Care & Throughput in Emergency Crisis and Acute Treatment Services for Children and Youth – Pandemic Impact

February 9, 2022

Agenda

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01

Throughput

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"Throughput"

Definition – Productivity of a machine, procedure, process, or system over a unit period.

Throughput In Crisis Care – Time from inquiry through admission, discharge, follow-up, and eventual stabilization. A smooth even flow without preventable delays.

Systems vs. Program Level Analyses

System Level Analysis

- Problems with access, efficiency, being stuck in care, are primarily influenced by the inter-relationships between various services and levels of care
- Problems are viewed as a **Systems Issue**

Program Level Analysis

- Problems with access, efficiency, being stuck in care, are influenced by the dysfunction in one or more levels of care
- Problems are viewed as a **Program Issue**

02

"Impact of COVID & Rising Acuity"

2020 – Beginning of the "COVID-19" Pandemic

- Enrollment Changes – suspending renewal timeframes
- Lifting of Prior Authorization (PA) for most levels of care (for dates of service after April 1, 2020), most notably acute inpatient and lower levels of care
  - Many reports for the CT BHP are built off authorization data; disruption in data impacts our ability to understand the totality of COVID's impact
- COVID impacts include fewer Authorizations, social distancing, restriction of non-emergency services, shift to telehealth

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Youth Acuity is Increasing (again)

- Multiple national and state organizations, including the Surgeon General of the U.S., have declared a state of emergency in children's mental health[1]

- 62% of BH organizations have reported a significant increase in demand for service and waiting lists as a result[2]

- A survey in 2020 found that 1 in 4 young adults have seriously considered suicide in the 30 days prior[2]

- COVID has contributed to economic declines for many, and black children are more likely to experience financial distress[3]

- The state of CT is making youth mental health a priority in the new legislative session beginning this week[4]

- Isolation for youth and adolescents is contributing to a rise in social anxiety and depression, onset of new mental health problems, and exacerbation of existing ones[5]

[1] Protecting Youth Mental Health – https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf
[2] National Council for Mental Wellbeing - Behavioral Health Workforce is a National Crisis 2021
[3] Fletcher, M. https://theundefeated.com/features/new-poll-shows-how-the-pandemic-has-devastated-black-families/
[4] CT Mirror Legislators hope to make MH for children a top priority - https://www.courant.com/politics/hc-pol-children-mental-health-connecticut-legislature-20211130-3l6nvrmu5fchhma7ra5zkmqtxm-story.html
5 Centers for Disease Control and Prevention, "Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020," 2020, August

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03

Membership

Membership – Enrollment is Increasing for Youth

Figure 1: Total HUSKY Health Membership Volume by Age Group[3]

[3] Please note Youth Members with and without Duals appear to overlap on the line graph due to similar volumes

- Youth membership without duals increased by 0.8% from 339,158 members in Q4 2020 to 341,904 members in Q1 2021

- By the end of Q2 2021, there were 344,688 youth members without duals, an additional 0.8% increase from the previous quarter

Chapter ⓘ

04

ED Utilization

Youth Behavioral Health (BH) Emergency Department (ED) Visits and Unique Youth Visitors (Jan 1, 2020 through June 30, 2021)

- 17,612 BH ED visits by 10,277 unique visitors

- CCMC & Yale have the largest volumes

- Roughly even split between males (51%) and females (49%)

- The black population is disproportionally lower in BH ED utilization

- Nearly 63% of all youth visits have a primary diagnosis of BH vs. 55% for the adult population

- Those youth 13 to 17 account for the majority (62% of visits)

Youth Behavioral Health (BH) Emergency Department (ED) Visits and Unique Youth Visitors[1]

- Numbers of Visits and Unique Visitors are down since 2018 but have seen a significant rise in recent months (not shown)

Member BH ED Visit Frequency
Hover to see all BH ED visit counts

- Most users of the ED visit once but 2,777 of BH ED users have 2-5 visits.

