Connecticut BHP
Supporting Health and Recovery

beacon
health options

Child Health and Development Institute of Connecticut, Inc.

DCF
CONNECTICUT

Heavy Traffic Ahead -

Improving Care & Throughput in Emergency Crisis and Acute Treatment Services for Children and Youth

September 8, 2020

Agenda

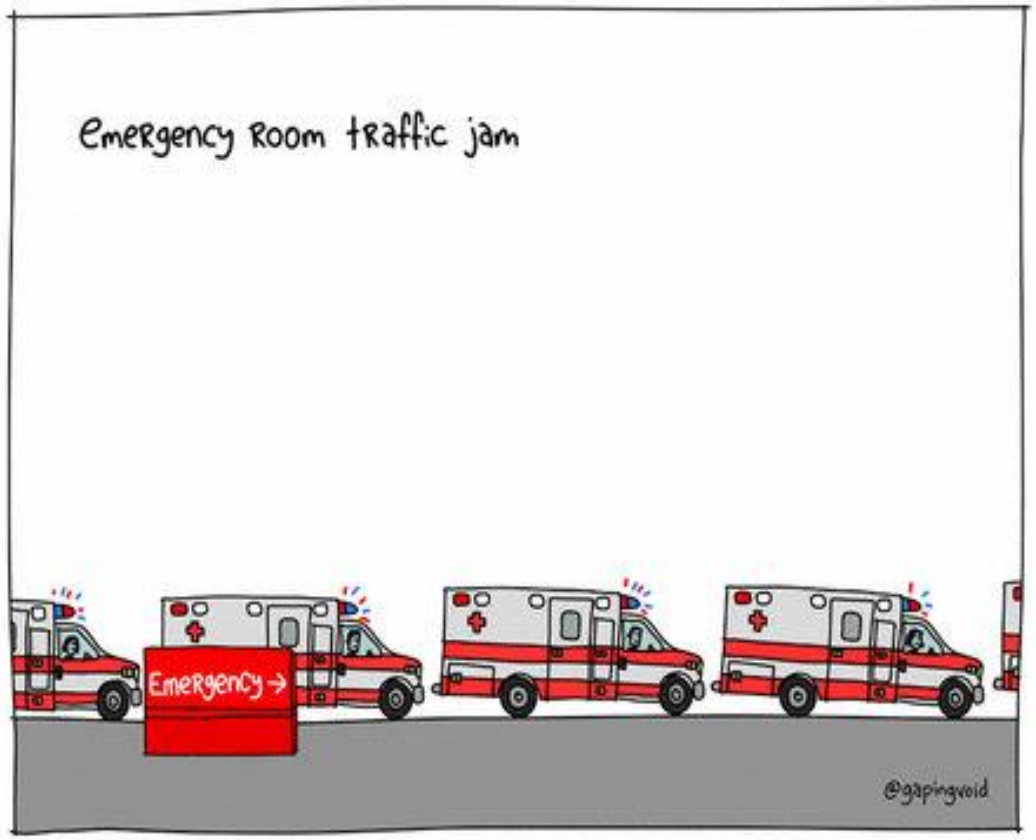
1	Throughput	2	Rising Acuity
3	Trends in ED Utilization	4	ED Stuck
5	Inpatient Utilization	6	System Capacity
7	Mobile Crisis Intervention Service	8	Alternative Services
9	Wrap Up	10	Q & A

Chapter

01

Throughput

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.

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Systems vs. Service Analysis

System Level Analysis

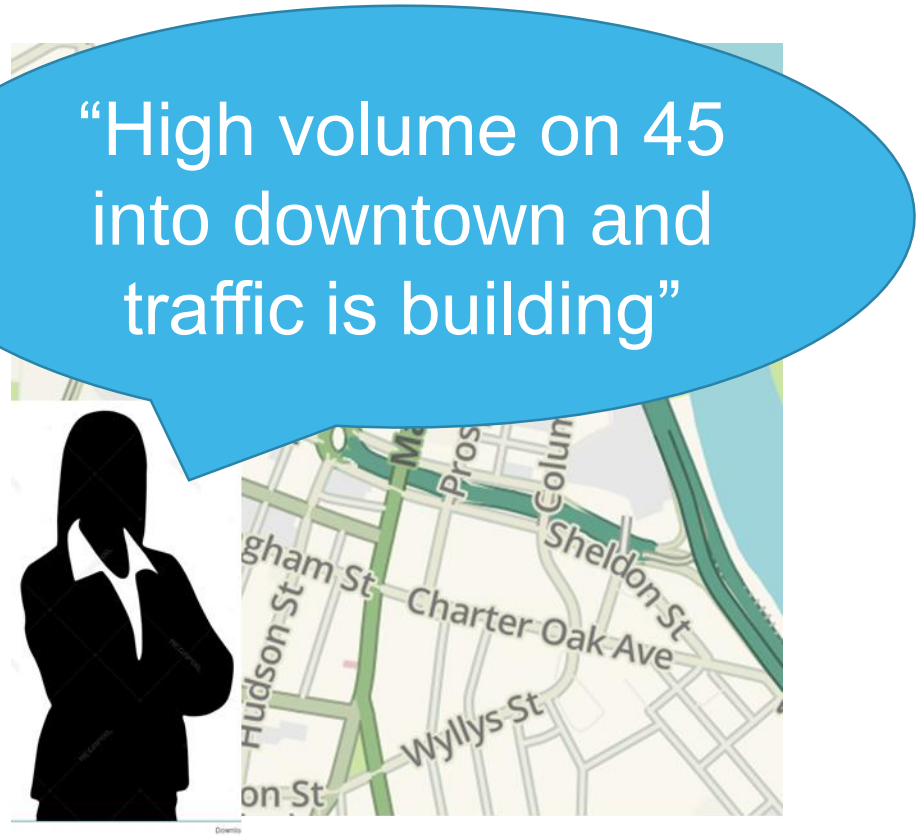
- Problems with access, efficiency, being stuck in care, are primarily influenced by the inter-relationships between various services and levels of care.
- Problems are viewed as a **SYSTEMS Issue**

Program Level Analysis

- Problems with access, efficiency, being stuck in care, are influenced by the functioning of the particular level of care where the problem exists.
- Problems are viewed as a **Program Issue**

Chapter

02



“Impact of Rising Acuity”

Youth Acuity is Increasing as Indicated by Suicide Rates

RESEARCH LETTER

Trends in Emergency Department Visits for Nonfatal Self-inflicted Injuries Among Youth Aged 10 to 24 Years in the United States, 2001-2015

JAMA November 21, 2017 Volume 318, Number 19

Melissa C. Mercado, PhD, MSc, MA
Kristin Holland, PhD, MPH
Ruth W. Leemis, MPH
Deborah M. Stone, ScD, MSW, MPH
Jing Wang, MD, MPH

Death Rates Due to Suicide and Homicide Among Persons Aged 10–24: United States, 2000–2017

Sally C. Curtin, M.A., and Melonie Heron, Ph.D.

NCHS Data Brief ■ No. 352 ■ October 2019

Suicidal Attempts and Ideation Among Children and Adolescents in US Emergency Departments, 2007-2015

JAMA Pediatrics June 2019 Volume 173, Number 6

Brett Burstein, MDCM, PhD, MPH
Holly Agostino, MDCM
Brian Greenfield, MD

Hospitalization for Suicide Ideation or Attempt: 2008–2015

Gregory Plemmons, MD,[a] Matthew Hall, PhD,[b] Stephanie Doupnik, MD,[c] James Gay, MD, MMHC,[a] Charlotte Brown, MD,[a] Whitney Browning, MD,[a] Robert Casey, MD,[a] Katherine Freundlich, MD,[a] David P. Johnson, MD,[a] Carrie Lind, MD,[a] Kris Rehm, MD,[a] Susan Thomas, MD,[a] Derek Williams, MD, MPH[a]

Summary of Suicide as a proxy for acuity

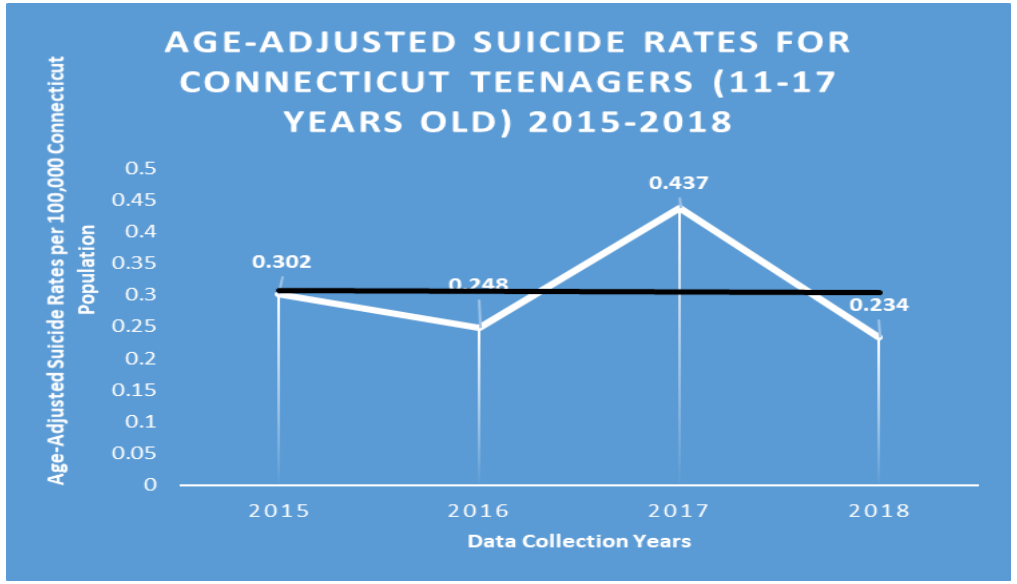
NATIONAL RATES

- Increase in suicides among youth affected males and females, but has been more noticeable among females.
- Emergency department visits for non-fatal, self-inflicted injury have increased 50% to 92% from early-mid 2000s to 2015.
- The proportion of use of emergency department for suicide ideation (SI) and suicide attempt (SA) nearly tripled (2.76-fold) from 2008 to 2015.

CONNECTICUT RATES

- CT Rates have trended lower than national rates.
- CT saw a doubling of youth suicide rates (age 10-14) but this is due to small numbers (went from 1 to 2).

