



Wilder Research®
Information. Insight. Impact.

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

RESULTS FROM THE 2023 HEALTH BEHAVIORAL HEALTH DATA COLLECTION

07/15/2024

Authors and acknowledgements

This study was funded by the Minnesota Department of Health.

Lead Researchers: Kristin Dillon (Wilder Research), Miamoua Vang (Wilder Research), Nathan Hierlmaier (Minnesota Department of Health)

Project Sponsor: Stefan Gildemeister

Acknowledgments: We would like to thank Dr. Michael Trangle, MD for helping to develop the project scope and tools. We also offer our sincere recognition to the hospital staff who shared their time, energy, insight, and experiences with the State to inform this study. Their contributions were invaluable in the production of this report.

Emergency Departments

- CHI St. Joseph's Health Hospital
- Cook Hospital
- Ely-Bloomenson Community Hospital
- HealthPartners - Methodist Hospital
- M Health Fairview Grand Itasca Hospital
- M Health Fairview Lakes Medical Center
- M Health Fairview Masonic Children's Hospital
- M Health Fairview Northland Medical Center
- M Health Fairview Range Medical Center
- M Health Fairview Ridges Hospital
- M Health Fairview Southdale Hospital
- M Health Fairview St. John's Hospital
- M Health Fairview University of Minnesota Medical Center - East Bank
- M Health Fairview University of Minnesota Medical Center - West Bank
- M Health Fairview Woodwinds Hospital
- Madison Healthcare Services
- Pipestone County Medical Center
- Sanford Laverne Medical Center

- Sanford Medical Center Thief River Falls
- Stevens Community Medical Center
- Windom Area Health

Inpatient Units Alone

- PrairieCare

Emergency Departments and Inpatient units

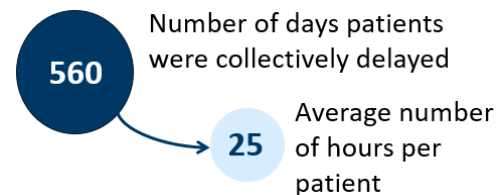
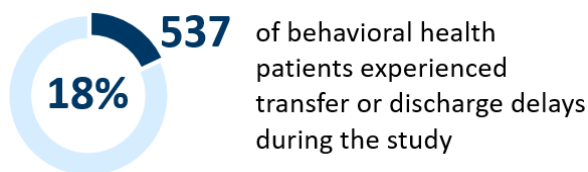
- Allina Health - Abbott Northwestern Hospital
- Allina Health - Mercy Hospital
- Allina Health - Mercy Hospital - Unity Campus
- Allina Health - United Hospital
- Avera Marshall Regional Medical Center
- Children's Minnesota
- Essentia Health Duluth
- HealthPartners - Regions Hospital
- Hennepin Healthcare - HCMC
- North Memorial Health Hospital
- Sanford Jackson Medical Center
- St. Luke's Hospital of Duluth

Reasons for Behavioral Health *Emergency Department* Delays at Minnesota Hospitals

RESULTS FROM THE MINNESOTA DEPARTMENT OF HEALTH 2023 DATA COLLECTION

The Minnesota Department of Health contracted with Wilder Research to conduct a study of transfer and discharge delays in emergency departments (otherwise known as ‘boarding’) across the state for patients with behavioral health conditions. Boarding is defined as when a patient remains in the emergency department for more than four hours once a decision is made about where they should go next and if additional treatment is required (i.e., disposition decision). Data was collected by 33 emergency departments during a 14-day period between September 5, 2023, and October 20, 2023.

Rates of Emergency Department Transfer and Discharge Delays



Top Reasons for Emergency Department Transfer and Discharge Delays

		Patients (N=537)	Days (N=560)
	Inpatient psychiatric bed not available	59%	311
	Delay in creating or implementing care plan/execution of Medical Doctor's discharge orders	14%	52
	Chemical dependency treatment/ Community Addiction Recovery Enterprise Program (CARE) facility bed not available	5%	19
	Patient non-adherence to plan of care/refusal of placement	5%	14



Participating Hospitals

Allina Health - Abbott Northwestern Hospital
Allina Health - Mercy Hospital
Allina Health - Mercy Hospital - Unity Campus
Allina Health - United Hospital
Avera Marshall Regional Medical Center
Children's Minnesota
CHI St. Joseph's Health Hospital
Cook Hospital

Ely-Bloomenson Community Hospital
Essentia Health Duluth
HealthPartners - Methodist Hospital
HealthPartners - Regions Hospital
Hennepin Healthcare - HCMC
M Health Fairview Grand Itasca Hospital
M Health Fairview Lakes Medical Center
M Health Fairview Masonic Children's Hospital
M Health Fairview Northland Medical Center

M Health Fairview Range Medical Center
M Health Fairview Ridges Hospital
M Health Fairview Southdale Hospital
M Health Fairview St. John's Hospital
M Health Fairview University of Minnesota Medical Center - East Bank
M Health Fairview University of Minnesota Medical Center - West Bank
M Health Fairview Woodwinds Hospital

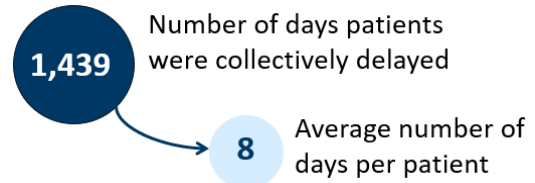
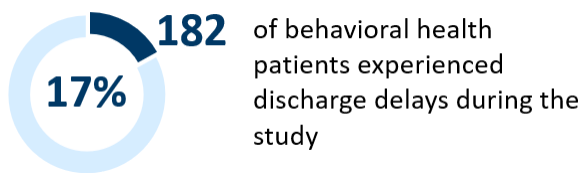
Madison Healthcare Services
North Memorial Health Hospital
Pipestone County Medical Center
Sanford Jackson Medical Center
Sanford Luverne Medical Center
Sanford Medical Center Thief River Falls
St. Luke's Hospital of Duluth
Stevens Community Medical Center
Windom Area Health

Reasons for Behavioral Health *Inpatient* Delays at Minnesota Hospitals

RESULTS FROM THE MINNESOTA DEPARTMENT OF HEALTH 2023 DATA COLLECTION

The Minnesota Department of Health contracted with Wilder Research to better understand the frequency and reasons for discharge delays in inpatient care for individuals with behavioral health conditions. Data was collected by 13 hospitals during a 14-day period between September 5, 2023, and October 20, 2023.

Rates of Inpatient Discharge Delays



Top Reasons for Discharge Delays

		Patients (N=182)	Days (N=1,439)
—	Intensive Residential Treatment Services (IRTS) bed not available	18%	250
🕒	Delay due to patient civil commitment	13%	197
—	Chemical dependency treatment/Community Addiction Recovery Enterprise Program (CARE) facility bed not available	10%	98
—	State psychiatric hospital bed unavailable at a Community Behavioral Health Hospital (CBBH) or Anoka Metro Regional Treatment Center (AMRTC)	8%	120
...	Awaiting MNChoices process or Community Access for Disability Inclusion Waiver (CADI) approval/rate agreement	7%	90
—	Group home bed not available	7%	88
—	Nursing home/memory care bed not available	6%	84



Participating Hospitals

Allina Health - Abbott Northwestern Hospital
Allina Health - Mercy Hospital
Allina Health - Mercy Hospital - Unity Campus

Allina Health - United Hospital
Avera Marshall Regional Medical Center
Children's Minnesota
Essentia Health Duluth
HealthPartners - Regions Hospital

Hennepin Healthcare - HCMC
North Memorial Health Hospital
PrairieCare
Sanford Jackson Medical Center
St. Luke's Hospital of Duluth

Contents

Background.....	1
Study purpose	1
Study description	1
Emergency Department transfer and discharge delays	3
Rate of transfer and discharge delays in emergency departments.....	3
Reasons for transfer and discharge delays in emergency departments.....	4
Discharge and transfer destination for emergency department patients.....	6
Emergency department patient characteristics.....	8
Patient characteristics associated with emergency department transfer and discharge delays	10
Inpatient units (IP) discharge delays.....	12
Rate of discharge delays in inpatient units	12
Reasons for discharge delays in inpatient units.....	12
Discharge destination for inpatient hospital patients	15
Inpatient hospital patient characteristics	16
Patient characteristics associated with inpatient discharge delays.....	19
Implications	20
References	22
Appendix.....	25
A. Emergency Department definitions for transfer or discharge delay reasons	25
B. Inpatient unit definitions for discharge delay reasons	28
C. Detailed study methods	31

