



NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

Quarterly Progress Update

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Executive Director

North Carolina Statewide Telepsychiatry Program (NC-STeP)

Professor and Chair Emeritus

Department of Psychiatry and Behavioral Medicine
Brody School of Medicine - East Carolina University





NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

NC-Step Advisory Council Meeting

Monday, August 28, 2023

1:30 pm – 3:00 pm

Virtual Meeting via Zoom Video Conference

Agenda

- | | |
|-----------------|---|
| 1:30- 1:40 p.m. | Welcome and Introductions |
| 1:40- 1:45 p.m. | Review and Approval of June 6, 2023 Minutes |
| 1:45- 2:45 p.m. | NC-Step FY23-Q4 (Apr-Jun) Performance Data |
| 2:45- 2:50 p.m. | Old Business |
| 2:50- 2:55 p.m. | New Business |
| 2:55- 3:00 p.m. | Announcements |
| 3:00 p.m. | Adjourn |



Join Zoom Meeting

<https://us06web.zoom.us/j/86275131129?pwd=YU5BUGpXL2NVdnhGakZkWTk0YkpOUT09>

Meeting ID: 862 7513 1129

Passcode: 880796

NC-STeP Quality Management and Outcomes Monitoring Processes: April - June 2023

- 29 hospitals were live
- 22 hospitals reporting Telepsychiatry patients in their ED
 - not all live hospitals had telepsychiatry patients
- Total number of assessments for this quarter = 985
- Total number of encounters for this quarter = 896
- Patient assessments billed for Model 1 hospitals = 832



NC-STeP Quality Management and Outcomes Monitoring Processes: April – June 2023

- The Median Length of Stay was 37.3 hours
- The Average Length of Stay was 61.0 hours
 - 55.0 hours for those discharged to home
 - 60.4 hours for those transferred to another facility
- Average Consult Elapsed Time (in Queue to Exam Complete) for Model 1 hospitals was 4 hours and 59 minutes.

NC-STeP Quality Management and Outcomes Monitoring Processes: April - June 2023

- 668 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
 - 295 (44%) of those patients did not have an IVC in place when discharged.
- Of the ED patients who received telepsychiatry services:
 - 53% were discharged to home
 - 37% were discharged to another facility

NC-STeP Quality Management and Outcomes Monitoring Processes: April - June 2023

- 22 Community based sites were live as of 06/30/2023.
- There were 1,996 total behavioral health visits.
 - 172 visits with a Psychiatrist.
 - 1,824 visits with a behavioral health manager.





	Since project inception in November 2013	Quarter Jan- Mar 2023	Quarter Apr- Jun 2023	Quarter Jul- Sep 2023	Quarter Oct- Dec 2023
Total Patient Encounters	45,984	876	896		
Model 1 Hospital Patient Encounters	28,708	824	832		
Model 2 Hospital Patient Encounters	17,276	52	64		
Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)	59,215	1,012	985		



	Since project inception in November 2013	Quarter Jan- Mar 2022	Quarter Apr- Jun 2022	Quarter Jul- Sep 2022	Quarter Oct- Dec 2022
Total Patient Encounters	45,984	1,240	1,325	1,350	1,209
Model 1 Hospital Patient Encounters	28,708	802	873	894	759
Model 2 Hospital Patient Encounters	17,276	438	452	456	450
Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)	59,215	1,532	1,563	1,506	1,322

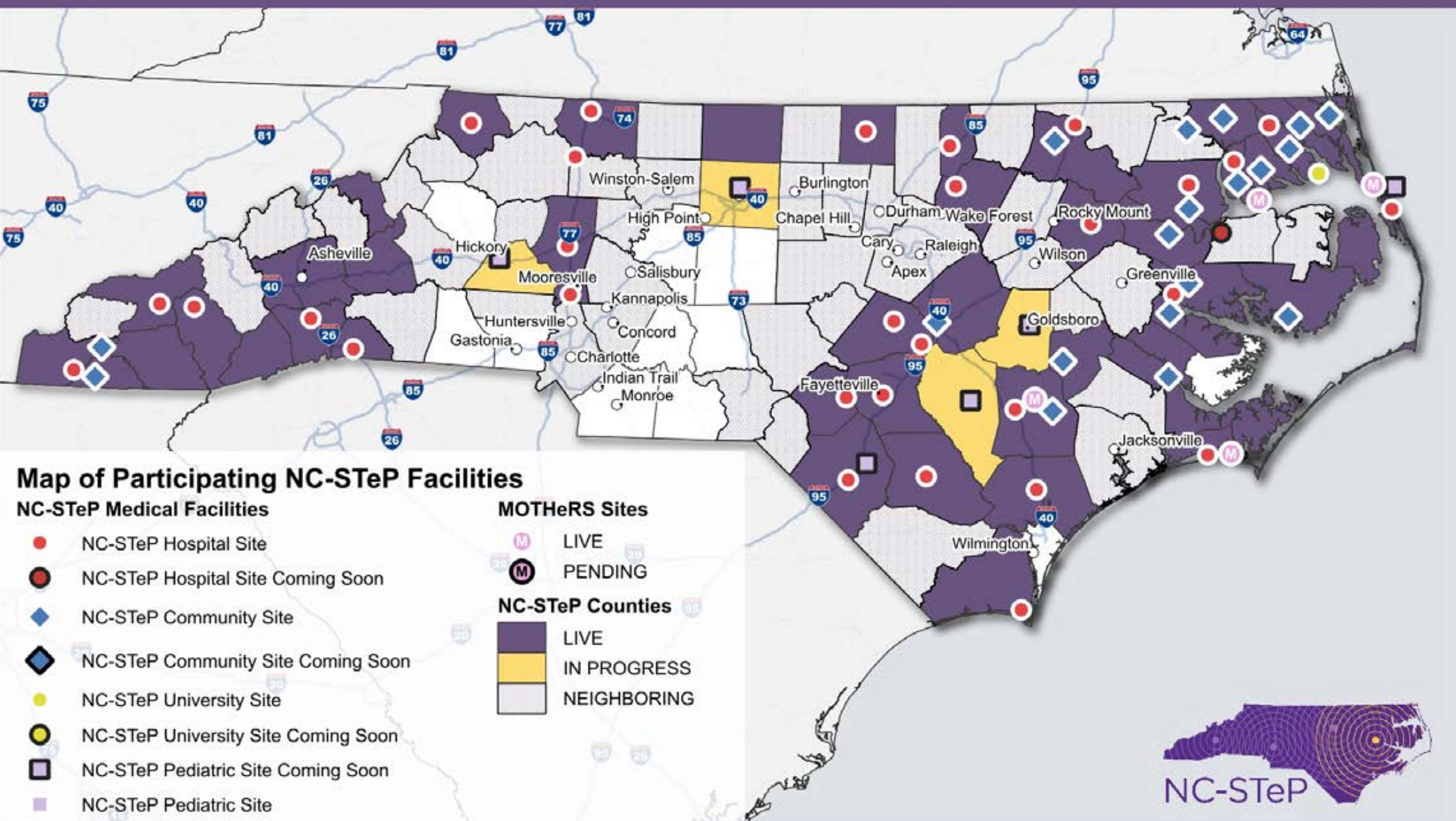
Mission Health graduated from the program. They have 32 providers and 7 sites. They are continuing with the telepsychiatry services started under NC-STeP, however we will no longer be receiving consult data.

NC-STeP Benchmarks



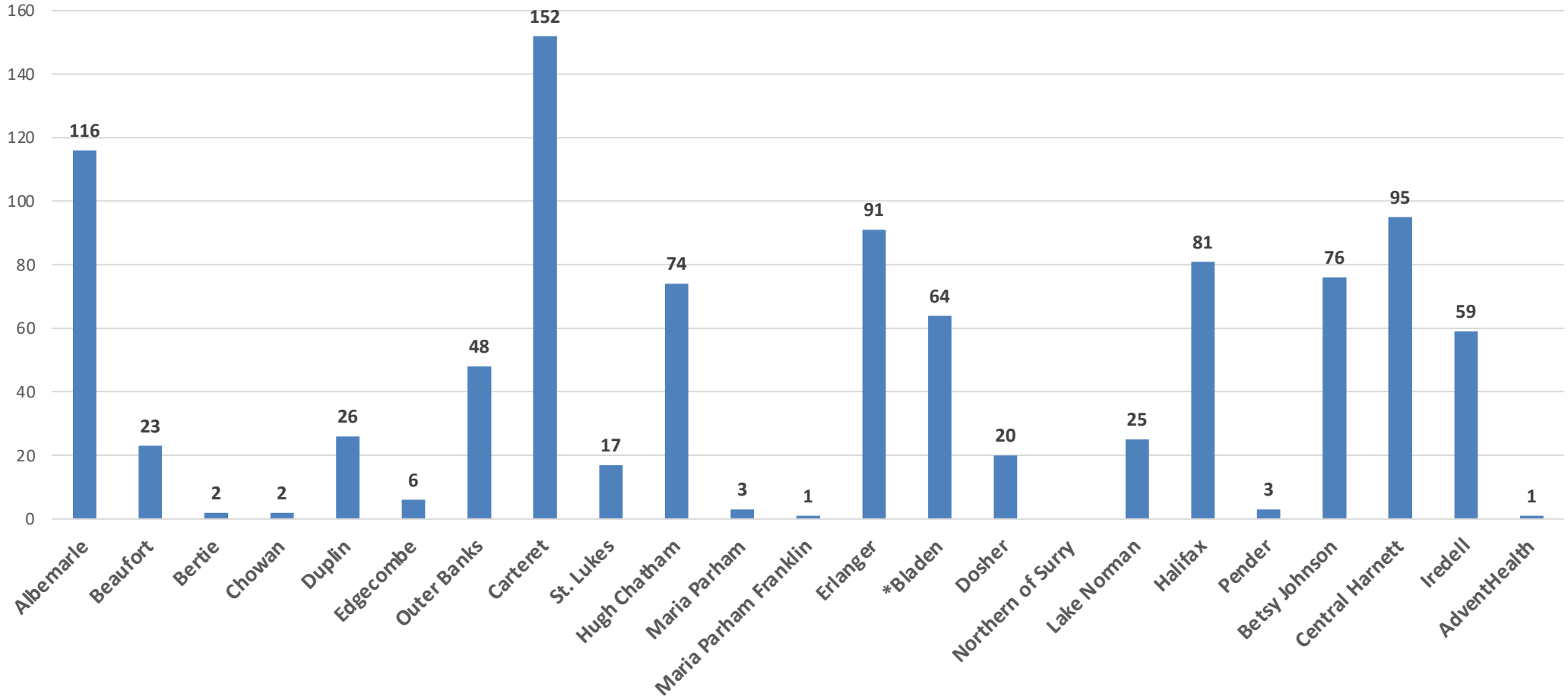
Goals	Values Reached		
Cumulative Target to be reached by (06/30/2023)	Value Reached as of most recent previous quarter (03/31/2023)	Value Reached as of this reporting quarter (06/30/2023)	Year-to-Date Total with % of the Yearly Target (03/31/2023)
Number of IVCs	2,815	711	3,123 111% of Yearly Target
Number of IVCs Overturned	1,155	307	1,249 108% of Yearly Target
Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.)	5,025	1,012	985 4,825 96% of Yearly Target

