



NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

Quarterly Progress Update



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Brody School of Medicine - East Carolina University

Director

North Carolina Statewide Telepsychiatry Program (NC-STeP)





NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

NC-STEP Advisory Council Meeting

Friday March 1, 2019

10:00 am- 12:00 pm

Agenda

- | | |
|-------------------|--|
| 10:00- 10:10 a.m. | Welcome and Introductions |
| 10:10- 10:15 a.m. | Review and Approval of November 16, 2018 Minutes |
| 10:15- 10:30 a.m. | Brief Introduction to NC-STEP for New Members |
| 10:30- 11:30 a.m. | NC-STEP FY19-Q2 (Oct-Dec) Performance Data |
| 11:30- 11:45 a.m. | Update on Community-Based Pilot(s) |
| 11:45- 11:50 a.m. | New Business |
| 11:50- 11:55 am | Announcements |
| 12:00 p.m. | Adjourn |

[Join WebEx meeting](#)

Meeting number (access code): 739 507 898

Join by phone

[1-240-454-0879](tel:1-240-454-0879) USA Toll

[1-240-454-0879](tel:1-240-454-0879) USA Toll

[Global call-in numbers](#)

Members of the NC-STeP Advisory Council

1. Teresa Bowleg, MSN, RN
Chief Nursing Officer, Erlanger Murphy Medical Center
2. Scott W. Brown, MD, FACEP
NCCEP Board of Directors/ Harnett Health System
3. Jennie Byrne, MD, PhD
Representing NCMS
4. Charles K. Dunham, MD
Medical Director Behavioral Health Services, Novant
5. Robin Huffman
Executive Director NCPA
6. Nicholle Karim
Director of Behavioral Health, NCHA
7. Josephine Mokonogho, MD
Wake Forest School of Medicine
8. Sy Atezaz Saeed, MD, MS
Director, NC-STeP (*Chair*)
9. Glenn M. Simpson, MBA, MA, NCC
Behavioral Health Service Line Administrator, Vidant Health
10. Victoria Soltis-Jarrett, PhD, PMHCNS/NP-BC
Psychiatric-Mental Health Nursing, UNC Chapel Hill
11. Alexandra L. Spessot, MD
Chief Medical Officer, Monarch/ NCMS
12. Marvin Swartz, MD
Professor & Head Division of Social & Community Psychiatry, Duke
13. Leza Wainwright
CEO, Trillium Health Resources
14. Mary Worthy, MS, LMFT
Director BH Access Center Mission Health Systems

Ex Officio Members

1. Renee Clark, MSW, DHHS-ORH
2. Sheila Davies, Ph.D., NC-STeP/MedAccess Partners
3. Phil Donahue, NC-STeP/MedAccess Partners
4. Art Eccleston, DHHS, Division of Mental Health
5. Nick Galvez, DHHS-ORH
6. Katherine Jones, Ph.D., NC-STeP/ECU
7. Maggie Sauer, DHHS-ORH
8. Mary Schiller, NC-STeP/ECU
9. John Stephen Carbone, MD, JD, MBA, NC-STeP
10. Greg Tacozza, NC-STeP/ECU





NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

Developed in response to Session Law 2013-360.

- G.S. 143B-139, 4B
- Recodified as G.S. 143B-139.4B(a)(1b) by Session Laws 2018-44, s. 15.1, effective July 1, 2018



North Carolina Distribution of Psychiatrists and MH Services at the County Level

- 31 out of 100 counties in NC have no psychiatrists
- 63 counties have less than 1.9 psychiatrists per 10,000
- 13 counties have no active behavioral health provider (BHP)
- 35 counties have less than 1 per 10,000 BHPs
- According to federal guidelines, 58 counties in North Carolina qualify as Health Professional Shortage Areas

Where can you go if you do not have access to community-based behavioral health care?

- North Carolina has seen high emergency department admissions related to behavioral health issues and extended lengths of stays (LOS), ranging from long hours to multiple days.¹
- In 2013, NC hospitals had 162,000 behavioral health emergency department visits.²
- In 2010, patients with mental illness made up about 10 percent of all emergency room visits in North Carolina, and people with mental health disorders were admitted to the hospital at twice the rate of those without.³

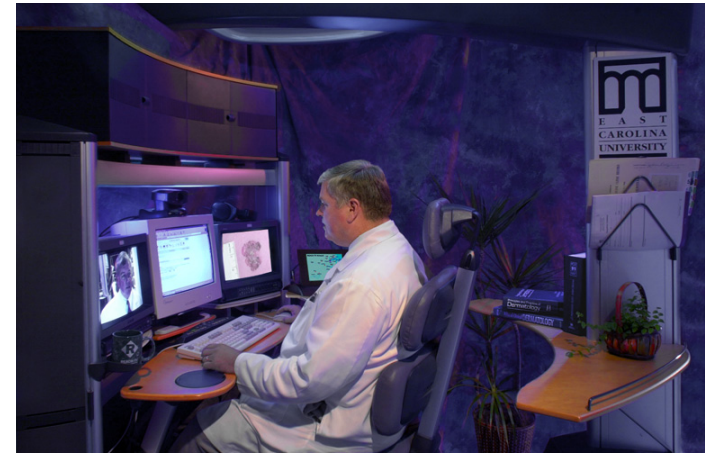
1. Akland, G. & Akland, A. (2010). State psychiatric hospital admission delays in North Carolina. (<http://naminc.org/nn/publications/namiwakerpt.pdf>.)

2. NC Hospital Association

3. Study by the Centers for Disease Control

Telepsychiatry can offer help!

Telepsychiatry is defined in the statute as *the delivery of acute mental health or substance abuse care, including diagnosis or treatment, by means of two-way real-time interactive audio and video by a consulting provider at a consultant site to an individual patient at a referring site.*



NC- STeP Vision

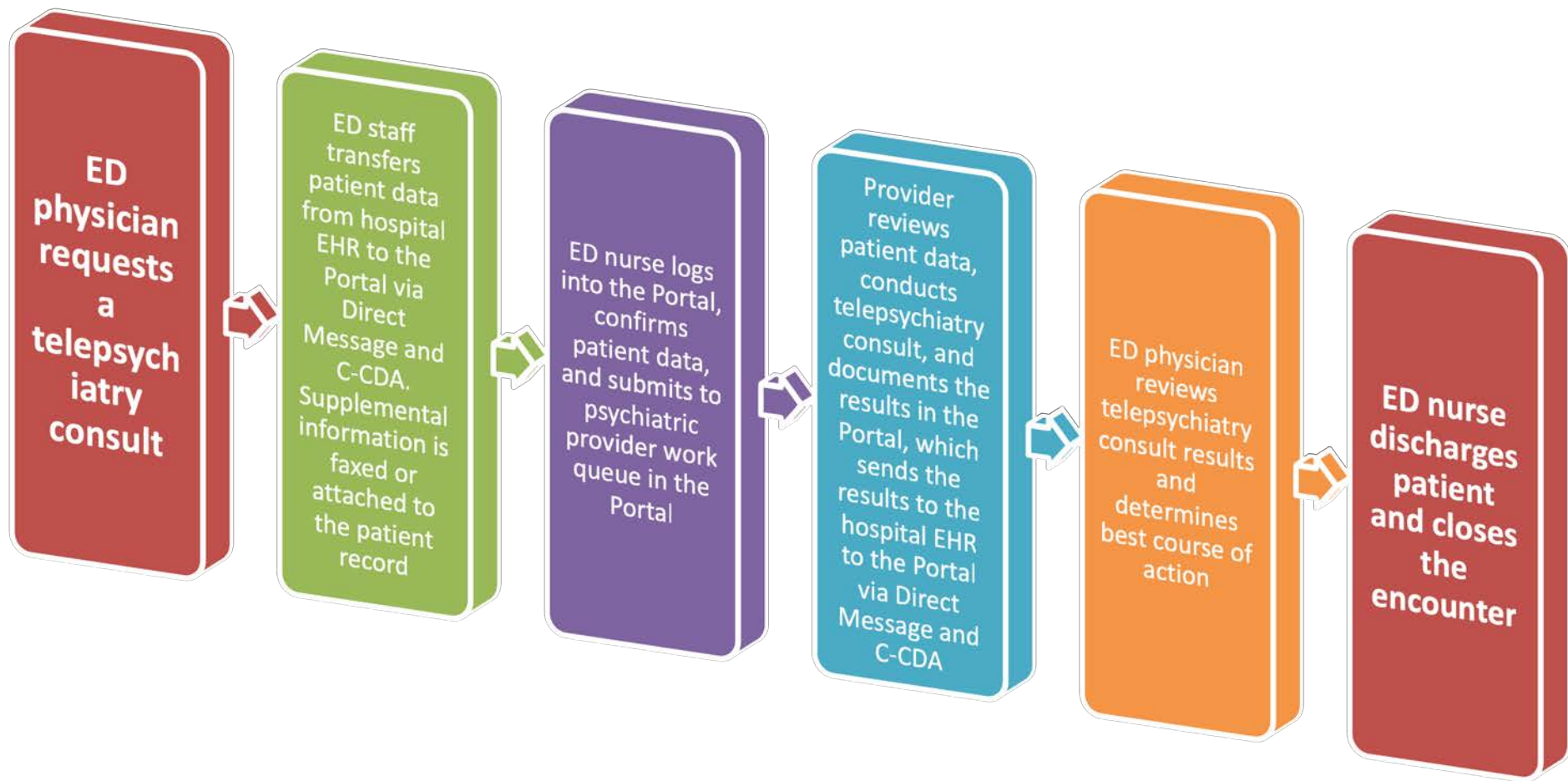
If an individual experiencing an acute behavioral health crisis enters an emergency department, s/he will receive timely specialized psychiatric treatment through the statewide network in coordination with available and appropriate clinically relevant community resources.

Center for Telepsychiatry and e-Behavioral Health

ECU Center for Telepsychiatry is the home for the statewide program (NC-STeP) that is connecting 60-75 hospital emergency departments across the state of North Carolina to provide psychiatric assessments and consultations to patients presenting at these EDs.