Tables

Table 1: Participating study hospital share of behavioral health emergency department and inpatient discharges by geographic region in Minnesota.....	4
Table 2: Reasons for transfer and discharge delays in emergency departments	4
Table 3: Discharge location for emergency department patients	6
Table 4: ED admission characteristics of patients experiencing discharge delays	7
Table 5: Demographic characteristics of ED patients with discharge delays.....	7
Table 6: Patient characteristics associated with ED discharge delays	9
Table 7: Reasons for discharge delays in inpatient care.....	11
Table 8: Discharge location for inpatient patients	13
Table 9: Inpatient admission characteristics of patients with discharge delays	14
Table 10: Demographic characteristics of patients experiencing discharge delays	15
Table 11: Patient characteristics associated with discharge delays	16

Background

Study purpose

The mental health and addiction treatment system often fails to serve Minnesotans experiencing a behavioral health crisis. Patients can be deemed ready for admission, transfer, or discharge but remain for days, weeks, or even longer in a hospital emergency department (ED) or inpatient (IP) psychiatric units (Minnesota Medical Association/Minnesota Chapter, American College of Emergency Physicians, 2023). These delays inhibit the optimal provision of care and cause stress for patients, families, and hospitals. These circumstances are also economically inefficient, as hospital-based care is more expensive than most community-based care. For example, a recent report by the Minnesota Department of Human Services found that the state agency paid \$21.43 an hour for adult behavioral health day treatment and about \$164 per hour for physician fees in inpatient hospital care, not counting room and board expenses (Minnesota Department of Human Services, 2024; and Centers for Medicare & Medicaid Services, 2024). Because reasons for transfer and discharge delays are complex and can result from barriers in systems outside of the hospitals' control, it is critical to assess mental health care access issues beyond the ED and inpatient settings. Being able to quantify those issues is a first step to better help to address them.

To gain additional insights, the Minnesota Department of Health (MDH) partnered with Wilder Research to measure the volume and reasons for behavioral health transfer and discharge delays for emergency departments and inpatient units in Minnesota-based hospitals. The goal of this study is to approximate service needs—both inside and outside of hospitals in surrounding communities—to inform policy and practice within the mental health infrastructure in Minnesota.

Study description

MDH directly invited 128 Minnesota hospitals to participate in the study and hosted an informational webinar with Wilder Research in the months leading up to it. A total of 34 Minnesota hospitals volunteered to participate in the study, increasing the number of facilities that were part of a previous iteration of this study by 12 (Dillon & Thomsen, 2017). Hospitals were able to define which patients they identified as behavioral health patients for this study. In most cases, patients in the study had either a primary or secondary behavioral health diagnoses.

MDH analysis of hospital discharge data for behavioral health patients in the most recent year of complete data (2022) found that hospitals participating in this study comprised the majority (57.3%) of statewide emergency department (ED) visits and nearly half (46.6%) of inpatient (IP) admissions. Table 1 shows that the study sample from participating hospitals reached all geographic regions of the state, and the study team has no reason to believe that delay challenges in these hospital settings were not generalizable to other facilities in the state. However, there were certain geographic regions of the state that were either less or minimally represented.

The study sample included 18 EDs and five IP units in Greater Minnesota (11 Critical Access Hospitals), and were highly representative of the Northeast and Twin Cities metropolitan areas that act as regional referral centers

for a broader geographic service area. Nevertheless, robust participation from facilities affiliated with CentraCare, Mayo Clinic, M Health Fairview, and Sanford Health in a future study would meaningfully improve understanding of access barriers for behavioral health patients.

Table 1: Participating study hospital share of behavioral health emergency department and inpatient discharges by geographic region in Minnesota

Geographic Region of Minnesota	Participating hospital percent of behavioral health ED discharges from that region	Participating hospital percent of behavioral health IP discharges from that region*
Central	21.0%	28.5%
Metropolitan (Twin Cities)	82.2%	58.1%
Northeast	60.4%	58.7%
Northwest	34.6%	8.5%
South Central	2.2%	18.4%
Southeast	2.0%	10.9%
Southwest	29.8%	38.8%
West Central	10.9%	7.0%

Source: Minnesota Department of Health analysis of hospital discharge data from 2022.

*While the study included PrairieCare data, these discharge data figures exclude this hospital. Therefore, inpatient participation is likely higher, particularly in the Twin Cities.

The definition of a transfer or discharge delay differs for each setting:

- In the emergency department (ED), discharge or transfer delays are defined as when a patient remains in the ED longer than four hours after a decision is made about where they should receive care (i.e., disposition decisions). This definition aligns with the Joint Commission patient flow standards (Standard LD.04.03.11; The Joint Commission, 2013). Stays longer than this four-hour timeframe is commonly considered “boarding” in the emergency department.

Under the federal Emergency Medical Treatment and Labor Act (EMTALA), and associated regulations, hospitals are required to stabilize and treat patients referred to the facility from emergency departments regardless of insurance status and ability to pay. This means that the ED can be a primary entry point for most behavioral health patients. Nevertheless, boarding patients may experience a loud and chaotic setting that can worsen underlying conditions. Boarding may also mean that patients can be placed in cramped settings, like hallways or ambulance bays in extreme situations where EDs are at capacity.

- In inpatient care, a delay occurs when a behavioral health patient is stabilized and ready to be discharged or transferred but, for a range of reasons, is unable to be discharged. These patients still require some treatment, but no longer need hospital-level care.

All hospitals used an online tool to enter data about patients experiencing transfer and discharge delays. All patients were identified by a random identification number exclusively used for the study to protect confidentiality.

Twenty-one hospitals included only emergency departments in the study, one hospital included only inpatient units, and twelve hospitals included both. This report reflects results for the 45-day data collection period, from September 5, 2023, through October 20, 2023, during which hospital sites chose a two-week (14 day) period to collect data. The study team and hospitals have no reason to believe this period is not representative of other times during the past year. See Appendix for more details about the study design.

Emergency Department transfer and discharge delays

Rate of transfer and discharge delays in emergency departments

Across the 33 hospitals participating emergency departments, approximately 3,064 behavioral health patients were treated in the 14-day study period selected by each hospital. Of those, 537 patients (or 18%) experienced a discharge delay, meaning they were still in the emergency department four hours after a disposition decision. Collectively, these patients were delayed for 560 days (13,442 hours), with an average of 1 day (25 hours) per patient (median=14 hours).

Patient discharge delays ranged from one to 14 days, with 14 days being the maximum number due to length of the study period. Anecdotal evidence suggests the ED transfer and discharge delay can substantially exceed 14 days. Approximately 6% of patients had discharge delays that started prior to the study start date, and these delays ranged from one hour to 18 days in the ED prior to the study start date (median=38 hours). In addition, 5% of patients were experiencing a delay at the close of the study. These additional days are not included in the study, but they highlight the importance of considering this study as a point-in-time estimate and signal that these results are likely an underestimate.

Patients who were 17 years or younger (youth) accounted for 20% of the patients who experienced a transfer or discharge delay, and they had an average of one delay day (27 hours) per patient (median=15 hours). Patients who were 18 years or older (adults) accounted for 80% and were also delayed for an average of one day (25 hours) per patient (median=14 hours).

Statistical testing was conducted to determine whether any patient or admission characteristics (i.e., state of residence, insurance coverage, age, gender, race, discharge location, distance traveled from home to hospital) were significantly associated with the duration of discharge delays. No statistically significant results (at $p < .05$) were found. It is possible that there are unmeasured patient characteristics contributing to the duration of stay, but the individual patient characteristics described above did not influence the length of delay.

Reasons for transfer and discharge delays in emergency departments

Hospitals identified the reasons for a discharge delay from a list of 28 possible options grouped into four broader categories (Table 2). These options and categories were generated based on earlier work and informed by hospital staff and experts in the field (Dillon & Thomsen, 2017); detailed definitions of these reasons can be found in the Appendix (Table A1). Among these categories, lack of space or wait list in safe setting accounted for most (66%) of the total number of delay days, 11% of days were due to internal staffing delays, and another 13% of days were from external social service or government agency delays. The top specific reasons provided included the following:

- **Lack of Inpatient beds:** The reason that affected the most patients was the lack of inpatient psychiatric beds (59%). This reason also accounted for the highest discharge delay days at 311 days (7,466 hours; median=14 hours) which is over half of the total discharge delay days (56%). This reason affected half (53%) of patients who were age 17 or younger and 60% of those age 18 or older.
- **Care Plans and Discharge Orders:** 14% of patients experienced a delay in creating or implementing care plans or execution of MD discharge orders, which accounted for 52 of the total delay days (1,238 hours; median=12 hours).