NC-STeP Status as of June 30, 2023



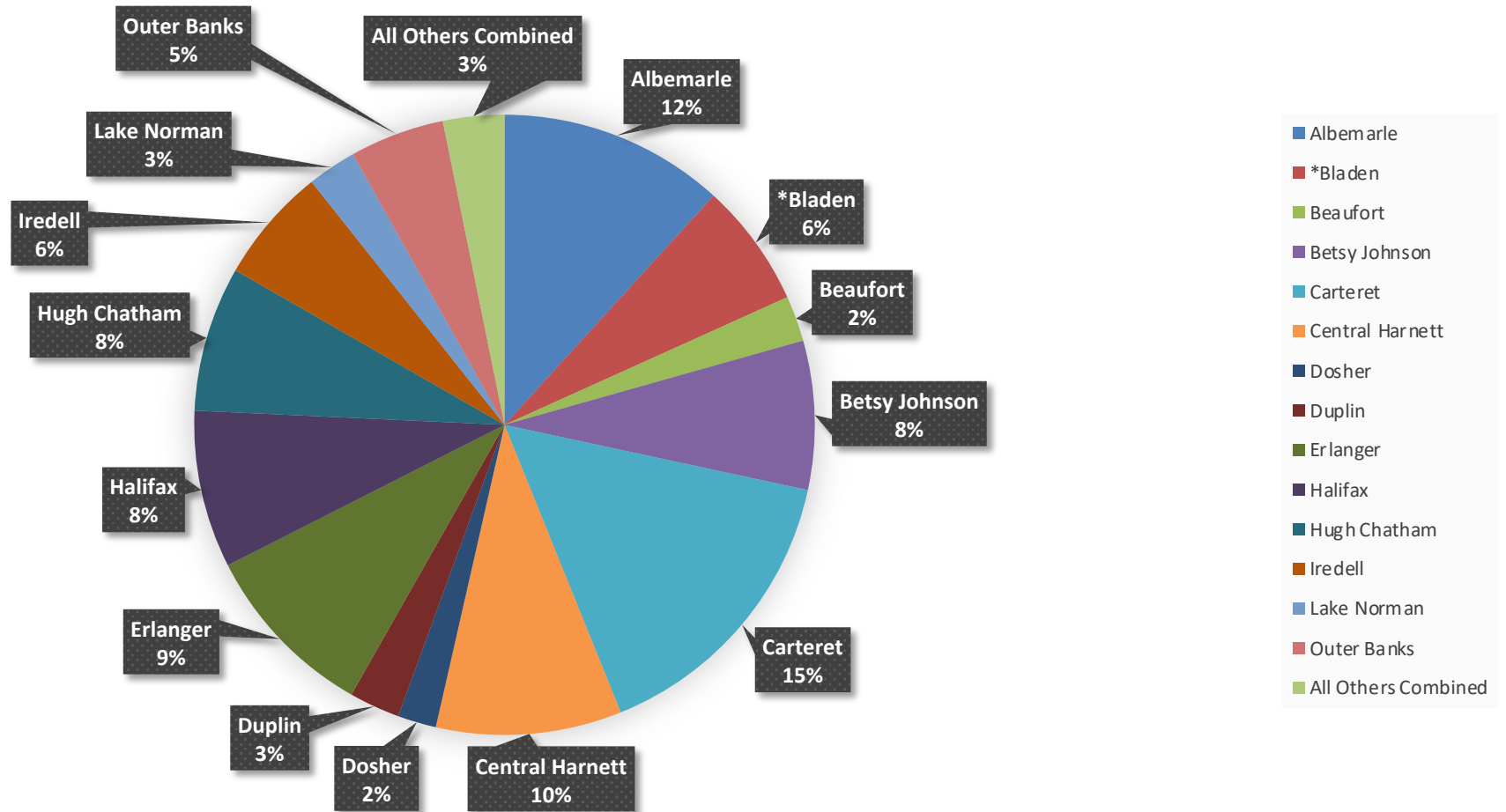
Number of NC-SteP Patients by Hospital

April - June 2023



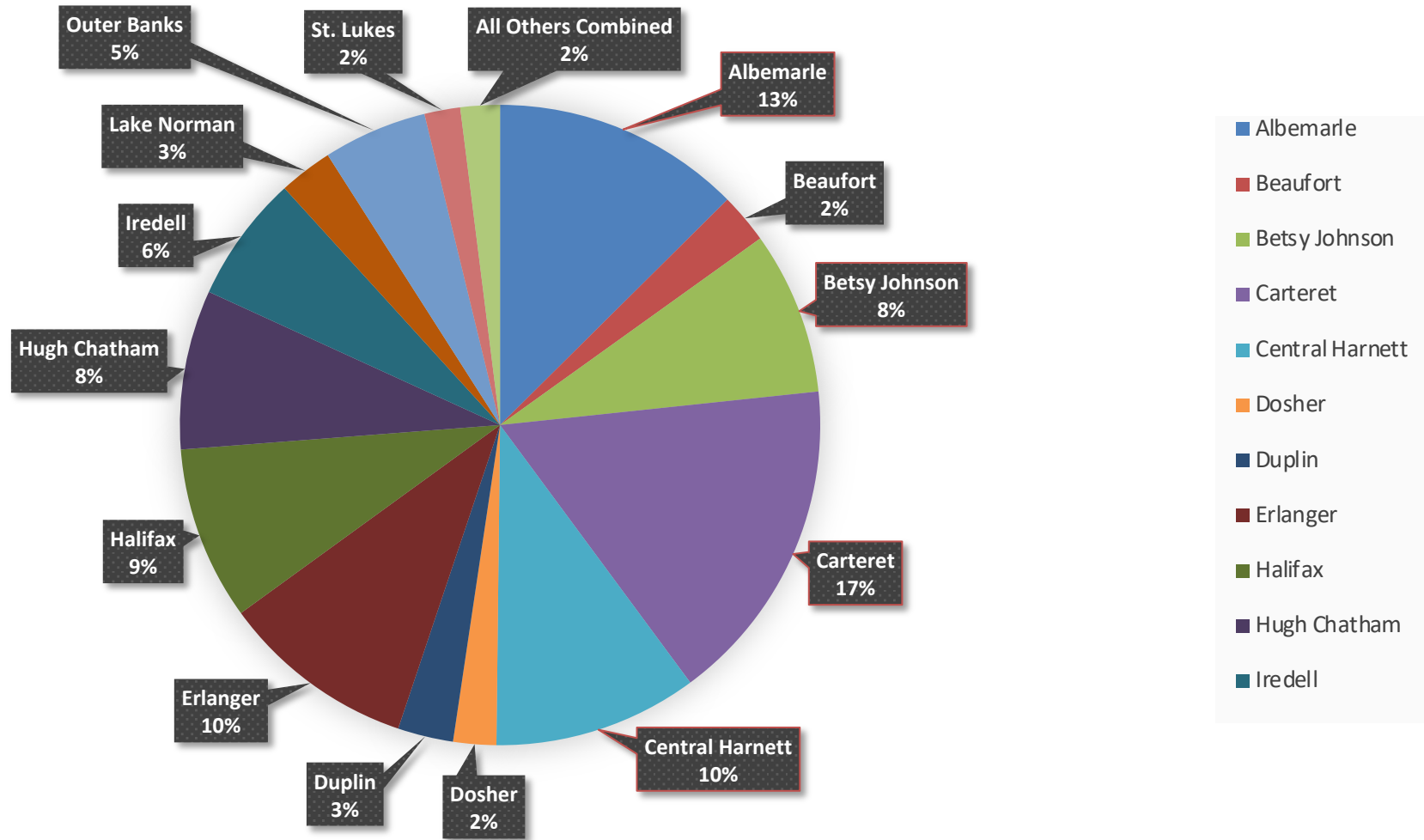
Percent of Use by Hospital Apr - Jun 2023

(based on number of encounters)



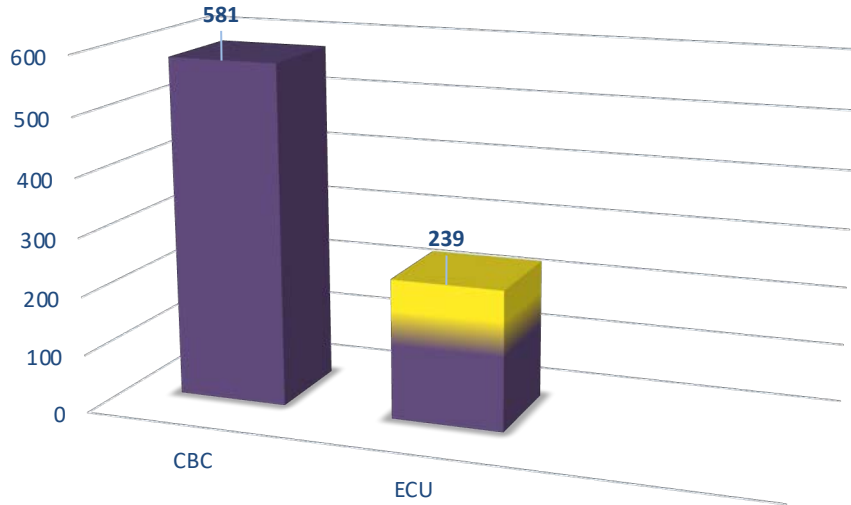
Percent of Use by Model 1 Hospitals Apr - Jun 2023

(based on number of encounters)

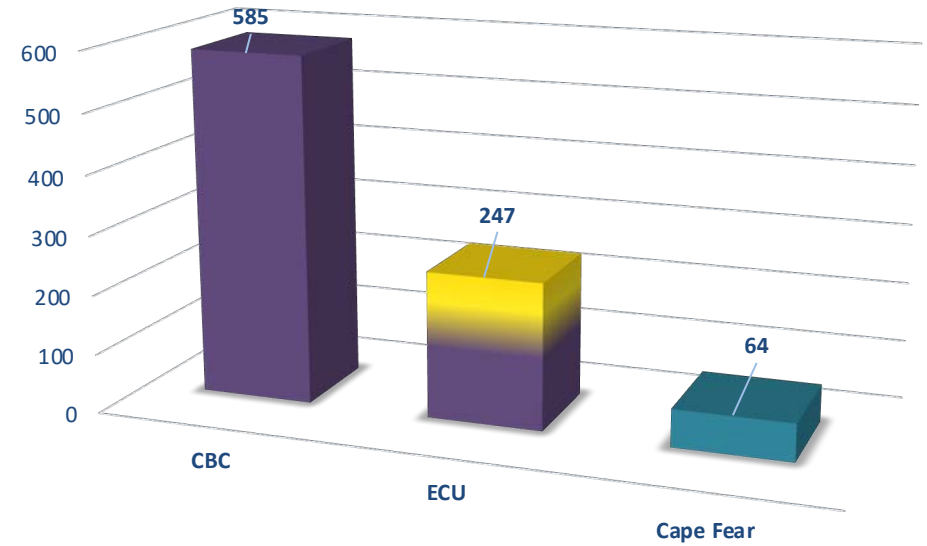


Number of Patients by Provider (Model 1)

Jan-Mar 2023



Apr-Jun 2023

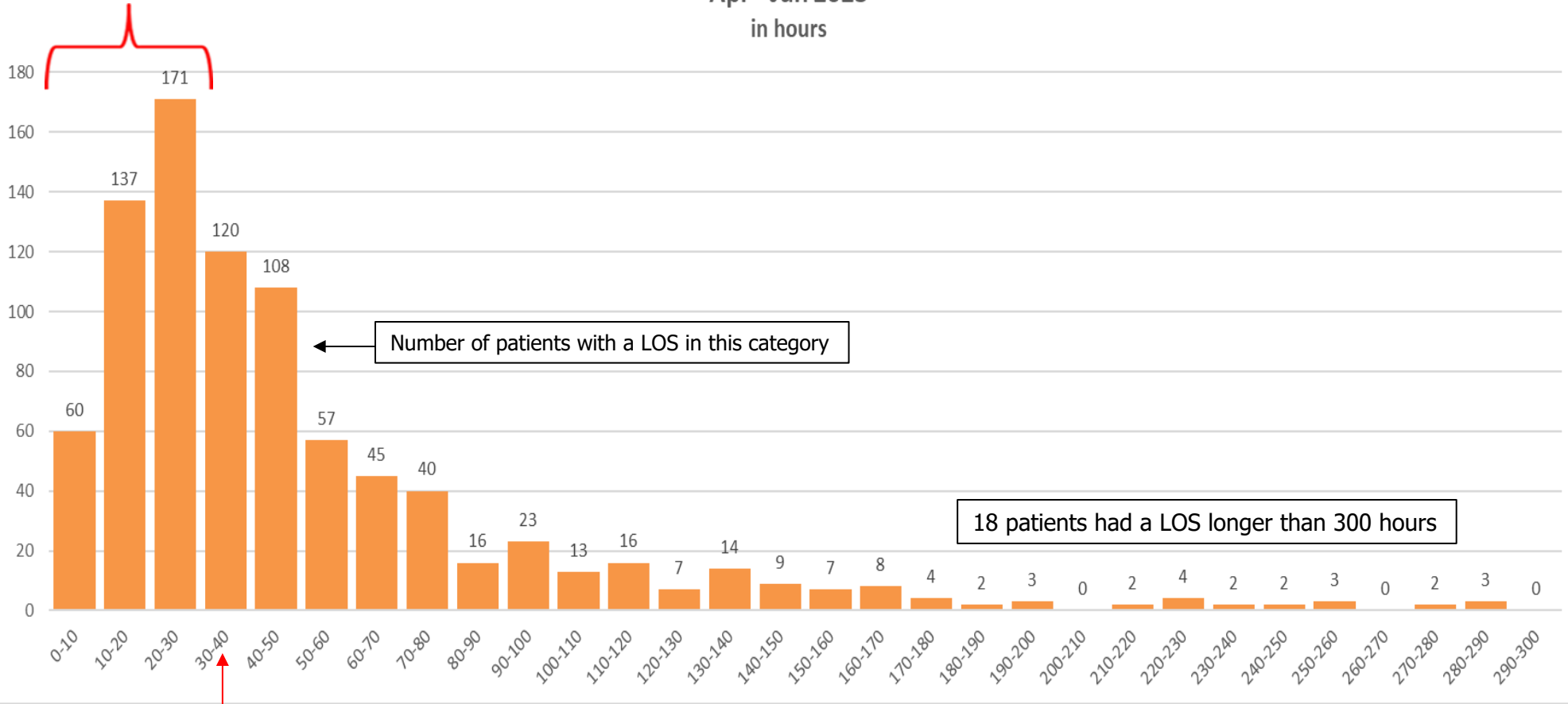


41.1% percent of patients had a LOS of 30 hours or less

Number of NC-STeP Patients by LOS Category

Apr - Jun 2023

in hours

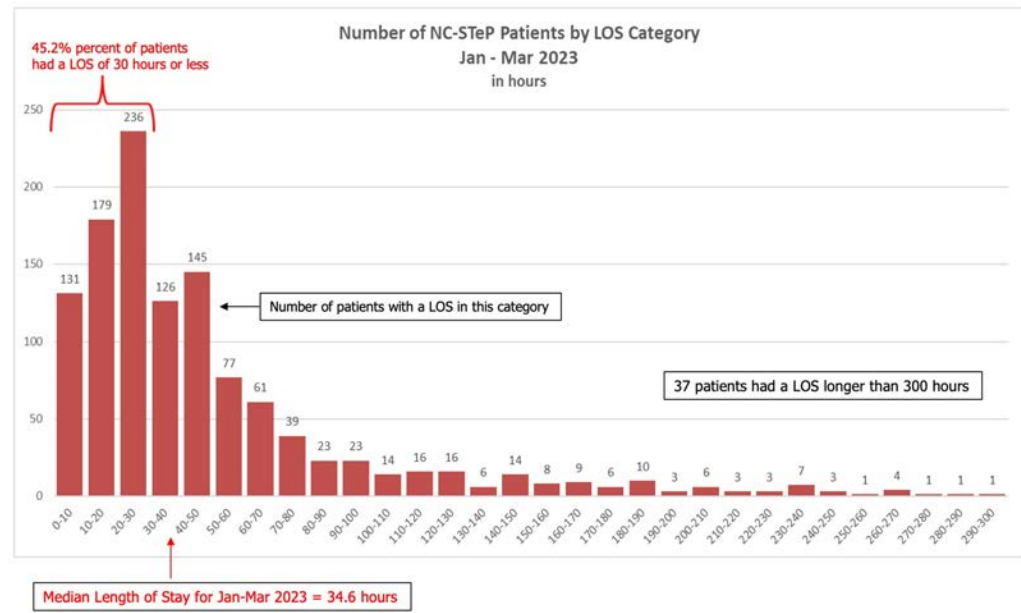


Number of patients with a LOS in this category

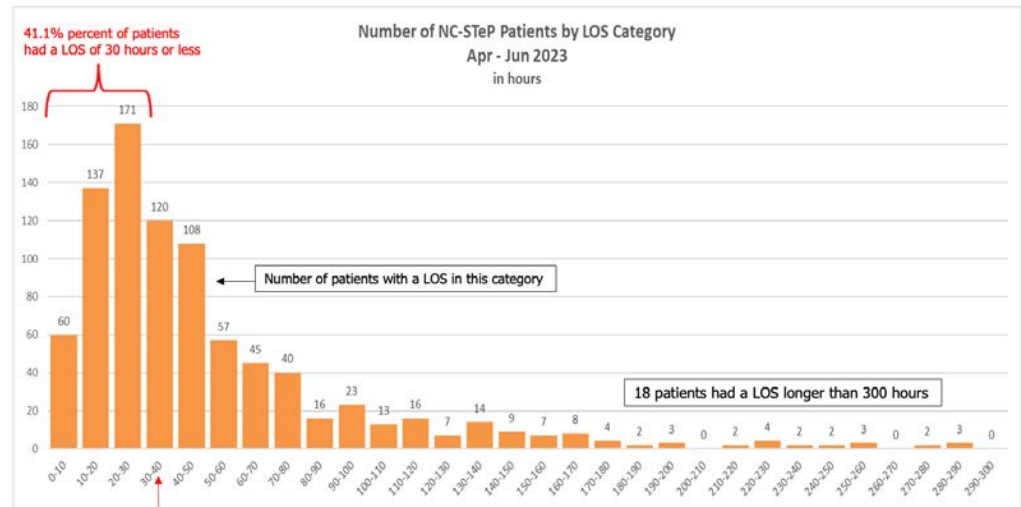
18 patients had a LOS longer than 300 hours