<http://www.ecu.edu/cs-dhs/telepsychiatry/index.cfm>

Workflow for the Portal



NC-STeP Quality Management and Outcomes Monitoring Processes: October - December 2018


- 56 hospitals in the network. 53 live, with 40 reporting Telepsychiatry patients in their ED
 - not all live hospitals had telepsychiatry patients
- 708 patient assessments billed for Model 1 hospitals during the reporting period
- The Median Length of Stay was 24.6 hours
- The Average Length of Stay was 43.5 hours
 - 42.3 hours for those discharged to home
 - 47.5 hours for those transferred to another facility

NC-STeP Quality Management and Outcomes Monitoring Processes: October - December 2018

- 704 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
 - 295 (41.9%) of those patients did not have an IVC in place when discharged.
- Of the ED patients who received telepsychiatry services, 39.1% were discharged to home. 36.3% were discharged to another facility.

*Note: Data for Novant hospitals for October through December 2018 did not include IVC information (Novant Kernersville, Novant Thomasville, Novant Clemmons, Novant Rowan, Novant Brunswick). Data for Cone hospitals did not include a discharge disposition, so Cone is not included in the average LOS calculation by discharge (i.e. Home, Transfer). They are included in the overall average LOS and median LOS.



|  | Since project inception in November 2013 | During Calendar Year 2014 | During Calendar Year 2015 | During Calendar Year 2016 | During Calendar Year 2017 | During Calendar Year 2018 |
|---|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Total Patient Encounters | 25,167 | 5,144 | 7,128 | 1,896 | 3,970 | 6,087 |
| Model 1 Hospital Patient Encounters | 16,758 | 4,578 | 5,849 | 706 | 2,043 | 2,640 |
| Model 2 Hospital Patient Encounters | 8,409 | 566 | 1,279 | 1,190 | 1,927 | 3,447 |
| Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals) | 35,524 | 8,130 | 13,573 | 1,942 | 4,347 | 6,658 |



| | Calendar Year 2018 | During Quarter Jan-Mar 2018 | During Quarter Apr-Jun 2018 | During Quarter Jul-Sep 2018 | During Quarter Oct-Dec 2018 |
|---|--------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Total Patient Encounters | 6,087 | 1,238 | 1,287 | 1,950 | 1,612 |
| Model 1 Hospital Patient Encounters | 2,640 | 641 | 677 | 716 | 606 |
| Model 2 Hospital Patient Encounters | 3,447 | 597 | 610 | 1,234 | 1,006 |
| Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals) | 6,658 | 1,393 | 1,448 | 2,103 | 1,714 |

NC-STeP Benchmarks



| Goals | Values Reached | | |
|--|---|---|---|
| Cumulative Target to be reached by (06/30/2019) | Value Reached as of most recent previous quarter (09/30/2018) | Value Reached as of this reporting quarter (12/31/2018) | Year-to-Date Total with % of the Yearly Target (12/31/2018) |
| Number of IVCs | 2,817 | 799 | 1,503 53% of Yearly Target |
| Number of IVCs Overturned | 1,197 | 353 | 648 54% of Yearly Target |
| Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.) | 5,086 | 2,103 | 3,817 75% of Yearly Target |

NC-STeP Status as of December 31, 2018

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 12/31/2018 |
|--|--|------------------------------------|--|
| 1. The number of full-time equivalent (FTE) positions supported by these contracts | 2.3 FTEs | 3.65 FTEs | 2.75 FTEs |
| 2. The number of overturned involuntary commitments (inpatient admission prevented) | 835 | 1,197 | 295 in this quarter YTD Total 648 Cumulative total since program inception 4,668 |
| 3. The number of participating consultant providers | 47 | 48 | 47 |



NC-STeP Status as of December 31, 2018

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 12/31/2018 |
|---|--|------------------------------------|---|
| 4. The number of telepsychiatry assessments conducted. | 3,533 | 5,086 | 1,714 in this quarter YTD Total 3,817 Cumulative total since program inception 35,524 |
| 5. The number of telepsychiatry referring sites | 53 | 54 | 56 53 Live |
| 6. The reports of involuntary commitments to enrolled hospitals | 1,996 | 2,817 | 704 in this quarter YTD Total 1,503 Cumulative total since program inception 14,434 |



NC-STeP Status as of December 31, 2018

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 12/31/2018 |
|---|--|------------------------------------|---|
| 7. The average (mean) Length of Stay for all patients with a primary mental health diagnosis across all dispositions. | 56.8 hours | 55 hours | QTD = 43.5 Median = 24.6 |
| 8. The rate of "satisfied" or "strongly satisfied" among emergency department staff participating in NC-STeP. | 73% | 73% | Satisfaction surveys not conducted this quarter |