Member BH ED Visit Frequency by Primary Diagnosis

	Medical	Mental Health	Substance Use
1 Visit	4,007	4,086	436
2-5 Visits	950	1,684	42
6-10 Visits	25	177	1
11-15 Visits	4	33	
16-20 Visits	1	7	
>20 Visits	1	2	

- The majority of youth ED visits have a primary dx of BH (MH or SUD)
- Those with a primary BH dx. are more likely to have multiple visits

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[1] Due to claims lag this data is only available through 7/21

BH ED Visits and Visitors and Rates of Hospital Admissions

BH ED Visits and Unique Members by Provider
(● Unique Members | ● BH ED Visits) Click on a bar to filter other graphs by provider

Provider	Unique Members	BH ED Visits
CONNECTICUT CHILDRENS MEDICAL CENTER	3,006	4,885
YALE NEW HAVEN HOSPITAL	2,011	3,162
THE WILLIAM BACKUS HOSPITAL	644	1,047
BRIDGEPORT HOSPITAL INC	753	952
LAWRENCE AND MEMORIAL HOSPITAL	457	704
THE HOSPITAL OF CENTRAL CONNECTICUT	473	674
ST MARYS HOSPITAL	446	632
DANBURY HOSPITAL	388	579
THE CHARLOTTE HUNGERFORD HOSPITAL	336	573
STAMFORD HOSPITAL	335	481
DAY KIMBALL HOSPITAL	292	472
SVMC HOLDINGS, INC	317	434
WINDHAM COMM MEM HOSPITAL	252	425
PROSPECT WATERBURY INC	261	358
MIDSTATE MEDICAL CENTER	256	331
MIDDLESEX HOSPITAL	201	311
NORWALK HOSPITAL	188	280
BRISTOL HOSPITAL	198	263
PROSPECT MANCHESTER HOSPITAL INC	176	223
ST FRANCIS HOSPITAL MEDICAL CENTER	145	210
GRIFFIN HOSPITAL	111	156
PROSPECT ROCKVILLE HOSPITAL INC	86	115
GREENWICH HOSPITAL	64	84
HARTFORD HOSPITAL	62	70
NEW MILFORD HOSPITAL	56	68
JOHNSON MEMORIAL HOSPITAL	50	65
STATE OF CONNECTICUT - JD	43	46
SHARON HOSPITAL	12	12

- CCMC and Yale account for 45.7 % of all youth BH ED visits and 48.8% of all BH ED visitors

- Rates of admissions to inpatient vary from 47.6% to 0% based on volume, whether the hospital has a pediatric unit, and other factors

- Overall rate of IP from ED admission is down from 17.9% in Q1 2018 to 16.1% through June of 2021

Percent of All Inpatient Admissions 0-1 Days Post BH ED Visit by Provider
Click on a bar to filter other graphs by provider. Hover to see Inpatient type breakout

Provider	Percent
ST FRANCIS HOSPITAL MEDICAL CENTER	47.6%
SVMC HOLDINGS, INC	36.6%
YALE NEW HAVEN HOSPITAL	32.7%
JOHNSON MEMORIAL HOSPITAL	27.7%
PROSPECT MANCHESTER HOSPITAL INC	26.0%
HARTFORD HOSPITAL	22.9%
NEW MILFORD HOSPITAL	16.2%
DANBURY HOSPITAL	15.7%
THE CHARLOTTE HUNGERFORD HOSPITAL	15.4%
WINDHAM COMM MEM HOSPITAL	15.3%
PROSPECT WATERBURY INC	14.8%
THE WILLIAM BACKUS HOSPITAL	14.5%
NORWALK HOSPITAL	13.2%
CONNECTICUT CHILDRENS MEDICAL CENTER	13.1%
PROSPECT ROCKVILLE HOSPITAL INC	12.2%
STAMFORD HOSPITAL	12.1%
GRIFFIN HOSPITAL	10.9%
STATE OF CONNECTICUT - JD	10.9%
MIDDLESEX HOSPITAL	10.6%
DAY KIMBALL HOSPITAL	9.7%
GREENWICH HOSPITAL	9.5%
LAWRENCE AND MEMORIAL HOSPITAL	9.2%
BRIDGEPORT HOSPITAL INC	8.3%
MIDSTATE MEDICAL CENTER	8.2%
ST MARYS HOSPITAL	7.6%
THE HOSPITAL OF CENTRAL CONNECTICUT	5.0%
BRISTOL HOSPITAL	3.4%
SHARON HOSPITAL	0.0%