Median Length of Stay for Apr-Jun 2023 = 37.3 hours





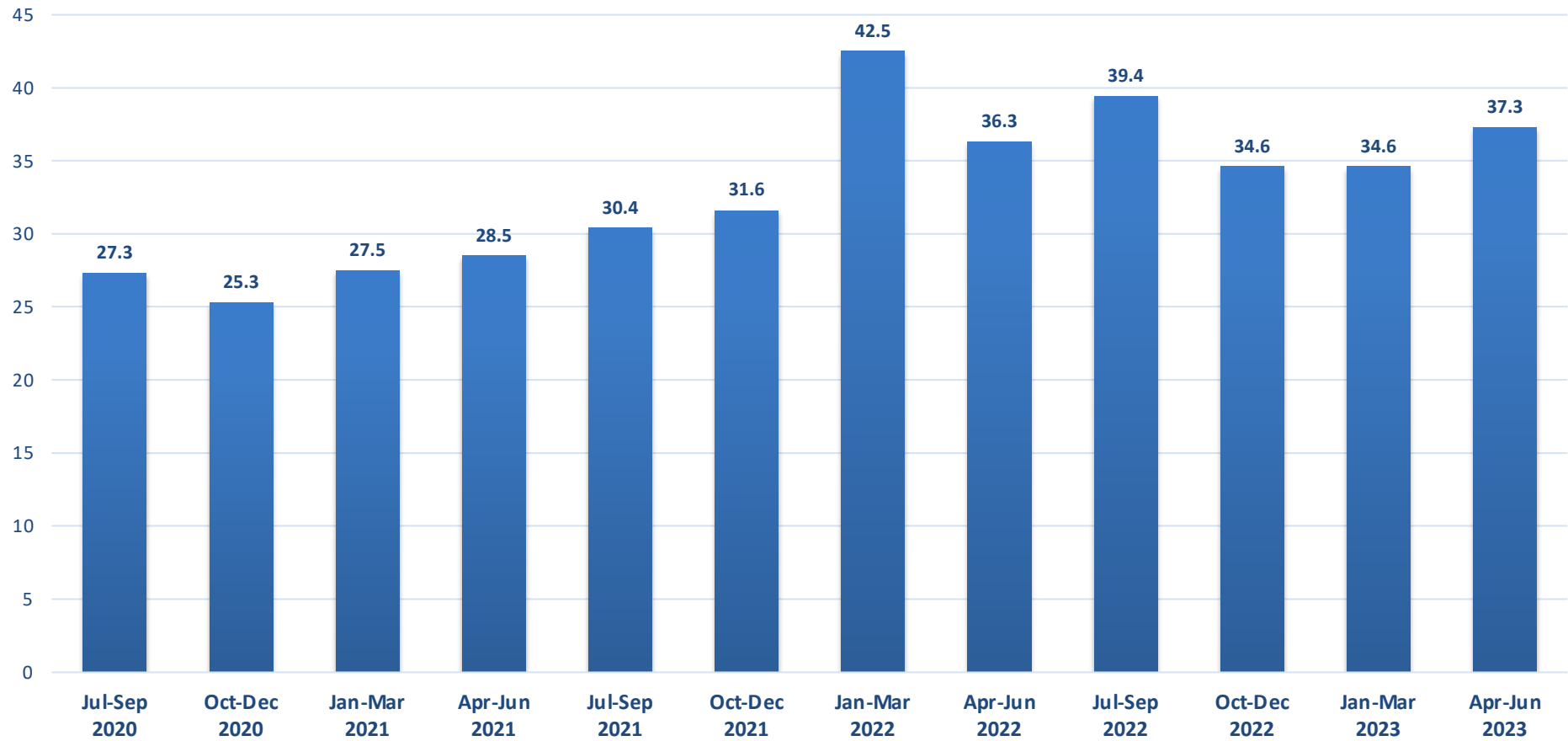
Median Length of Stay for Jan-Mar 2023 = 34.6 hours



Median Length of Stay for Apr-Jun 2023 = 37.3 hours

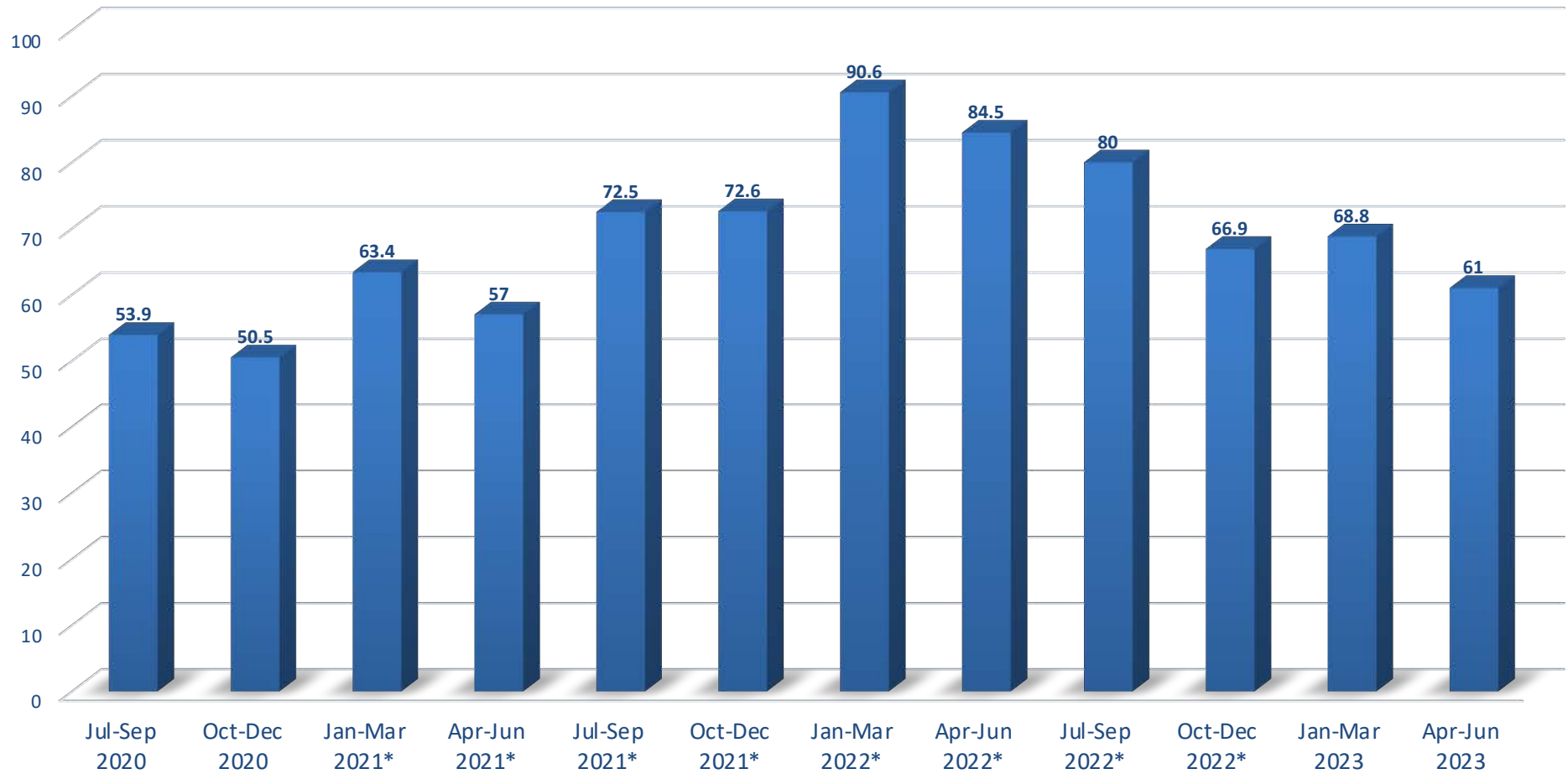
Median Length of Stay by Quarter

(in hours)



Average Length of Stay by Quarter

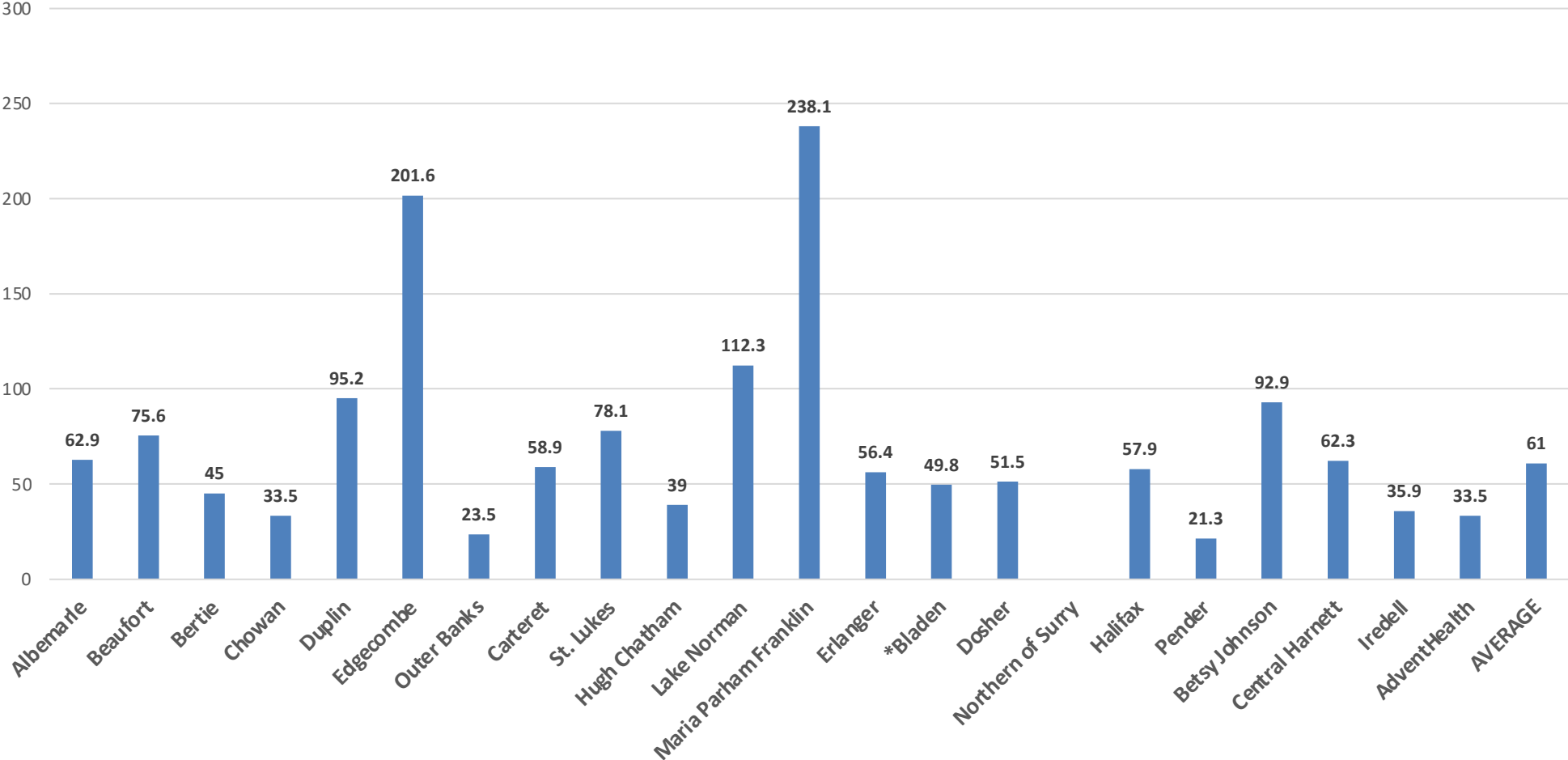
(in hours)



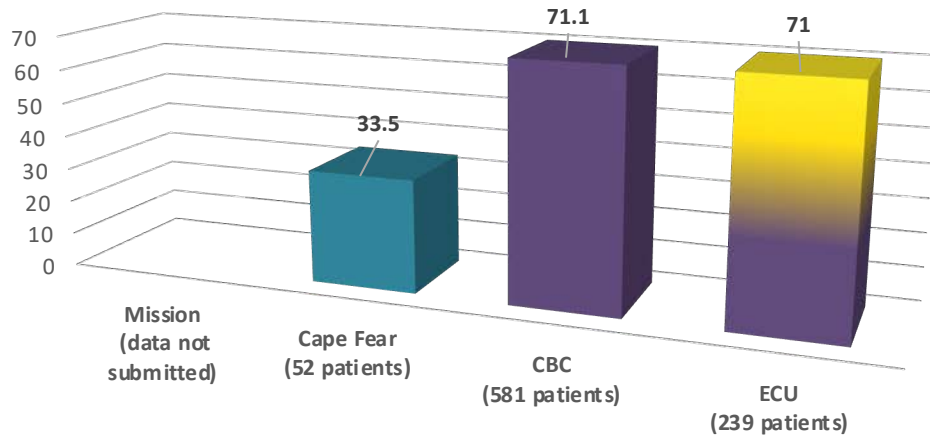
Average Length of Stay for NC-STeP Patients by Hospital

April - June 2023

(in hours)

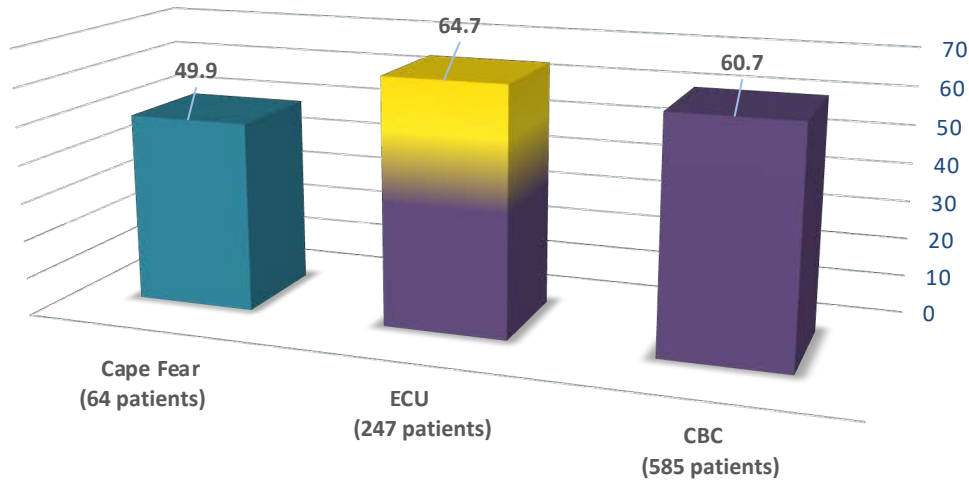


Jan-Mar 2023 (in hours)



