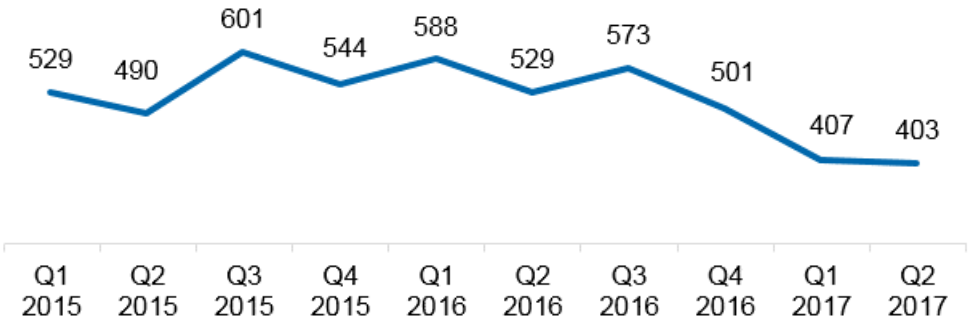
The number and duration of psych diverts varied by quarter, with a high in the number of diverts in the second quarter of 2016 and a high in the duration of psych diverts in the third quarter of 2016, before dropping the lowest number and duration in the first quarter of 2017. Over time, the average length of the psych diverts by patient was approximately three hours (Figure 6).

6. 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. From 2015 through 2016 there were between approximately 500 and 600 patients diverted from psychiatric transfer or admission; however this fell to about 400 patients in the first half of 2017 (Figure 7).

7. Direct diverts for transfer/admission: Regions



Urgent Care utilization

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. The number of assessments completed in the first half of 2017 was on track with the numbers completed in past years. Fewer psychiatry visits occurred in 2016 and in the first half of 2017 than in past years (Figure 8). There was a decrease in psychiatry staffing from 2016 to 2017. On average, there was 1.5 FTE of psychiatry staffing in 2016, and 1.0 FTE in 2017. In addition, services transitioned to a walk-in clinic in 2017. This means we will no longer be able to measure wait times. For the first half of 2017, the number of psychiatry visits is on track to be lower than in past years.

8. Services received at Urgent Care, January 2012- June 2017

	2012	2013	2014	2015	2016	Jan – Jun 2017
Assessment	1,500	1,358	1,503	1,573	1,907	868
Stabilization	360	500	520	506	529	PENDING
Psychiatry[a]	677[b]	642	733	698	527	161

[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 9 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. A lower proportion of consumers reported they would have gone to the ED in the first half of 2017 (Figure 9).

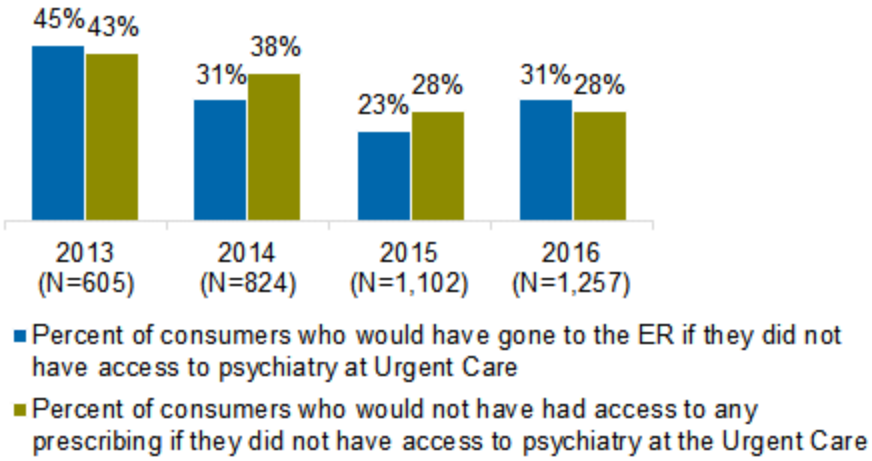
9. Number and percentage of people who would have gone to an emergency department or called 911 if Urgent Care was not available, January 2012 – December 2016

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) %	Jan – June 2017 (N=322) %
Gone to the emergency department	26%	17%	14%	15%	16%	12%
Called 911	6%	2%	4%	1%	1%	2%

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 10). This data is not yet available for 2017.

10. 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 remaining there through the first half of 2017 (Figure 11).

11. Behavioral health Non-Qualified Admissions (NQAs) from ED: Regions, 2010-2017, to date

	2010	2011	2012	2013	2014	2015	2016	Jan-Jun 2017
Number of NQAs	12	16	10	5	19	0	0	0
Percent of NQAs	0.4%	0.5%	0.3%	0.1%	0.6%	N/A	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. In the first half of 2017, admissions are on track for a slight increase (Figure 12). It is important to note that the number of potentially avoidable days (PADs) has increased (Figure 13), meaning that patients are staying in the hospital after they are eligible to be discharged. This leaves fewer beds open for new admissions.

12. Number of behavioral health admissions from ED: Regions, 2010-2017, to date

	2010	2011	2012	2013	2014	2015	2016	Jan-Jun 2017
Number of behavioral health admissions from ED	2,933	3,000	3,062	3,524	3,445	3,310	3,573	1,810

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 and are on track for a slight increase in 2017. 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 13).

