Mental Health Care: The Hospital and EMS Perspective

Brian Edwards

EMS Chief

Northfield Hospital + Clinics

Introduction

- EMS Chief, Northfield Hospital
- Paramedic since 1993
- Crisis Negotiator for South Metro SWAT team, since 2012
- CIT-trained; basic and advanced negotiations training plus monthly team training
- Member of the Minnesota Emergency Medical Services Regulatory Board
  - Participated as part of an EMSRB work group in 2007; resulted in this report:
    - ***EMS Behavioral Health Report:*** *An Examination of the Challenges of Transporting Behavioral Health Patients in Minnesota and Recommendations for Improvement*
      - Many of the recommendations from that report have **still not been implemented**.

Disclaimers

- I am not speaking as an EMSRB board member.

- This presentation was originally given to local elected officials, with a few minor changes.

Our EMS System

- Serve 284 square miles across four counties (Rice, Dakota, Goodhue, Scott). Except for Northfield, predominantly rural.
- Thirty-five paramedics and EMT's
- Shift coverage:
  - Two ambulances "24/7"
  - One ambulance "12/6"
  - Dynamic deployment to three different stations (Northfield, Elko New Market, and Lonsdale)
- First responder agencies (not including mutual aid): four police agencies, four sheriff's offices, seven fire departments, plus state patrol.
- Mutual aid agreements with all neighboring agencies
- About 3700 requests for service in 2020 (over 4k budgeted)

“Fun” Facts

- Cost of a new ambulance:
  - Chassis and module: $250,000
  - Stretcher and mount: $20,000
  - Cardiac monitor: $38,000
  - Stair chair: $2000
  - Radios (3): $15000
  - Computer: $3500
  - IV pumps (2): $7000
  - LUCAS CPR device: $16000
  - Other equipment, medications, and soft goods: $20000
- Total: **$371,500.00**
- Cost to field one ambulance for one “24/7” year ≈ $1.2M (staffing, supplies, overhead, fuel, insurance, benefits, etc.)
  - Our costs are not fixed or limited by regulations, but our reimbursement is...

The Patient

- Mental illness can affect anyone
  - Nearly one in five persons in the US, or 51.5 million (2019)
  - 13.1 million with SMI (SPMI) – about 4% of the population
- *"When looking at differences in life expectancy, the researchers found that men and women with mental disorders on average had life expectancies respectively **10 and 7 years shorter** after the diagnosis of the disease compared to an overall Danish person of the same age."* ~ https://www.sciencedaily.com/releases/2019/10/191025094013.htm
- COVID – more problems, delays in seeking care, confinement (quarantine; social isolation), telehealth issues*

The Patient in Crisis

- Patients with mental illness can exhibit a wide range of symptoms. They can be passive, despondent, quiet, talkative, excitable, delirious, manic, acutely psychotic, dangerous, or any combination of these things and many more.
- Their actions may not be intentional! Much like patients experiencing a medical emergency (hypoglycemia) or traumatic insult (head injury), those suffering through a mental health **crisis** may not know what they are doing; *they are detached from reality*. EMS, law enforcement, and healthcare providers must manage the patient in the safest way possible (safe for the patient **as well as the responder**).