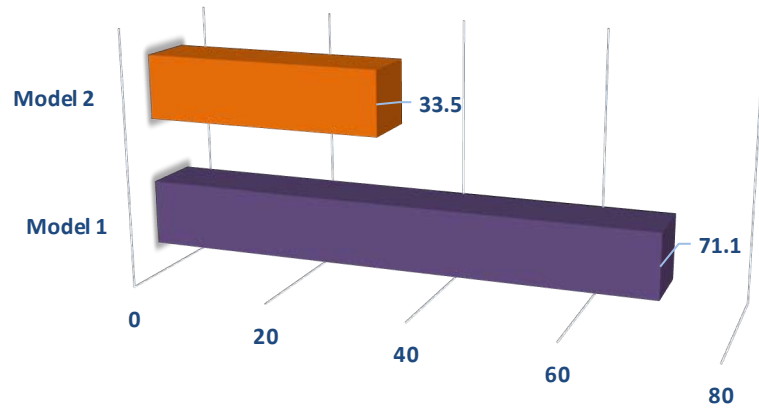
Average Length of Stay by Provider

Apr-Jun 2023 (in hours)

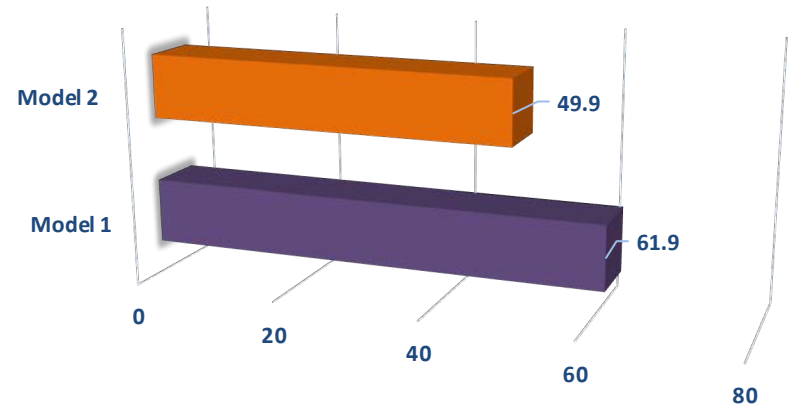


Average LOS by Model

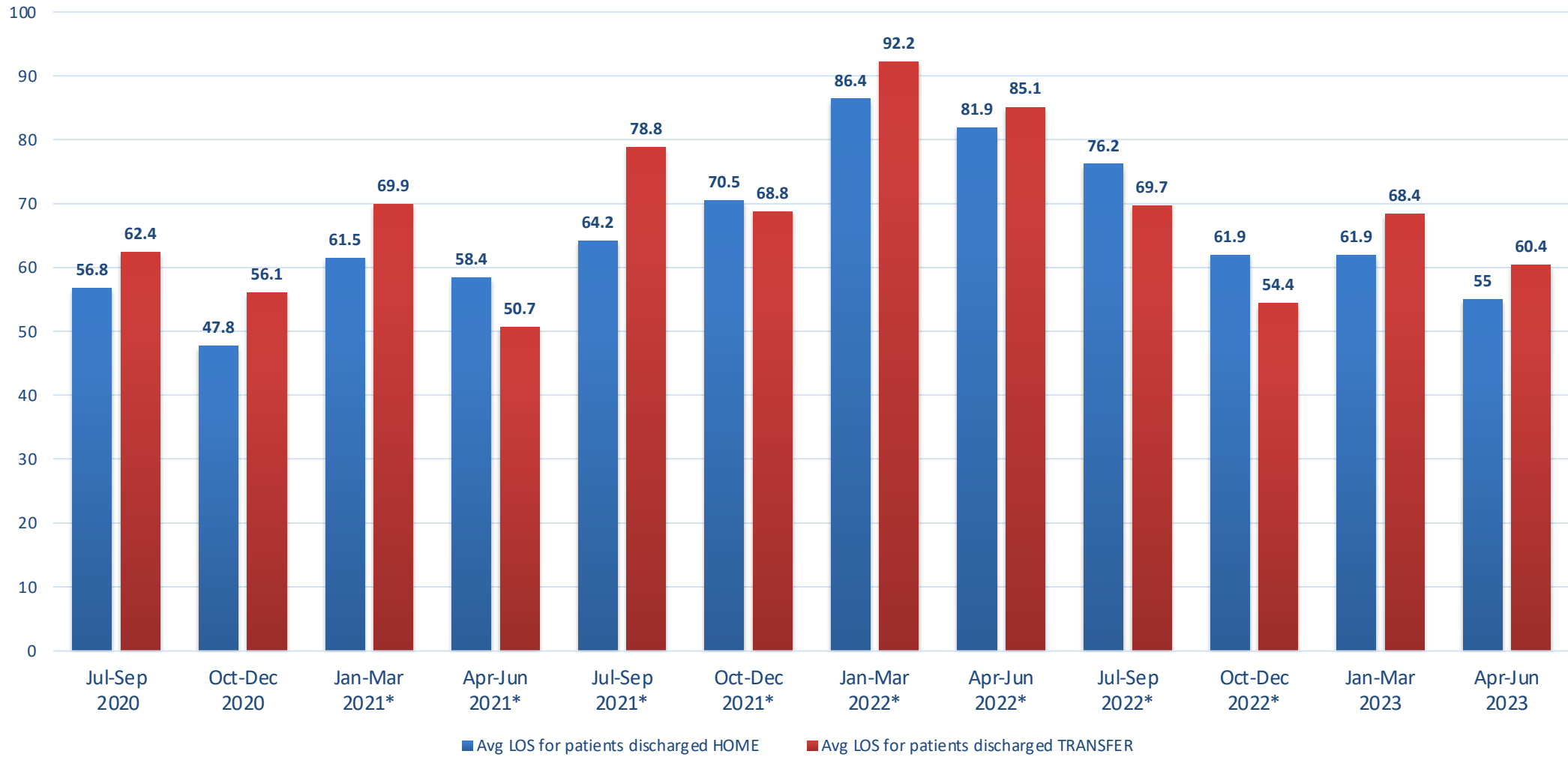
Jan-Mar 2023 (in hours)



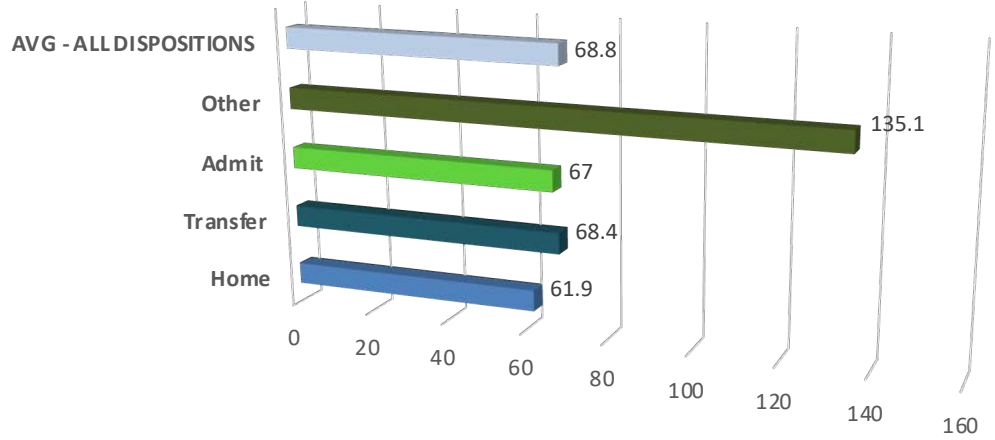
Apr-Jun 2023 (in hours)



Average Length of Stay by Quarter for Patients Discharged to Home or Transfer (in hours)

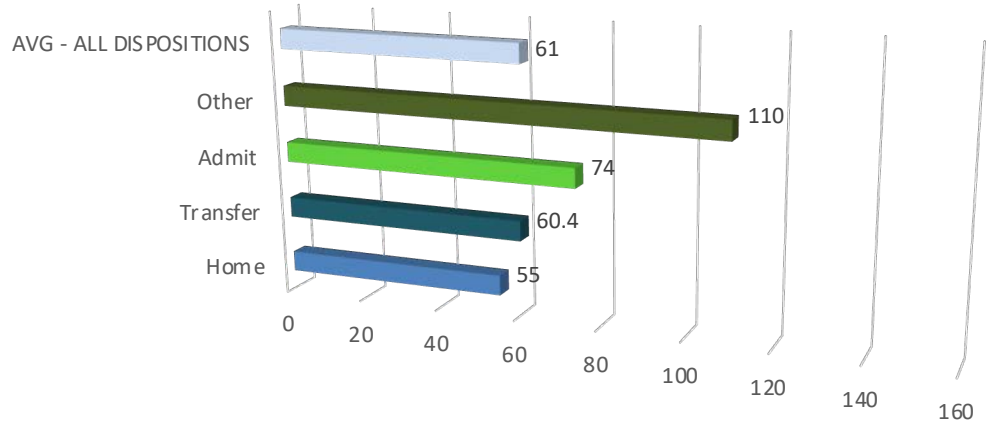


Jan - Mar 2023 (in hours)



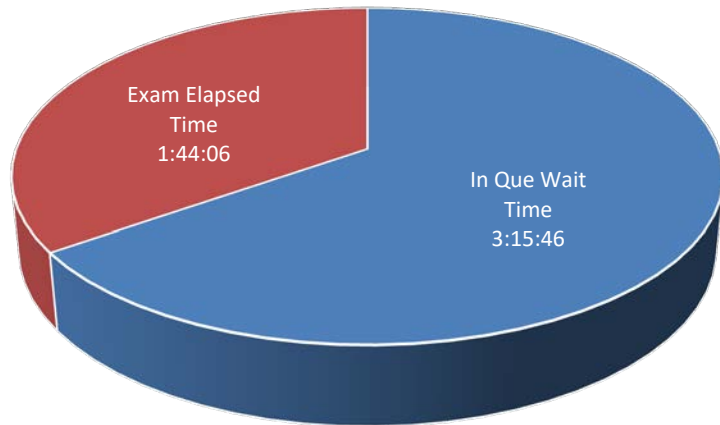
Average LOS by Discharge Disposition

Apr - Jun 2023 (in hours)



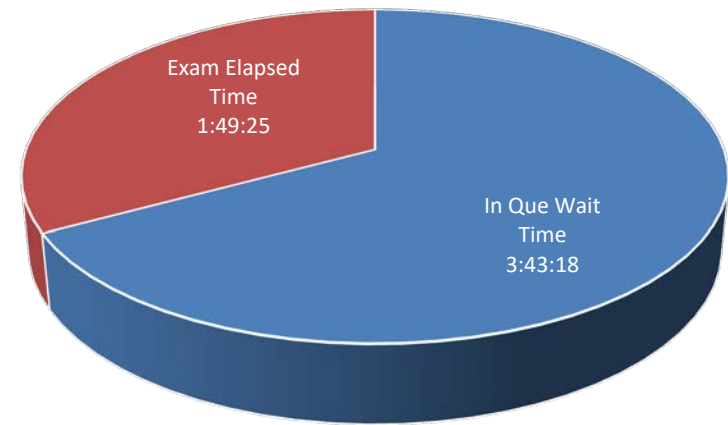
Consult Elapsed Time

CBC & ECU
Average Consult Exam Elapsed Time
In Que to Exam Complete
FY23-Q4 April - June 2023



■ In Que Wait Time ■ Exam Elapsed Time

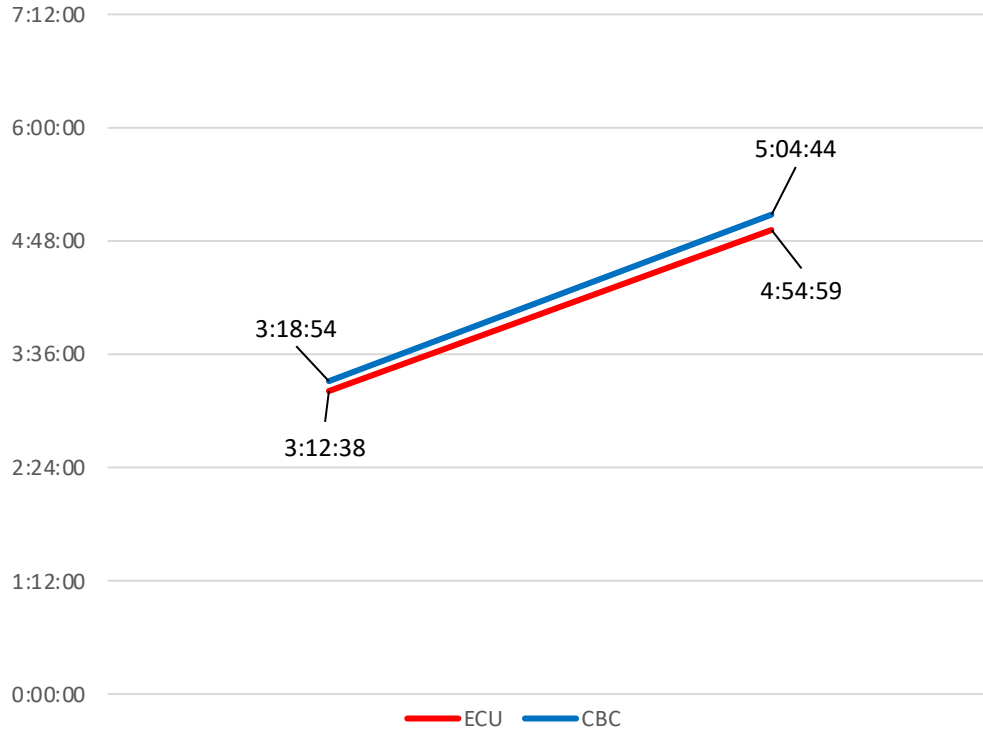
CBC & ECU
Average Consult Exam Elapsed Time
In Que to Exam Complete
FY23-Q3 JAN-MAR 2023