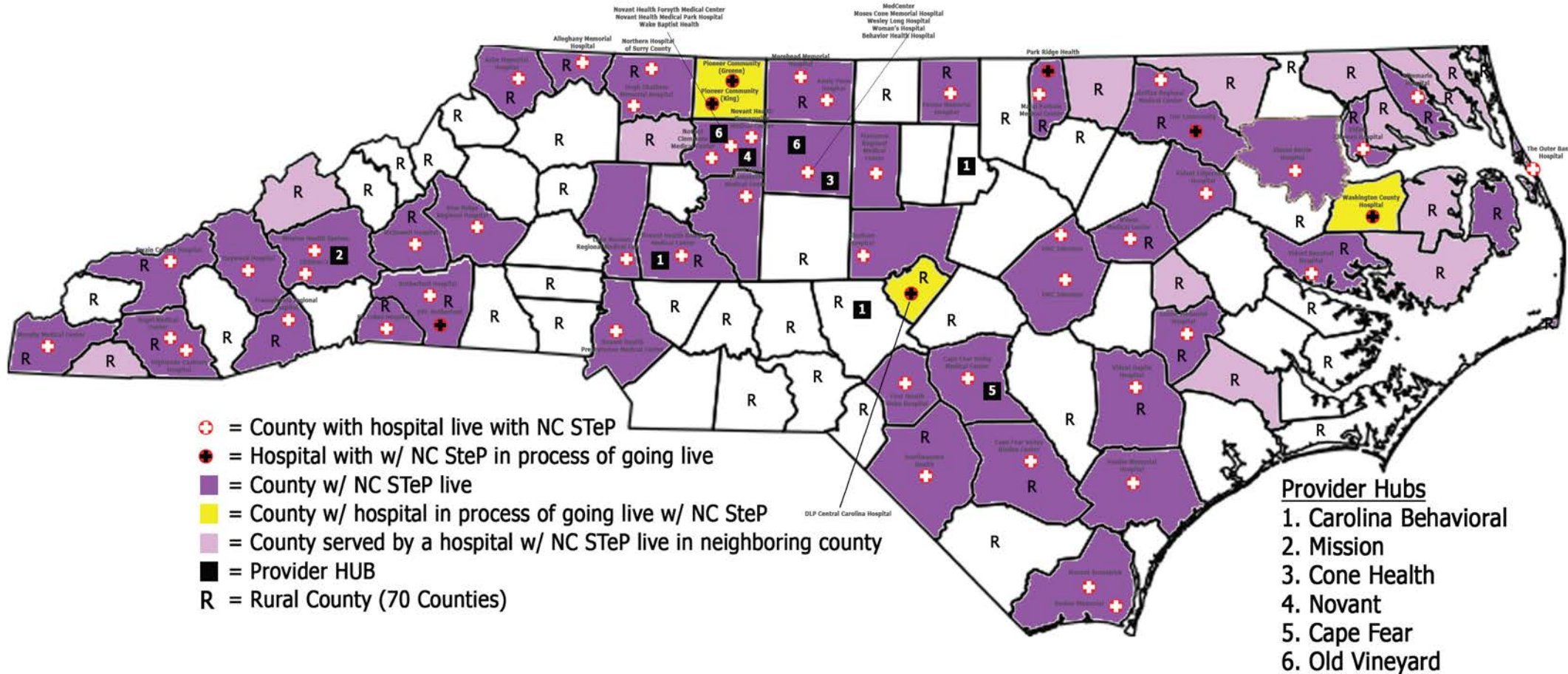


NC-STeP Status as of December 31, 2018

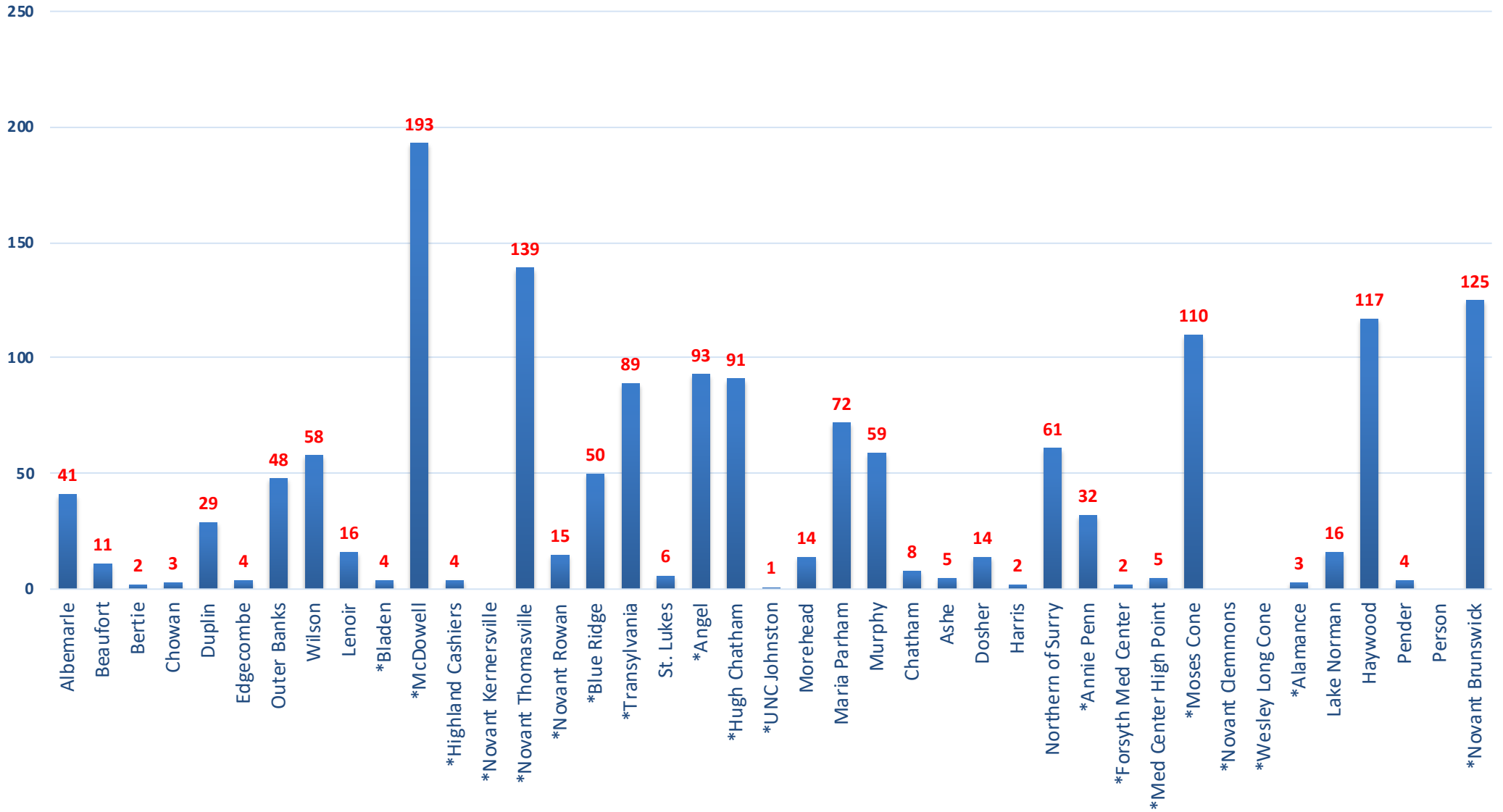
| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 12/31/2018 |
|---|--|------------------------------------|---|
| <p>13. Cumulative return on investment to state psychiatric facilities through overturned involuntary commitments.</p> <p>(inpatient admission prevented)</p> | <p>\$4,509,000</p> | <p>\$6,463,800</p> | <p>\$1,593,000 in this quarter YTD \$3,499,200 Cumulative total since program inception \$25,207,200</p> |



NC-STeP Status as of December 31, 2018



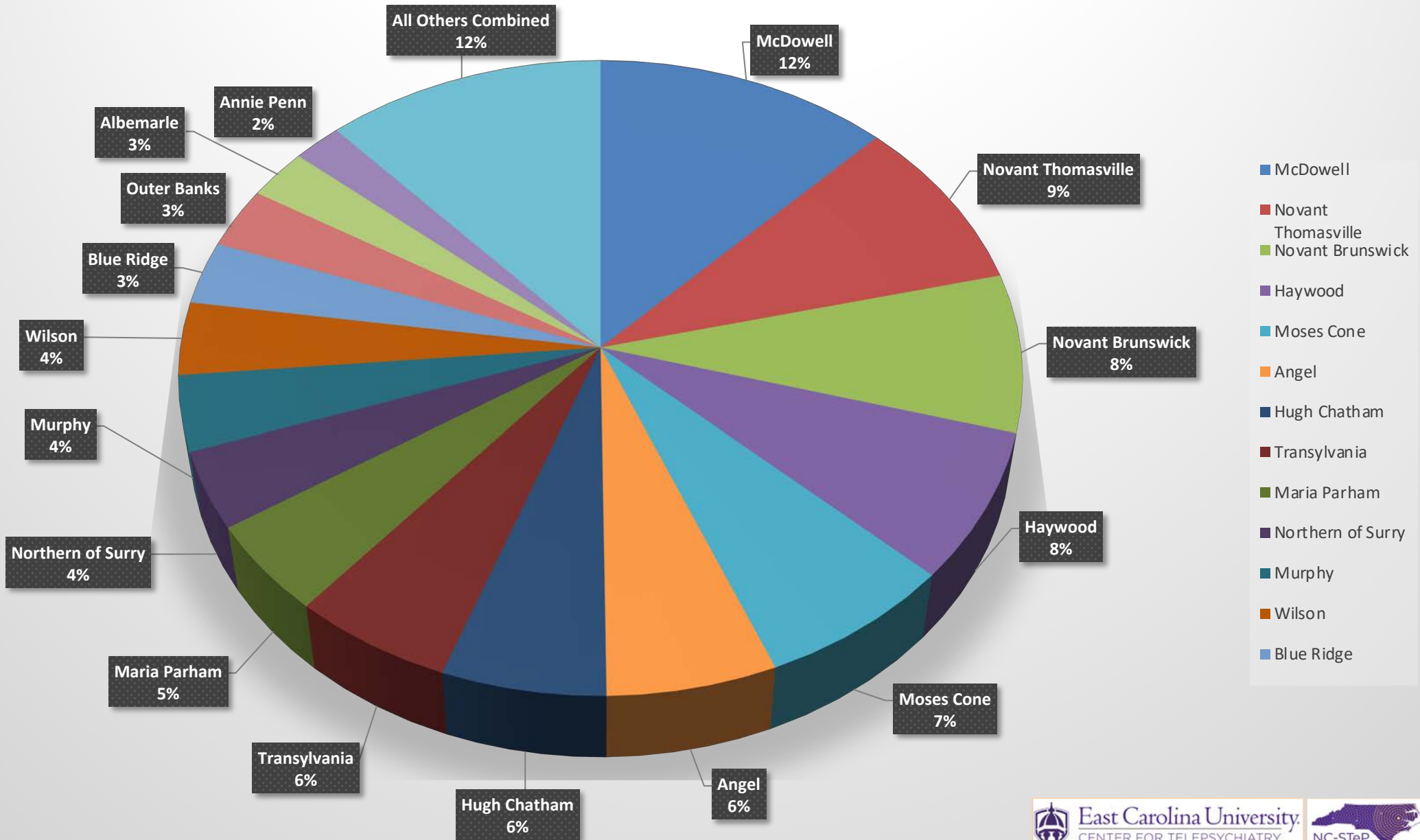
Number of NC-Step Patients by Hospital October - December 2018



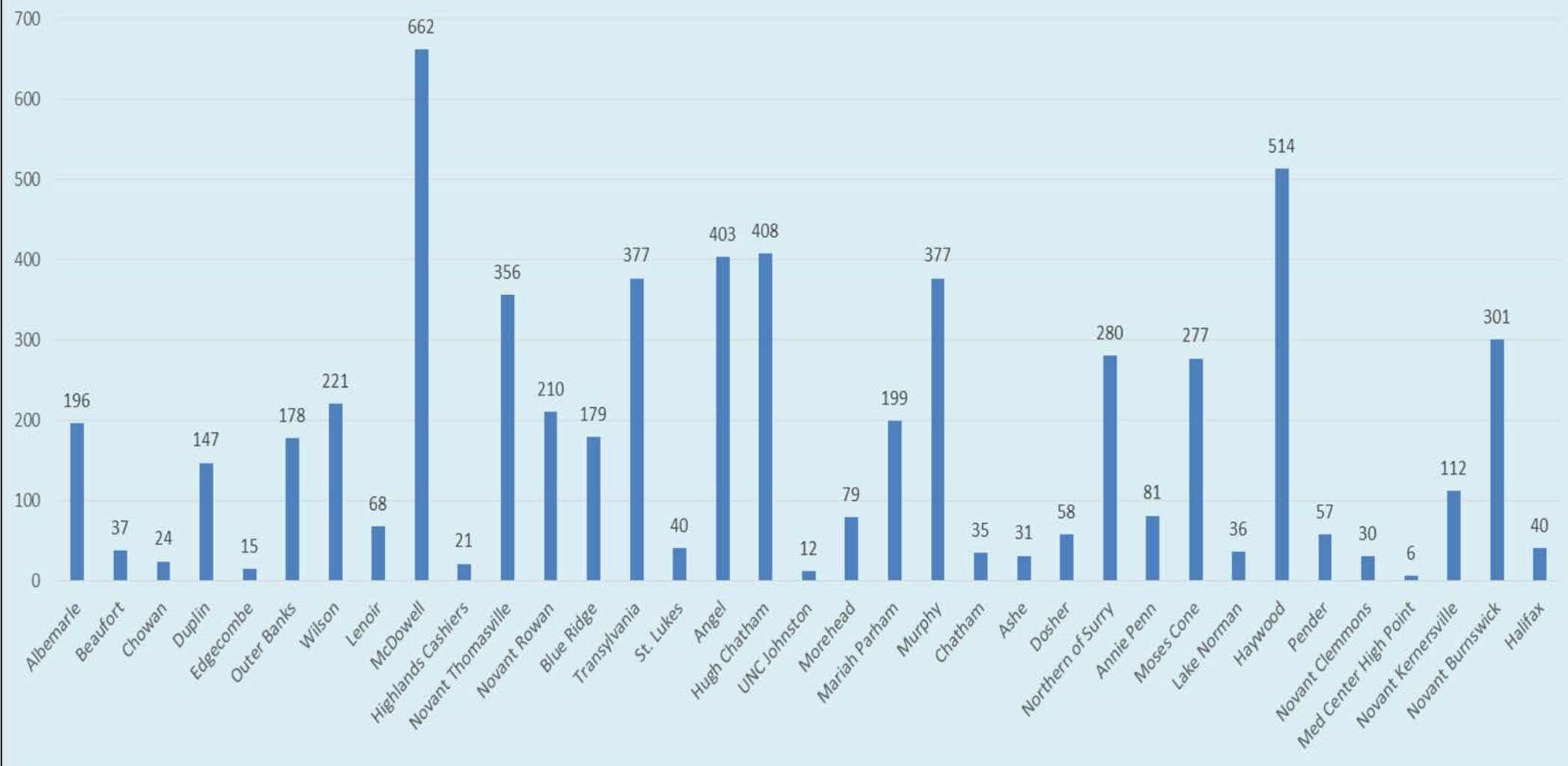
* Indicates Model 2 hospitals

Percent of Use by Hospital Oct-Dec 2018

(based on number of patient encounters)