CT Rates of Teen Suicide Deaths (DPH)



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Chapter

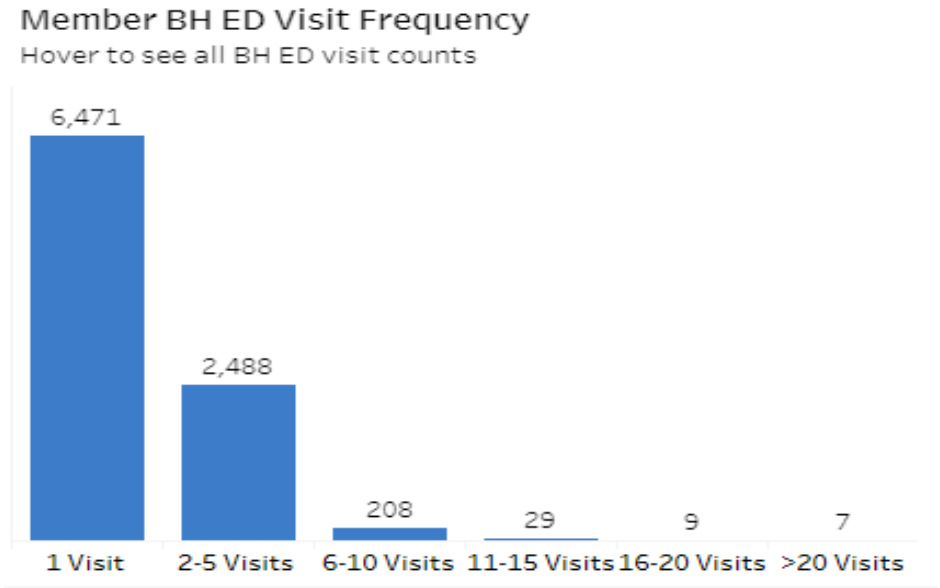
03

ED Utilization

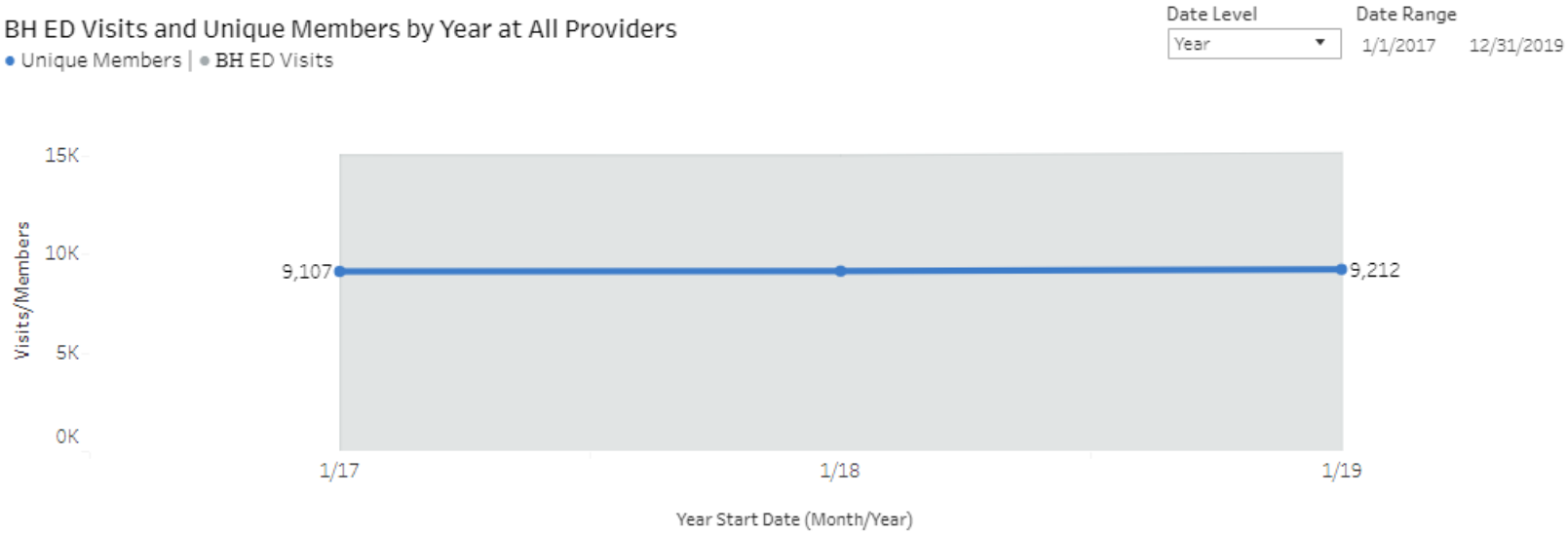
Behavioral Health (BH) Emergency Department (ED)

BH ED Visits & Unique Youth Visitors

All Providers |Includes BH ED Visits from January 1, 2019 to December 31, 2019



- The majority of youth that visit the ED with a BH diagnosis visit once
- The rate of BH ED visits was essentially flat from 2017 to 2019 (a 0.86% increase)



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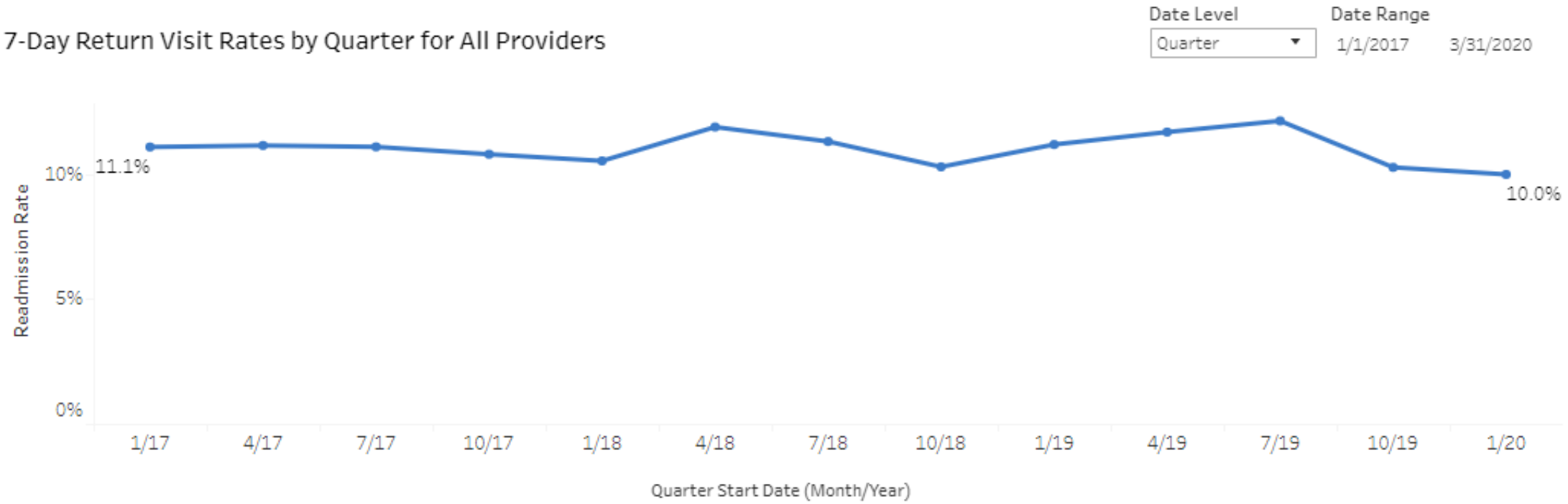
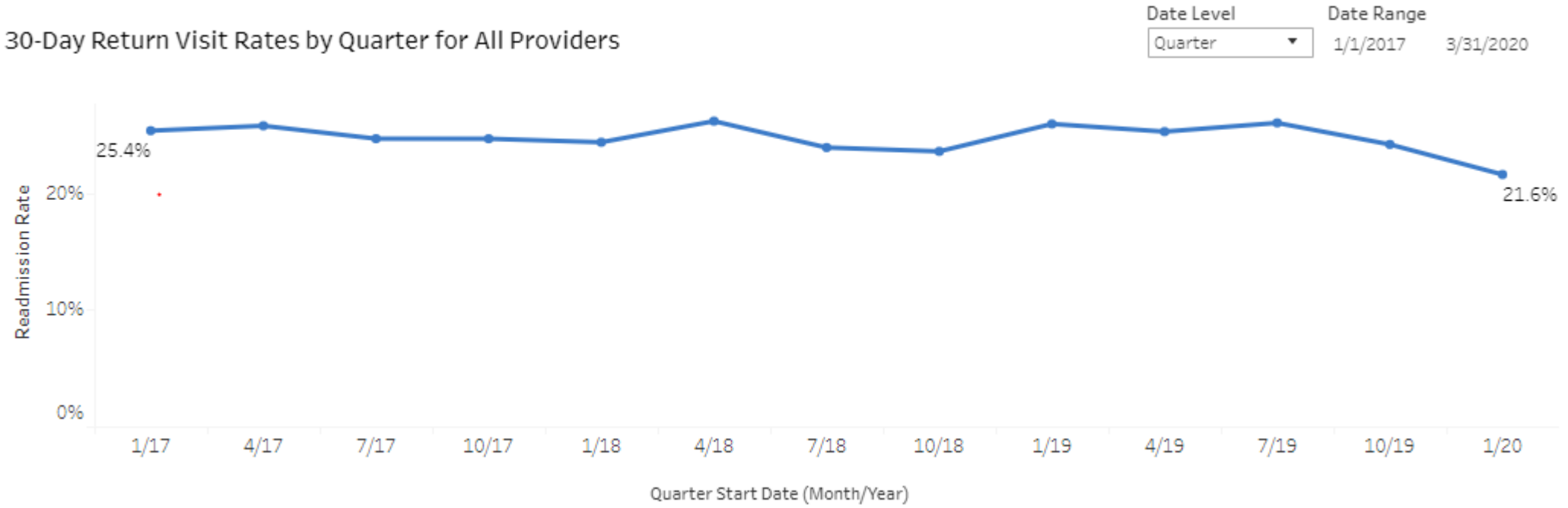
Behavioral Health (BH) Emergency Department (ED)
Youth Return Visits within 7 Days (Readmission)



- Provider rates for 7-day BH readmissions to the ED varied from 22% to 0% in Q1 ’19 to Q1 ‘20.
- The statewide 7-day rate has remained flat since 2017 at around 11%.