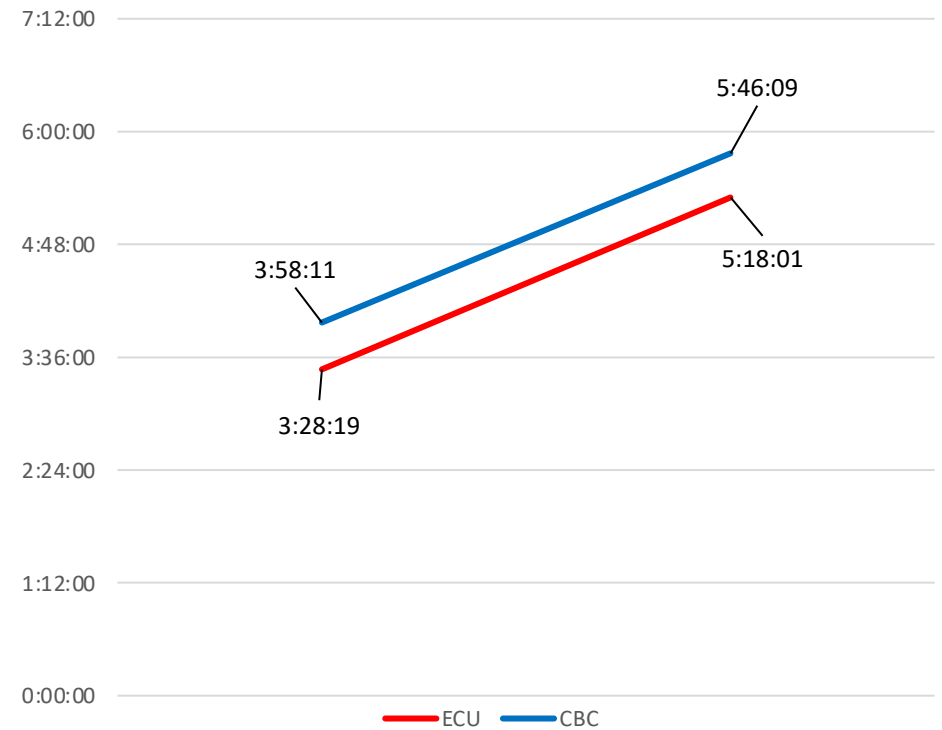
■ In Que Wait Time ■ Exam Elapsed Time

Consult Elapsed Time: Comparison of CBC and ECU

In Que to Exam Complete
FY23-Q4 April - June 2023

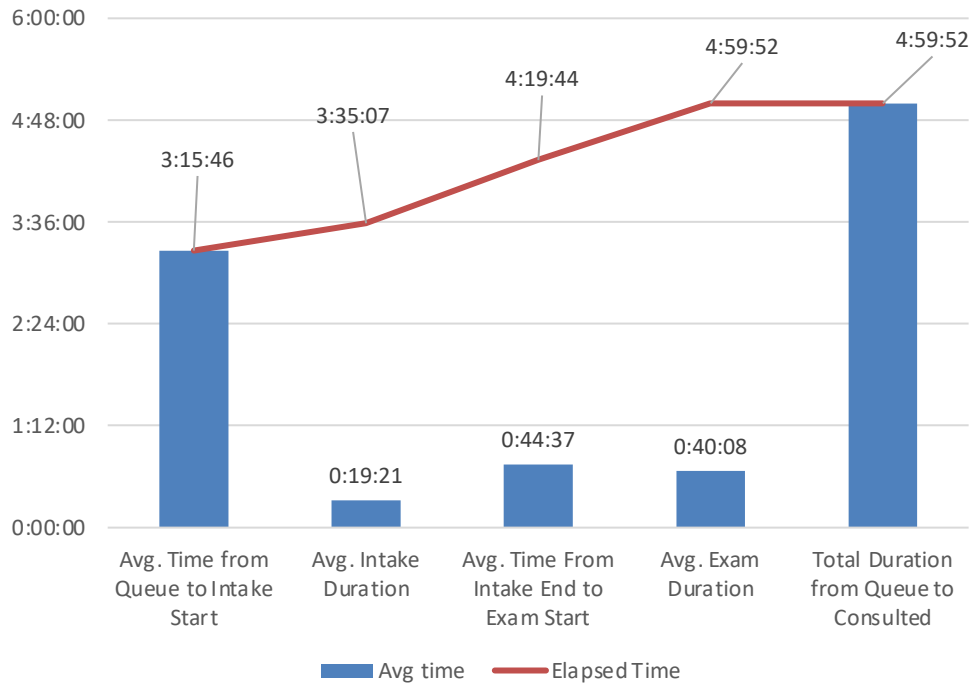


In Que to Exam Complete
FY23-Q3 January - March 2023

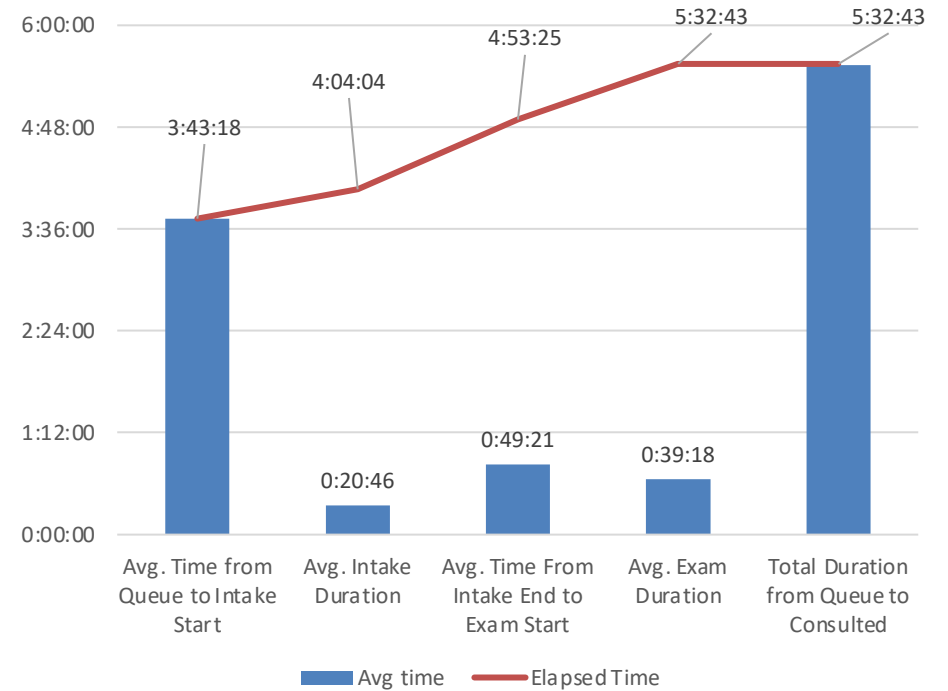


Key Processes and Elapsed Times Averages (CBC and ECU)

April - June 2023

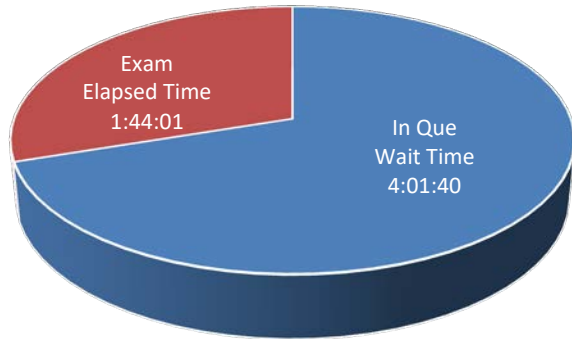


January - March 2023

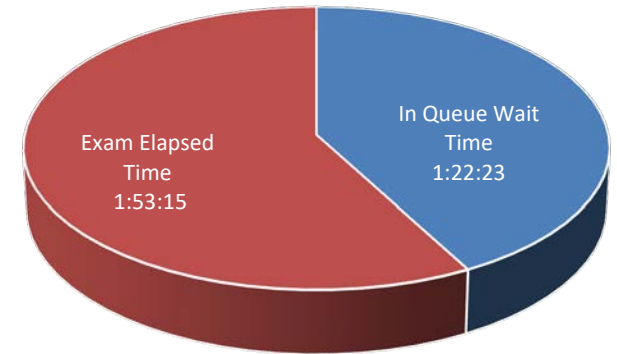


Consult Elapsed Time

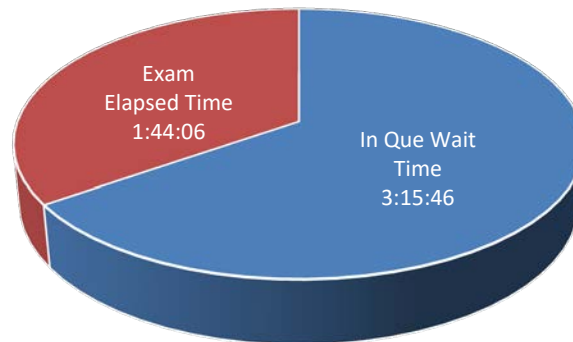
CBC & ECU
Average Consult Elapsed Time
In Que to Exam Complete
January - December 2022
(5 hrs. 42 min.)



CBC, OVBHS, and ECU
Average Consult Elapsed Time
In Queue to Exam Complete
January - December 2019
(3 hrs. 16 min.)

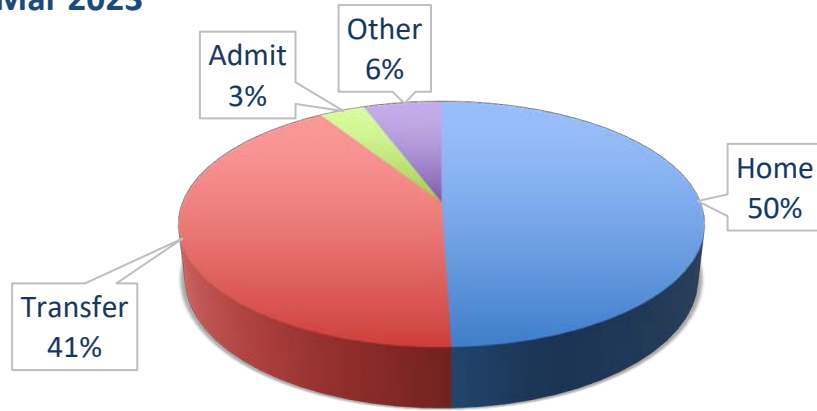


CBC & ECU
Average Consult Elapsed Time
In Que to Exam Complete
FY23-Q4 April - June 2023
(4 hrs. 59 min.)



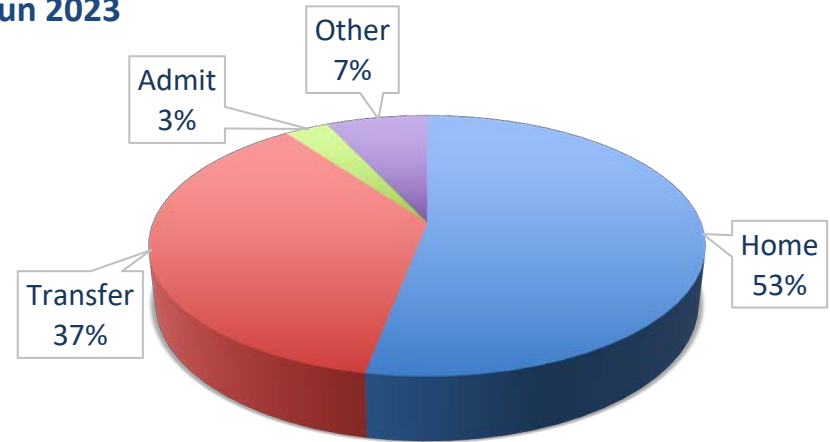
Percent of Patients by Discharge Disposition