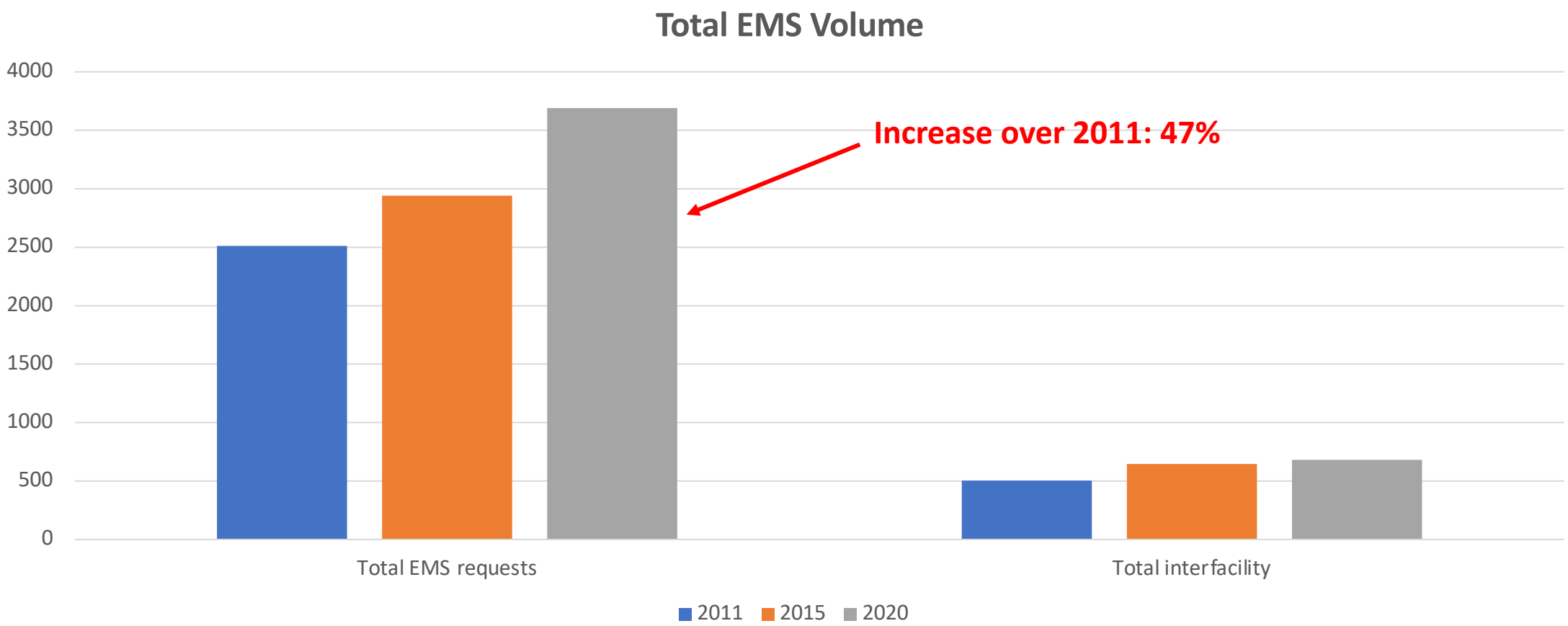
The Patient in Crisis

- The patient in crisis sometimes tries to connect with family, friends, coworkers, or known “safe persons,” such as crisis teams, therapists, a trusted police officer, etc.
- Many times, law enforcement and EMS are summoned. Why?
  - Unknown problem (“person acting erratic”)
  - History with the individual
  - Safety considerations (outdoors, in traffic, in a business)
  - Weapons, lethality
  - Propensity for violence
  - Physical characteristics of the patient