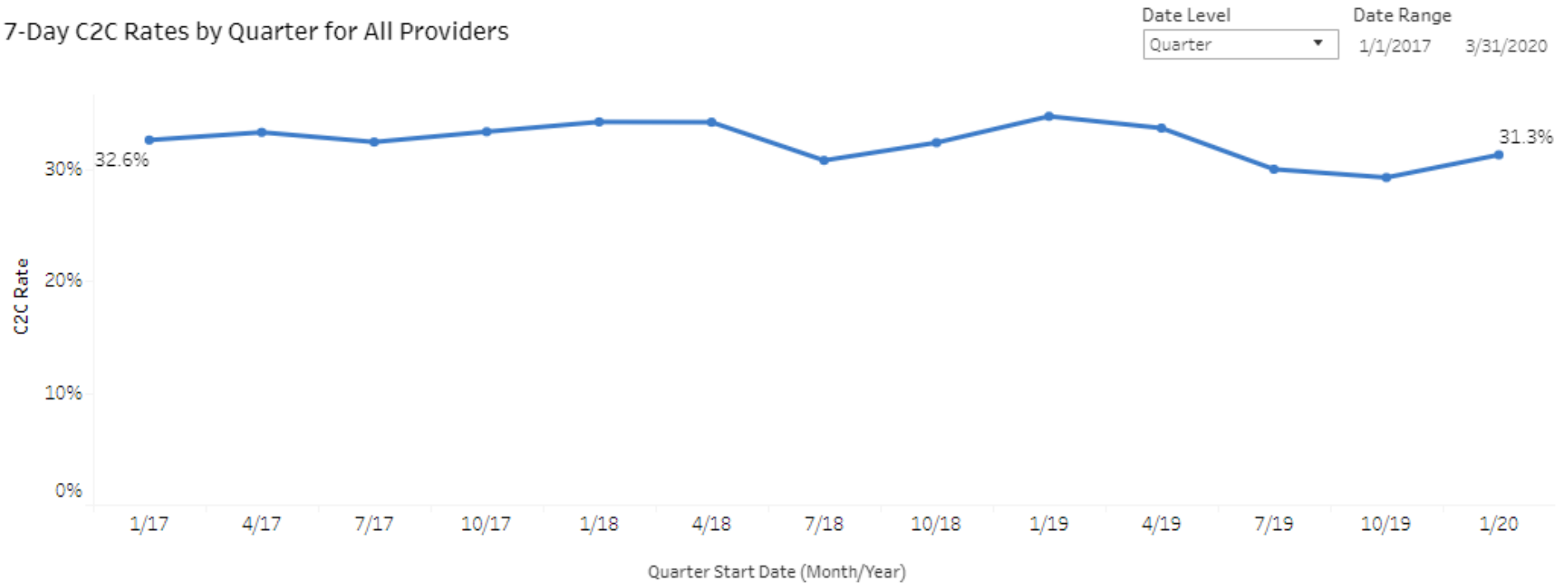
Behavioral Health (BH) Emergency Department (ED)
Youth Return Visits within 30 Days (Readmission)



- Provider rates for 30-day BH readmissions to the ED varied from 34% to 12.5% in Q1 ‘19 to Q1 ’20.
- The statewide 30 day rate was also relatively flat from 2017 - 2019 at roughly 25%. It is likely that the decrease in Q1 ‘20 was at least partly related to COVID-19 as members sheltered at home and were reluctant to go to the ED.

Behavioral Health (BH) Emergency Department (ED)

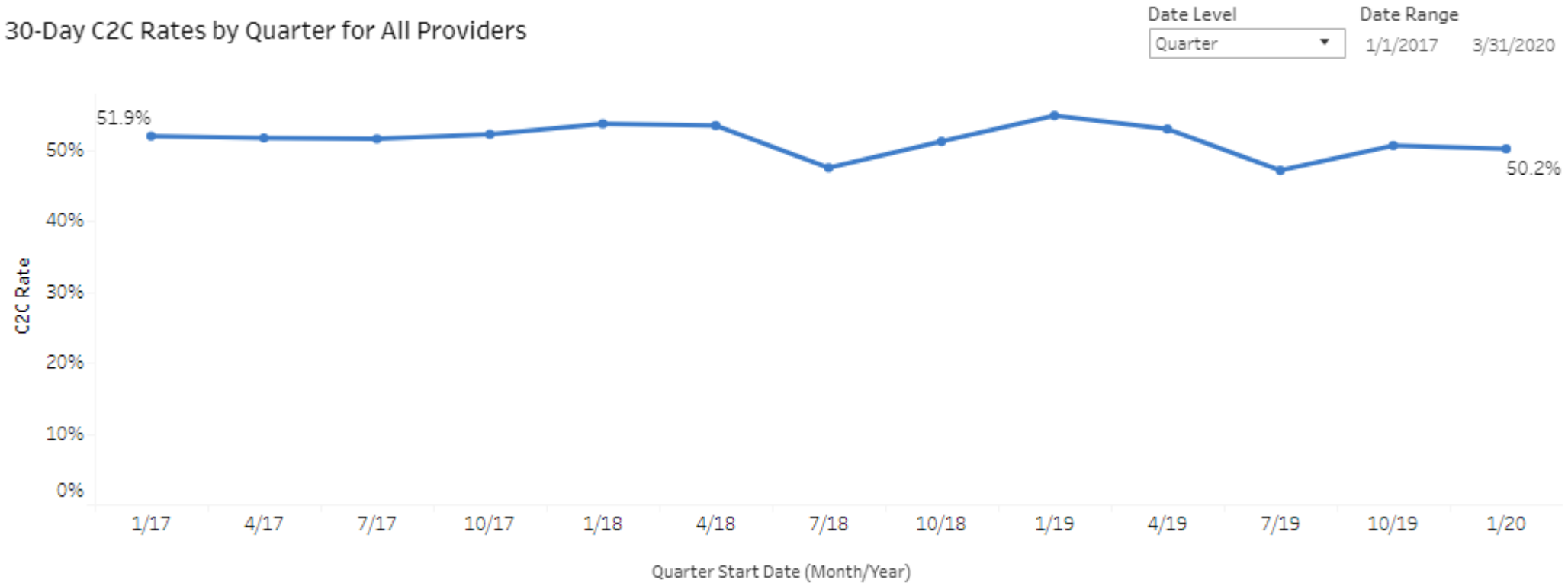
Youth 7-Day C2C (Connection to Care post BH ED Visit)



- Provider specific 7-Day Connect to Care rates ranged from 46.4% to 12.5% in Q1 ’19 - Q1 ’20.
- Statewide 7-Day Connect to Care rates have been stable from 2017 through 2019 at approximately 32%.

Behavioral Health (BH) Emergency Department (ED)

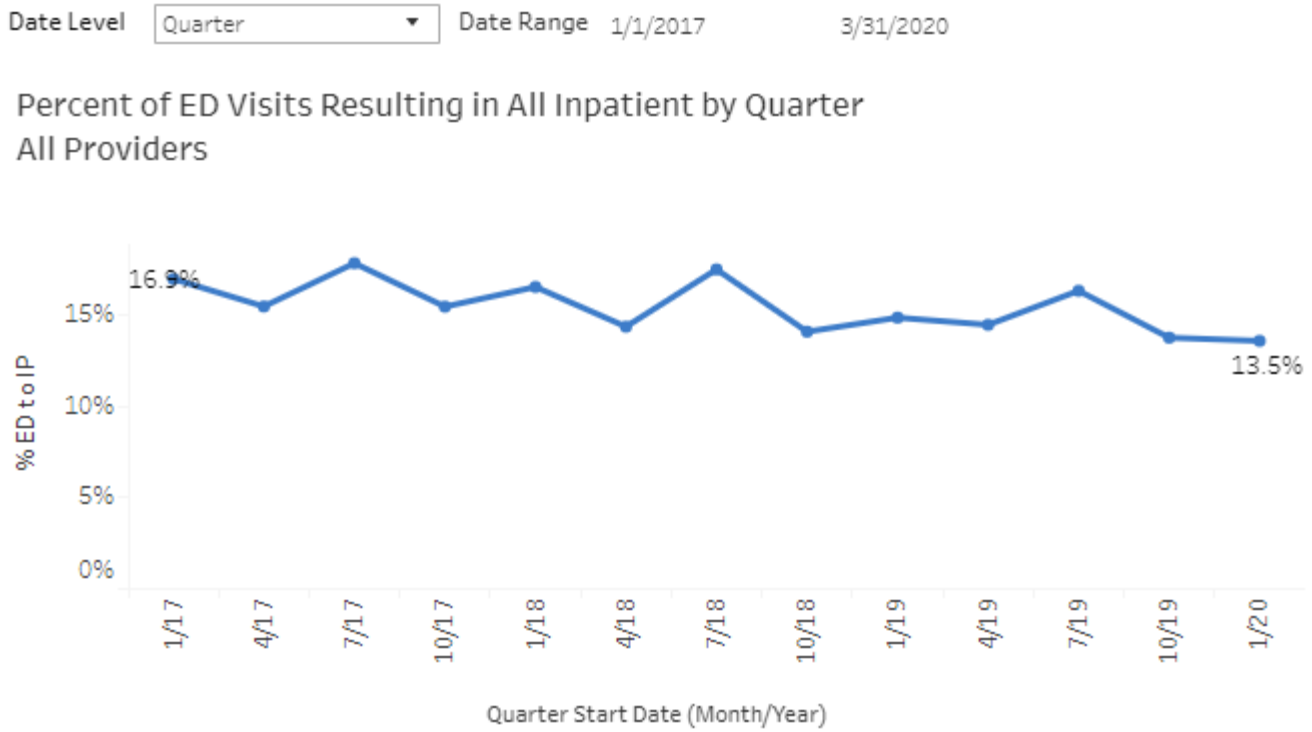
Youth 30-Day C2C (Connection to Care post BH ED Visit)

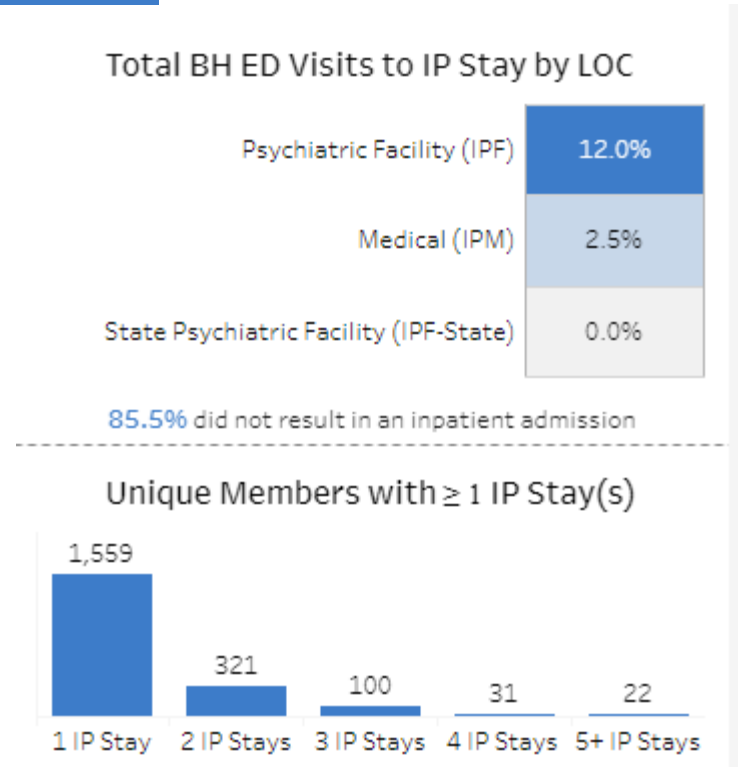


- Provider specific 30-Day Connect to Care rates ranged from 67.3% to 34.2% in Q1 ’19 - Q1 ’20.
- Statewide rates of 30-Day Connect to Care were stable from 2017 through 2019 at approximately 50%.