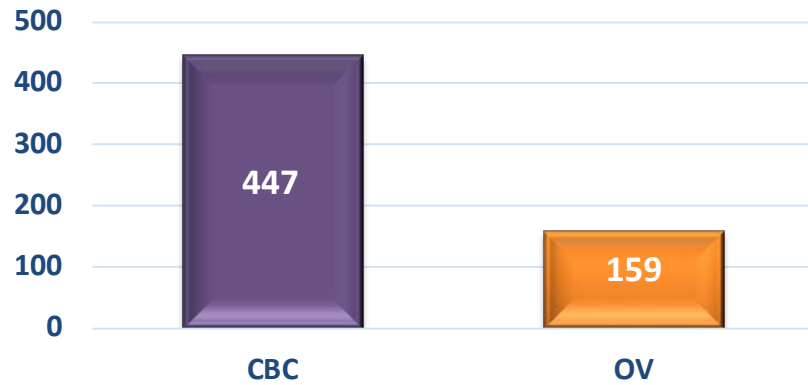
Number of NC-STeP Patients by Hospital January - December 2018



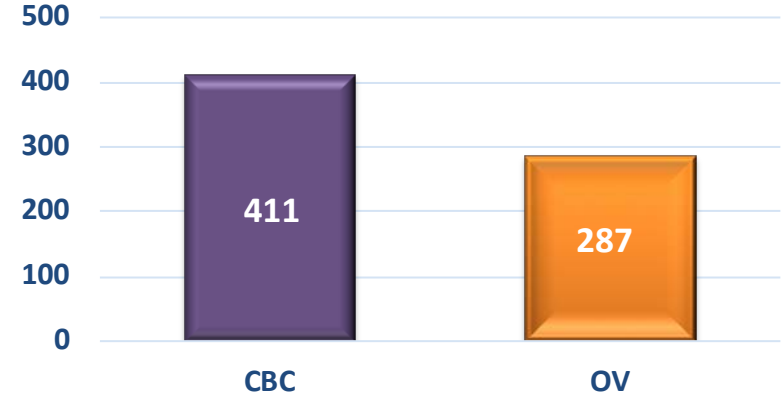
Note: Several hospitals with a count of 5 or fewer were not included on this chart. Those hospitals are: Swain, Person, Wesley Long Cone, Alamance, Novant Forsyth, Bladen, Bertie

Number of Patients by Provider (Model 1)