While youth and adults had similar rates of delays attributed to most reasons, a notable difference was that a larger proportion of patients aged 17 or younger experienced a delay due to a lack of consent or cooperation by decision-makers compared to patients 18 or older (11% vs. 0%).

Although affecting only 1% or less of patients, delays due to waiting for identification of a child or foster care placement and chemical dependency treatment programming accounted for a median of two delay days each. Other reasons were less common, but still important for the patients experiencing them, particularly when they resulted in delays of up to 20 days. In cases where the median delay hours were much longer but only accounted for a very small percentage of patients—such as the delay due to a child or adult foster care bed not being available—this may indicate that individual extenuating circumstances were involved.

The study also included analysis of data for specific locations to determine whether factors like a patient home ZIP code or the distance between home and the hospital significantly contributed to differences in reasons for delays. No statistically significant differences were found. However, all patients (100%) waiting for chemical dependency and substance abuse treatment beds during the study period were from the Twin Cities metropolitan area, while only accounting for 71% of patients overall from this region. It is possible, nonetheless, that this could have been the result of a limited pool of hospitals outside of the Twin Cities metropolitan area and the relatively short time-period of the study.

Table 2: Reasons for transfer and discharge delays in emergency departments

	Percentage of patients (N=537)	Total number of delay hours (N=13,442) (days; N=560)	Median number of delay hours (N=13,442) (days; N=560)
Internal staff delays			
Delay in creating or implementing care plan/execution of medical doctor (MD) discharge orders	14%	1,238 (52)	12 (1)
Delay of social work plan/referral paperwork and/or other staff correspondence to implement plan	3%	202 (8)	8 (<1)
External social service or government agency delays			
Delay due to need for patient civil commitment	2%	950 (40)	22 (1)
Waiting for a social service or government agency to identify a child or adult foster care (AFC/CFC) placement	1%	449 (19)	48 (2)
Transportation delay	3%	202 (8)	7 (<1)
Waiting for a social service or government agency to identify chemical dependency treatment programming	<1%	95 (4)	47 (2)
Other social service or government agency delay, such as an authorization delay	1%	57 (2)	14 (1)
Awaiting guardianship approval	<1%	30 (1)	15 (1)
Awaiting insurance authorization for discharge setting	<1%	4 (<1)	4 (<1)
Waiting for a social service or government agency to identify an intensive residential treatment services (IRTS) placement	0%	0 (0)	0 (0)
Waiting for a social service or government agency to identify a nursing home referral	0%	0 (0)	0 (0)
Awaiting MNChoices process or CADI approval/rate agreement	0%	0 (0)	0 (0)
Awaiting Medical Assistance (MA) benefit activation	0%	0 (0)	0 (0)
Lack of space or wait list in safe setting			
Inpatient psychiatric bed not available	59%	7,466 (311)	14 (1)
Chemical dependency treatment (CD)/Community Addiction Recovery	5%	459 (19)	10 (<1)

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

	Percentage of patients (N=537)	Total number of delay hours (N=13,442) (days; N=560)	Median number of delay hours (N=13,442) (days; N=560)
Enterprise (CARE) facility bed not available			
Child or adult foster care bed not available	<1%	234 (10)	234 (10)
Crisis home/crisis bed not available	2%	166 (7)	18 (1)
Group home bed not available	1%	165 (7)	14 (1)
Lack of access to outpatient services	2%	118 (5)	9 (<1)
Hospital bed not available/delay in transfer to medical bed (awaiting accepting MD decision)	1%	112 (5)	8 (<1)
Other group facility not available	1%	44 (2)	18 (1)
Nursing home/memory care bed not available	1%	37 (2)	6 (<1)
Lack of housing	1%	27 (1)	7 (<1)
IRTS bed not available	<1%	20 (1)	20 (1)
Child/Adolescent Psychiatric Residential Treatment Center (PRTF) bed not available	0%	0 (0)	0 (0)
Patient or family delays			
Patient non-adherence to plan of care/refusal of placement	5%	326 (14)	9 (<1)
Lack of consent/cooperation by decision-maker (e.g., parent or legal guardian)	2%	168 (7)	11 (1)
Delay due to patient criminal legal involvement	<1%	53 (2)	26 (1)
Reason unknown*	4%	821 (24)	30 (1)

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note. A patient can only have one reason per delay day, but a patient can have different reasons attached to different delay days during their inpatient stay. Thus, patients can have more than one reason for delays and the total exceeds 100%.

*Reasons are categorized as unknown when the span of time from the start of the delay to the discharge or end of the study (or gap between two reasons) is not accounted for by a specific reason.

Discharge and transfer destination for emergency department patients

Hospitals were able to choose from nearly 20 discharge destinations, but data shows that three quarters of ED patients in this study were transferred or discharged to one of three places (Table 3), with the discharge destination being similar for youth and adults:

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

- Almost half of patients were discharged or transferred to an inpatient psychiatric unit (46%).
- About a third (30%) were discharged to their home.
- Five percent of delayed behavioral health patients were not discharged and remained in the ED by the end of the 14- day data collection period. Discharge destinations were similar for youth and adults.

For patients being discharged to an inpatient psychiatric unit (N=111), staff had to contact an average of seven sites ranging from one to 50 locations to locate a bed.

Table 3: Destinations for transfer and discharge

Destination	Percentage of patients (N=537)	Total number of delay hours (N=12,002) (days; N=500)	Median number of delay hours (N=12,002) (days; N=500)
Home (with/without support services)	30%	3,513 (146)	14 (1)
Inpatient psychiatric unit at this hospital	25%	2,494 (104)	13 (1)
Inpatient psychiatric unit at another hospital	21%	2,900 (121)	16 (1)
Group home	5%	987 (41)	16 (1)
Inpatient medical unit at this hospital	5%	977 (41)	21 (1)
Inpatient medical unit at another hospital	2%	181 (8)	18 (1)
Chemical dependency treatment	2%	110 (5)	8 (<1)
Crisis home/crisis bed	1%	201 (8)	20 (1)
Nursing home	1%	170 (7)	7 (<1)
Discharged to the streets, shelter, or homeless	1%	95 (4)	11 (1)
Left against medical advice	1%	15 (1)	3 (<1)
Child or adult foster care	<1%	217 (9)	108 (5)
Other residential or group facility	<1%	46 (2)	46 (2)
Law enforcement	<1%	21 (1)	21 (1)
PRTF facility	0%	0 (0)	0 (0)
Locked IRTS facility	0%	0 (0)	0 (0)
Unlocked IRTS facility	0%	0 (0)	0 (0)
Other*	1%	75 (3)	27 (1)
Not discharged – still in ED care	5%	N/A	N/A

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

*Other locations included eating disorder treatment and outside case management.

Emergency department patient characteristics

Almost half of behavioral health patients arrived in the ED by first responder or ambulance (48%), while 41% arrived by themselves or were accompanied by family (Table 4). While only 2% of patients arrived by transfer from a mental health provider, these patients tended to have longer delays at a median of 38 hours (two days).

Table 4: ED characteristics of patients experiencing transfer and discharge delay

Arrived to the ED by...	Percentage of patients (N=537)	Total number of delay hours (N=13,442) (days; N=560)	Median number of delay hours (N=13,442) (days; N=560)
First responder or ambulance	48%	6,925 (289)	15 (1)
Family/self	41%	4,719 (197)	13 (1)
Law enforcement	6%	588 (25)	13 (1)
Transfer from a mental health provider	2%	754 (31)	38 (2)
Crisis team	1%	226 (9)	26 (1)
Transfer from another ED	1%	129 (5)	13 (1)
Other*	1%	101 (4)	13 (1)

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

*Other arrivals included being transported by group home staff and admitted from a clinic setting.