Behavioral Health (BH) Emergency Department (ED)

All Inpatient admissions direct from the ED (same or next day)





- The rate of ED to inpatient admissions varied from a high of 44.4% to 0% in Q1 '19 - Q1 '20.
- From 2017 to 2019, the number and percentage of BH ED to IP Admissions have been trending down from 2,449 to 2,232 and from 16.3% to 14.7%.
- Due to methodological limitations, actual ED to IP admissions may be undercounted

Chapter

04

ED Stuck

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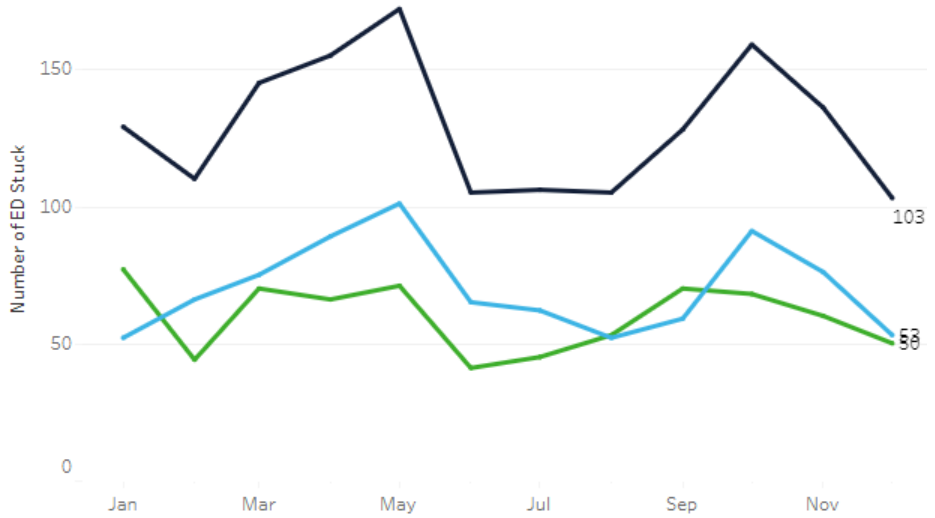
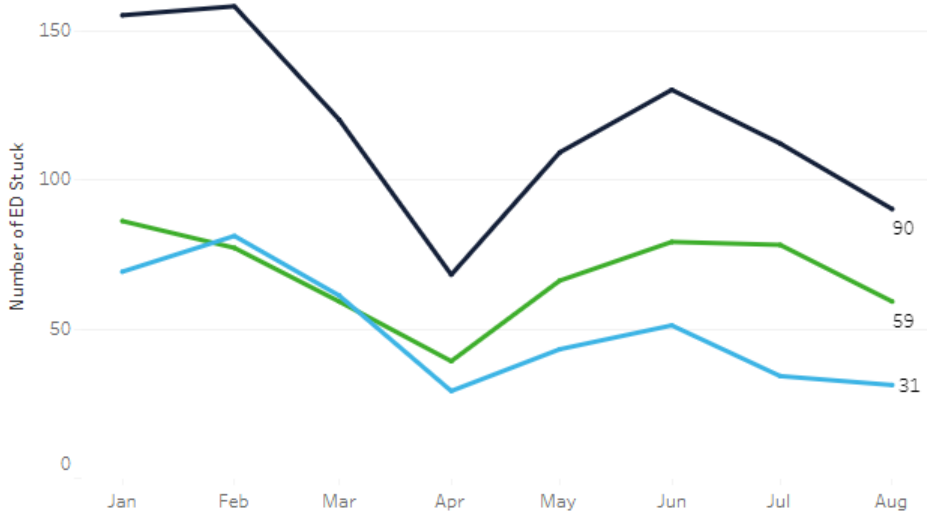
Emergency Department (ED) "Stuck" Analysis

Members identified as being in the ED for 8+ hours

2019



2020



ED Stuck All Counts

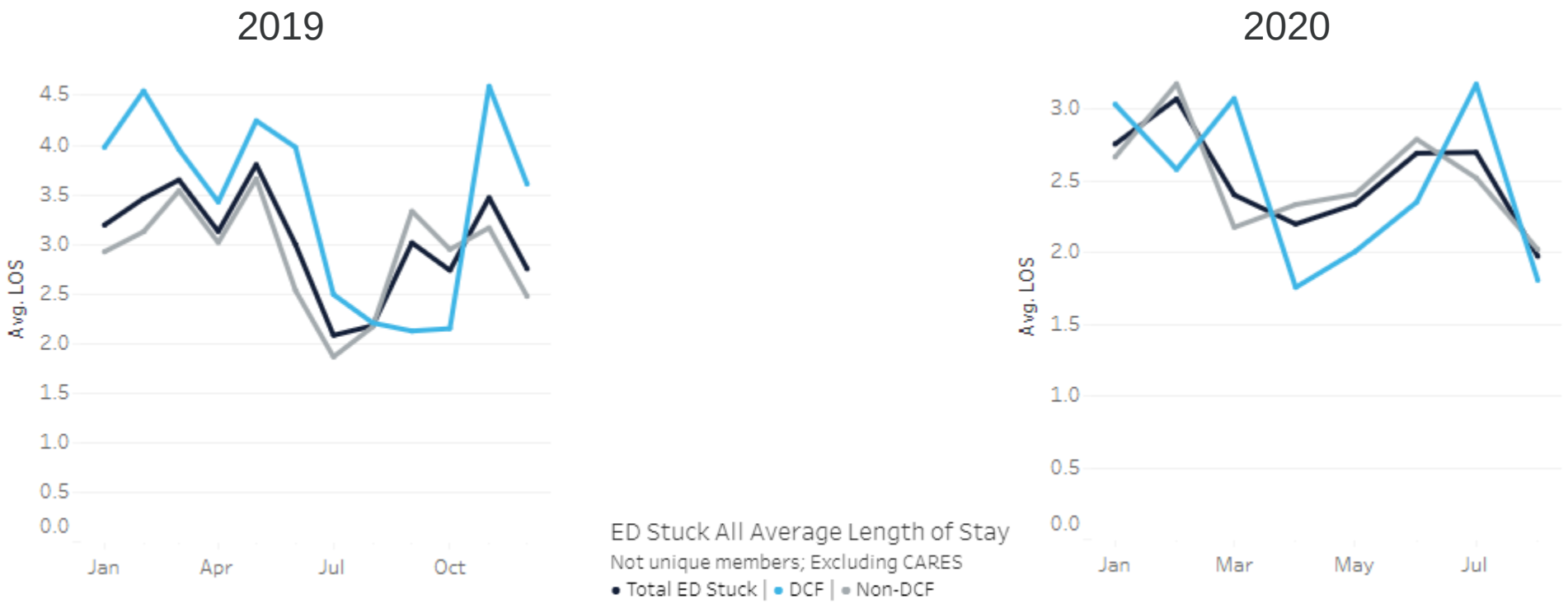
Not unique members; Excluding CARES

● Total ED Stuck | ● Recommended IPF | ● Recommended Other LOC

- ED Stuck reflects a count of those youth in care more than 8 hours after medical clearance, as determined by outreach to each ED.
- In 2019, ED Stuck was lowest in the summer months (June, July, August), with peaks in May and October.
- In 2020, ED stuck began to decline in March and hit a low of 68 in April, before rising again, although not to the level seen in the first months of the year. This fluctuation is likely due, at least in part, to the COVID-19 pandemic and member avoidance of the ED.

Emergency Department (ED) "Stuck" Analysis

Members identified as being in the ED for 8+ hours



- Year to date, ALOS of ED stuck in 2020 is lower overall than 2019.
- Similar to the trend seen in volume of ED stuck, ED Stuck ALOS in 2020 was highest in January and February, before decreasing to a low in April and then rising.

Chapter

05

IP Utilization

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Inpatient Dashboard - Medicaid Youth (All)

PAR Provider: All Providers

Showing 2019, Q1, 2019, Q2, 2019, Q3 and 2 more

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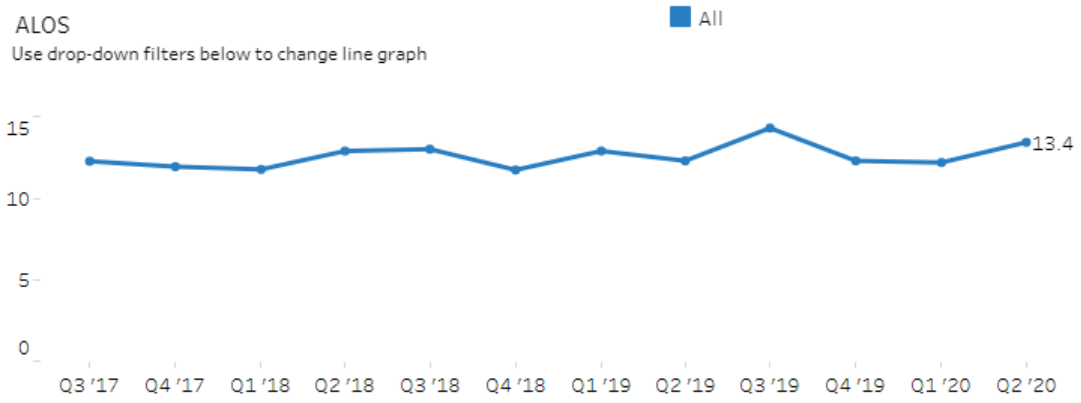
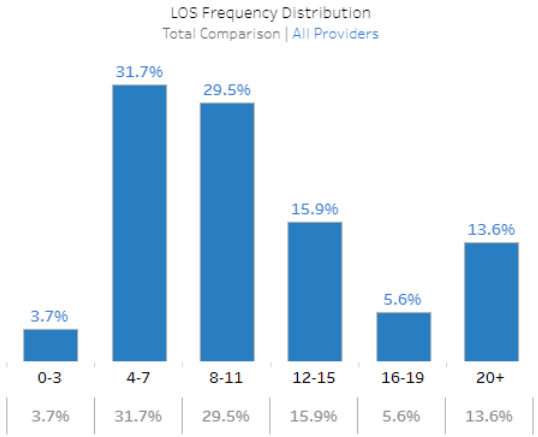
A Beacon Health Options-CT Dashboard

Data Last Updated: 9/1/2020

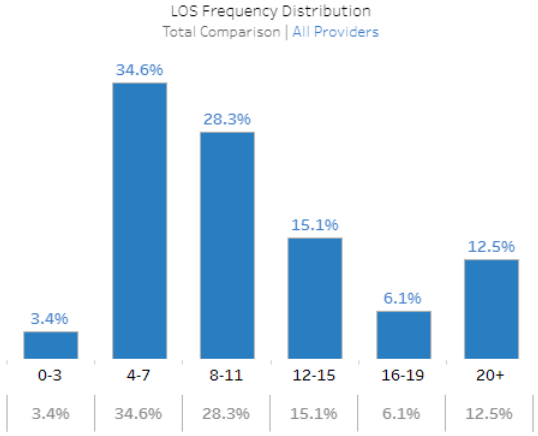


2017		2018				2019				2020	
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
12.2	11.9	11.7	12.9	13.0	11.7	12.9	12.3	14.3	12.2	12.1	13.4

2019



2020 (Q1)



- Data is for 2019 and 2020 through March 31, 2020.
- ALOS for discharged youth reached a peak in Q3 2019 of 14.3 days.
- Higher ALOS typically translates into reduced bed availability.
- 4-7 days is the LOS most often seen, followed by 8-11 days.

Discharge Delay

Reduced Discharge Delay

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

Beacon, DCF and DSS staff, and providers work together to identify available services while removing barriers to accessing treatment. As a result, the time children wait unnecessarily in hospitals has been greatly reduced as seen below.