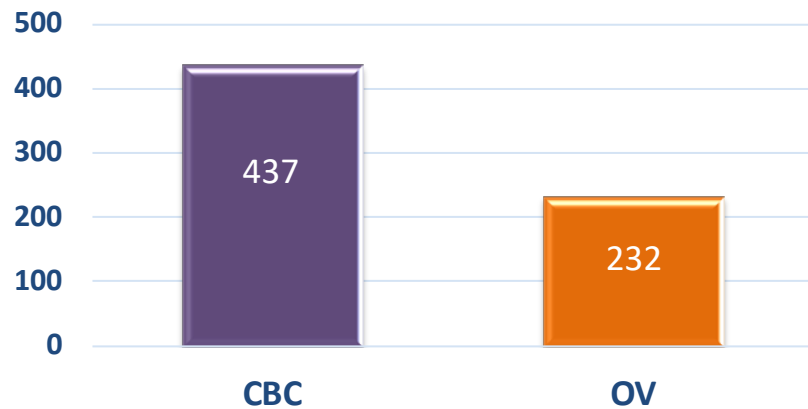
October-December 2018



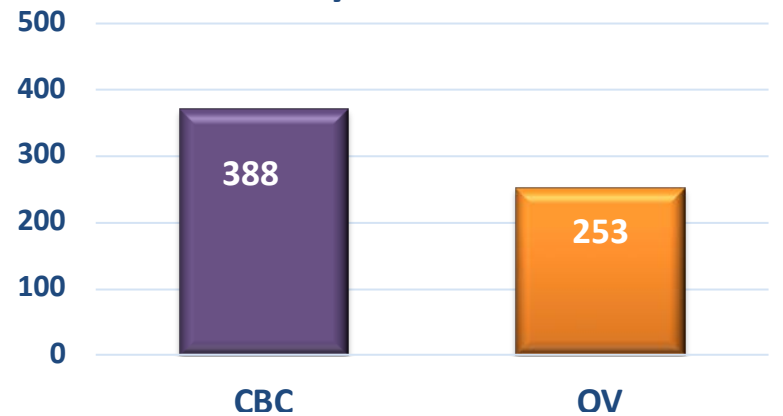
July -September 2018



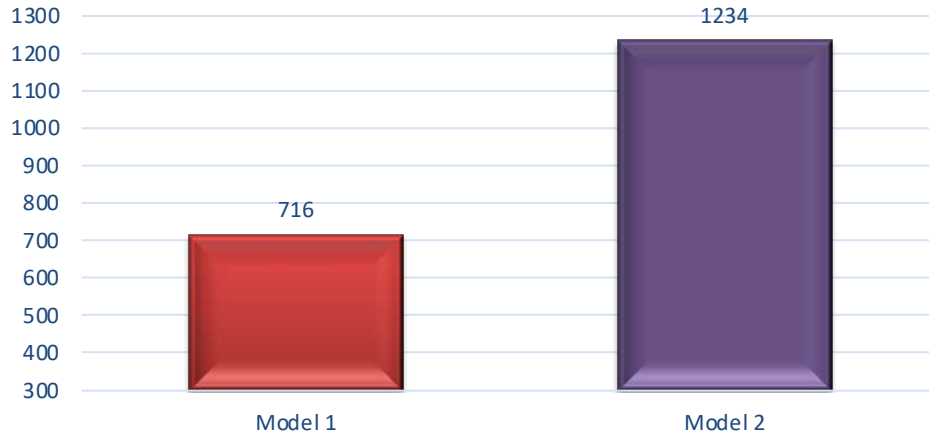
April - June 2018



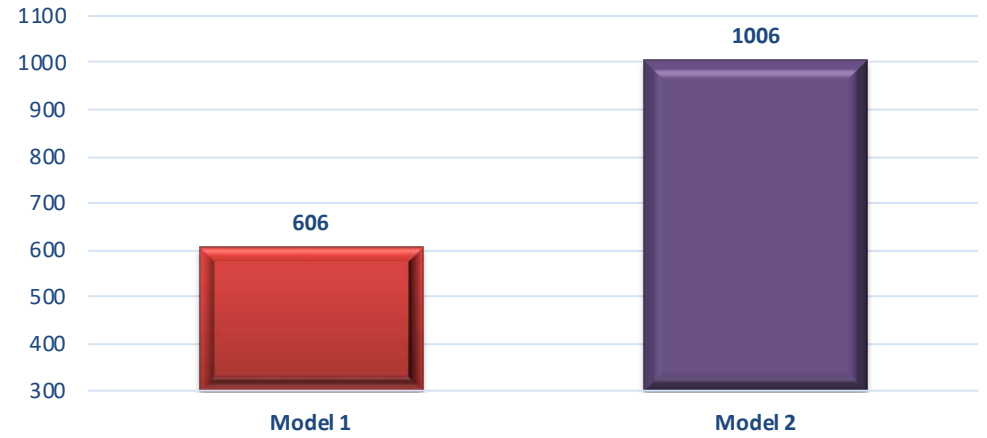
January - March 2018



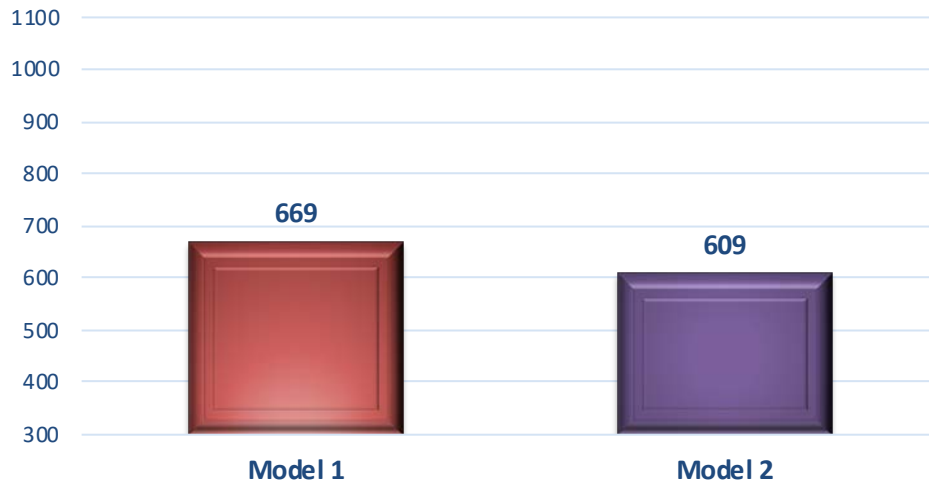
July-Sep 2018



Oct-Dec 2018



April - June 2018



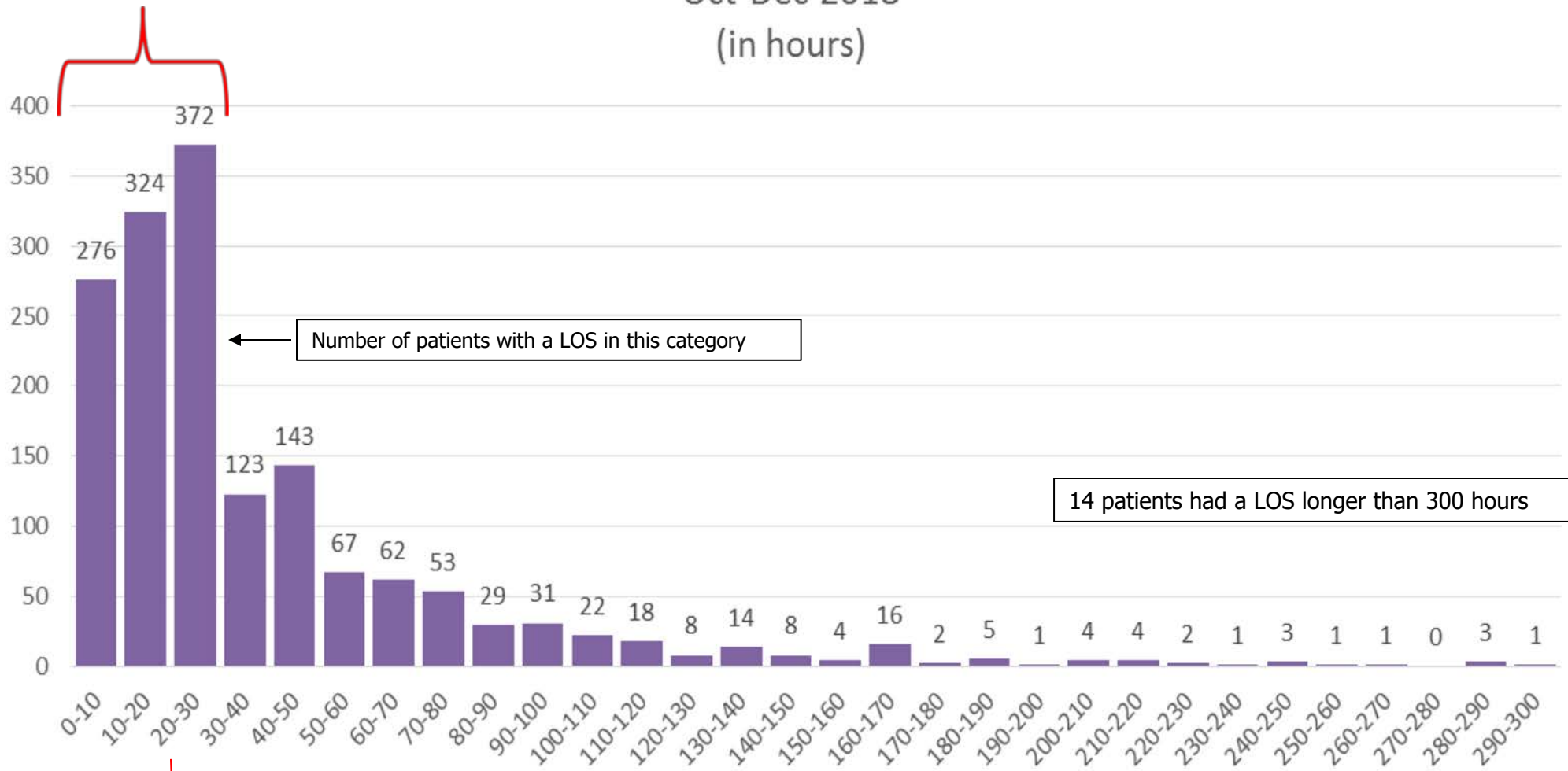
Number of Patients by Model

Number of NC-STeP Patients by Model by Quarter January 2017 - December 2018



Number of NC-STeP Patients by LOS Category Oct-Dec 2018 (in hours)

60.3% percent of patients had a LOS of 30 hours or less



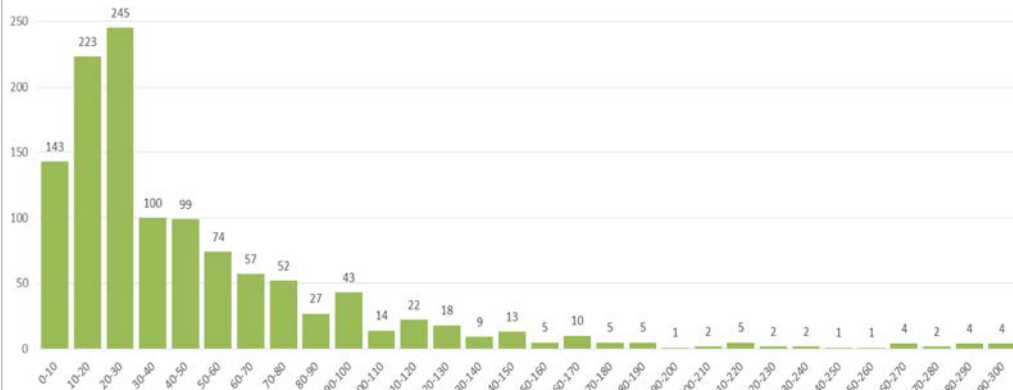
Number of patients with a LOS in this category

14 patients had a LOS longer than 300 hours

Median Length of Stay for Oct-Dec 2018 = 24.6 Hours

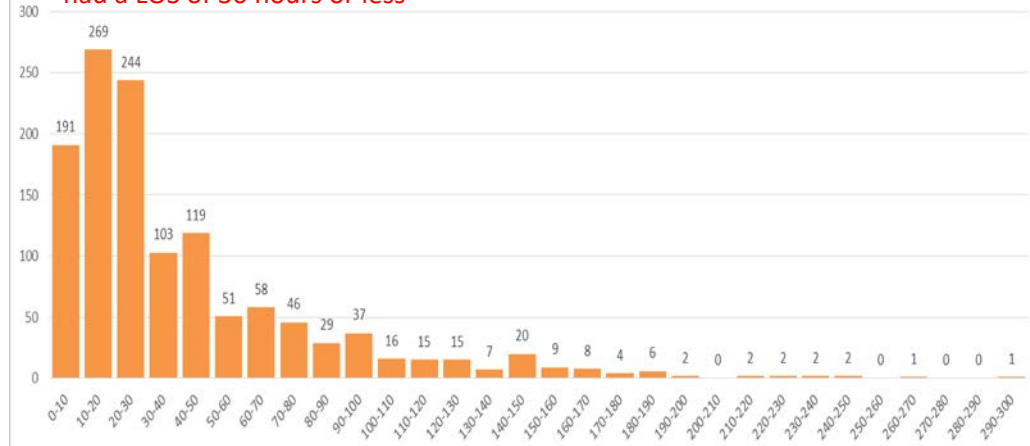
Number of NC-STeP Patients by LOS Category
January - March 2018
(in hours)

50.2% percent of patients
had a LOS of 30 hours or less



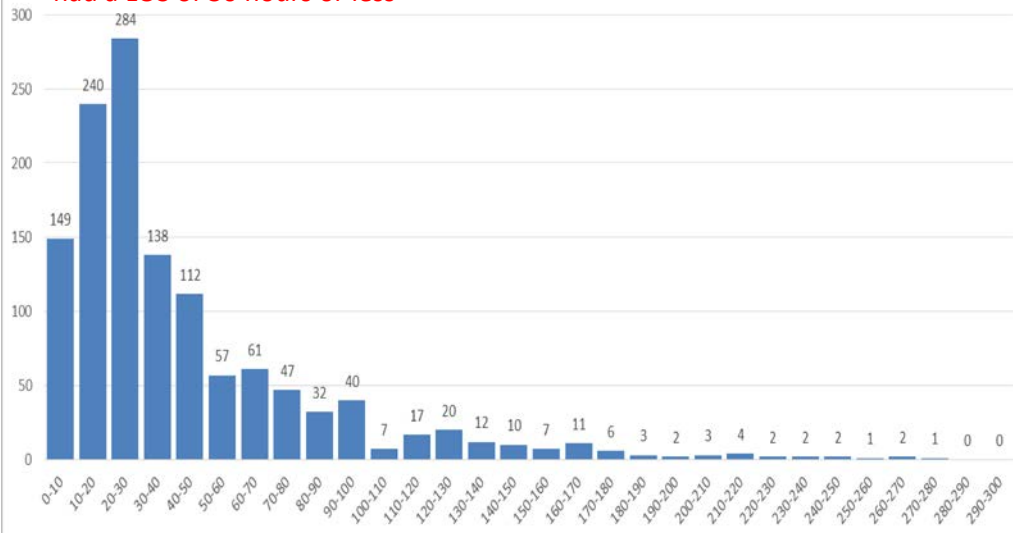
Number of NC-STeP Patients by LOS Category
April - June 2018
(in hours)

55% percent of patients
had a LOS of 30 hours or less



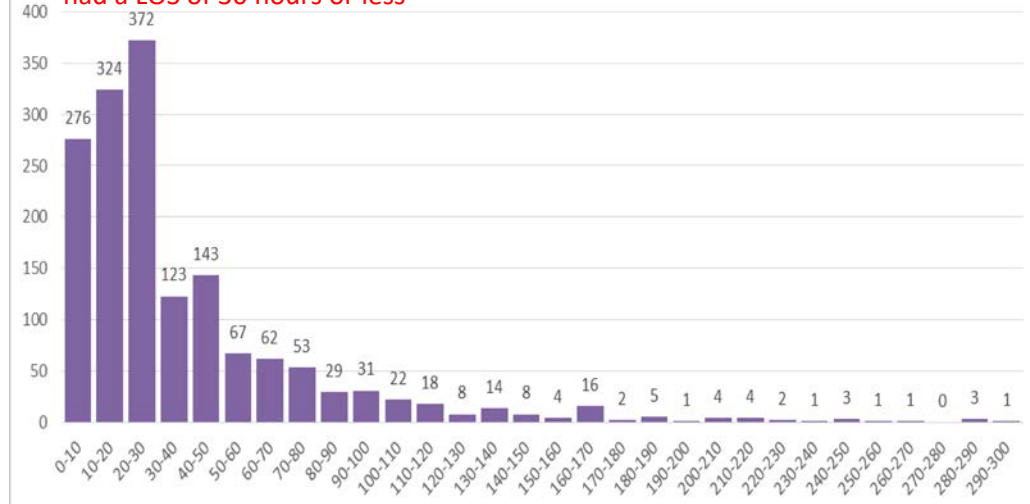
Number of NC-STeP Patients by LOS Category
July - September 2018
(in hours)