Jan-Mar 2023



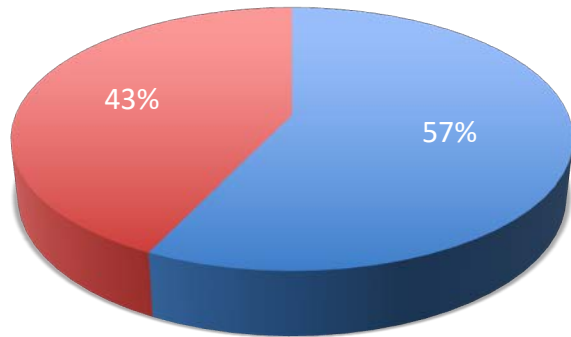
■ Home ■ Transfer ■ Admit ■ Other

Apr-Jun 2023

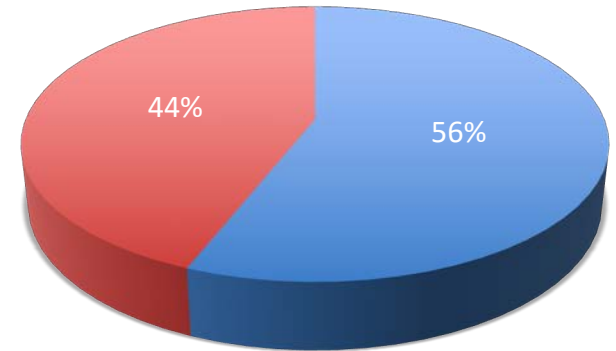


■ Home ■ Transfer ■ Admit ■ Other

Jan-Mar 2023



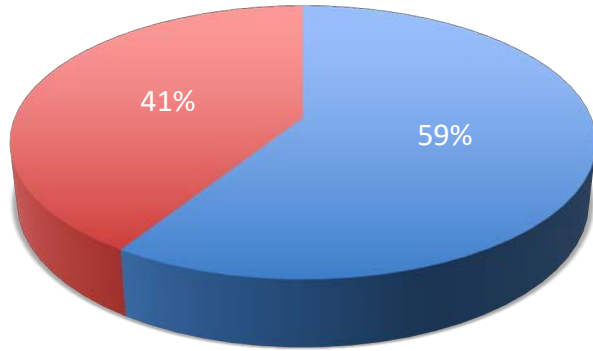
Apr-Jun 2023



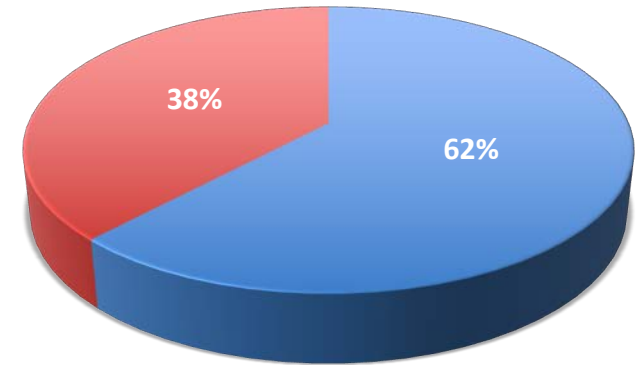
IVCs – By Release Status

- IVCs - percent not released
- IVCs - percent released

January – December 2022



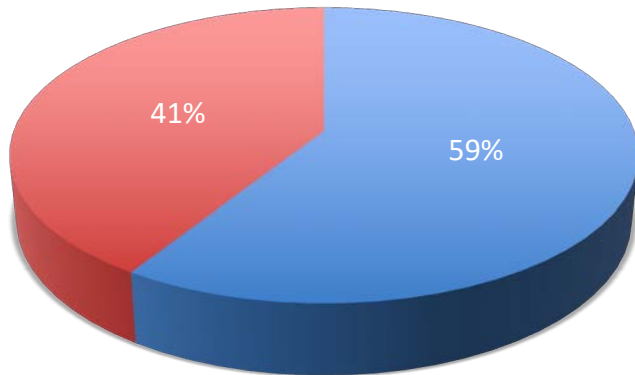
January – December 2019



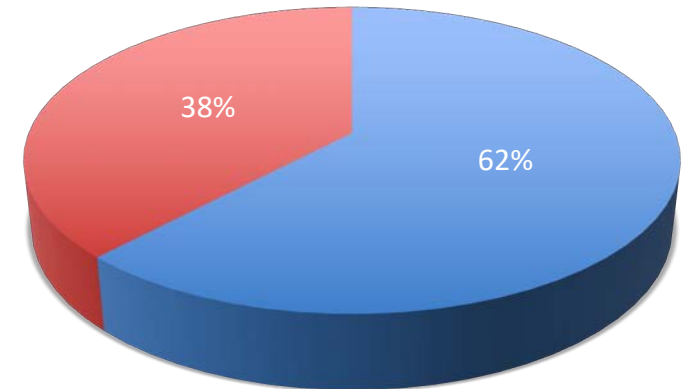
**IVCs –
By Release Status**

- IVCs - percent not released
- IVCs - percent released

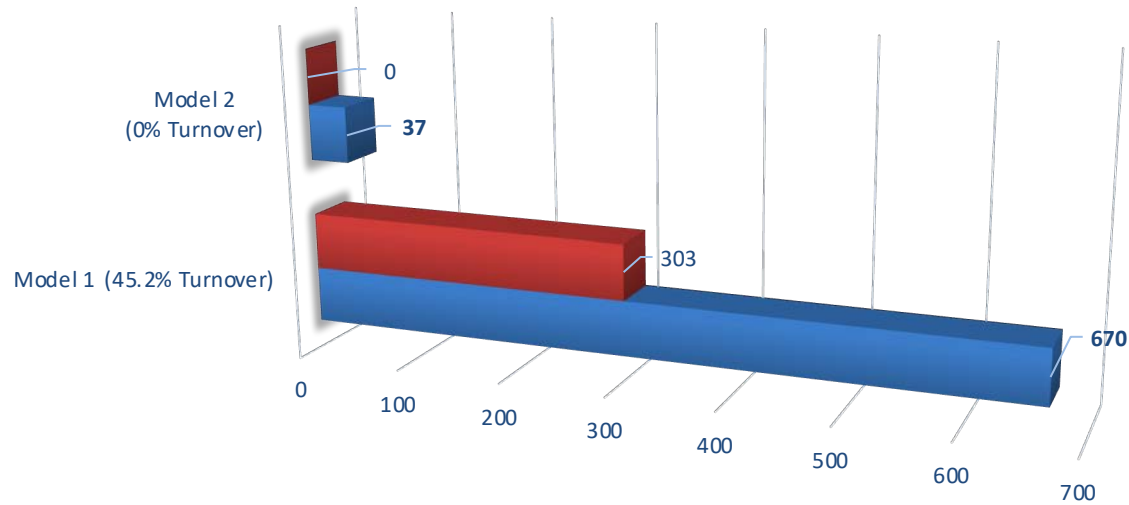
January – December 2021



January – December 2020

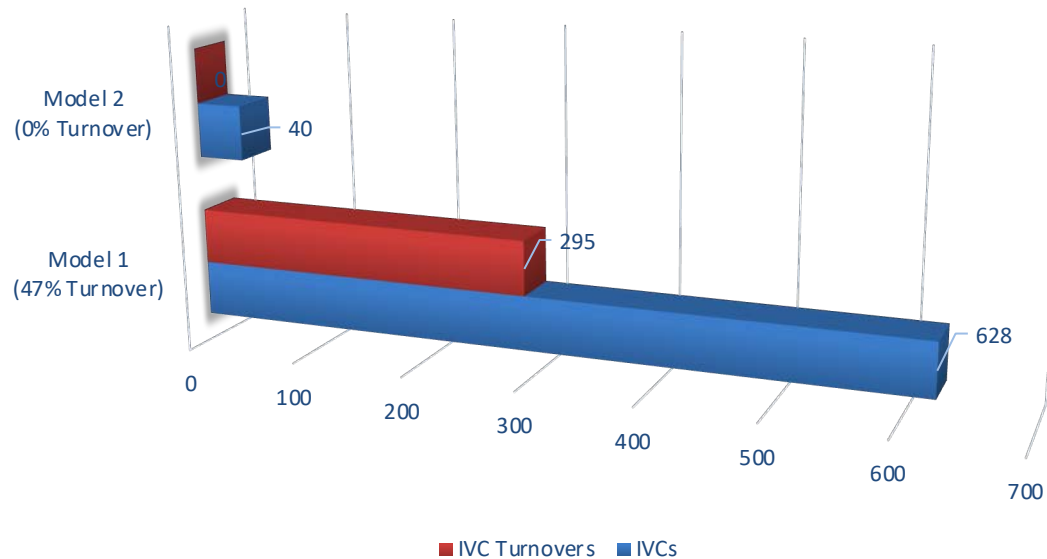


Jan-Mar 2023

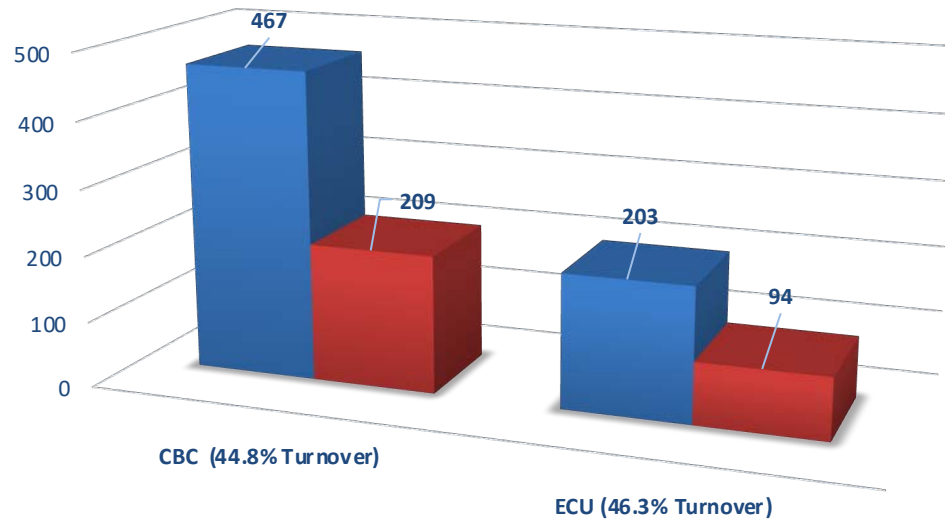


Number of IVCs and IVC Turnovers by Model

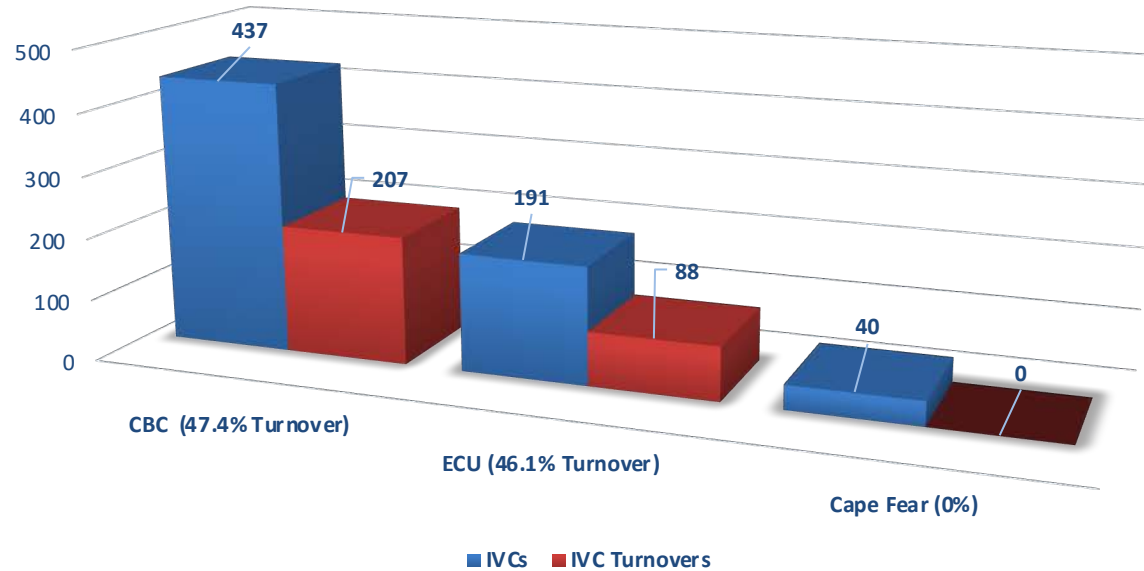
Apr-Jun 2023



Jan-Mar 2023



Apr-Jun 2023



Number of IVCs and IVC Turnovers by Provider

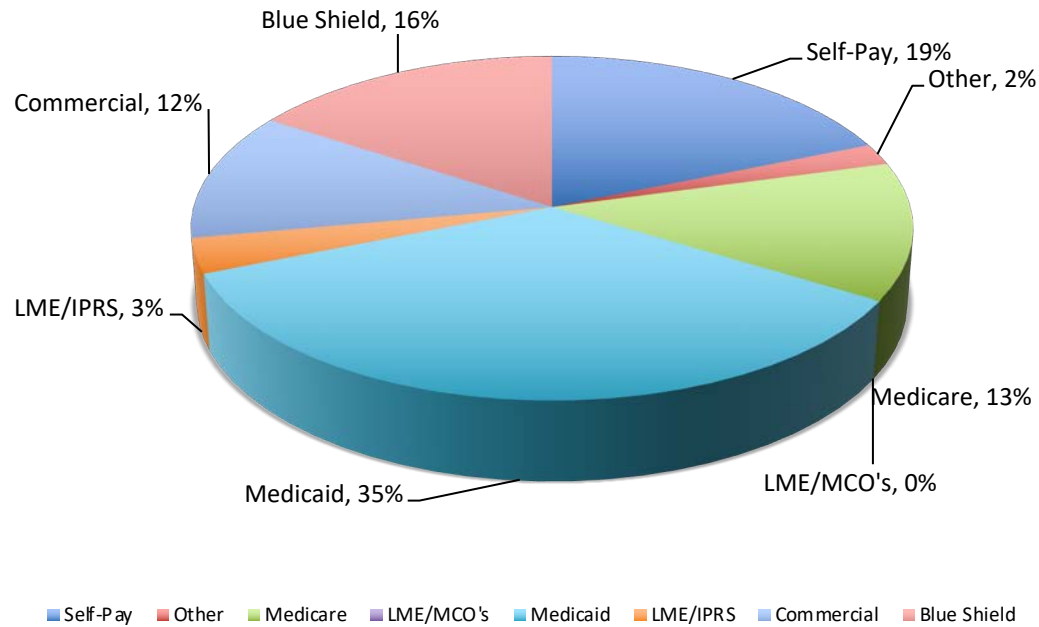
Satisfaction Surveys

- Satisfaction surveys are done twice a year.
- Satisfaction surveys were not done during this last quarter.
- Most recent surveys were conducted in March of 2023
 - 46 individuals responded to the survey (N = 46).
 - **The overall satisfaction rate was 88%.**