Nearly all patients with ED transfer or discharge delays in this study were Minnesota residents (96%; Table 5), with the greatest representation from Hennepin County (45%, not shown) and Ramsey County (17% not shown). About three-quarters (73%) were ages 18-64, while 20% were under age 18, and 7% were 65 years of age or older. About a third (33%) of these patients were Black, Indigenous, or other people of color, and half (50%) were female. In addition, more than half (57%) were insured by Medical Assistance (Medicaid)/MinnesotaCare, 21% were insured by Medicare, and 26% had private insurance.

Table 5: Demographic characteristics of emergency department patients experiencing transfer and discharge delay

	Percentage of patients (N=537)	Total number of delay hours (N=13,442) (days; N=560)	Median number of delay hours (N=13,442) (days; N=560)
Patient residence			
Minnesota resident	96%	13,012 (542)	14 (1)
Resident of another state	4%	430 (18)	15 (1)
Patient age range			
Under age 18	20%	2,906 (121)	22 (1)
Age 18-64	73%	9,351 (390)	14 (1)
Age 65 or older	7%	1,185 (49)	12 (1)
Patient gender identity			
Male	48%	7,391 (308)	15 (1)
Female	50%	5,625 (234)	14 (1)
Another identity	2%	N/A	N/A
Patient race/ethnicity			
White or Caucasian	65%	8,522 (355)	13 (1)
African American or African-born	22%	2,949 (123)	17 (1)
American Indian or Native American	4%	341 (14)	14 (1)
All other race/ethnicity identities	6%	1,309 (55)	18 (1)
Not available	2%	N/A	N/A
Interpreter needed during visit			
Yes	2%	401 (17)	33 (1)
No	99%	13,041 (543)	14 (1)
Patient insurance coverage			
Medicaid/MinnesotaCare (incl. pending)	57%	7,280 (303)	14 (1)
Medicare (including pending)	21%	3,349 (140)	15 (1)
Private insurance	26%	3,028 (126)	13 (1)
Uninsured	7%	1,266 (53)	17 (1)

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: Patients could have more than one type of insurance coverage selected, so totals may equal over 100%.

Patient characteristics associated with emergency department transfer and discharge delays

To assess the underlying circumstances, hospital staff were asked to identify specific patient characteristics that might have been associated with transfer and discharge delays. Multiple characteristics could be selected for each patient.

- Over a third of patients (38%) and 48% of delay days were associated with patients' history of behavioral issues or dysregulation, such as propensity for violence, self-harm, and sexually inappropriate behavior (median=16 hours; Table 6).
- Twenty percent of patients and 17% of delay days were associated with substance use by patients, including addiction and medication assisted treatment.
- However, one-third of patients (34%) and 27% of delay days were not associated with a specific patient characteristic. Other factors affected a smaller number of patients and contributed to between 1-5% of delay days, but they are still important to consider when identifying barriers to discharge.

There were notable age-group differences with patient characteristics associated with ED transfer and discharge delays. A larger proportion of patients who were age 17 or younger had delays associated with a history of behavioral health issues or dysregulation than patients who were age 18 or older (58% vs. 33%). In addition, a larger proportion of adult patients had delays associated with substance use compared to youth (23% vs. 5%).

Table 6: Patient characteristics associated with transfer and discharge delays in EDs

	Percentage of patients (N=454)	Total number of delay hours (N=10,797) (days; N=450)	Median number of delay hours (N=10,797) (days; N=450)
History of behavioral issues or dysregulation (e.g., violence, fire starting, self-harm, sexually inappropriate behavior)	38%	5,186 (216)	16 (1)
Substance use (including addiction and medication assisted treatment)	20%	1,927 (80)	11 (1)
Developmental disability or autism	4%	644 (27)	17 (1)
Significant medical comorbidity	4%	352 (15)	15 (1)
Homelessness or housing insecurity	3%	304 (13)	6 (<1)
Dementia or specific cognitive impairment	3%	272 (11)	14 (1)
Physical disability	1%	56 (2)	8 (<1)
Traumatic brain injury	1%	28 (1)	
Other	5%	610 (25)	14 (1)

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

	Percentage of patients (N=454)	Total number of delay hours (N=10,797) (days; N=450)	Median number of delay hours (N=10,797) (days; N=450)
None of these characteristics are contributing to this delay	34%	2,936 (122)	12 (1)

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: A patient may have more than one characteristic contributing to their delay, so the total exceeds 100%. Not all patients who had a delay reported a contributing characteristic.

Inpatient units (IP) discharge delays

Rate of discharge delays in inpatient units

Across the 13 hospitals' participating inpatient units, 1,086 behavioral health patients were treated in the 14-day study period selected by each hospital. Of those, 182 patients (17%) experienced a discharge delay, meaning they were stabilized and ready to be discharged, but there were barriers to doing so. Collectively, these patients were delayed for 1,439 days, with an average of eight days per patient. Note that patient discharge delays ranged from one to 14 days, with 14 days being the maximum number due to the study period. Again, as seen in the prior discussions about discharge delays in EDs that began prior to the study's start date, delays can far exceed the 14-day study period.

Youth accounted for 12% of the patients who experienced a discharge delay, and they had an average of eight delay days per patient (median=10 days). Adult patients accounted for 89% of patients experiencing a delay and they also had an average of eight delay days per patient (median=eight days). Nearly half of patients (48%) had discharge delays that started prior to the study start date. The delays prior to the study start date ranged from one day to 1.5 years (560 days; median=13 days). In addition, one-third of patients (32%) were experiencing a delay at the close of the study. These additional days are not included in the study, but they highlight the importance of considering this study as a point-in-time estimate.

Statistical testing was conducted to determine whether any patient or admission characteristics (i.e., state of residence, insurance coverage, age, gender, race, discharge location, distance traveled from home to hospital) were significantly associated with the duration of discharge delays. Statistically significant results are noted below.

Reasons for discharge delays in inpatient units

Hospitals identified the reasons for a discharge delay from a list of 31 possible options grouped in four categories (Table 7). Again, the reasons were generated from findings in earlier studies. The detailed definitions of these reasons can be found in the Appendix (Table A2).

- The “lack of space or wait list in safe setting” category accounted for more than half (55%) of the *total number of delay days*.
- The reason that affected the most *patients* was the lack of intensive residential treatment services (IRTS) beds (18%) which also accounted for the most discharge delay days at 250 days (17% of total delay days).
- The second reason that affected the most patients was a delay due to patient civil commitment (13%), which accounted for 197 delay days.
- This was followed by a bed not being available in chemical dependency treatment or community addiction recovery enterprise (CARE) facility (10%), which accounted for 98 delay days.

Note that two out of these three top reasons were associated with lack of space or waitlist in a safe setting, and those two reasons are consistent with top reasons identified in the 2016 iteration of this study (Dillon & Thomsen, 2017). These reasons primarily affected patients aged 18 or older (21%, 15%, and 11%, respectively), while younger patients' reasons for discharge delays were primarily due to waiting for a social service or government agency to identify a child or adult foster care placement (29%), other social service or government agency delay (24%), and a lack of available beds at Child/Adolescent Psychiatric Residential Treatment Centers (24%). It should be noted that there were only 21 youth with a discharge delay, so these results should be interpreted with caution.

Although affecting only 1-2% of patients, respectively, delays due to waiting for social service agency or governmental identification of an IRTS placement, patient criminal legal involvement, and lack of consent or cooperation by the decision-maker accounted for a median of 14 delay days each. Other reasons appear to be less common, but still important for the patients experiencing them, particularly when they result in delays up to 30 days. Geospatial analysis, or analysis of data specific to a certain location, was conducted to determine whether patient home ZIP code and distance between home and the hospital significantly contributed to differences in reasons for delays. No statistically significant differences were found. However, there were a higher proportion of patients whose discharge was delayed due to civil commitment from the Twin Cities metropolitan area (77%) relative to the share of overall patients from this region (60%).