13. Potentially-avoidable days (PADs) for behavioral health patients: Regions, 2010-2017, to date

	2010	2011	2012	2013	2014	2015*	2016	Jan-Jun 2017
Number of PADs	2,010	1,743	1,450	2,675	2,886	2,370	3,649	1,859
Percent of total days that were PADs	23%	19%	15%	20%	17%	7%	10%	10%

* 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 stayed consistent from 2015 to 2016. However, there are some changes in the first half of 2017 (Figure 14). While bed availability at AMRTC remains a top reason, it is now tied with bed availability at group homes. Bed availability

in IRTS are also making up a larger proportion of PADs, as well as waiting for an IRTS placement. Fewer days were attributed to waiting for a CADI approval to-date in 2017.

14. Most common reasons for PADs: Regions, 2015-2017, to date

	Percent of PADs		
	2015 (N=2,370)	2016 (N=3,649)	Jan-Jun 2017 (N=1,859)
State psychiatric hospital bed unavailable at AMRTC	39%	31%	20%
Group home bed not available	14%	11%	20%
IRTS bed not available	8%	12%	18%
Waiting for a social service or government agency to identify an IRTS placement	3%	4%	17%
Chemical dependency treatment bed not available	15%	11%	15%
Nursing home bed not available	8%	6%	4%
Awaiting CADI approval	5%	11%	2%
Outpatient service or provider unavailable	4%	1%	2%
Delay due to patient legal involvement, including civil commitment	5%	7%	1%
Hospital bed not available/delay in transfer to medical bed (awaiting accepting MD decision)	<1%	3%	<1%
Non-adherence to plan of care	<1%	2%	<1%
Awaiting insurance authorization	0%	0%	1%

* 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.

Referrals made to Anoka Medical Regional Treatment Center (AMRTC)

At least one-quarter (24-28%) of AMRTC's statewide referrals have consistently been for people from the east metro (Figure 15). 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, each year, 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 five percent of all admissions were from St. Paul hospitals from January through June 2017, despite over 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.

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

	2014	2015		2016		Jan-Jun 2017	
	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)	Percent of statewide referrals (N=355)	Percent of statewide admissions (N=146)
From the east metro	24%	24%	11%	27%	11%	28%	13%
Dakota County	8%	8%	3%	9%	4%	7%	0%
Ramsey County	14%	14%	6%	16%	6%	21%	12%
Washington County	2%	2%	2%	2%	2%	1%	1%
From Saint Paul hospitals	21%	19%	5%	25%	4%	26%	5%
Regions Hospital	13%	10%	3%	16%	3%	18%	3%
St. Joseph's Hospital	4%	4%	1%	4%	0%	4%	1%
United Hospital	4%	5%	1%	5%	1%	5%	1%
From corrections/ jail statewide	9%	15%	53%	17%	48%	14%	48%

There has been a great deal of variation in average wait times between referral and admission for individuals from St. Paul hospitals and east metro counties (Figure 16). This is likely attributed to the small number of individuals, at least in part. In the most recent quarter, average wait times for individuals from east metro counties and St. Paul hospitals were similar to the statewide wait times, and far lower than the quarter before.

16. 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		Jan-Mar 2017		Apr-Jun 2017	
	N	Days	N	Days	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	93	47.1	116	35.0
Days between referral and admission												
Statewide admissions	61	24.5	66	21.4	68	26.8	57	23.2	74	53.1	72	18.7
Admissions for people from east metro counties	8	28.3	3	8.0	12	28.5	5	55.0	11	85.0	8	17.0
Admissions referred from Saint Paul hospitals	2	80.5	1	101.0	6	23.3	1	81.0	3	113.7	4	27.8

Appendix

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 A1).

A1. 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 A2).

A2. 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 A3).

A3. 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

List of indicators no longer collected

Below is a list of indicators that are no longer included in Metrics reports. Notes about the data source and the reason each indicator is no longer in the Metrics reports are also included.

Source: St. Paul police department	
Indicator: • Suicide-related police and sheriff calls	• SPPD is not able to pull this data anymore. This data was calculated manually, and was only reported out to the Roundtable. • SPPD is launching a new data system in 2018. This data may become available again when the new data system is in place.
Source: DHS	
Indicators: • Number of adults who received the following services: TCM, ACT, ARMHS, crisis assessment, stabilization, or treatment services	• The measurement committee recommended removing this data from reports, due to some concerns about the reliability and meaningfulness of the data.
Source: Urgent Care	
Indicators: • Wait times for psychiatric care at the Urgent Care	• The Urgent Care now has a walk-in model for psychiatric care. They still collect the number of people seen for appointments, but can no longer track wait times.
Source: Counties (Dakota, Washington, and Ramsey)	
Indicators: • Number and percent of people in jails/workhouses who were screened for mental health concerns; • Number and percent of people in jails/workhouses who were screened and had elevated screening scores; • Number and percent of people in jails who receive assessments from the Urgent Care	• These indicators are reported as unreliable by each county. • The Measurement Committee is exploring other sources of data that may help us better understand the intersection of mental health and corrections.

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