52% percent of patients
had a LOS of 30 hours or less



Number of NC-STeP Patients by LOS Category
Oct-Dec 2018
(in hours)

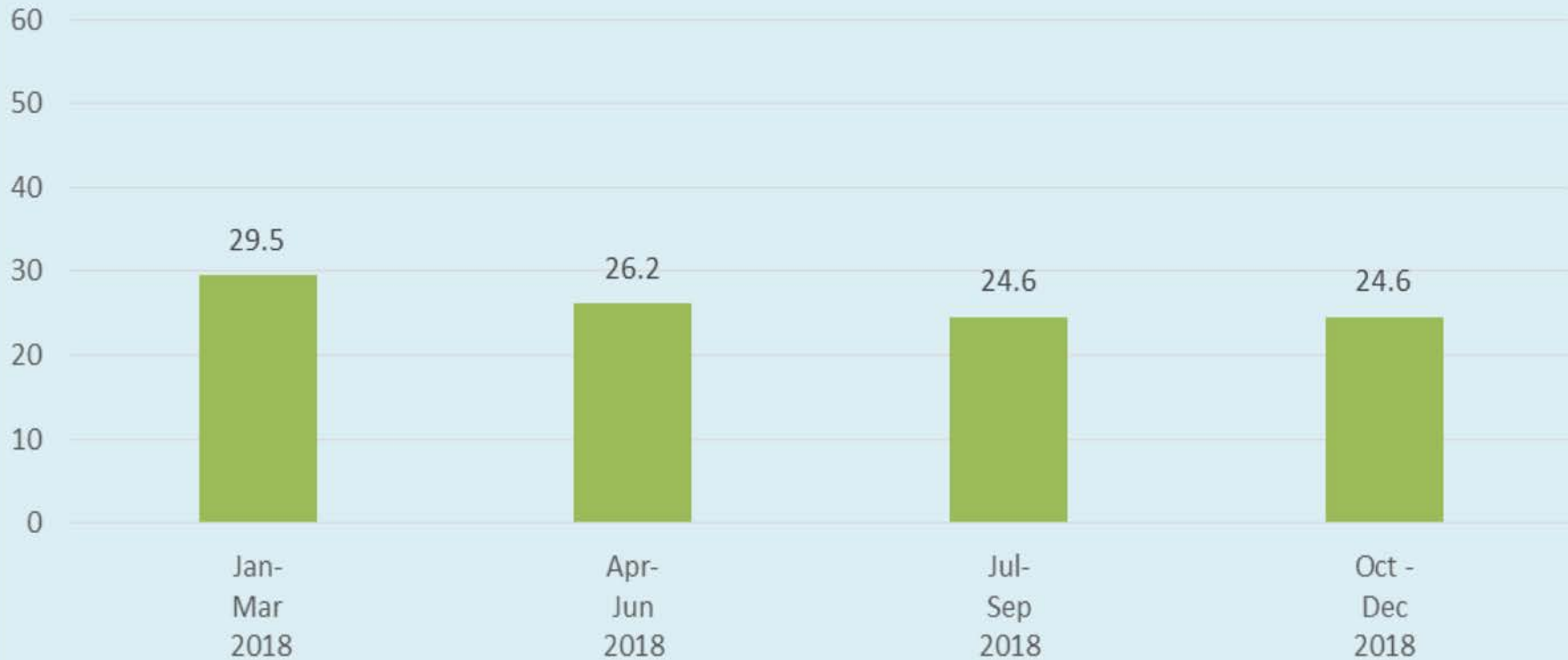
60.3% percent of patients
had a LOS of 30 hours or less



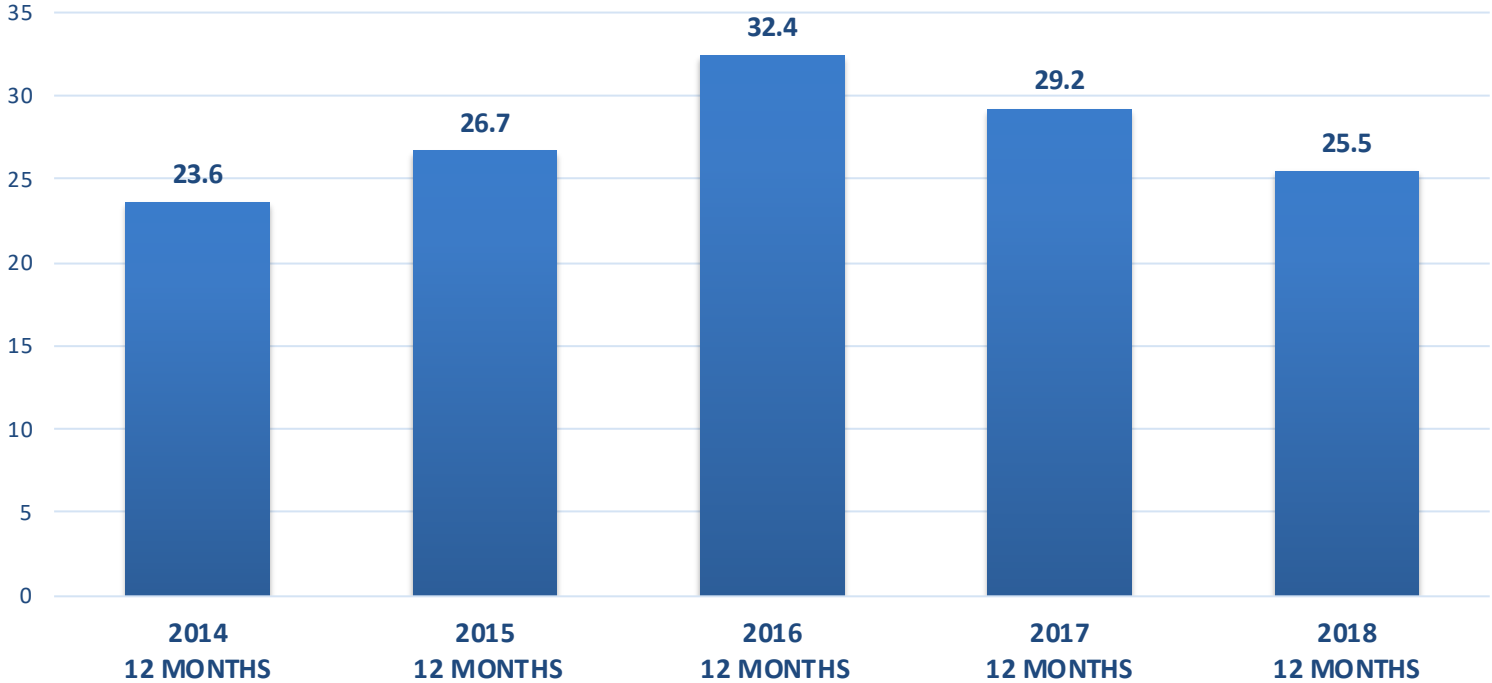
Median Length of Stay by Quarter (in hours)



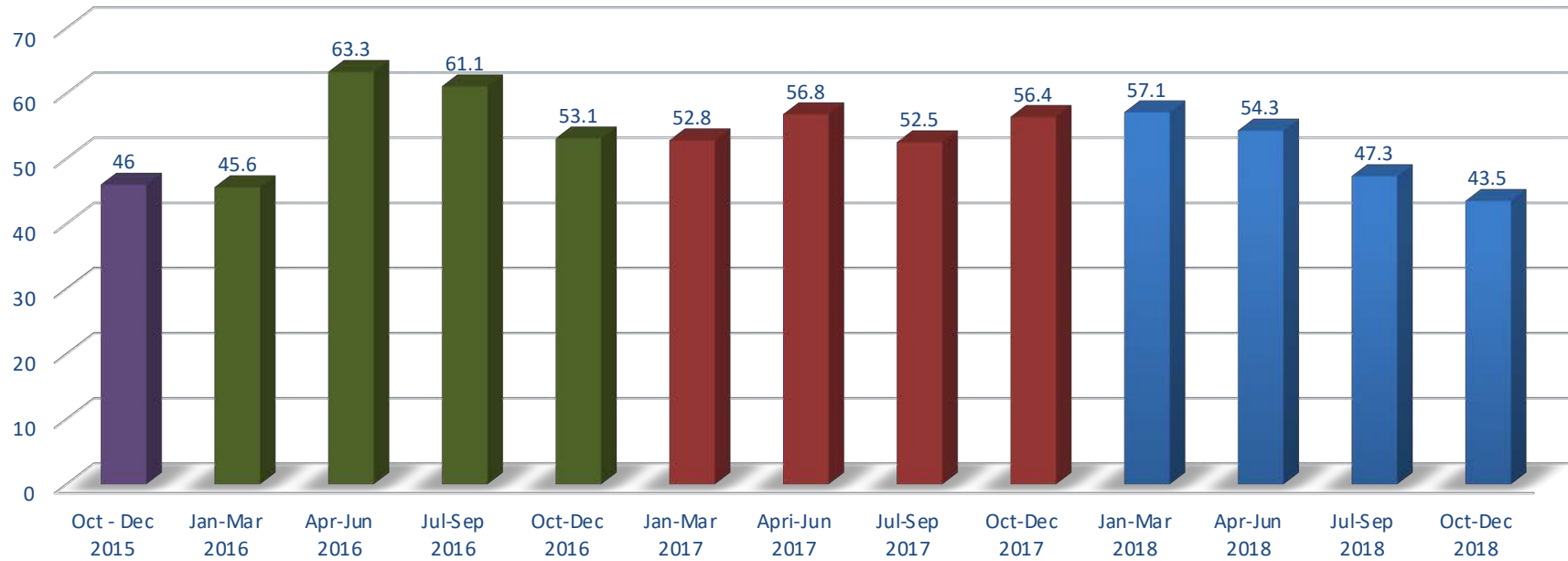
Median Length of Stay by Quarter January - December 2018 (in hours)