Table 7: Reasons for discharge delays in inpatient care

	Percentage of patients (N=182)	Total number of delay days (N=1,439)	Median number of delay days (N=1,439)
Internal staff delays			
Delay in creating or implementing care plan/execution of MD discharge orders	3%	16	2
Delay of social work plan/referral paperwork and/or other staff correspondence to implement plan	0%	0	0
External social service or government agency delays			
Delay due to need for patient civil commitment	13%	197	8
Awaiting MNChoices process or CADI approval/rate agreement	7%	90	8
Other social service or government agency delay, such as an authorization delay	4%	82	13
Awaiting MA benefit activation	6%	65	7
Waiting for a social service or government agency to identify a child or adult foster care (AFC/CFC) placement	6%	64	5
Awaiting guardianship approval	2%	21	6
Waiting for a social service or government agency to identify an IRTS placement	1%	14	14

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

	Percentage of patients (N=182)	Total number of delay days (N=1,439)	Median number of delay days (N=1,439)
Waiting for a social service or government agency to identify a nursing home bed	1%	11	11
Waiting for a social service or government agency to identify chemical dependency treatment programming	1%	2	1
Transportation delay	1%	2	1
Awaiting insurance authorization for discharge setting	0%	0	0
Lack of space or wait list in safe setting			
IRTS bed not available	18%	250	7
Chemical dependency treatment/CARE facility bed not available	10%	98	6
Group home bed not available	7%	88	7
Nursing home/memory care bed not available	6%	84	10
State psychiatric hospital bed unavailable at a CBHH	4%	68	13
Child/Adolescent Psychiatric Residential Treatment Center (PRTF) bed not available	3%	56	13
State psychiatric hospital bed unavailable at Anoka Metro Regional Treatment Center (AMRTC)	3%	52	11
Lack of housing	2%	28	9
Lack of access to outpatient services	6%	25	2
Crisis home / crisis bed not available	1%	15	8
Other group facility not available	1%	13	7
State psychiatric hospital bed unavailable at Minnesota Security Hospital	1%	11	11
Child or adult foster care bed not available	1%	8	4
Child and Adolescent Behavioral Health Hospital Willmar bed not available	0%	0	0
Hospital bed not available/delay in transfer to medical bed (awaiting accepting MD decision)	0%	0	0
Patient or family delays			
Lack of consent/cooperation by decision-maker (e.g., parent or legal guardian)	2%	47	14
Patient non-adherence to plan of care/refusal of placement	3%	18	3
Delay due to patient criminal legal involvement	1%	14	14

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: A patient can only have one reason per delay day, but a patient can have different reasons attached to different delay days during their inpatient stay. Thus, patients can have more than one reason for delays and the total exceeds 100%.

Discharge destination for inpatient hospital patients

While about one-third of patients (32%) were not discharged during the 14-day data collection period, 18% were discharged to their home and 16% were discharged to an unlocked intensive residential treatment service (IRTS) facility (Table 8). Ten percent of patients were discharged to chemical dependency treatment. Notably, patients who were discharged home had median delays about half the length of patients discharged to an IRTS facility or chemical dependency treatment. This is most likely due to challenges in finding that next level of care for this subset of patients.

Most patients aged 17 or younger were discharged home (73%), while the discharge destination for adult patients was primarily split between an unlocked IRTS facilities (26%), home (22%), or chemical dependency treatment (16%).

For patients being discharged to an IRTS or psychiatric residential treatment facility (PRTF) (N=29), staff had to contact an average of 12 locations (median=15) ranging from one to 23 locations to locate a bed.

Table 8: Discharge location for inpatient hospital patients

	Percentage of patients (N=182)	Total number of delay days (N=840)	Median number of delay days (N=840)
Home (with/without support services)	18%	192	4
Unlocked IRTS facility (Intensive Residential Treatment Services)	16%	246	8
Chemical dependency treatment	10%	121	7
Group home	8%	94	6
Nursing home	4%	63	8
Crisis home/crisis bed	3%	37	9
Discharged to streets, shelter, or homeless	3%	36	6
Other residential or group facility	3%	20	3
Child or adult foster care	2%	16	1
PRTF (Psychiatric Residential Treatment Facilities)	1%	12	12
CBHH (Community Behavioral Health Hospitals)	1%	2	2
Law enforcement center	1%	1	1
AMRTC (Anoka Metro Regional Treatment Center)	0%	0	0

	Percentage of patients (N=182)	Total number of delay days (N=840)	Median number of delay days (N=840)
Minnesota Security Hospital	0%	0	0
Inpatient unit at another hospital	0%	0	0
CABHS Willmar (Child and Adolescent Behavioral Health Hospital)	0%	0	0
Locked IRTS facility (Intensive Residential Treatment Services)	0%	0	0
Other	0%	0	0
Not discharged – still in inpatient care	32%	N/A	N/A

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Inpatient hospital patient characteristics

Most behavioral health patients experiencing a discharge delay in the IP units were admitted from emergency departments or medical units of the same hospital (70%; Table 10). More than half of patients with a discharge delay were admitted voluntarily (56%) and just under a third were on an involuntary 72-hour hold (28%). The involuntary 72-hour hold, or emergency hold, applies when a person with mental illness is no longer able to care for themselves or may pose a threat to themselves or others and will not agree to treatment but needs to be kept in a safe environment. Data are not available for behavioral health patients who did not experience a discharge delay; it is unclear if those experiencing discharge delays are disproportionately represented in any category or are in any way systematically different from the general inpatient population receiving behavioral health services.

Accounting for a quarter of patients (25%), those who were admitted from the ED or medical units of outside hospitals tended to experience more delay days compared to patients admitted from the same hospital (11 vs. seven median days). This difference was statistically significant ($p=0.04$), though the reasons for this are not known. Of the behavioral health patients admitted to the inpatient units, 34% had been admitted to inpatient care at the same hospital site in the past six months and had a total of 508 discharge delay days in the study period (median=10 days).

Table 9: Admission characteristics of patients experiencing discharge delays

	Percentage of patients (N=179)	Total number of delay days (N=1,423)	Median number of delay days (N=1,423)
Admitted from...			
Emergency department or medical unit of same hospital	70%	933	7
Emergency department or medical unit of outside hospital or transfer from a hospital bed from an outside hospital	25%	425	11
All other (temporary shelter program/homeless shelter, nursing home, court/law enforcement, clinic or physician's office, or other not listed)	5%	65	7
Admission was...			
Voluntary	56%	827	9
Involuntary	16%	237	8
72-hour hold	28%	359	7

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: There were 3 cases with missing data.

Nearly all patients with discharge delays were Minnesota residents (95%; Table 9).

- More than half of patients were male (57%).
- Three-quarters of patients (76%) were age 18-64.
- Almost a quarter identified as African American or African-born (23%).

Patients who identified as another race or ethnicity other than white or African American accounted for 16% of patients but had the highest median number of delay days (11 days) compared to their counterparts. Females also tended to have a higher median number of delay days compared to males (10 vs. seven days), and this difference was statistically significant ($p=0.048$). In addition, three-quarters were insured by Medicaid/MinnesotaCare (75%) and a third were insured by Medicare (31%). Patients who were uninsured had the highest median number of delay days (12 days) compared to those with insurance.

Table 10: Demographic characteristics of patients experiencing discharge delays

	Percentage of patients (N=182)	Total number of delay days (N=1,439)	Median number of delay days (N=1,439)
Patient residence			
Minnesota resident	95%	1,340	8
Resident of another state	6%	99	10
Patient age range			
Under age 18	12%	174	10
Age 18-64	76%	1,077	9
Age 65 or older	12%	188	11
Patient gender identity			
Male	57%	756	7
Female	41%	651	10
Another identity	2%	N/A	N/A
Patient race/ethnicity			
White or Caucasian	61%	844	8
African American or African-born	23%	340	7
All other race/ethnicity identities	16%	255	11
Interpreter needed during visit			
Yes	6%	73	7
No	95%	1,366	8
Patient insurance coverage			
Medicaid/MinnesotaCare (including pending)	75%	1,093	8
Medicare (including pending)	31%	472	10
Private insurance	13%	165	7
Uninsured	2%	38	12

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: Patients could have more than one type of insurance coverage selected, so totals may equal over 100%.

Patient characteristics associated with inpatient discharge delays

Hospital staff were asked if specific patient characteristics may have contributed to transfer or discharge delays and staff could select multiple characteristics for each patient. Twenty-three percent of delay days were associated with the patient's history of behavioral issues or dysregulation, which affected delays for 23% of patients (Table 11). This characteristic was more likely to be associated with delays for youth (33%) than adults (22%).

Substance use was associated with 16% of patients (17% of adults and 5% of youth) and 15% of delay days. Other factors affected a smaller number of patients and contributed to between 2-8% of delay days, but they are still important to consider when identifying barriers to discharge. Although only accounting for between 2-8% of patients, patients with a physical disability, traumatic brain injury, or dementia or cognitive impairment had a higher median number of delay days (13, 11, and 11 days).