2008 - 25.6%

2019 - 7.3%

⬇ 73% Reduction

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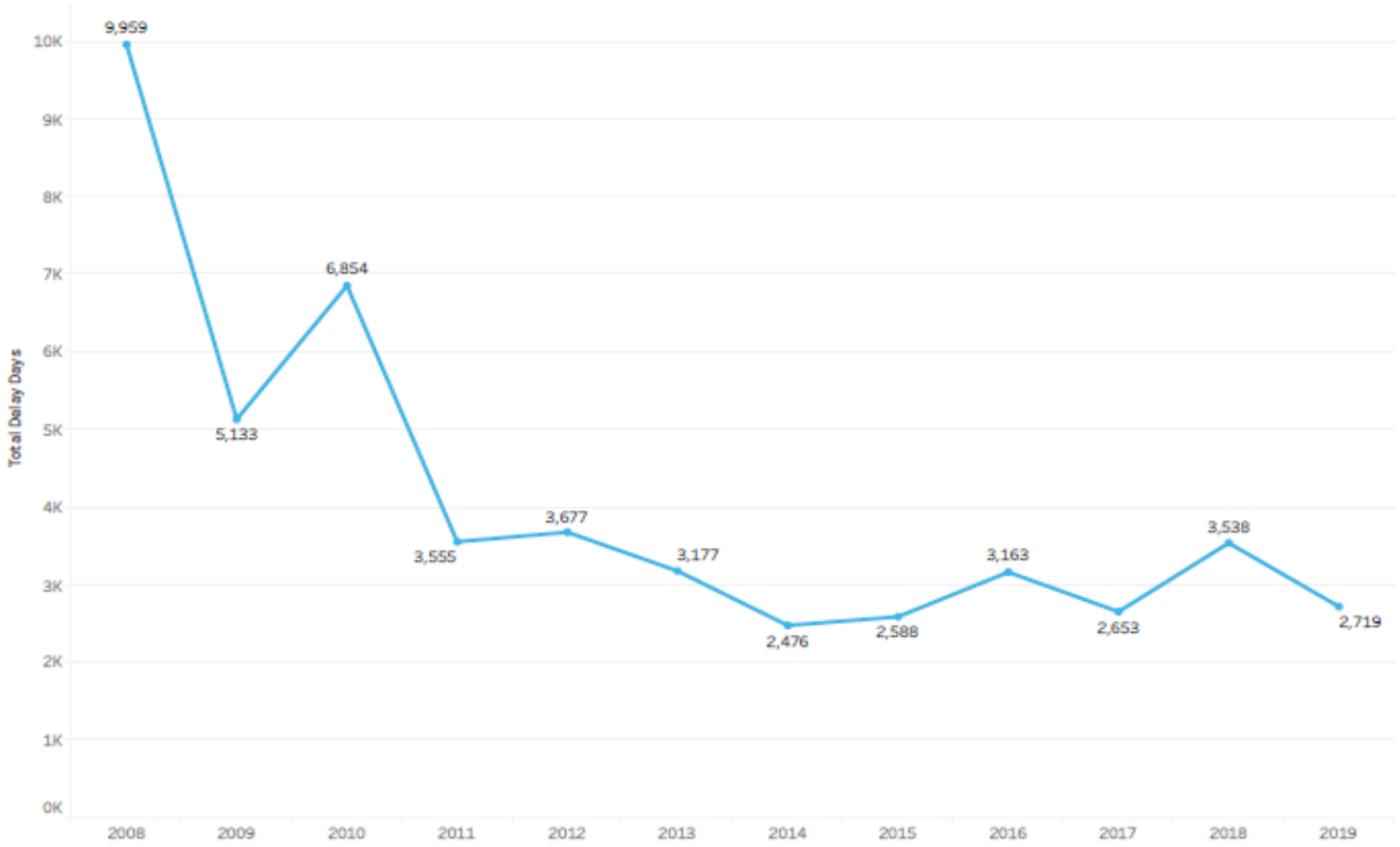
Total Discharge Delay Days

CY 2008 to CY 2019



- **13 Years of Success** – Beacon has met the performance target in partnership with providers and state partners, defined by the percentage of discharge delay days, every year for the last 13 years
- This has resulted in increased access and less days for youth in restrictive settings

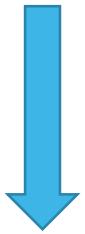
Chapter

06

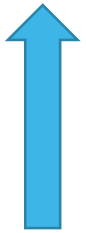
System Capacity

Inpatient and PRTF Capacity

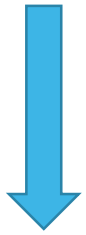
- **Programmatic capacity** for acute and subacute care declined 13.3% in 2018



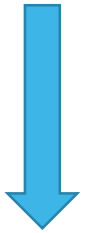
- Recent and planned expansion in PRTF capacity



- Further **program capacity reductions** occurred in 2019



- Despite some new beds, system capacity remains at a net loss



Chapter

07

Mobile Crisis Intervention Service

MOBILE CRISIS INTERVENTION SERVICES

DCF CONNECTICUT

2-1-1 United Way

Mobile Crisis Intervention Services

❖State-wide, community based and family supportive clinical intervention service for children & adolescents (0-17 18 if still enrolled in school) experiencing a behavioral health crisis or non-crisis behavioral health need.

❖Provides rapid emergency crisis stabilization for children and their families as well as short-term (up to 45 days) follow-up care and connection to other services

❖Licensed or license eligible Clinical Psychologists, Clinical Social Workers, Marriage and Family Therapists, Professional Counselors, and Alcohol and Drug Counselors

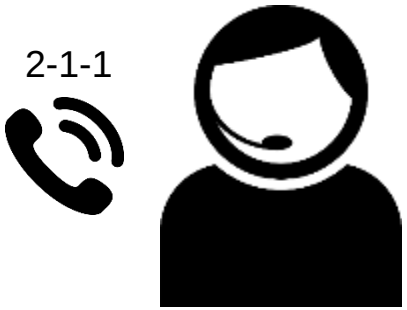
❖Three primary components of the service:

1. Statewide Call Center
2. Provider Network
3. Performance Improvement Center

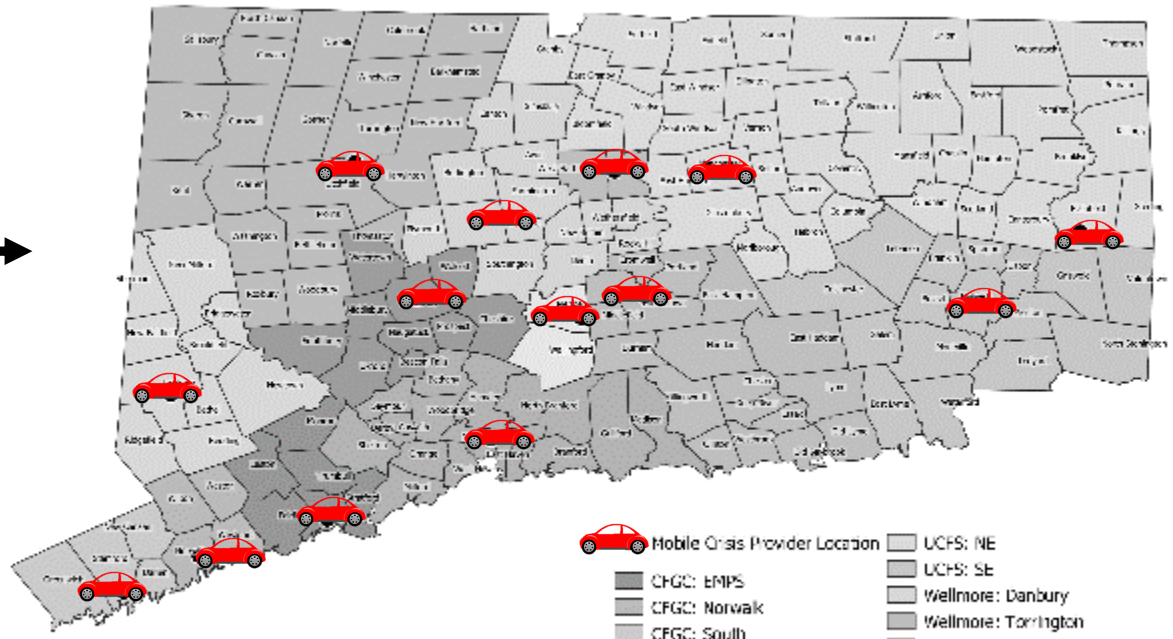
❖ **Connecticut's Mobile Crisis service does not have pre-determined criteria for what qualifies as a crisis. A crisis is defined by the <u>caller</u> (child, family, school, other), not by 211 or the Mobile Crisis provider.**