Statewide: 16.8%

ED Stuck

ED Stuck 2019 to Q4 2021 – Volume and Discharge Disposition

Quarterly ED Stuck Volume
Not unique members; Excluding CARES
● Total ED Stuck | ● Recommended IPF | ● Recommended PRTF | ● Recommended SFIT | ● Recommended Other LOC

Quarterly ED Stuck Discharge Disposition
Not unique members; Excluding CARES
● Admitted to IPF | ● Admitted to PRTF | ● Admitted to SFIT | ● Discharged to Other LOC

- ED stuck volume was relatively stable through 2019 and 2020 but began trending up in 2021 reaching a quarterly high of 768 episodes involving 664 unique individuals during Q4, 2021

- Since Q1, 2020, the most common disposition for ED stuck was an Inpatient Psychiatric Admission except for Q4 2021 where other LOC was the most common

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Emergency Department (ED) Stuck Average Length of Stay (ALOS) - 2019 through 2021

ALOS Q3, 2021

- In addition to an increase in volume, beginning in Q3 of 2020 and extending through 2021, the average number of days stuck has been trending up as well, from a low of 2.1 days to a high of 4.9 days in the Q3 of 2021 (note - Q4 2021 data may not be reliable due to lags in reporting)

- In Q3, 2021 over 800 episodes had an ALOS of 4 or more days

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Youth Inpatient Psychiatric Hospital Per Member Per Month (PMPM)

- Authorization for inpatient services was suspended on April 1, 2020 and reinstated on May 21, 2021

- Beacon is in the process of shifting all of our utilization reporting from authorization to claims based, however, we had developed a claims based PMPM dashboard several years ago which does provide some insight

- Until additional reports are updated, we are using PMPM to provide an estimate of inpatient utilization

Youth Member Months

Membership and thus member months increased during the pandemic.

Youth PMPM

PMPM for inpatient initially declined at the beginning of the pandemic and then increased reaching a peak in Q2, 2021 despite an increase in membership.

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Inpatient Discharge Delay

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Discharge Delay (DD) – Definition and History

- When a child is ready to leave a psychiatric hospital, but a needed service is not immediately available, the child's discharge is delayed

- DD was an initial focus of the CTBHP and between 2008 and 2019, BEACON, DCF, DSS, and Providers worked to reduce DD by 72%

- Over the last 18 months, Discharge Delay has remained relatively stable as other indicators show changes that can negatively impact throughput

Total Discharge Delay Days
CY 2008 to YTD 2019

Line chart showing Total Delay Days by year:
- 2008: 9,959
- 2009: 5,133
- 2010: 6,854
- 2011: 3,555
- 2012: 3,677
- 2013: 3,177
- 2014: 2,476
- 2015: 2,588
- 2016: 3,163
- 2017: 2,653
- 2018: 3,538
- 2019: 2,108

Discharge Delay

Number of Discharged on Discharge Delay: All Providers[1]

[1] Excluding Prospect Manchester and SVMC Holdings

- The number of discharge delay cases has remained relatively stable over the six quarters with a high of 31 cases in Q3 2020 and a low of 22 cases in Q2 2021

- Prospect Manchester and SVMC Holdings are excluded as they were not participating in PA during this time (1/1/2020 to 5/31/2021)

Discharge Delay – Percent Days Delayed, and Delay Reason

Percent Delayed Days for All Providers[1]

- Q1 '20: 9.09%
- Q2 '20: 12.01%
- Q3 '20: 5.54%
- Q4 '20: 8.05%
- Q1 '21: 9.80%
- Q2 '21: 8.05%

[1] Excluding Prospect Manchester and SVMC Holdings

Number of Youth on Delay by Delayed Reason at All[1]