Table 11: Patient characteristics associated with inpatient discharge delays

	Percentage of patients (N=182)	Total number of delay days (N=1,423)	Median number of delay days (N=1,439)
History of behavioral issues or dysregulation (e.g., violence, fire starting, self-harm, sexually inappropriate behavior)	23%	323	7
Substance use (including addiction and medication assisted treatment)	16%	222	7
Dementia or specific cognitive impairment	8%	150	11
Homelessness or housing insecurity	8%	107	7
Developmental disability or autism	6%	70	6
Other	6%	81	8
Traumatic brain injury	2%	24	11
Physical disability	2%	38	13
Significant medical comorbidity	2%	10	4
None of these characteristics are contributing to this delay	24%	279	4

Source: Wilder Research analysis of behavioral health data collected by participating hospitals in the third quarter of 2023.

Note: A patient may have more than one characteristic contributing to their delay, so the total exceeds 100%.

Implications

Access to care for behavioral health patients is a complex and multifaceted. Recent research using state-specific data has documented important context to understand these complexities, including increasing rates of depression (United Health Foundation, 2024a), frequent mental distress (United Health Foundation, 2024b), increasing rates of suicides (Minnesota Department of Health, 2024a), and rapidly rising rates of drug overdose deaths in the state (Minnesota Department of Health, 2024b). There is also accumulating evidence outside of Minnesota that social determinants of health negatively affect mental health outcomes (Alegría et al., 2018).

There are unique challenges faced by hospitals related to staffing and reimbursement that inform business decisions. These challenges affect reliable and timely access to health services for behavioral health patients in the state (Minnesota Department of Health, 2022). For example, community hospitals in Minnesota have been closing or reducing capacity for mental health and addiction services in certain areas (Minnesota Department of Health, 2024c). At points, hospitals are also taking capacity temporarily offline for a variety of reasons. This contributes to system-wide issues when there is not a clear trend towards rebuilding lost capacity. Furthermore, while hospital emergency departments and inpatient mental health units are a critical access point for life-saving stabilization and treatment, over-reliance on these settings may point to symptoms of breakdowns in the full continuum of behavioral health care—including access to primary care, medication management, and a robust community mental health and addiction treatment system outside of hospital walls. (i.e., services provided in family, communities, and school settings).

This 45-day study of 34 Minnesota hospitals has documented where this day-to-day pressure is worsened by a large number of discharge delays in emergency departments and inpatient behavioral health care. Many patients spend time in emergency departments and inpatient units long after they could be safely discharged to an alternative setting because of shortages in these alternative settings. The striking results of the study have at least the following implications:

- **Discharge delays affect many behavioral health patients in inpatient and emergency department care (hundreds of patients within a two-week period).** These delays are difficult for patients and their families and caregivers, and they put additional strain on hospital staff. In addition, given that the majority of patients experiencing delays in both inpatient and emergency department care rely on public insurance, these delays can be costly to our society. As mentioned above, this 2023 study was largely a continuation of a similar 2017 study documenting a large proportion discharge delays in inpatient units that similarly found a lack of available space and system delays in processing patients. The fact that these dynamics are still stubbornly present highlights a critical need to address issues that are just as present in 2024 as they were in 2017.

Nonetheless, some of the more recent top underlying reasons have shifted since 2017 in overall frequency such as an *increase* in delays from the patient civil commitment process and lack of nursing home/memory care beds; lack of available Community Behavioral Health Hospital beds (the top reason in 2017) was still among the top reasons in 2023 but less cited than other reasons. Especially following the COVID-19 pandemic, staffing challenges are now experienced in nearly all settings, but particularly in those that need to be staffed sufficiently to accept patients with complex behavioral health needs.

The findings from this study can be used to inform strategies to leverage support for increasing necessary infrastructure in the behavioral health care system and external systems—including the legal system and long-term care to reduce the prevalence of discharge delays. Policies supporting the movement of patients out of the hospital to other settings in a timely fashion, streamlining the legal decision-making process, and reducing other administrative barriers all have the potential to stabilize, if not improve, the ability for patients to receive the right care at the right time in Minnesota.

- **This study suggests that specific groups are experiencing delays in transfer and discharge at a rate disproportionate to their share of the overall population in Minnesota.** Specifically, about 22% of ED patients and 23% of IP patients experiencing a transfer or discharge delay identified as African American or African-born, while this population only comprises 11% of the Twin Cities metropolitan area population (Minnesota Compass, 2022). This disparity was not driven by a greater number of African American or African-born patients being admitted for inpatient behavioral health services. While other factors could contribute to the disproportionate rates of transfer and discharge delays, MDH analysis of hospital discharge data for hospitals participating in the study showed that African American or African-born were admitted for behavioral health care proportionate to the population they represent (an average of 11% from 2018-2022).

Similarly, most patients experiencing transfer and discharge delays in inpatient units and emergency department care were covered by Medicaid or MinnesotaCare, while only 18% of the state's population has coverage through one of the state public health insurance programs (Minnesota Department of Health, 2023). A recent report from the Department of Human Services (MN DHS, 2024) issued a series of recommendations for changing state reimbursement for outpatient and community-based behavioral health services. The recommendations included adopting rates commensurate with providers' current costs and market conditions, eliminating mandated rate modifications made for budgetary reasons, adopting proposed benchmark rates, ensuring transparency on timing and rate rebase activities, and updating service definitions that better align with current staffing and service requirements. If such legislation and appropriations are made, it is likely that patient flow would improve at all levels due to additional support for preventive care, crisis response, and intermediate care described in the report.

- **The most common reasons for discharge delays were associated with lack of available beds in a safe setting, including inpatient psychiatric units and IRTS/CD/CARE facilities.** These reasons alone accounted for almost 60% of transfer and discharge delay days in inpatient units and over 30% of discharge delays in emergency departments, respectively. These results indicate that if patients were able to be discharged from inpatient care when ready, such as to a residential/chemical dependency treatment facility, then fewer patients would likely experience a discharge delay in emergency departments given that such a large proportion were waiting for inpatient beds. Just for this 14-day study period, additional availability of beds in inpatient mental health units would have resulted in 311 fewer unnecessary days in EDs and the lack of residential treatment resulted in 404 unnecessary days in inpatient units. Nearly half of patients experiencing delays were eventually transferred from the ED to inpatient psychiatric units, and 26% were transferred from IP units to IRTS/CD/CARE facilities. This demonstrates that these settings are available, but they may not be as widely available or available in as timely a manner as needed for the optimal flow of patients.

- **The most common patient characteristics associated with transfer and discharge delays in both settings related to a history of behavioral issues or dysregulation for younger patients and substance use for adults.** Complex health care needs—such as patients diagnosed with dementia, traumatic brain injury, or physical disabilities—tended to affect fewer patients but had a larger effect on the duration of their delays. In tailoring availability of community-based supports to patient needs, policymakers will need to balance the tension between factors affecting many patients and those affecting fewer but accounting for longer discharge delays.

In closing, to many experts on the frontlines, the information presented here may not be new. What is unique about the study, however, is that it estimates recent delays experienced by behavioral health patients in Minnesota hospitals, quantifies the reasons for the delays, enumerates the factors that appear to contribute to them, and describes the affected patient population with new demographic information. By highlighting that most patients with transfer and discharge delays are in fact going home after the ED or hospital stay, the study also reminds us how important adequate capacity in outpatient and community supports is to patients and their caregivers.

It is the hope of the research teams at MDH and Wilder that these data are valuable to stakeholders across the state already working at addressing these challenges. At the same time, the team is interested in learning what aspects associated with transfer and discharge delays remain undocumented and to what extent a study with more comprehensive representation by hospital systems and inclusion of patients, including a more robust sample of youth experiencing delays, would help inform needed policy changes.