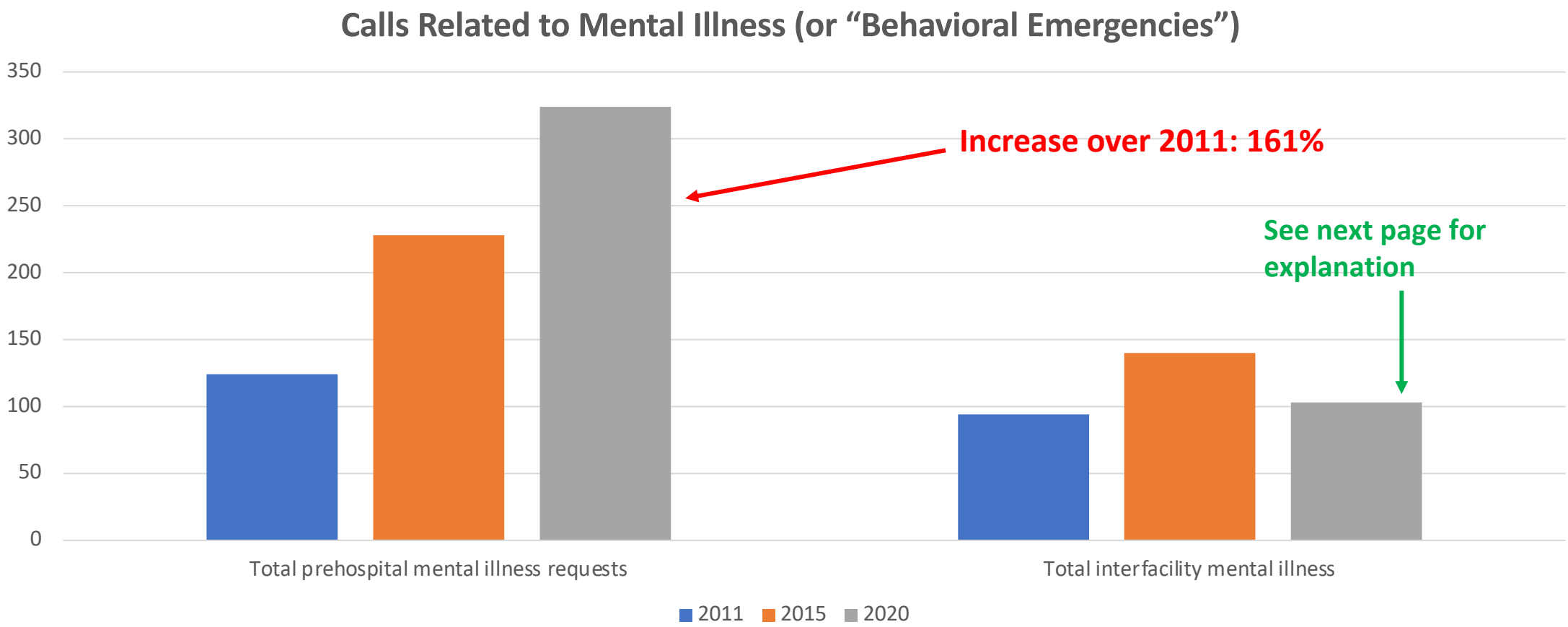
Statistics (Northfield)

- A review of three years in our history: 2011, 2015, and 2020
- Focusing on referrals to out-of-state facilities
- A note about terminology: EMS-specific terms, not always clinically representative or even modern

Statistics


Total EMS Volume
4000
3500
3000
2500
2000
1500
1000
500
0
Increase over 2011: 47%
Total EMS requests
Total interfacility
2011
2015
2020