Mobile Crisis: Mobile Provider Network

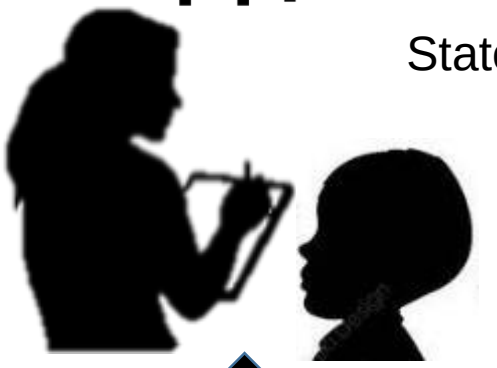
2-1-1

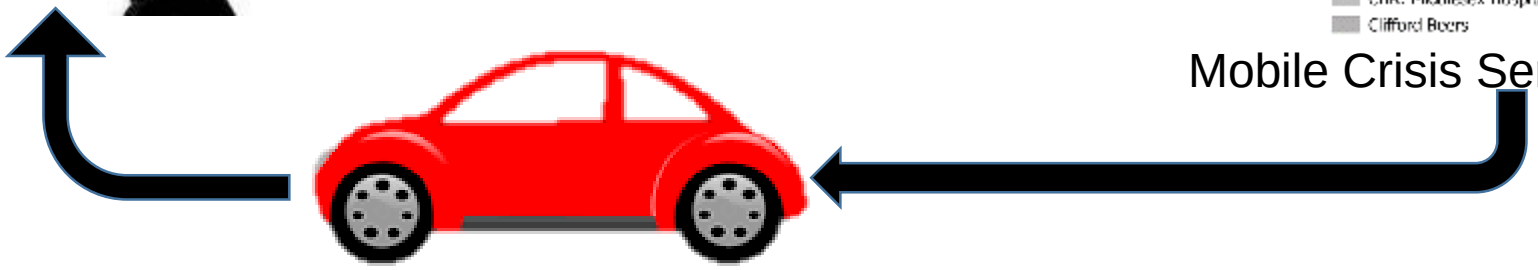


Statewide Call Center



Mobile Crisis Service Providers

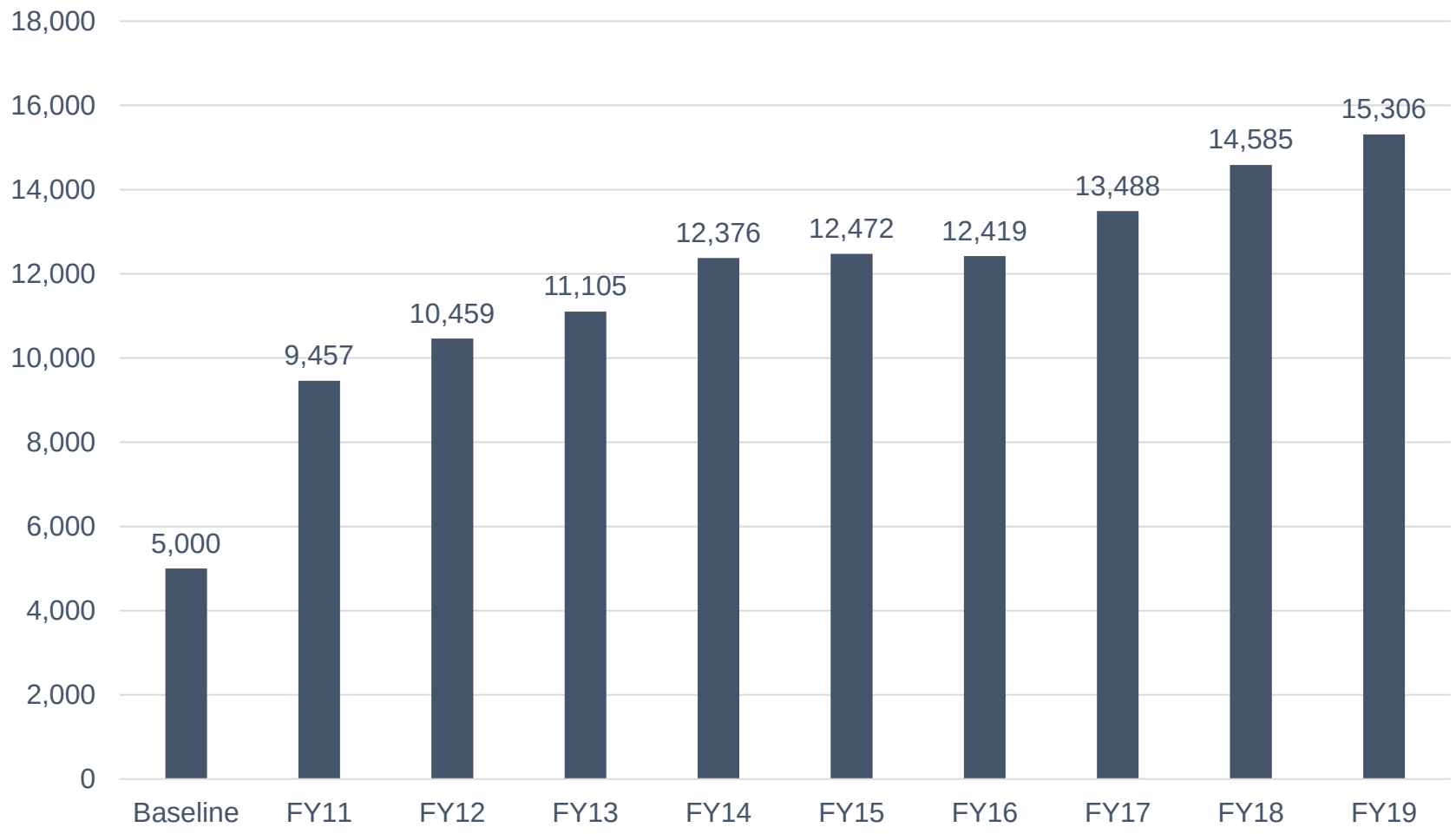




Mobile Crisis Available Services

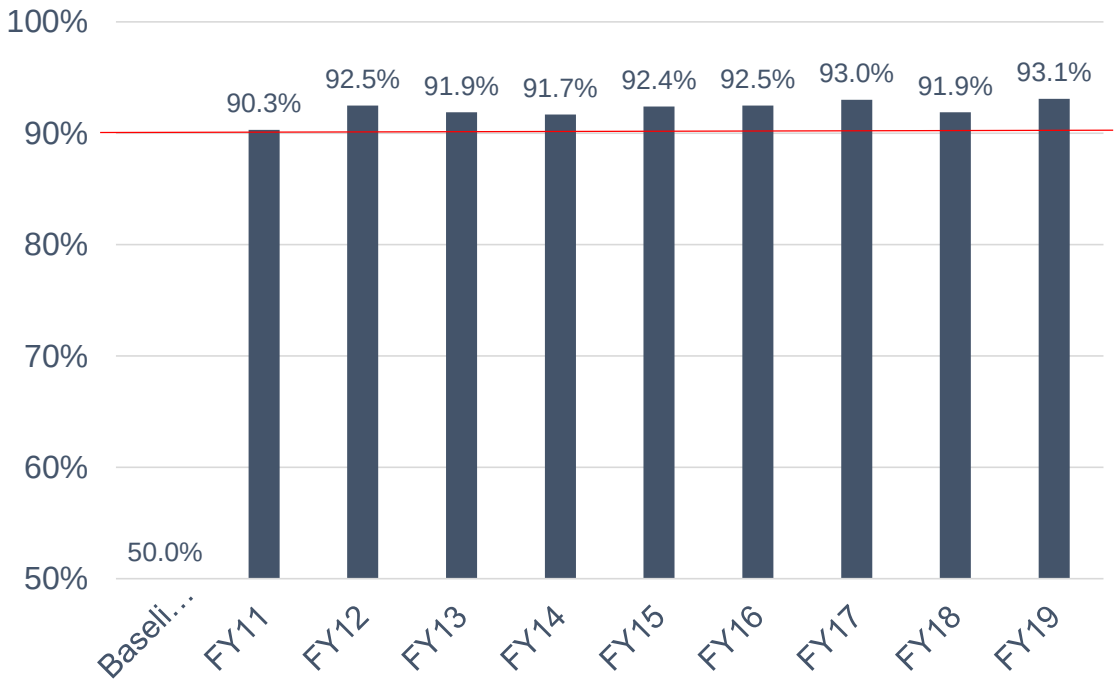
- **Mobile response** to homes, schools, EDs, community locations
- **Crisis stabilization**
- **Diversion** from the ED, inpatient, and other deep-end settings
- **Screening** and **assessment** using standardized instruments
- **Follow-up services** for up to 45 days (unlimited episodes of care)
- Access to **psychiatric evaluation** and medication management
- **Collaboration** with families, EDs, schools, police, other providers
- **Referral and linkage** to ongoing care as needed

Episode Volume Over Time (FY11 – FY19)