References

- Alegría, M., NeMoyer, A., Falgàs Bagué, I., Wang, Y., & Alvarez, K. (2018). *Social determinants of mental health: where we are and where we need to go*. *Current Psychiatry Reports*, 20, 1-13.
- Dillon, K., & Thomsen, D. (2017). *Estimate of community resources to address mental health discharge delays in Minnesota hospitals: Results from the Minnesota Hospital Association mental and behavioral health data collection pilot and additional analysis*. Wilder Research.
https://www.wilder.org/sites/default/files/imports/MNHospitalAssn_MentalHealthDischargeDelays_4-17.pdf
- Centers for Medicare & Medicaid Services. (2024). *Physician Fee Schedule Look-up Tool*.
<https://www.cms.gov/medicare/physician-fee-schedule/search/overview>.
- The Joint Commission. (2013). The “patient flow standard” and the 4-hour recommendation. *Joint Commission Perspectives* 33(6). https://www.jointcommission.org/-/media/tjc/documents/standards/r3-reports/r3_report_issue_4.pdf
- Minnesota Compass. (2022). *Population by race & ethnicity, Minnesota 2022*.
<https://www.mncompass.org/topics/demographics/race-ethnicity?population-by-race#1-5522-g>
- Minnesota Department of Health. (2024a). *Suicide data and reports*.
<https://www.health.state.mn.us/communities/suicide/data/suicidedata.html>.
- Minnesota Department of Health (2024b). <https://www.health.state.mn.us/communities/opioids/opioid-dashboard/index.html>
- Minnesota Department of Health. (2024c). *Health Regulation Division Public Hearings*.
<https://www.health.state.mn.us/about/org/hrd/hearing/index.html>.
- Minnesota Department of Health. (2023a). *Section 5: Public health insurance programs*.
<https://www.health.state.mn.us/data/economics/chartbook/summaries/section5summaries.html>
- Minnesota Department of Health. (2023b). *Public interest review: evaluation of a proposal for expansion of pediatric inpatient psychiatric bed capacity in St. Paul, Minnesota*.
<https://www.health.state.mn.us/data/economics/moratorium/childrensmn/docs/childrensfinalrpt2023.pdf>
- Minnesota Department of Health. (2022). *Public interest review: evaluation of a proposed inpatient mental health hospital in St. Paul, Minnesota*.
<https://www.health.state.mn.us/data/economics/moratorium/fairviewacadia/docs/fvwacadappendixc.pdf>
- Minnesota Department of Human Services (2024). *Minnesota Health Care Programs Fee for Service Outpatient Services Rate Study*. <https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/behavioral-health/mhcp-outpatient-services-rates-study/>
- Minnesota Management and Budget (2016). *Adult Mental Health Benefit-Cost Analysis*.
<https://mn.gov/mmb-stat/results-first/adult-mental-health-report.pdf>

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

Minnesota Medical Association/Minnesota Chapter, American College of Emergency Physicians (2023).
Emergency Department Boarding of Patients with Psychiatric Diagnoses (EDBPPD).
https://www.mnmed.org/application/files/8216/8597/8692/Edited_ED_Boarding_Report-1.pdf

Appendix

A. Emergency Department definitions for transfer or discharge delay reasons

Reason for delay	Definition and/or examples
Internal staff delays	
Delay in creating or implementing care plan/execution of MD discharge orders	While patient may meet criteria for being in the hospital, they are not getting the behavioral health services that have been ordered in a timely fashion, (i.e., chemical dependency evaluations not getting done, psych testing not completed). This includes: ■ Delays in ordering necessary meds, labs, consults, and discharges. ■ Delayed or missing documentation. ■ Delayed follow through with written physician orders due to staff, equipment, or service issues. ■ Waiting for testing or labs.
Delay of social work plan/referral paperwork and/or other staff correspondence to implement plan	Delay in action by the hospital social work department. For instance, the social workers not completing referrals or developing a backup plan, or the social work initial assessment is not completed on admission (hospital day 1) or by hospital day 2.
External social service or government agency delays	
Waiting for a social service or government agency to identify: ■ an IRTS placement ■ a child or adult foster care (AFC/CFC) placement ■ chemical dependency treatment programming ■ a nursing home referral	Includes waiting on a social service or government agency to: ■ Identify facility for referral. ■ Make referrals for placement following discharge. ■ Request financial records for referral. Note: This is for delays due to identification of placement in which a social service or government agency is involved and responsible for the delay.
Awaiting MNChoices process or CADI approval/ rate agreement	Patient is in the MNChoices assessment process or placement found and patient accepted, but awaiting CADI waiver approval or rate negotiation for the service.
Awaiting MA benefit activation	Patient is working through the process of enrolling in Medical Assistance/ MinnesotaCare or restoring lapsed coverage.

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

Reason for delay	Definition and/or examples
Awaiting insurance authorization for discharge setting	Waiting for a health plan authorization for next level of care, such as a residential chemical dependency (CD) treatment program, a state chronic care hospital, necessary home-based services, etc.
Awaiting guardianship approval	Awaiting county appointment of or decisions around legal guardianship.
Delay due to patient civil commitment	Delay due to the civil commitment process. For example, a patient is admitted, but is in the commitment process. They have stabilized and are ready for a lower level of care, but need to remain hospitalized until commitment process is completed.
Transportation delay	Placement found and patient accepted, but waiting for transportation, including MA transportation, to become available to transfer the patient to the new setting.
Other outside social service or government agency delay, such as an authorization delay	All other delays due to social service or government agencies, including delays due to authorization by an agency, i.e., child protection, probation, county "committee" for placements.
Lack of space or wait list in safe setting	
Inpatient psychiatric bed not available	Start counting days on the day in which the patient is placed on an inpatient psychiatric hospital waiting list, at your hospital or another hospital.
Hospital bed not available/ delay in transfer to medical bed (awaiting accepting MD decision)	Patient is appropriate for medical bed, but other specialties will not take the patient. OR Patient appropriate and need to transfer to medical unit who is willing to admit the patient, but there is not a bed.
Bed not available in: ■ Child/Adolescent Residential Treatment Center (PRTF) ■ IRTS ■ Nursing home/memory care ■ Chemical dependency treatment/CARE facility ■ Child or adult foster care ■ Group home ■ Crisis home / crisis bed ■ Other group facility	Use this when a facility or type of facility has been identified, the patient has been accepted, and there is a delay in bed availability.
Lack of housing	Delay due to issues with finding appropriate, safe housing.
Lack of access to outpatient services	Patient is ready to go home, but unable to connect to outpatient services necessary for maintaining stability, such as an outpatient psychiatry appointment, primary care appointment, assertive community treatment (ACT) services, outpatient CD treatment, partial hospitalization, day treatment, or needed family services.

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

Reason for delay	Definition and/or examples
Patient or family delays	
Patient non-adherence to plan of care/refusal of placement	Patient is not cooperating with necessary paperwork or follow-up, they are delaying completing paperwork or follow-up, or they are not participating in care plan, including refusing the selected placement.
Lack of consent/ cooperation by decision-maker (e.g., parent or legal guardian)	Legal decision maker (e.g., parent or guardian) is not consenting to or accepting placement or necessary follow-up required for placement. Or patient is willing to be discharged to a new setting, including home, but the family is unwilling or unable to pick up or transfer the patient.
Delay due to patient criminal legal involvement	Patient's criminal legal involvement, including warrants, pending court proceedings, and/or probation if they are interfering with discharge placements.

B. Inpatient unit definitions for discharge delay reasons

Reason for delay	Definition and/or examples
Internal staff delays	
Delay in creating or implementing care plan/execution of MD discharge orders	While patient may meet criteria for being in the hospital, they are not getting the behavioral health services that have been ordered in a timely fashion, (i.e., chemical dependency evaluations not getting done, psych testing not completed). This includes: ■ Delays in ordering necessary meds, labs, consults, and discharges. ■ Delayed or missing documentation. ■ Delayed follow through with written physician orders due to staff, equipment, or service issues. ■ Waiting for testing or labs.
Delay of social work plan/referral paperwork and/or other staff correspondence to implement plan	Delay in action by the hospital social work department. For instance, the social workers not completing referrals or developing a backup plan, or the social work initial assessment is not completed on admission (hospital day 1) or by hospital day 2.
External social service or government agency delays	
Waiting for a social service or government agency to identify: ■ an IRTS placement ■ a child or adult foster care (AFC/CFC) placement ■ chemical dependency treatment programming ■ a nursing home referral	Includes waiting on a social service or government agency to: ■ Identify facility for referral. ■ Make referrals for placement following discharge. ■ Request financial records for referral. Note: This is for delays due to identification of placement in which a social service or government agency is involved and responsible for the delay.
Awaiting MNChoices process or CADI approval/rate agreement	Patient is in the MNChoices assessment process or placement found and patient accepted but awaiting CADI waiver approval or rate negotiation for the service.
Awaiting MA benefit activation	Patient is working through the process of enrolling in Medical Assistance/MinnesotaCare or restoring lapsed coverage.
Awaiting insurance authorization for discharge setting	Waiting for a health plan authorization for next level of care, such as a residential CD treatment program, a state chronic care hospital, necessary home-based services, etc.
Awaiting guardianship approval	Awaiting county appointment of or decisions around legal guardianship.