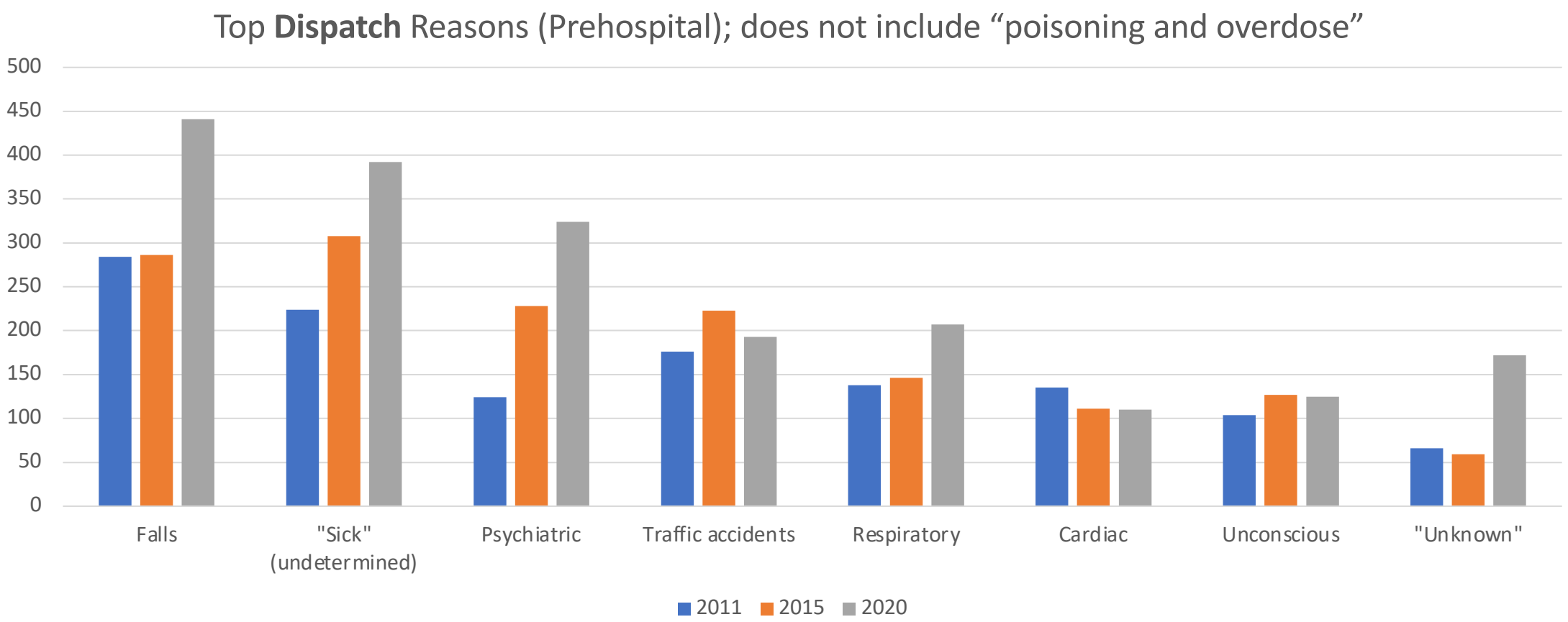
Statistics


Calls Related to Mental Illness (or “Behavioral Emergencies”)
350
300
250
200
150
100
50
0
Increase over 2011: 161%
See next page for explanation
Total prehospital mental illness requests
Total interfacility mental illness
2011
2015
2020

Statistics

- The downturn in interfacility transfers in 2020:
  - Lower overall volume due to COVID (patients not seeking care when they should)
  - Prehospital patients transported to other facilities (as directed by transport hold)
  - More patients unable to be placed; results in patient being held in hospital (most likely, emergency department) for several hours or even days, possibly through duration of immediate crisis. Once reassessed through telehealth, patient is discharged. This is generally a less-than-optimal and last resort solution!

Statistics


Top **Dispatch** Reasons (Prehospital); does not include “poisoning and overdose”
500
450
400
350
300
250
200
150
100
50
0
Falls
"Sick" (undetermined)
Psychiatric
Traffic accidents
Respiratory
Cardiac
Unconscious
"Unknown"
2011
2015
2020

Interfacility Transfers from Northfield Hospital

- Where patients have been transported since 2011:
  - **50+ different receiving facilities**, including sites in Minnesota, North Dakota, South Dakota, and Wisconsin
    - *Concerns about the legality of a MN transport hold being legally effective in other states; we know for a fact WI won't honor.*
  - Detox centers (no medical need for ambulance, but the detox centers don't have staff for transport; leads to an ambulance bill >$3000)
  - Inpatient facilities such as Fargo, Grand Forks, Thief River Falls, Hutchinson, Willmar, Duluth, New Ulm
  - Ambulances pass each other: *"our ambulance was taking a patient to _____ hospital, and that ambulance was taking their patient to _____ hospital. Those hospitals were closer to us than the ones we were each going to!"*