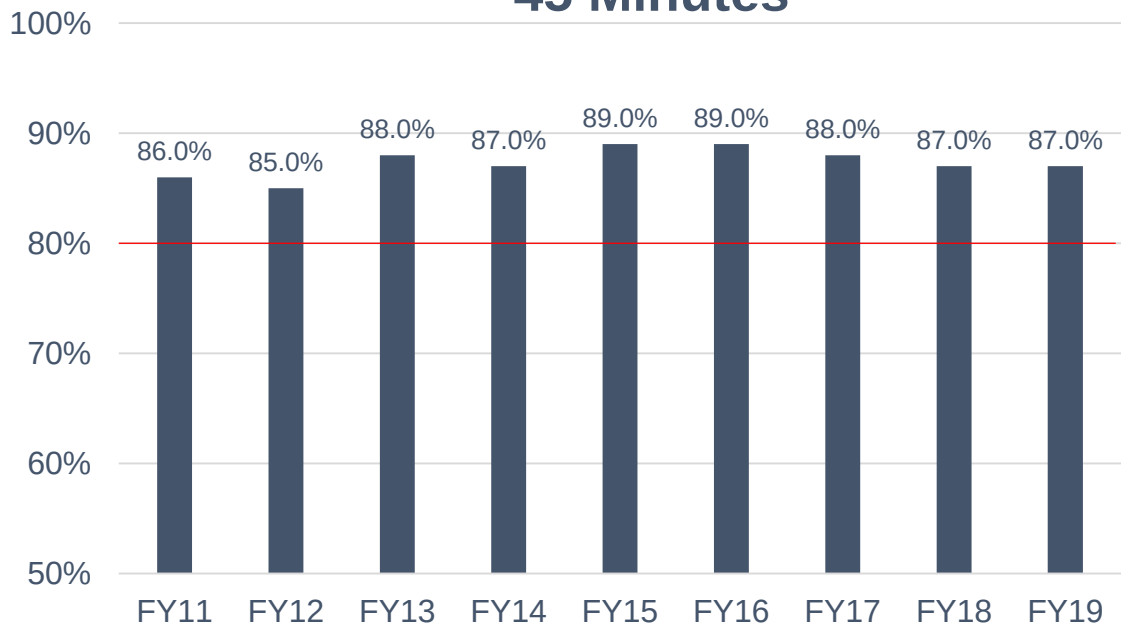


Statewide Benchmarks Over Time

Mobility
Goal: 90% of Responses are Mobile

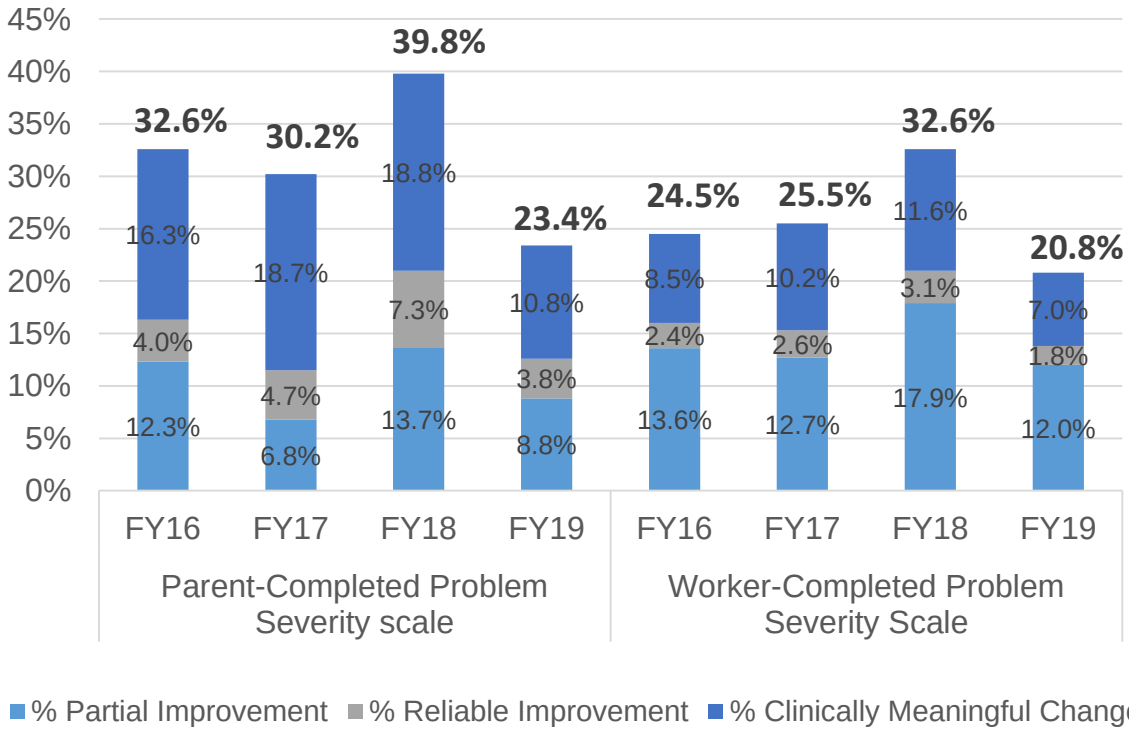


Response Time
Goal: 80% of Responses are Within 45 Minutes

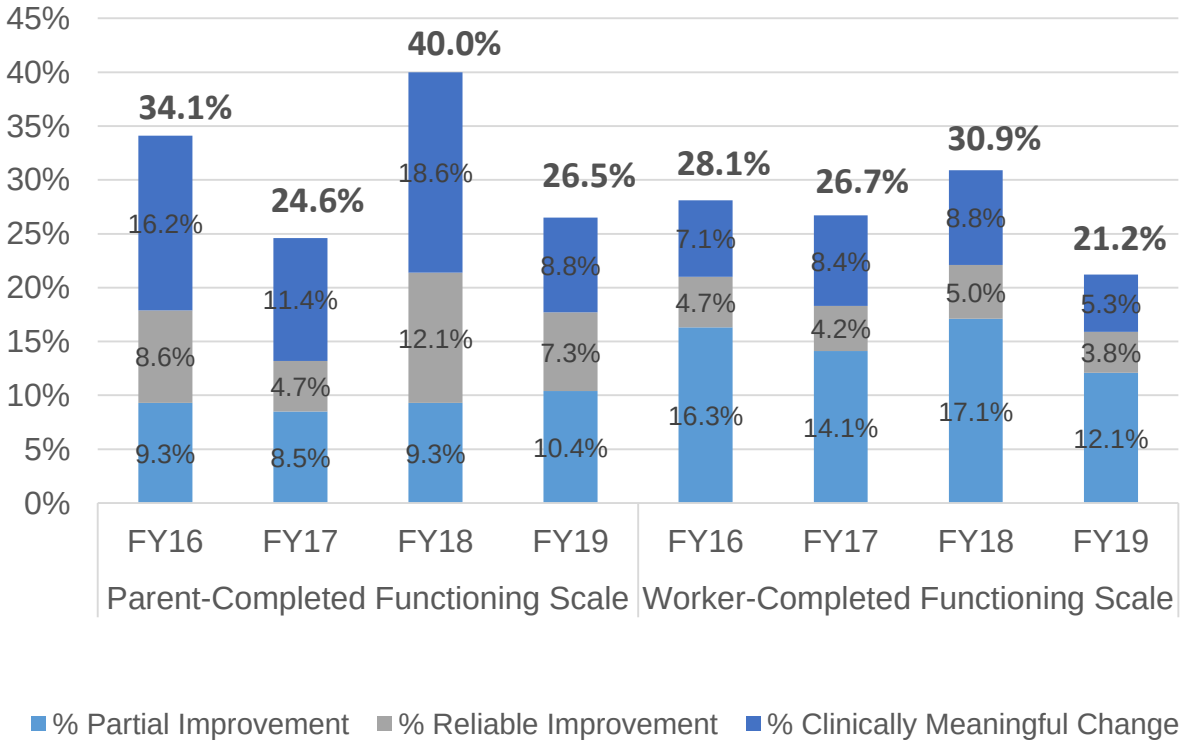


Statewide Outcomes Over Time

Improvement in Problem Severity as Measured by the Ohio Scales

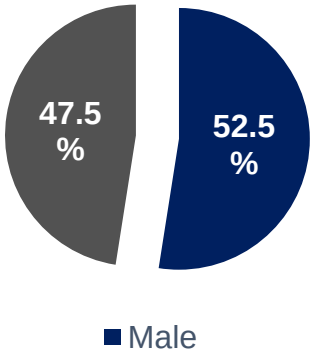


Improvement in Functioning as Measured by the Ohio Scales

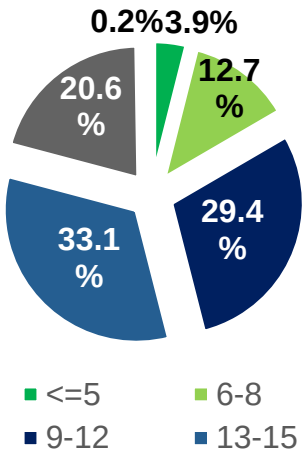


Children Served in FY19

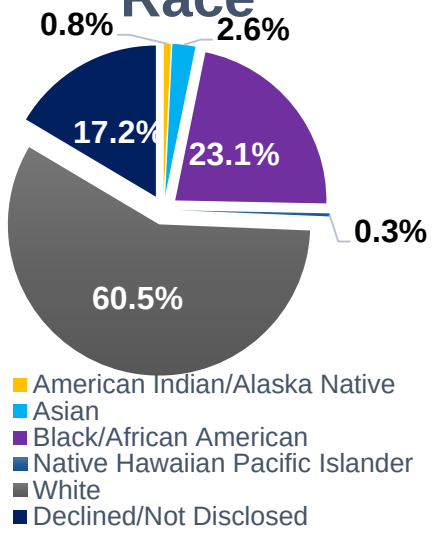
Sex*



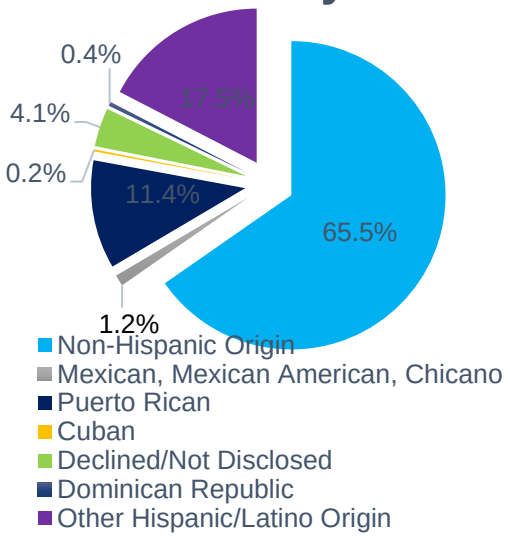
Age



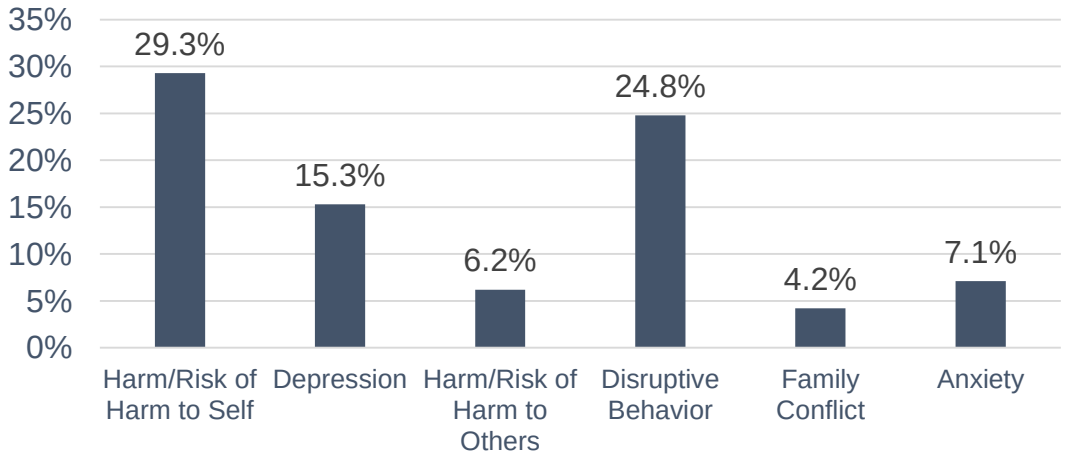
Race



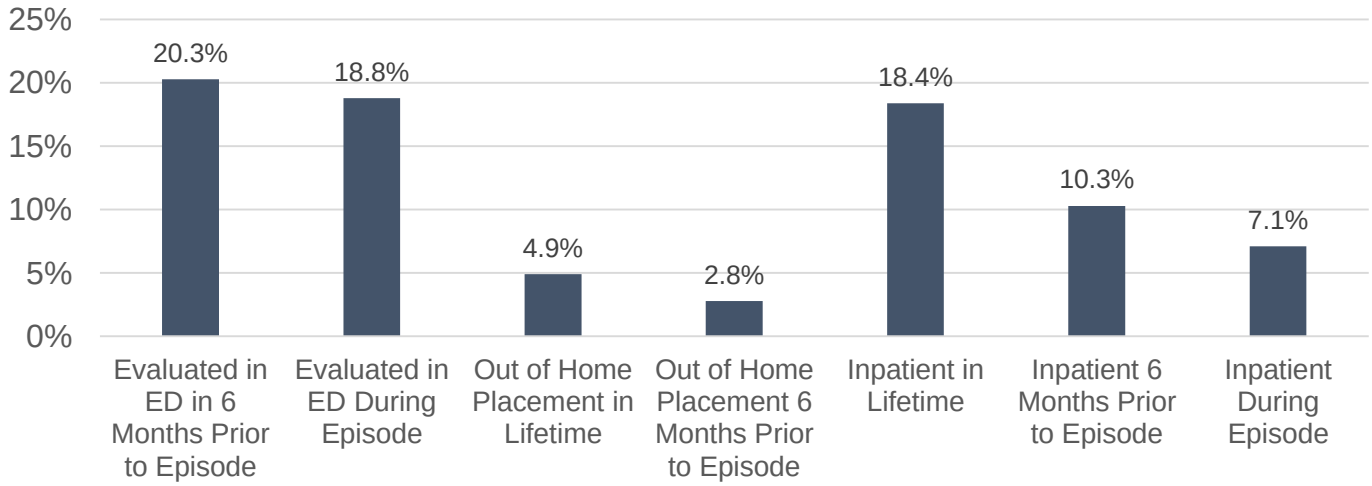
Hispanic/Latino Ethnicity



Primary Presenting Problem at Intake

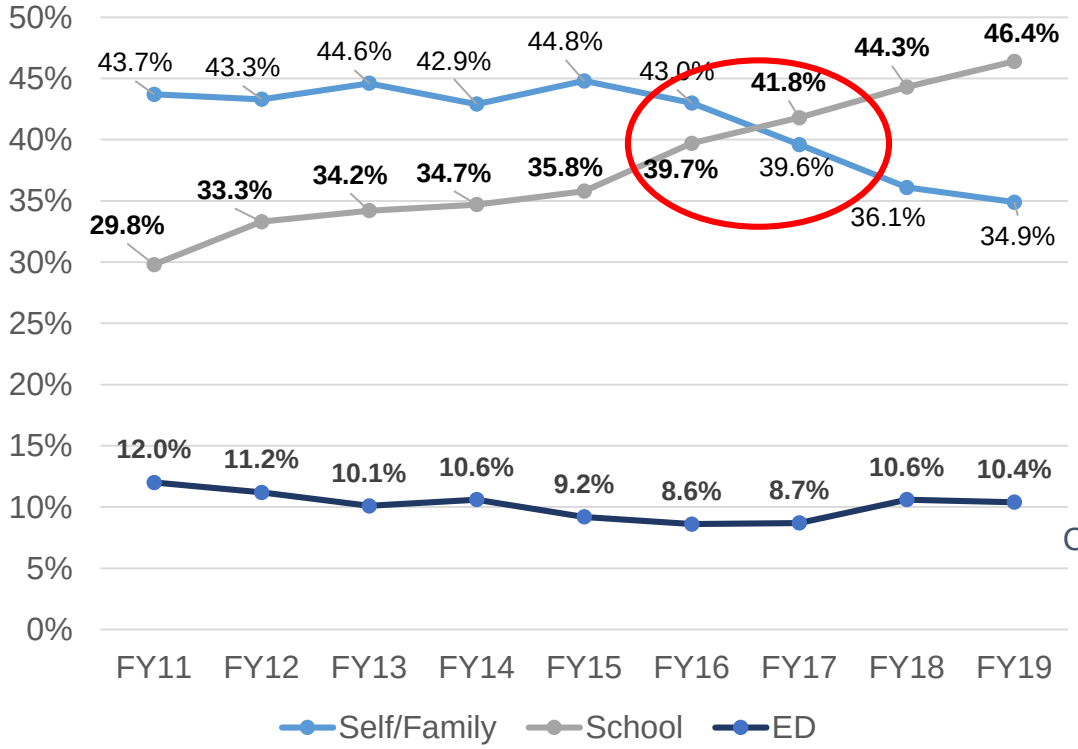


Client History Prior to or During Episode of Care

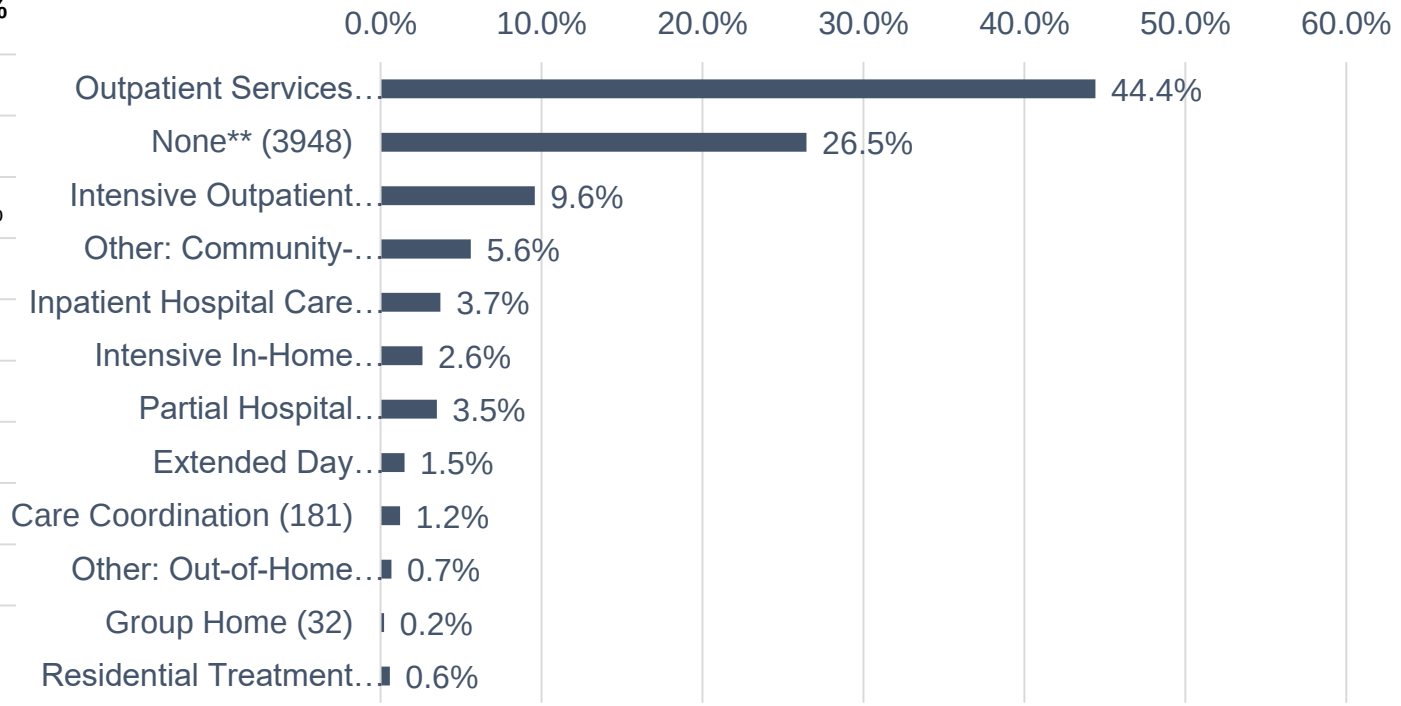


Referral Sources to MCIS & Referrals at Discharge from MCIS

Top Referral Sources to MC Over Time



Type of Services Clients Referred to at Discharge



**Includes referrals back to client's existing provider/services.

ED Workgroup Report

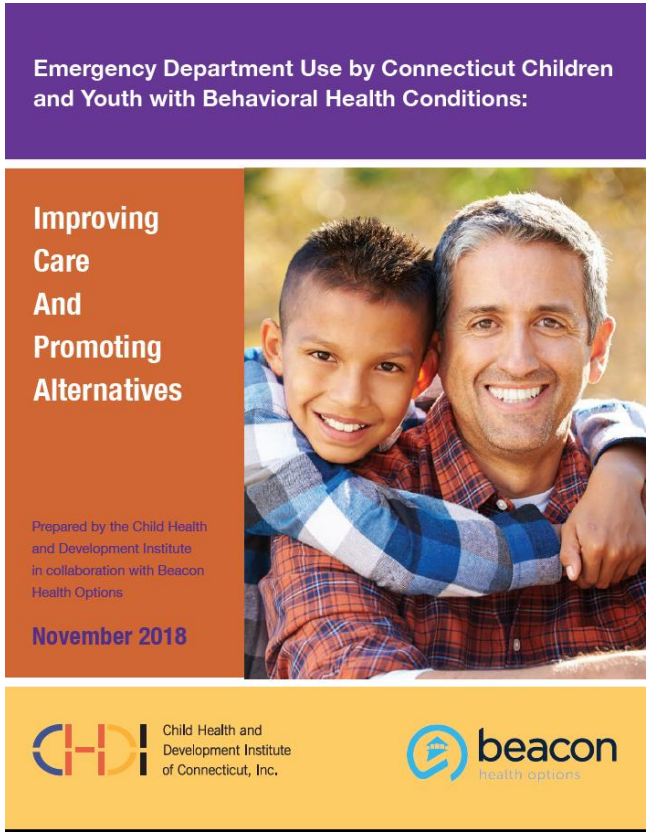
BHED identified as a priority in CT: workgroup convened to use a collaborative and family-informed process to better understand the issue

Key Findings:

- This is a national phenomenon, not just Connecticut, and a systems issue, not just an ED issue
- **Most youth visited the ED only once or twice.** Very few were high utilizers
- Vast majority of youth with BHED visits are **not admitted to inpatient** unit
- Few youth receive significant BH interventions while in an ED and **35% did not have a follow up BH visit** in the community within 30 days of an ED visit
- **Opportunities for cost savings** if BHED visits (and overstays) can be reduced

Key Recommendations:

- Improve diversion and timely discharge from EDs by increasing collaboration and training among Mobile Crisis programs, EDs, and the schools
- Implement a quality improvement initiative focused on the delivery of behavioral health services within high volume ED settings serving children, youth, and families



Return on Investment

Mobile Crisis and ED Diversion

- Mobile Crisis in CT is associated with a 25% reduction in ED utilization compared with initial ED users, over an 18-month timeframe
- Calculating Potential Return on Investments for diverting from EDs
- ED costs for youth showing up with primary BH concerns includes Medicaid and commercial claims, as well as the cost of uncompensated care

Impact of Mobile Crisis Services on Emergency Department Use Among Youths With Behavioral Health Service Needs

Michael Fendrich, Ph.D., Melissa Ives, M.S.W., Brenda Kurz, Ph.D., Jessica Becker, M.S.W., Jeffrey Vanderploeg, Ph.D., Christopher Bory, Psy.D., Hsiu-Ju Lin, Ph.D., Robert Plant, Ph.D.

Objective: Youths are using emergency departments (EDs) for behavioral health services in record numbers, even though EDs are suboptimal settings for service delivery. In this article, the authors evaluated a mobile crisis service intervention implemented in Connecticut with the aim of examining whether the intervention was associated with reduced behavioral health ED use among those in need of services.