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

Reason for delay	Definition and/or examples
Delay due to patient civil commitment	Delay due to the civil commitment process. For example, a patient is admitted, but is in the commitment process. They have stabilized and are ready for a lower level of care, but need to remain hospitalized until commitment process is completed.
Transportation delay	Placement found and patient accepted, but waiting for transportation, including MA transportation, to become available to transfer the patient to the new setting.
Other outside social service or government agency delay, such as an authorization delay	All other delays due to social service or government agencies, including delays due to authorization by an agency, i.e., child protection, probation, county "committee" for placements.
Lack of space or wait list in safe setting	
State psychiatric hospital bed unavailable in ■ AMRTC ■ Minnesota Security Hospital CBHH	Start counting days on the day in which the patient is placed on the state psychiatric hospital waiting list. If doing concurrent planning with another type of facility, identify the lack of bed space in the facility you believe to be most appropriate for the patient.
Hospital bed not available/ delay in transfer to medical bed (awaiting accepting MD decision)	Patient is appropriate for medical bed, but other specialties will not take the patient. OR Patient appropriate and need to transfer to medical unit who is willing to admit the patient, but there is not a bed.
Bed not available in: ■ CABHS Willmar ■ Child/Adolescent Residential Treatment Center (PRTF) ■ IRTS ■ Nursing home/memory care ■ Chemical dependency treatment/CARE facility ■ Child or adult foster care ■ Group home ■ Crisis home / crisis bed Other group facility	Use this when a facility or type of facility has been identified, the patient has been accepted, and there is a delay in bed availability.
Lack of housing	Delay due to issues with finding appropriate, safe housing.
Lack of access to outpatient services	Patient is ready to go home, but unable to connect to outpatient services necessary for maintaining stability, such as an outpatient psychiatry appointment, primary care appointment, ACT services, outpatient CD treatment, partial hospitalization, day treatment, or needed family services.

Transfer and Discharge Delays for Behavioral Health Patients at Minnesota Hospitals

Reason for delay	Definition and/or examples
Patient or family delays	
Patient non-adherence to plan of care/refusal of placement	Patient is not cooperating with necessary paperwork or follow-up, they are delaying completing paperwork or follow-up, or they are not participating in care plan, including refusing the selected placement.
Lack of consent/cooperation by decision-maker (e.g., parent or legal guardian)	Legal decision-maker (e.g., parent or guardian) is not consenting to or accepting placement or necessary follow-up required for placement. Or patient is willing to be discharged to a new setting, including home, but the family is unwilling or unable to pick up or transfer the patient.
Delay due to patient criminal legal involvement	Patient's criminal legal involvement, including warrants, pending court proceedings, and/or probation if they are interfering with discharge placements.

C. Detailed study methods

Study sample

A total of 34 hospitals agreed to participate in the study (see Acknowledgements for list of hospitals). Hospitals were asked to track all behavioral health patients in the emergency department and/or inpatient care during their selected 14-day period from September 5, 2023, through October 20, 2023 (even if admitted prior to September 5). For the emergency department, a delay started if a behavioral health patient was still in the emergency department four hours after a disposition decision was made. Delay data for inpatient care were collected when a patient was eligible to be discharged to a different care setting but continued to stay in their facility.

Hospitals with inpatient psychiatry units were asked to only track patients admitted to inpatient psychiatry (excluding partial hospitalization patients). Hospitals without inpatient psychiatry units were asked to track all behavioral health patients admitted to inpatient units.

In addition to tracking detailed data for patients with a discharge delay, all hospitals were also asked to provide a census count of all behavioral health patients in their care during the two-week study period to serve as the denominator for estimating the proportion of patients experiencing a delay. The hospitals in the M Health Fairview system were unable to provide a census for the study, so MDH identified proxy data based on overall behavioral health patient volumes within these hospitals during the study timeframes. This data may not reflect the same patient population M Health Fairview included in the study during this timeframe.

Data collection tool

The Minnesota Hospital Association and the Maryland Hospital Association conducted similar studies with Wilder Research in 2016/2019 and 2018, respectively, so the tools and processes were updated and adapted for this study. The original tool was created by Regions Hospital which has collected data about reasons for potentially avoidable behavioral hospital days since 2011, and has adapted and updated for the studies in 2016, 2018, and 2019. Adaptations in 2016 were made by staff from Regions, Wilder Research, and the Minnesota Hospital Association to make them simpler and less hospital-specific, while the adaptations in 2018 were informed by design calls and feedback from representatives from several hospitals and the Maryland Hospital Association Behavioral Health Task Force. Adaptations in 2023 were made with the Minnesota Department of Health and input from key providers and partners. The emergency department tool includes information about the emergency department visit, patient characteristics, placement options for the patient, and the dates and reasons for discharge or transfer delays (see Table A1 for the associated definitions). The inpatient tool includes similar information—including about patient admission, patient characteristics, placement options for the patient, and the dates and reasons for discharge delays (see Table A2 for the associated definitions). Hospitals could choose whether to collect these data using paper and pencil or directly into the online tool but would ultimately complete the tool online.

Staff training

To train staff on the data collection pilot, representatives from Wilder Research and the Minnesota Department of Health hosted two instructional webinars that included information on the purpose of the study, eligibility criteria, live demonstration of the online tool, sample cases, and time for questions and answers. The webinars

were all recorded and made available to participating hospitals hosted on the MDH website. In addition, Wilder Research created a written protocol with comprehensive instructions for completing the tool and provided technical assistance on data collection questions throughout the study which was also available on the MDH website.

Data cleaning

The data required extensive cleaning to prepare it for analysis. In particular, the following issues were the most common and addressed in the following ways:

Missing dates: Missing dates/times were the most common data cleaning issue. The discharge delays were entered sequentially and the end date/time for the first reason was used as the start date/time for the second, and so forth. If a hospital admission date/time was missing, the disposition date/time (ED) or first discharge delay reason date (IP) was used. If the first reason date/time was missing, four hours past the disposition time (ED) or the hospital admission date (IP) was used. If the reason end date was missing, then the discharge date was used. If the discharge date was missing, the study end date was used.

Illogical dates: If a series of dates and times (e.g., admission, disposition decision, reason start, discharge) were all logical except one date/time (e.g., the reason start date was at the same time as the disposition date), then the outlier date/time was imputed based on the surrounding dates/times (e.g., the reason start time was changed to 4 hours after the disposition time).

Missing reasons: If a reason for discharge delay was missing, or if there was a period of time between reasons, then the case was assigned the “unknown reason” category for that period of time. If there was not a reason start date, end date, or category, then the case did not meet the eligibility criteria for the study, and it was excluded.

Duplicate cases: If a case had a duplicate admission date, discharge delay start and end date, and discharge delay reason, the case was unduplicated. If there were two reasons assigned to the same time period, then the first reason entered was kept and the others were excluded.

Truncated dates: Many patients were admitted prior to the start of the study or start of the hospital’s data collection period, and many were still in care at the end of the hospital’s data collection period or close of the study timeframe. In these cases, their delay start date was revised to the start date of the hospital’s data collection period and their delay end date was revised to the end date of the hospital’s data collection period. If entire admission/stay or reason fell outside of the study period, those cases or reasons were excluded.

Minimum timeframe: All reasons were required to have a minimum of one unit (i.e., one hour for the ED and one day for IP) to be considered a valid reason. If the reason was under one unit, then all possible efforts were made to shift surrounding times to allow it to meet the minimum (e.g., the second reason start date may have moved slightly to allow the first reason to meet the minimum). If that was not possible, then the reason was excluded.



Health Economics Program

PO Box 64882

Saint Paul, Minnesota, 55164-0975

651-201-4520 | health.HEP@state.mn.us

www.health.state.mn.us/healthconomics

Wilder Research®

Information. Insight. Impact.

451 Lexington Parkway North

Saint Paul, Minnesota, 55104

651-280-2700 | www.wilderresearch.org

07/15/2024

To obtain this information in a different format, call: 651-201-4520