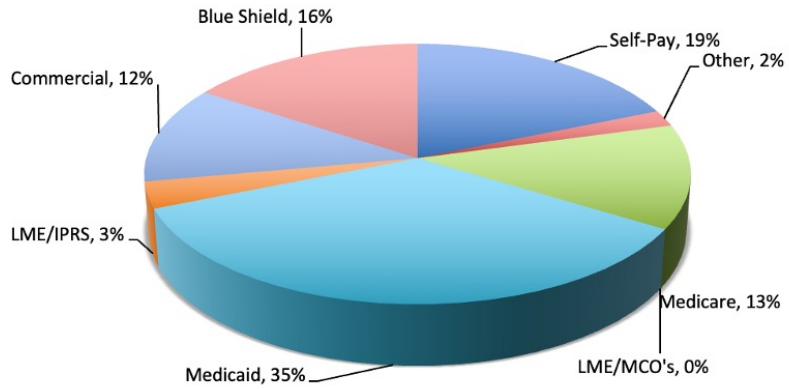


NC-STeP Charge Mix

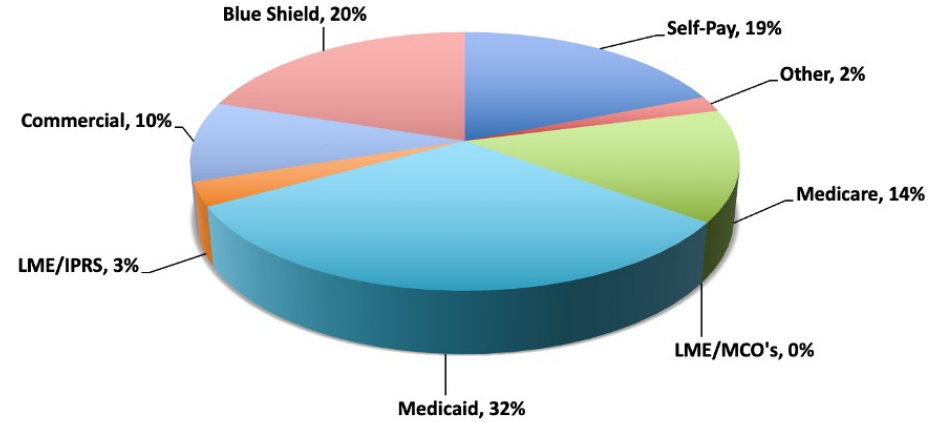
QTD FY2023 - Quarter 4



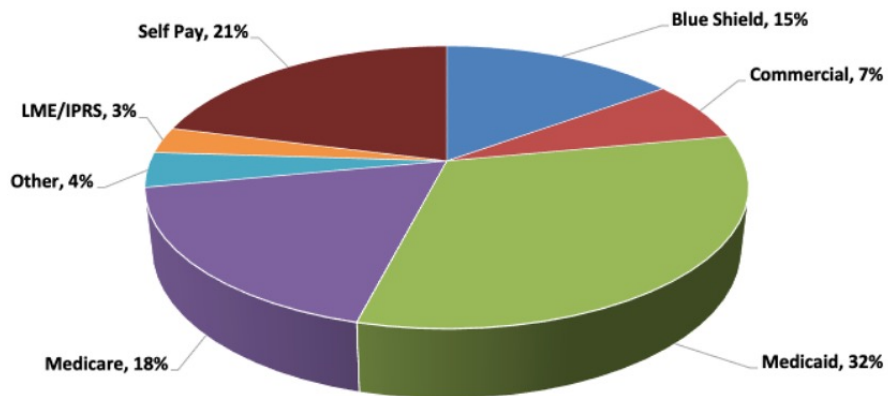
Quarter 4



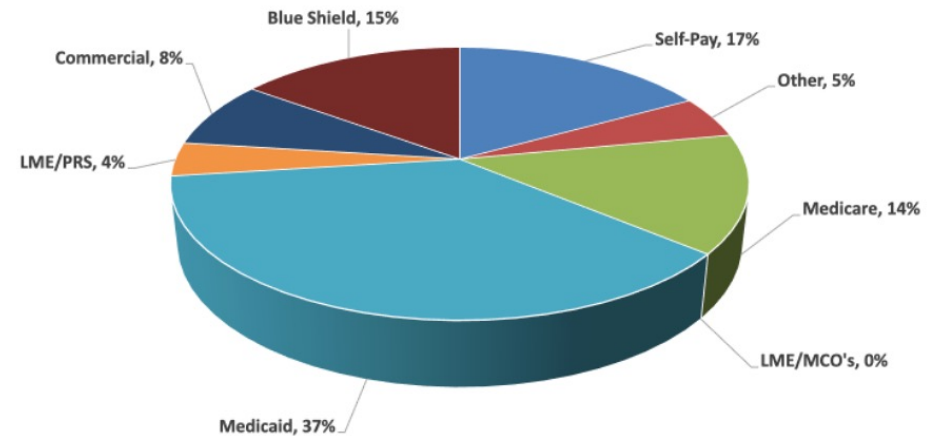
Quarter 3



Quarter 1

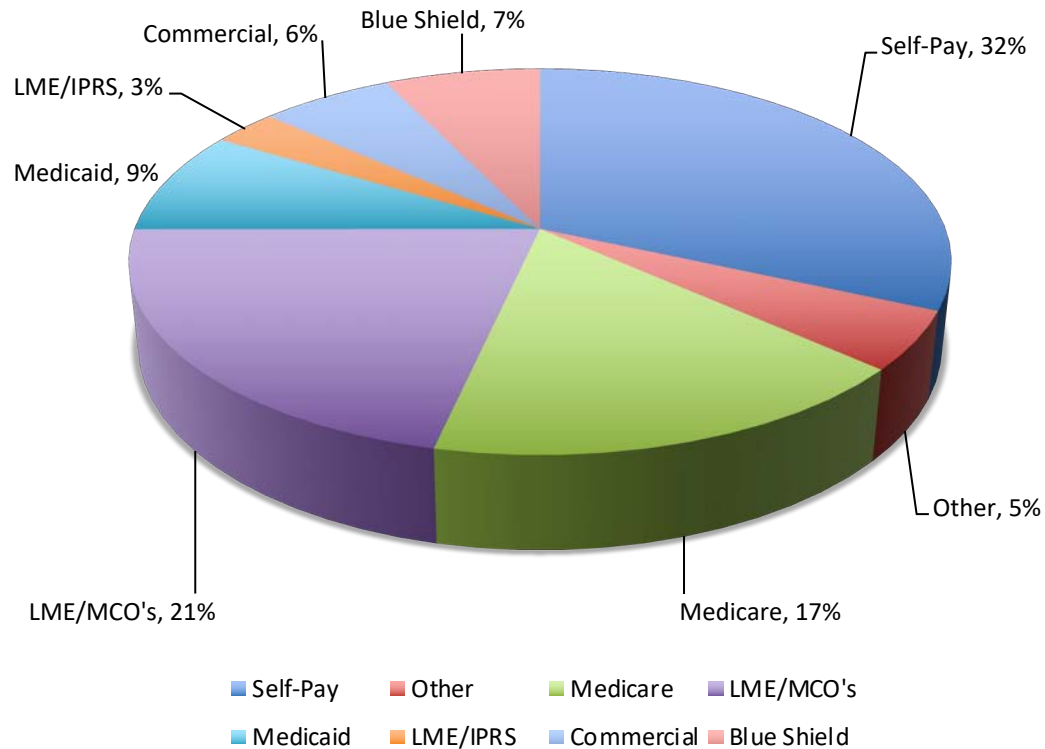


Quarter 2



NC-STeP Charge Mix - Project to Date

Service Dates: October 1, 2013 – June 30, 2023



Community-Based Sites as of June 30, 2023

EVALUATION CRITERIA	VALUES/MEASURES REACHED AS OF 06/30/2023
1. Number of full-time equivalent (FTE) providers supporting the program	1.5 FTEs
2. Number of community-based sites contracted	22
3. Number of patient visits with medical (psychiatric) doctor	172 PTD= 2,113
4. Number of return visits	1,578 PTD= 15,504
5. Number of patient visits with a mid-level provider	1,824 PTD= 17,749
6. Number of new patient visits	418 PTD= 4,424

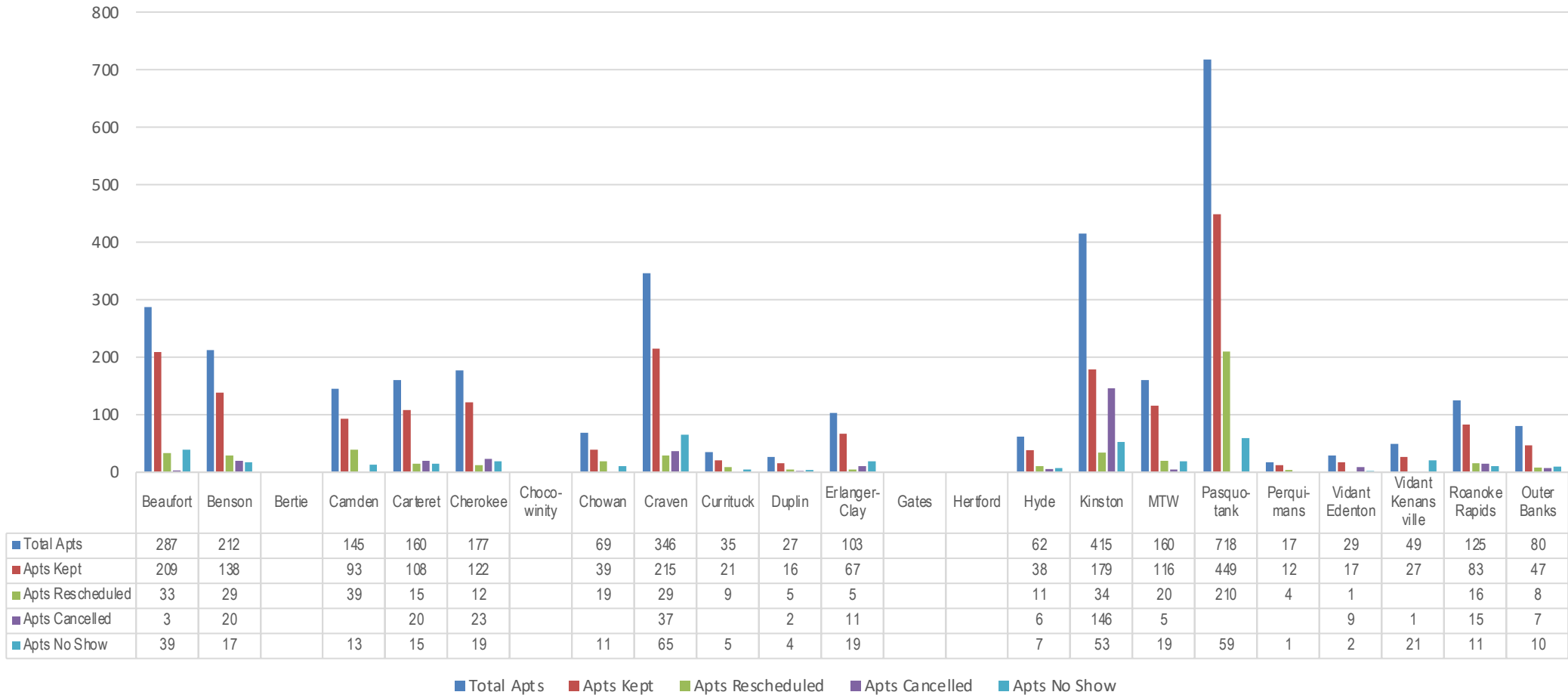
NC-STeP Community Patient Visits

Patient Visits	Since project inception in October 2018	During Calendar Year 2018	During Calendar Year 2019	During Calendar Year 2020	During Calendar Year 2021	During Calendar Year 2022	During Quarter Jan- Mar 2023	During Quarter Apr- Jun 2023
With Medical Doctor	2,113	8	536	265	316	567	249	172
With Mid-Level Provider	17,749	7	2,006	3,217	4,122	4,670	1,904	1,824
Total Patient Visits	19,967	15	2,633	3,477	4,440	5,253* 17 visits did not specify provider	2,153	1,996

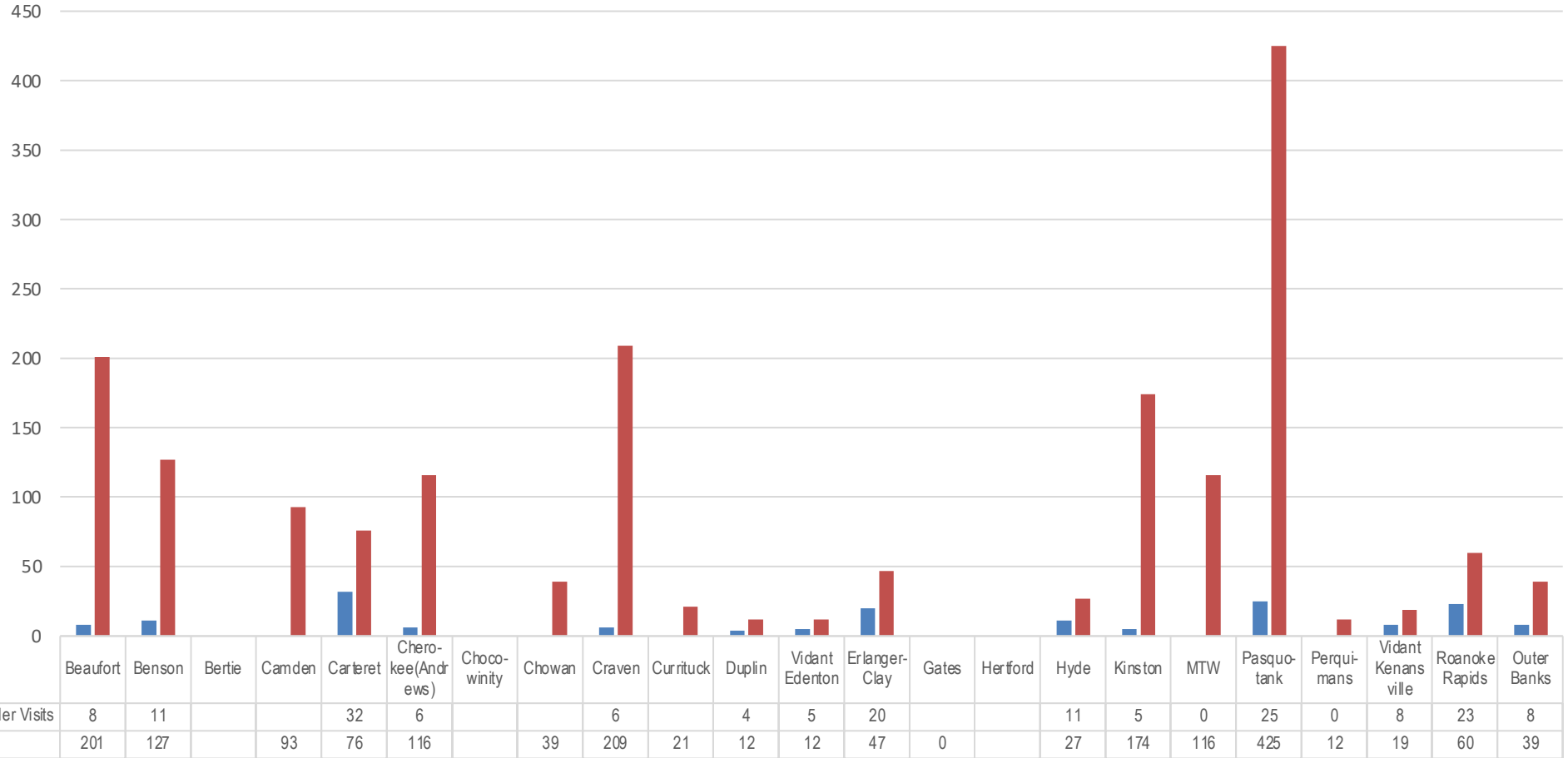
Since project inception there are 109 visits that listed no provider and 5 visits that listed both a mid-level and a doctor.



NC-Step Appointment by Site Appointments, Visits Kept, Rescheduled, Cancelled, No Show April - June 2023



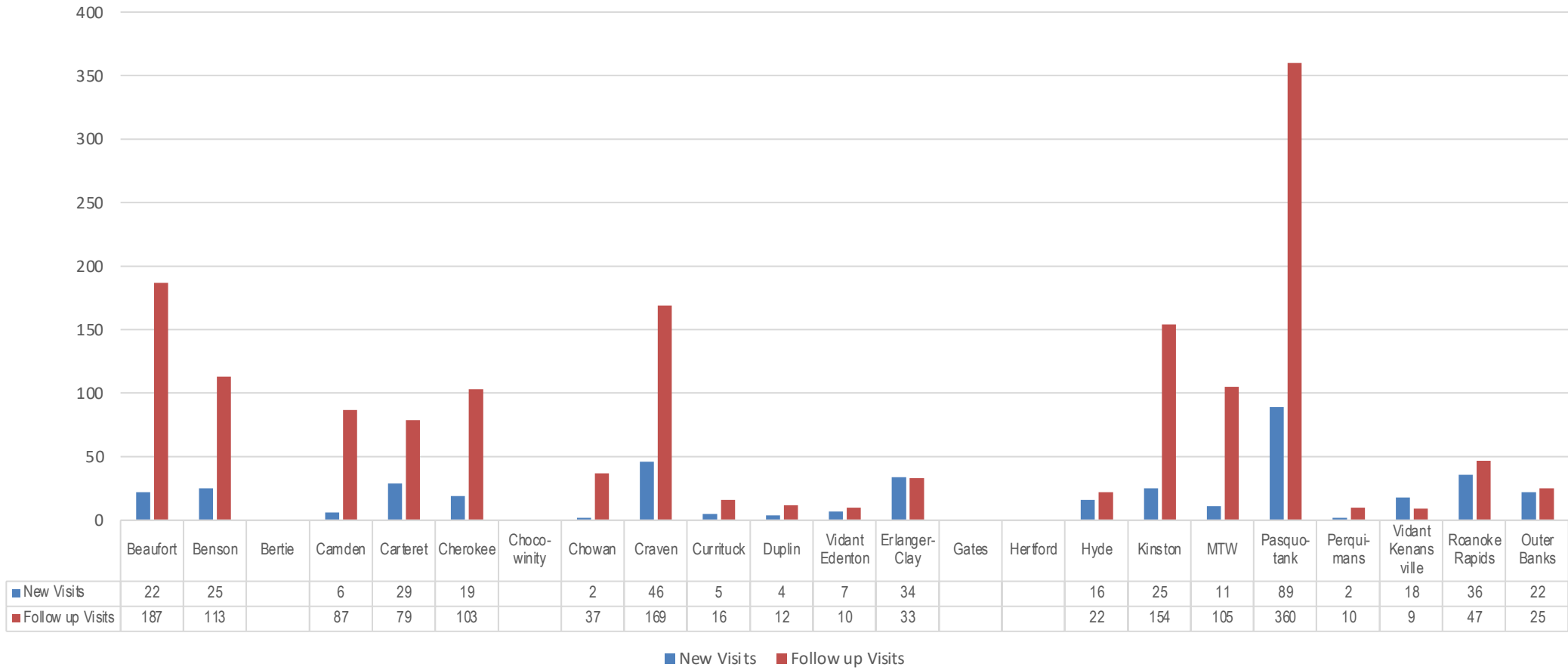
NC-Step Community Visits by Site by Provider Type April - June 2023