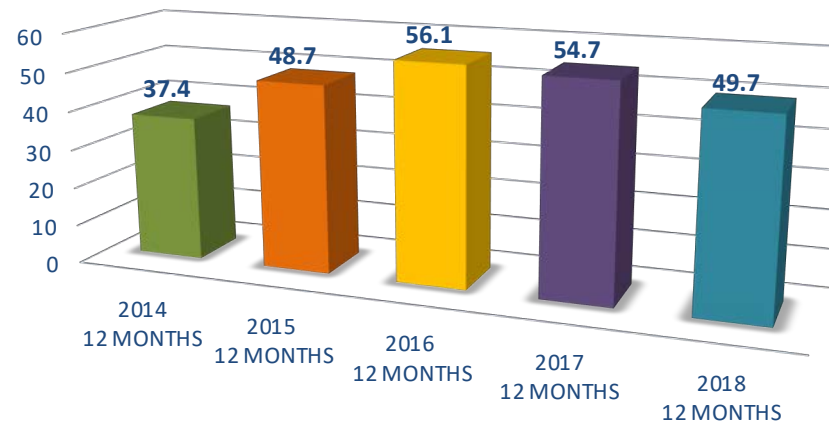
Median Length of Stay by Year (in hours)



Average Length of Stay by Quarter for Hospitals Participating in NC-Step (in hours)



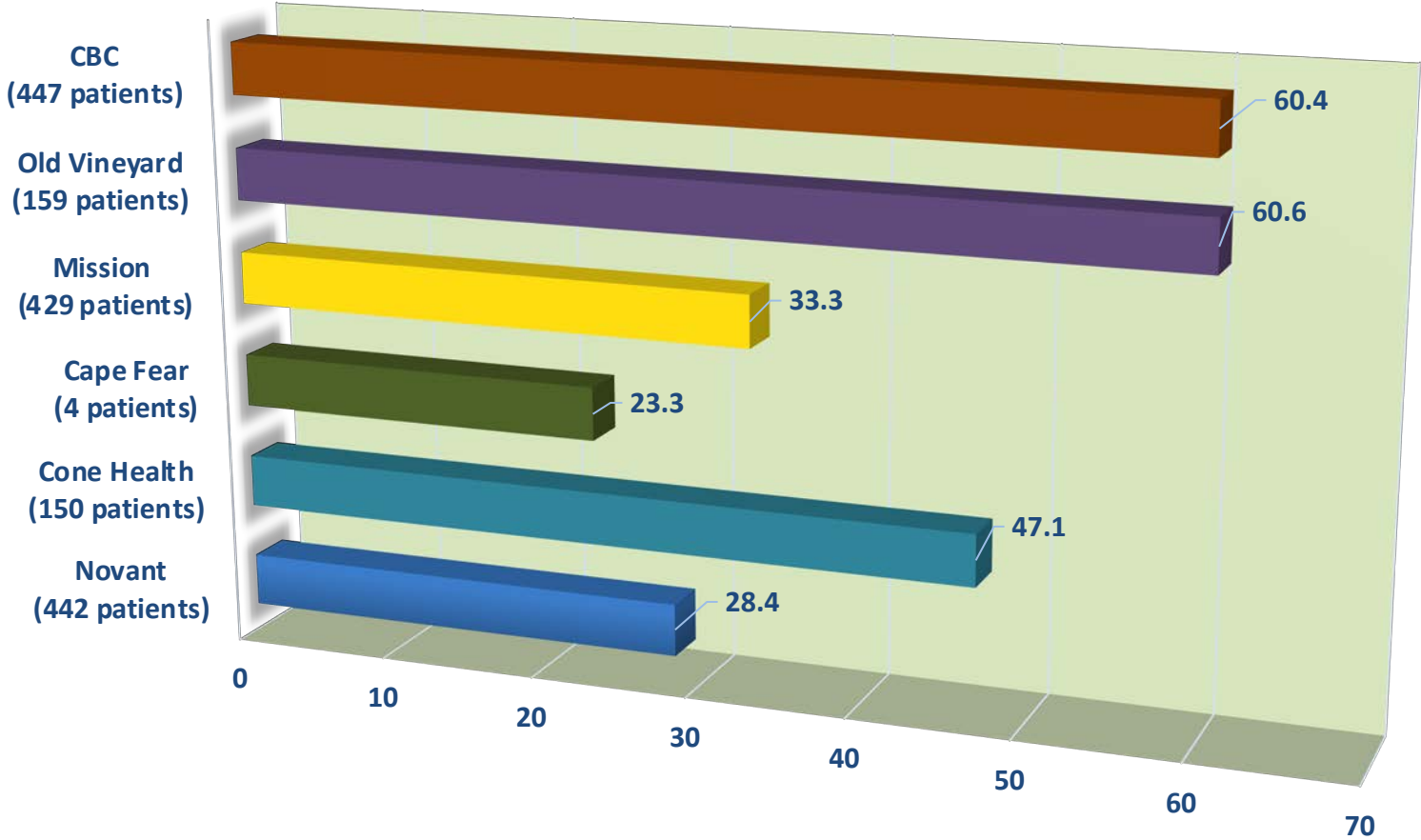
Average Length of Stay by Year (in hours)



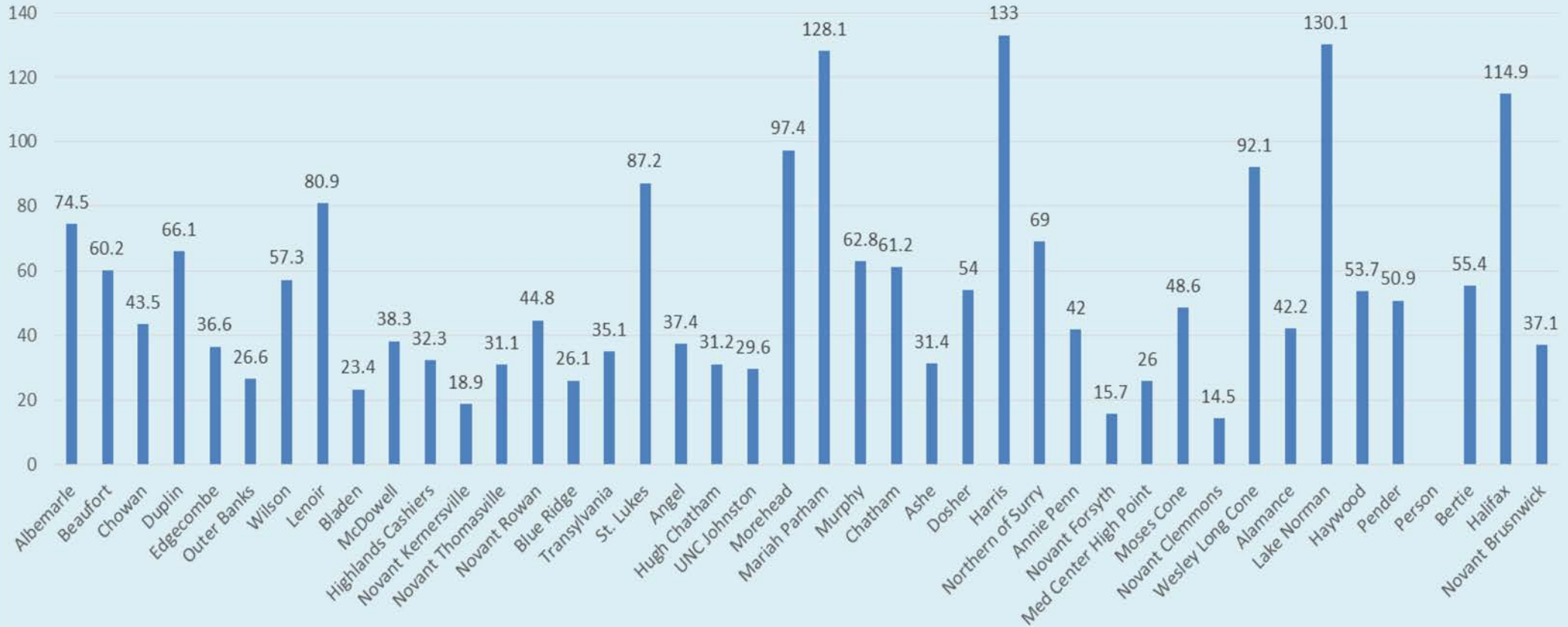
Average Length of Stay by Provider

Oct-Dec 2018

(in hours)



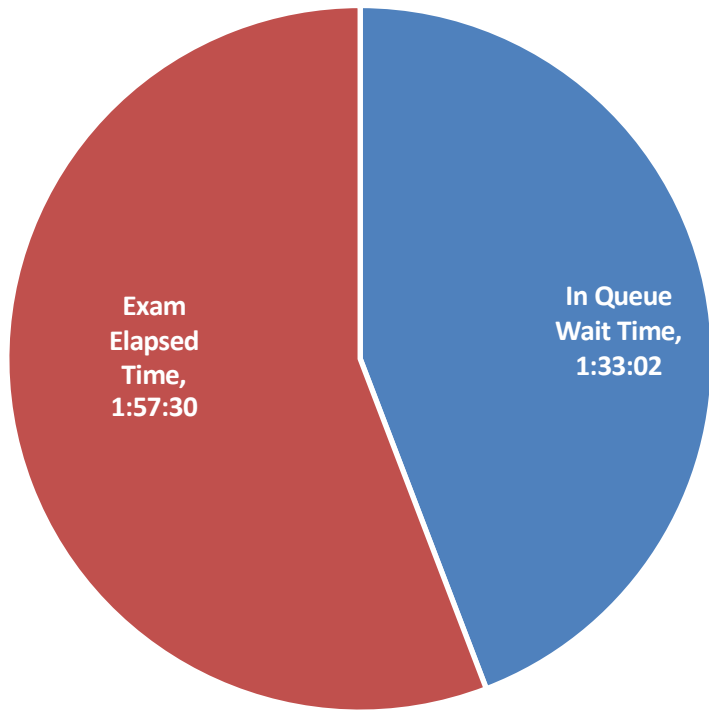
Average Length of Stay for NC-STEP Patient by Hospital January - December 2018 (in hours)