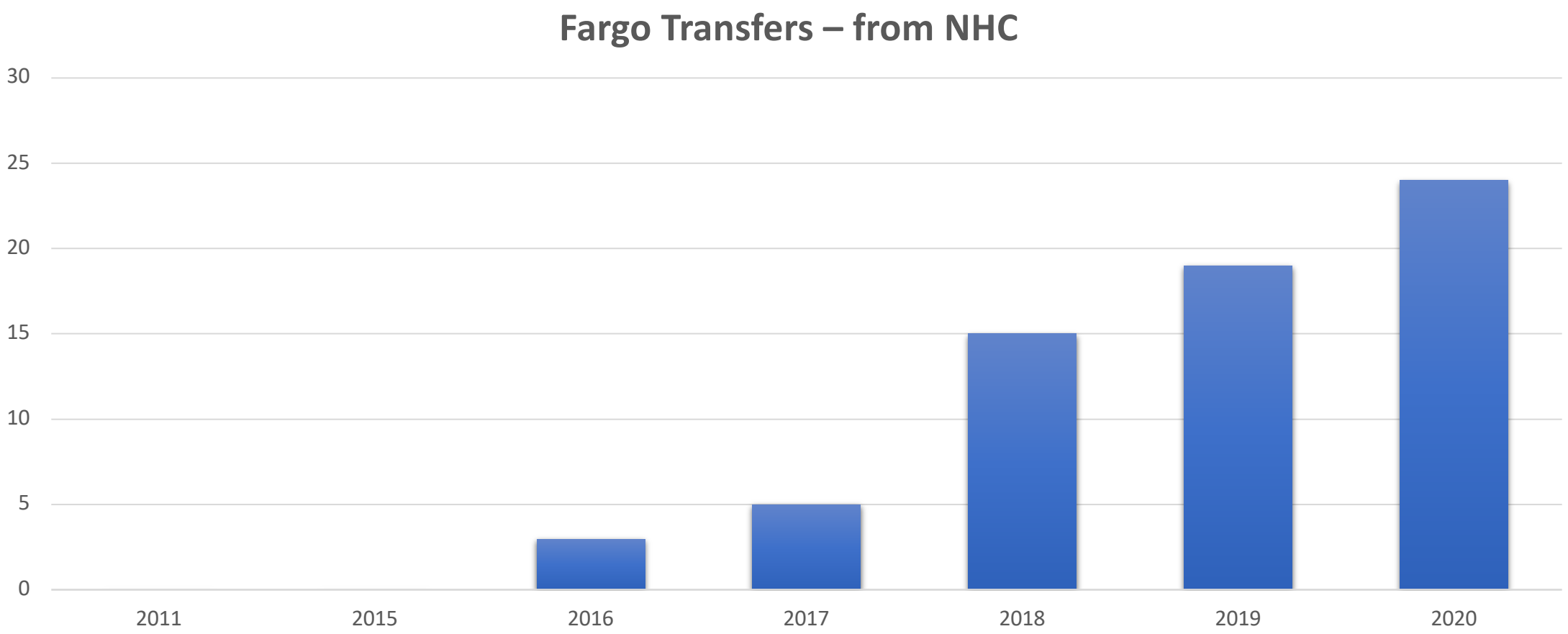
Interfacility Transfers

- Referrals are to “wherever there is a bed,” not to where the patient wants to go or where they can get the best care for their unique needs. *Imagine that being the same for cardiac, stroke, and trauma patients.*
- Patients with multiple complicating factors are more difficult to place:
  - Chemical dependency
  - Aggression/violence (and jails will not accept, sometimes even after crime)
  - Pediatric
  - Geriatric
  - TBI
  - Lack of insurance…or the “wrong kind” of insurance

Interfacility Transfers

- Where patients are **not** routinely being transferred: except for the occasional transfer to Rochester, any of the other five, 16-bed **Community Behavioral Health Hospitals** across the state (https://mn.gov/dhs/people-we-serve/adults/services/direct-care-treatment/programs-services/community-behavioral-health-hospitals/: Alexandria, Annandale, Baxter, Bemidji, Fergus Falls, Rochester)
  - *"The goal of a CBHH is to provide care **as close to a patient's home community as possible**, making it more likely that they will have the support of family, friends and coworkers. **Having that support can make a big difference in a patient's treatment and recovery.**"*

Getting Care in North Dakota



Cost of Care – 2020 (Fargo)

Patients Transferred to Fargo	
Average hospital charges	$4,348.00
Average reimbursement	*$1,831.00 (42%)*
Average EMS charges (transfer to Fargo)	$13,061.00
Average reimbursement	*$2,721.00 (21%)*
Average reimbursement by Medicaid	*$746.00 (**5.7%**)**
Average total cost of care (prehospital, hospital, transfer)	$18,575.00
Average patient age	33
Youngest	11
Oldest	64 (only one MCR beneficiary)

* For some claims, DHS (Medicaid) has denied covering the mileage charges due to patient not going to “closest facility.”