■ Psychiatric Provider Visits ■ BH Mgr Visits



NC-STeP Community Visits by Site New and Follow-Up April - June 2023



NC-STeP Status as of June 30, 2023

- 29 hospitals live.
- 59,215 total psychiatry assessments since program inception
- 10,046 IVCs overturned
 - Cumulative return on investment = \$54,248,400
(savings from preventing unnecessary hospitalizations)
- Three Clinical Provider Hubs with 27 consultant providers
- 32% of the patients served had no insurance coverage

NC-STeP Status as of June 30, 2023

- 22 community-based sites.
- 19,862 total patient visits since program inception in October 2018.
 - 2,113 total patient visits with a psychiatrist
 - 17,749 total patient visits with a mid-level provider

Contact

Sy Atezaz Saeed, MD, MS, FACP_{psych}

Professor and Chair Emeritus

Department of Psychiatry and Behavioral Medicine
Brody School of Medicine | East Carolina University

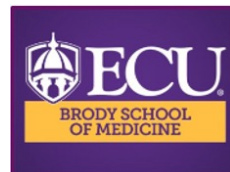
Executive Director

North Carolina Statewide Telepsychiatry Program (NC-STeP)

Phone: 252.744.2660 | e-mail: saeeds@ecu.edu

Website: <http://www.ecu.edu/psychiatry>

Mail: 600 Moye Boulevard, Suite 4E-65,
Greenville, NC 27834





NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

NC-Step Advisory Council Meeting

Monday, August 28, 2023

1:30 pm – 3:00 pm

Virtual Meeting via Zoom Video Conference

Agenda

- | | |
|-----------------|---|
| 1:30- 1:40 p.m. | Welcome and Introductions |
| 1:40- 1:45 p.m. | Review and Approval of June 6, 2023 Minutes |
| 1:45- 2:45 p.m. | NC-Step FY23-Q4 (Apr-Jun) Performance Data |
| 2:45- 2:50 p.m. | Old Business |
| 2:50- 2:55 p.m. | New Business |
| 2:55- 3:00 p.m. | Announcements |
| 3:00 p.m. | Adjourn |



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<https://us06web.zoom.us/j/86275131129?pwd=YU5BUGpXL2NVdnhGakZkWTk0YkpOUT09>

Meeting ID: 862 7513 1129

Passcode: 880796



NC-STEP-Peds



NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

Provide mental health services for children and adolescents in six selected pediatric practices in Tier 1 or Tier 2 counties in North Carolina.

- Embed a licensed behavioral health provider (BHP) into each pediatric practice
- Bring a child and adolescent psychiatrist to each practice via telemedicine for consultation
- Using virtual reality, the program is creating “NC Rural Kids Get Well,” a 3-D community on the Roblox platform to serve three main purposes: education, peer support, and surveillance.
- An artificial intelligence (AI) driven knowledge management (KM) online portal to enhance collaborations among different sites’ healthcare providers; encourage family members’ engagement in children’s mental health care; discover innovative and customized mental health service approaches for NC rural area children; and disseminate timely and relevant mental health knowledge to health care professionals, family members, and local community partners.
- Utilize these sites for inter-professional training and collaborate with university and community partners to develop a continuum of care that can include school systems, existing family therapy clinics, and child advocacy centers.



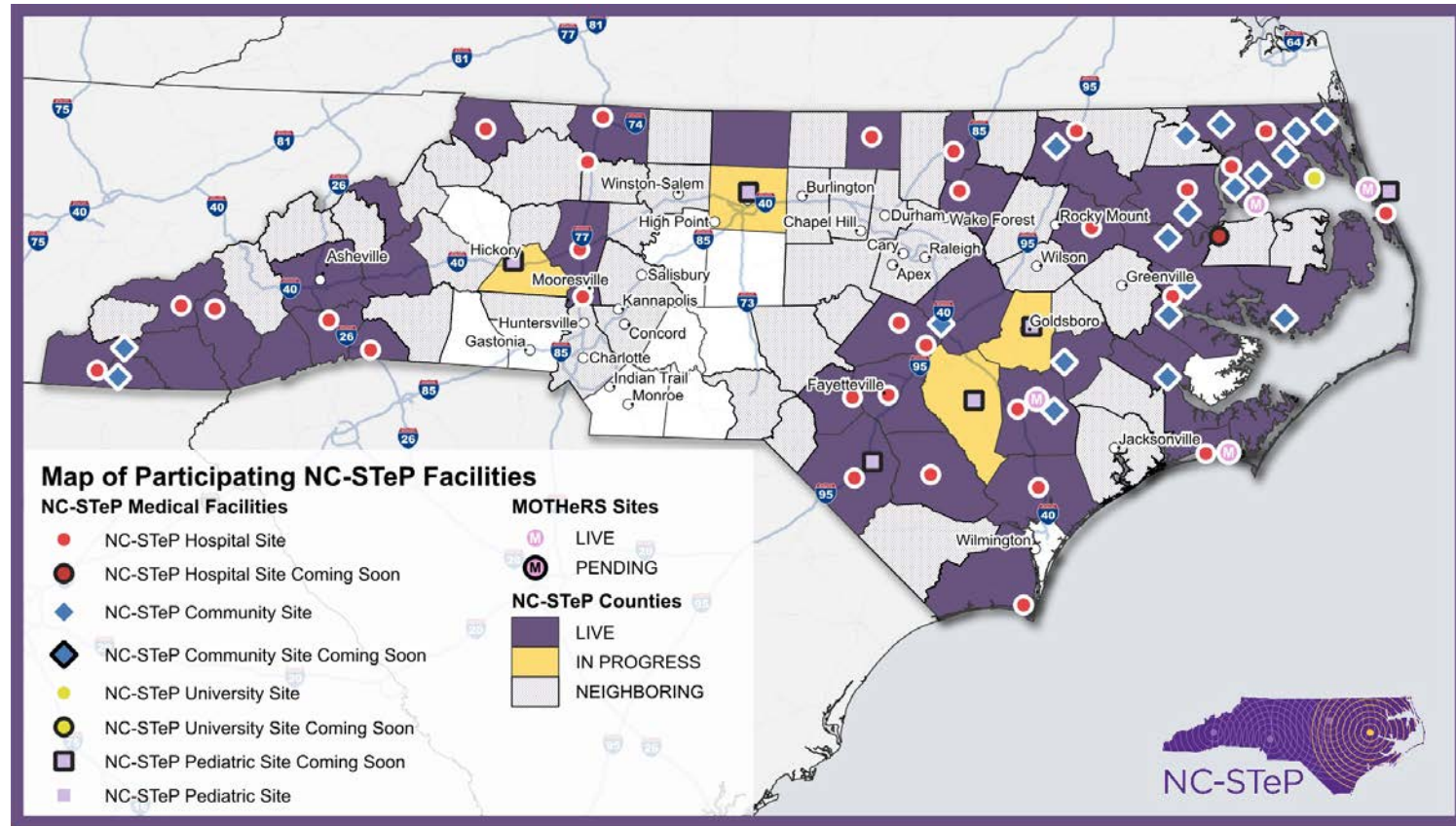
NC-STeP-Peds

NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

NC-STeP-Peds locations:

1. Catawba Pediatric Associates
(Catawba County)
2. Carolina Pediatrics of the Triad
(Guilford County)
3. Clinton Medical Clinic
(Sampson County)
4. Goldsboro Pediatrics, PA
(Wayne County)
5. Robeson Pediatrics
(Robeson County)
6. Surf Pediatrics and Medicine
(Dare County)





JUNE 14, 2023

MICHAEL RUDD

Children's designs to help North Carolina kids have healthy minds

On June 2, ECU's College of Business (COB) hosted the award ceremony for the 3-D community house design contest, which was part of the United Health Foundation (UHF) funded mental health care for [NC Children project](#), organized by COB's Center for Healthcare Management Systems (CHMS).

In the community house design competition, a total of 96 submissions were received. From these submissions, the top 10 winning children's designs were selected based on three criteria: creativity, aesthetics & presentation, and user experience & functionality.

Recognition of NC-SteP- Invited Presentations

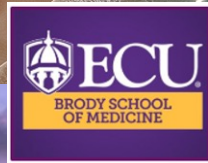
1. American Psychiatric Association, San Francisco, May 2023
2. American Telemedicine Association Annual Meeting, San Antonio, March 2023
3. American Telemedicine Association Annual Meeting, Boston, May 2022
4. NC Commission for Mental Health, Developmental Disabilities, and Substance Abuse Services Advisory Committee, January 2021
5. American Psychiatric Association, Washington DC, January 2021
6. United Health Group. Virtual. October 21, 2020
7. Psychiatry Grand Rounds, Temple University School of Medicine. Virtual. October 14, 2020
8. The 5th National Telehealth Summit, Chicago, July 2020
9. HIMSS Global Conference, Orlando, Florida, March 2020
10. The 3rd National Telehealth Summit, Miami, May 2019
11. Weill Cornell Medicine | New York-Presbyterian, New York, April 2019
12. UNC Kenan-Flagler Business School, Chapel Hill, NC, November 2017
13. The US News and World Reports, Washington DC, November 2017
14. The White House, March 2016
15. Avera e-Care, Sioux Falls, South Dakota, September 2017.
16. IPS: The Mental Health Services Conference, Washington DC, October 8, 2016
17. European Congress of Psychiatry, Madrid, March 2016
18. St. Elizabeth Hospital, Washington DC, February 2016
19. NC Academy of Family Physicians (NCAFP). Asheville, NC. December 2015.
20. Center for Evidence-Based Policy, Oregon Health Sciences Univ., Portland, Oregon. October 2015.
21. American College of Emergency Physicians' Annual Meeting. Boston, October 2015.
22. North Carolina Institute of Medicine (NCIOM) August 2015.
23. State Offices of Rural Health (SORH), July 2015.



NC-STeP Published Papers and Book Chapters

1. Xue, Y., Saeed, S.A., Muppavarapu, K.S. et al. Exploring the Impact of Education Strategies on Individuals' Attitude Towards Telemental Health Service: Findings from a Survey Experiment Study. *Psychiatr Q* (2023). <https://doi.org/10.1007/s11126-023-10033-y>
2. Saeed SA, Shore JH, Yellowlees P. Using Technology for Providing Care. (2023). In Saeed SA, Lauriello J, and Roberts LW (Editors). Textbook of Psychiatric Administration and Leadership, Third Edition. American Psychiatric Association Publishing, Washington, DC. ISBN 978-1-61537-337-6
3. Saeed SA, Kolodner RM, Balog DJ. Health Information Technology. (2023). In Saeed SA, Lauriello J, and Roberts LW (Editors). Textbook of Psychiatric Administration and Leadership, Third Edition. American Psychiatric Association Publishing, Washington, DC. ISBN 978-1-61537-337-6
4. Muppavarapu K, Saeed SA, Jones K, Hurd O, Haley V. (2022). Study of impact of telehealth use on clinic "no show" rates at an academic practice. *Psychiatric Q*. 2022. April 12. Online ahead of print.
5. Xue Y, Saeed SA, Liang H, Jones K, Muppavarapu KS. (2022). Investigating the impact of COVID-19 on telepsychiatry use across sex and race: a study of North Carolina emergency departments. *Telemedicine and e-Health*. Vol.00, No.00, Month 2022. Online first March 2022. DOI: 10.1089/tmj.2021.0549.
6. Saeed SA, Jones K, Muppavarapu K. The Impact of NC Statewide Telepsychiatry Program (NC-STeP) on Cost Savings by Reducing Unnecessary Psychiatric Hospitalizations During a 6½ Year Period. *Psychiatric Q*. 2021 Nov 18. Online ahead of print.
7. Saeed, S.A., Masters, R.M. Disparities in Health Care and the Digital Divide. *Curr Psychiatry Rep*. 23, 61 (2021).
8. Saeed SA, Lluberer N, Buwalda VJA (2021). Applications of Technology. In Sowers WE and Ranz JM (Editors) Seeking Value: Balancing Cost and Quality in Psychiatric Care. Chapter 10, pp 245-273.
9. Kothadia RJ, Jones K, Saeed SA, Torres MJ, (2020). The Impact of NC-Statewide Telepsychiatry Program (NC-STeP) on Patients' Dispositions from Emergency Departments. *Psychiatric Services*. Online in Advance of print, October 2020.
10. Saeed SA (2020). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using telepsychiatry to improve access to evidence-based care. *European Psychiatry*, Volume 33, Issue S1: Abstracts of the 24th European Congress of Psychiatry, Cambridge University Press: 23 March 2020, pp. S66. DOI: <https://doi.org/10.1016/j.eurpsy.2016.01.968>.
11. Saeed SA. (2018). Successfully Navigating Multiple Electronic Health Records When Using Telepsychiatry: The NC-STeP Experience. *Psychiatric Services*. 2018 Sep 1; 69(9):948-951
12. Saeed SA (2018). Tower of Babel Problem in Telehealth: Addressing the Health Information Exchange Needs of the North Carolina Statewide Telepsychiatry Program (NC-STeP). *Psychiatric Quarterly*. 2018 Jun;89 (2):489-495.
13. Saeed SA, Johnson TL, Bagga M, Glass O. (2017). Training Residents in the Use of Telepsychiatry: Review of the Literature and a Proposed Elective. *Psychiatric Quarterly*. Volume 88. No.2. June. pp. 271-283.
14. Saeed SA, Anand V. (2015). Use of Telepsychiatry in Psychodynamic Psychiatry. *Psychodynamic Psychiatry*: Vol.43, No.4, pp.569-583.
15. Saeed SA. (2015). Telebehavioral Health: Clinical Applications, Benefits, Technology Needs, and Setup. *NCMJ*: Vol. 76, Number 1, pp 25-26.





NORTH CAROLINA
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