	CY 2020	Q1 & Q2 2021
Aw PI - StateHosp	49	18
Aw PI - PRTF	35	13
Aw PI - Solnit PRTF	11	9
Aw PI - Community PRTF	2	2
Aw PI - GH 2.0	5	1
Aw PI - TherpeFostCa	2	3
Aw PI - RTC		1
Educa Prog Not Avail		
Aw PI - RegularFosCa	1	
Aw Comm Serv - DDS	1	

[1] Excluding Prospect Manchester and SVMC Holdings

- The percent of delay days reached a high of 12.01% in Q2 2020, while seeing a dip to 5.54% in Q3 2020

- For CY 2020 and the first half of 2021, most Youth inpatient members on discharge delay were awaiting a State Hospital placement
- This is consistent with CY 2019 when awaiting State Hospital placement was also the most likely reason for discharge delay

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08

PRTF

ALBERT J. SOLNIT CHILDREN'S CENTER
NORTH CAMPUS

A Psychiatric Residential Treatment Facility
Connecticut Department of Children and Families

DCF
CONNECTICUT

Solnit South

The Village
Where real change happens

THE CHILDREN'S CENTER OF HAMDEN

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Psychiatric Residential Treatment Facilities (PRTF)

- A PRTF is an intermediate level of care for youth between acute inpatient psychiatric hospital care and residential psychiatric treatment programs.

- PRTF is often utilized as a step-down from acute inpatient care or as an alternative to inpatient care for those youth that may be effectively served in a staff secure, vs. locked program.

- A PRTF is distinguishable from a residential treatment center (RTC) in the expected or planned length of stay (shorter than RTC) level of psychiatric acuity typically served (higher than RTC), and level of staffing (typically higher than an RTC).

- In Connecticut, there are 4 PRTF Programs in operation at present.
  - 1 state operated PRTF for girls ages 13-17 at Solnit South
  - 1 state operated PRTF for boys ages 13-17 at Solnit North
  - 1 privately operated for boys and girls ages 7-16 at Children's Center of Hamden
  - 1 privately operated for boys and girls ages 6-12 at the Village for Children and Families

Psychiatric Residential Treatment Facilities (PRTF)

Discharges

- Overall discharge volume increased 20.7% among all four locations, from 150 discharges in 2019 to 181 discharges in 2020.

- PRTF discharge volume decreased 28.0% since the end of 2020, from 50 discharges in Q4 2020 to 36 discharges in Q2 2021, mostly as a result of COVID-19 transmission concerns and precautions.

- Overall ALOS decreased by 14.3% (24.5 days) since 2018, ending 2020 at 146.9 days. ALOS was stable in the first half of 2021, with 146.5 days in Q1 2021 and 139.8 days in Q2 2021.

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Summary

Summary

COVID 19 has contributed to a dramatic increase in youth acuity and has also destabilized the service system

Lifting of PA has obscured our line of sight into **IPH utilization**, but estimates based on PMPM show rising utilization and demand despite only slight increases in capacity

Inpatient DD had been stable through the first half of 21 and so far system adjustments have helped to prevent an increase to-date

BH ED visits and ED stuck were trending down early in the pandemic but began to rise during early 2021 and have been spiking in recent moments.

THROUGHPUT has slowed particularly for crisis services

A longer term trend in decreasing LOS for **PRTF** despite some declines in discharges appears to have stabilized throughput for PRTF

Increase in Youth Membership is also further challenging the system

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Update - Recent Activities to Address Throughput

Formation of three workgroups and actions taken:

- Inpatient psych. bed expansion (17 new beds in the system)
- Mobile crisis enhancement (24/7, geo-tracking, real-time appointment scheduling)
- Expand the use of Mobile Crisis to triage youth to serve as an alternative to the EDs
- Intensive Transition Care Management services to improve throughput

- Exploring Intermediate levels of care, including enhanced care clinics and PRTF models
- BH Crisis Center (formerly BHUC) and sub-acute crisis stabilization work underway
- Expedite implementation of one or more BH Urgent Care (Crisis) Center programs and collect data
- Developing an Alternative Payment Model (APM) for outpatient services through a multi-state agency workgroup.

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Discussion