Cost of Care – 2020 (Fargo)

- Of the 24 patients transferred to Fargo in 2020:
  - Nine: Medicaid recipients (38%)
  - Four: self-pay (17%)
  - Three: unknown
  - Eight: private insurance (probably above average compared to rest of state) (33%)

  - Unsure how these numbers compare to mental health patients transported to other facilities; likely representative

Statewide

- Not unique to Northfield…
- In 2020, statewide EMS data:
  - Iowa – 4 patients
  - Wisconsin – 54 patients
  - South Dakota – 136 patients
  - **North Dakota – 903 patients**
- **A total of 1097 persons were transferred from MN facilities to neighboring states.** This doesn't include IL or MI (anecdotal reports of patients being transferred to those states).
  - Due to the way different EMS providers chart patient presentations, the actual number could be more or less, but is generally representative.
- *Note: It would be appropriate that some MN facilities would refer to other states due to proximity.*

Considerations for Long-Distance Transfers

- Dangerous weather
- Ambulance not available for many hours (this problem is what led to the original EMSRB workgroup in 2007).
  - Average mission time for prehospital request in Northfield: about 60 minutes
  - Average mission time for transfer to tertiary care (stroke, trauma, cardiac): about 2.5 – 3 hours
  - Round trip time for long-distance transfers (includes load and unload times):
    - Fargo: 11 hours
    - TRF: 13 – 14 hours
    - Hutchinson: 5 hours
    - Duluth: 8 hours
    - A typical EMS shift in Northfield is 12 hours

Considerations for Long-Distance Transfers

- Patients may be physically restrained or sedated for entirety of trip; *cannot risk flight at 70 mph on the interstate or in winter.*
- Patient and providers possibly unable to use restroom (male/female crew/patient configurations)
- Eating/drinking in ambulance – ugh!
- Boring!!!
- Uncomfortable – ambulance stretcher not made for comfort for a six-hour trip
- High cost for EMS service; particularly troublesome for volunteer services to take their only ambulance out of service for hours.

“Above all, do no harm”

- Patients boarded for hours (sometimes days) waiting for placement. A local community hospital is not an ideal (or even good) location for someone in crisis.
- A long, long way from home
- “How do I get back?”
- Lack of family or social support
- Round trip for court appearance if needed
- “How do I pay for this?”
- “Who is going to take care of my dog?”
- “What about school/job?”
- “Why can’t you take me someplace closer?”
- "I DIDN'T CHOOSE THIS!"

Other Considerations

- Every other patient type, except for chemical dependency and mental illness, gets excellent treatment in Minnesota.
- I cannot tell you if there is a single underlying problem, but what I've heard:
  - Not enough trained professional staff (psychiatry, psychology, therapists, etc.)
  - Not enough beds (system capacity)
  - Low reimbursement rates for providers and systems
  - Regulatory restrictions (unable or too costly to build)
  - Lack of pre-crisis care
  - Lack of post-crisis support
  - Persons living with mental illness may have other complicating factors: homelessness, chemical dependency, no or minimal social support, unemployment, underlying medical conditions apart from their mental illness

Parting Thoughts

- EMS can not be a primary responder to the person in crisis in many situations, without law enforcement assistance.
  - EMS can be part of preventative care and post-crisis care, but must be reimbursed (community paramedics?)
  - EMS can be an effective part of crisis response, with the proper training and partnerships with LE and MH
- Statutes regarding mental health holds (§253B.05) was changed in 2020 (HF 011?). Became §253B.051. EMS, healthcare, and law enforcement not notified; possibly no public hearing. Intent of change was admirable but may create more problems.

Parting Thoughts

- New "Use of Force" statute: will likely lead to fewer law enforcement responses to mental health crises. And with no LE, there will be no EMS response.
- Speculation, but likely true: under-served patients are even more likely to use emergency services for care as opposed to getting proper primary, preventative care.
- The state of Minnesota is already paying for care, it’s just paying for the most expensive (and likely least effective) type of care.
- *Imagine being that person that has no options, either as a patient or a family member...*

Thank You!

- Questions or comments
- edwardsb@northfieldhospital.org
- 507-646-1444