Methods: The authors examined two cohorts of youths: 2,532 youths who used mobile crisis services and a comparison sample of 3,961 youths who used behavioral health ED services (but not mobile crisis services) during the same fiscal year. Propensity scores were created to balance the two groups, and outcome analyses were used to examine subsequent ED use (any behavioral health ED admissions and number of behavioral health ED admissions) in an 18-month follow-up period.

Results: A pooled odds ratio of 0.75 (95% confidence interval [CI]=0.66–0.84) indicated that youths who received mobile crisis services had a significant reduction in odds of a subsequent behavioral health ED visit compared with youths in the comparison sample. The comparable result for the continuous outcome of number of behavioral health ED visits yielded an incidence risk ratio of 0.78 (95% CI=0.71–0.87).

Conclusions: Using comparison groups, the authors provided evidence suggesting that community-based mobile crisis services, such as Mobile Crisis, reduce ED use among youths with behavioral health service needs. Replication in other years and locations is needed. Nevertheless, these results are quite promising in light of current trends in ED use.

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Chapter

08

Current Efforts

Current ED Interventions

- Daily ED Calls
- Daily Case Rounds with CCMC ED, DCF and Beacon
- Care Coordination and Family Peer Specialist Interventions
- Diversion efforts to CARES, MCS & SFIT
- Bed Tracking System Implemented in 2018
- Psychiatrist to Psychiatrist consultation available to both ED and IP Facilities
- MCS Program and expansions for DDS, facility liaisons and enhanced school outreach

Chapter

08

Alternative Services

Other Possible Strategies/Alternatives

ED Interventions
- Tx of Agitation
- Reduced R&S
- Initiation of active treatment
- Obs. Units
- Tx of SUD intoxication/withdrawal
- Early Disposition Planning
- More BH Staff

IP Interventions
- Early Disposition Planning
- Medication Adjustments
- Family Work
- Early engagement of community providers
- Network analysis and intervention

PRTF Interventions
- Early Disposition Planning
- Family Work
- Staff and family training in Behavioral Management

System Interventions
- Expand
  - Crisis Stabilization Beds
  - Brief/ Intermediate Units
  - ***In-Home Services***
  - Inpatient Capacity
  - PRTF Capacity
  - SBDI
- New Approaches
  - BH Urgent Care
  - Crisis Now referral with GPS Tracking
  - School-based clinic crisis services

Additional Questions?

Wrap - Up

Bert Plant, Ph.D. – Robert.plant@beaconhealthoptions.com	**Erika Sharillo, LCSW – Erika.Sharillo@beaconhelathoptions.com**
Sandrine Pirard, MD, PhD, MPH Sandrine.Pirard@beaconhealthoptions.com	**Kellie Randall, Ph.D. – randall@uchc.edu**
Tim Marshall, LCSW – tim.marshall@ct.gov	

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Thank you!