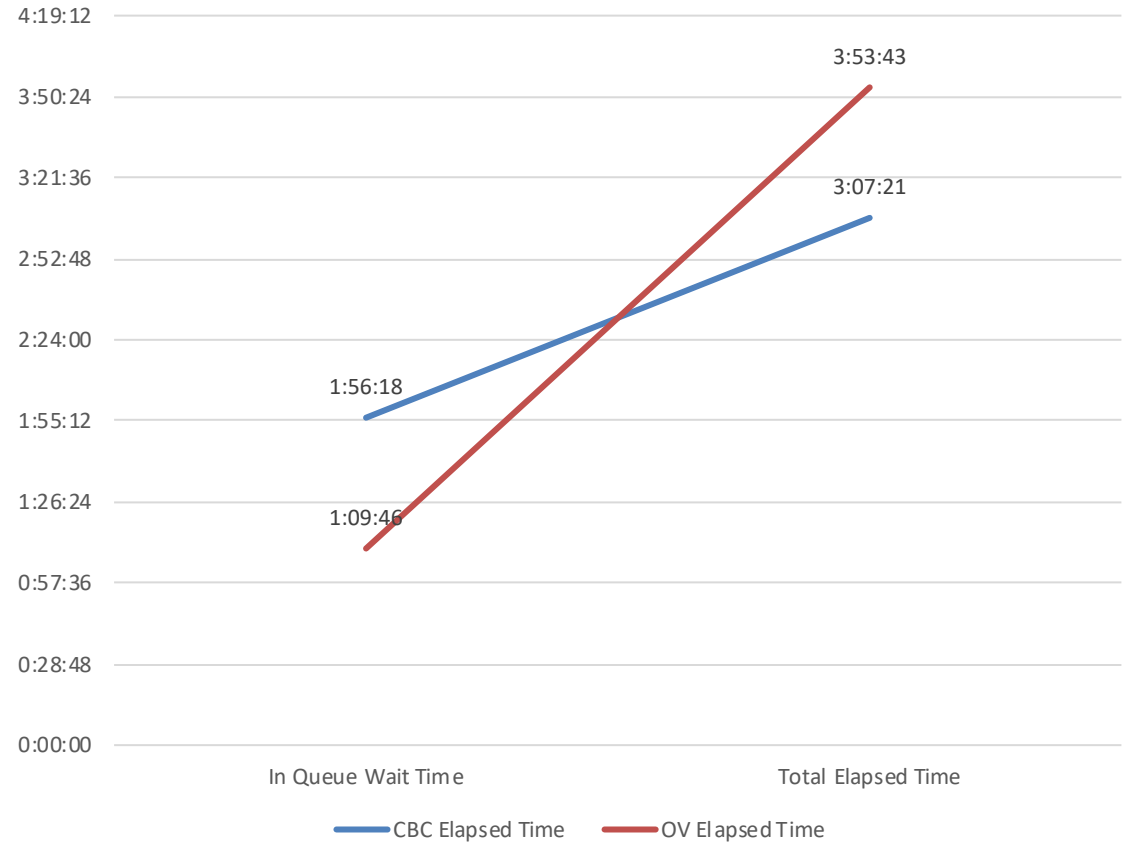
Note: Swain was not included on this chart. It had one patient, with a LOS of 252 hours.

Consult Elapsed Time: October - December 2018

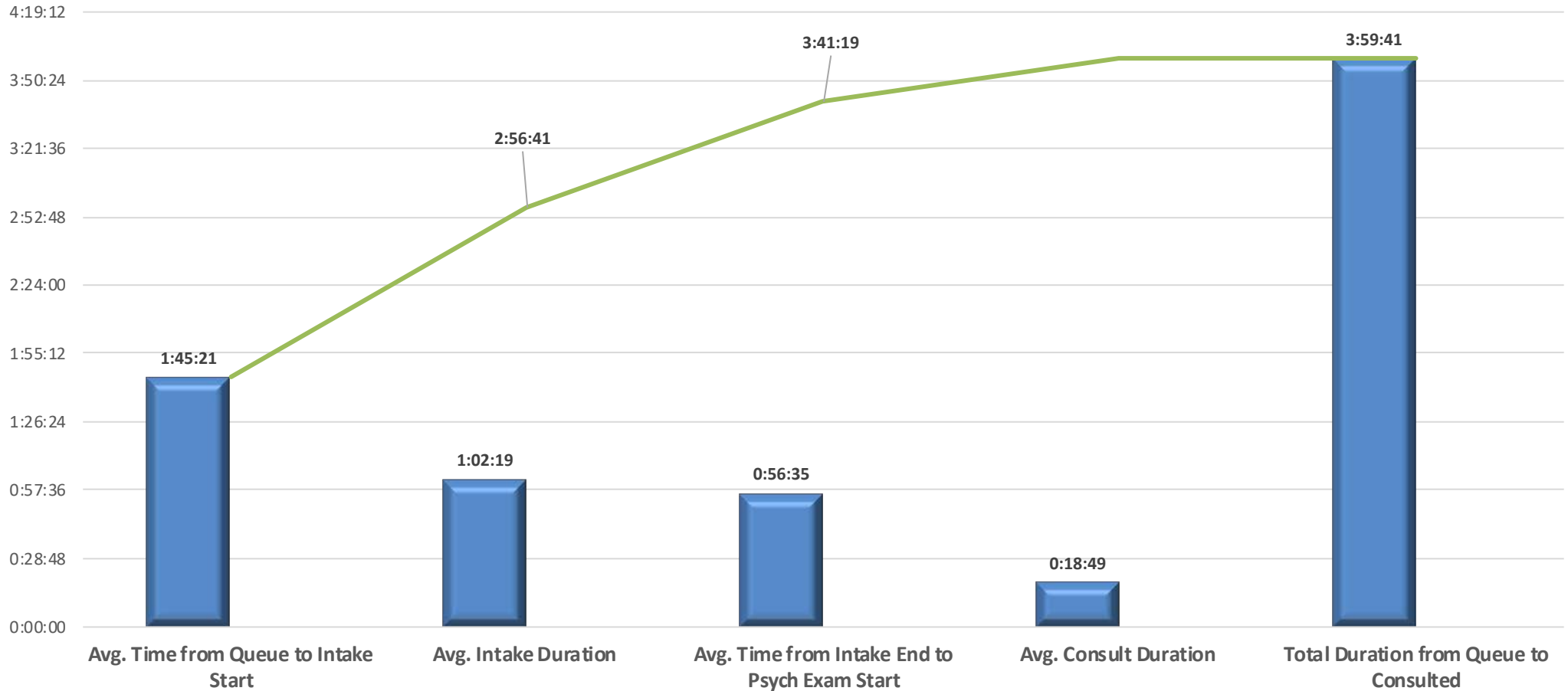
Average Consult Elapsed Time
In Queue to Exam Complete
(hh:mm:ss)



Comparison of CBC & OV
Average Consult Elapsed Time
In Queue to Exam Complete
(hh:mm:ss)

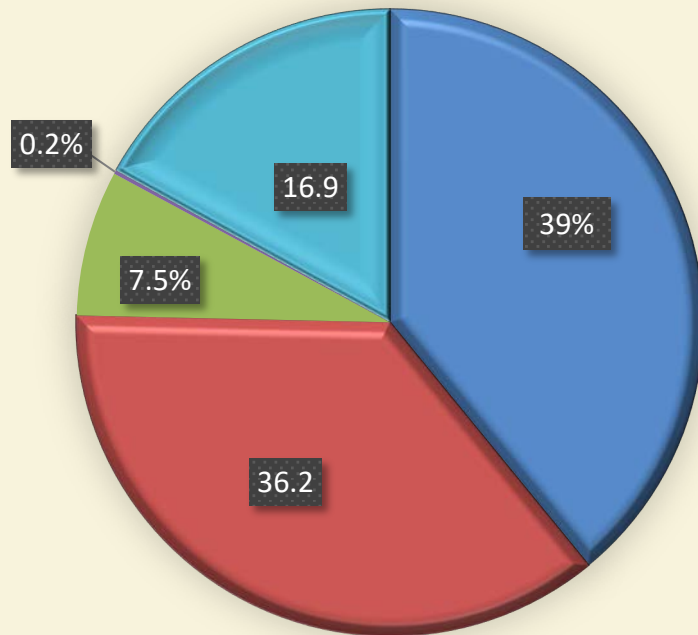


Carolina Behavioral Care & Old Vineyard Health Services Key Processes and Elapsed Times Averages January - December 2018

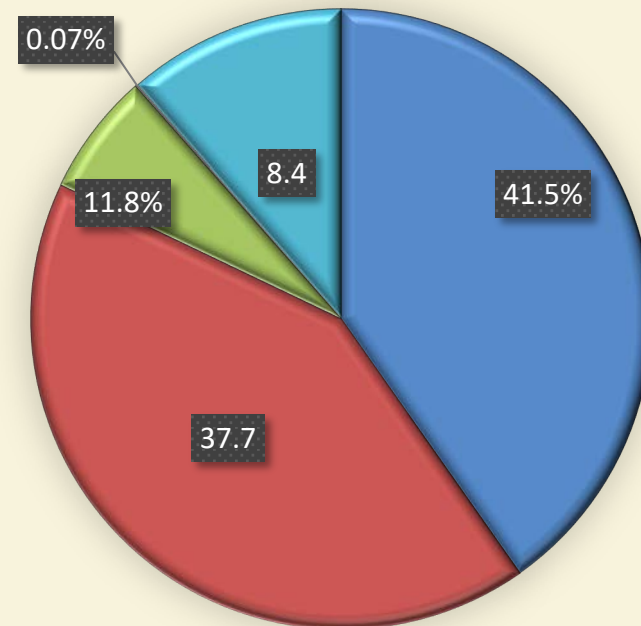


Percent of Patients by Discharge Disposition

Oct-Dec 2018



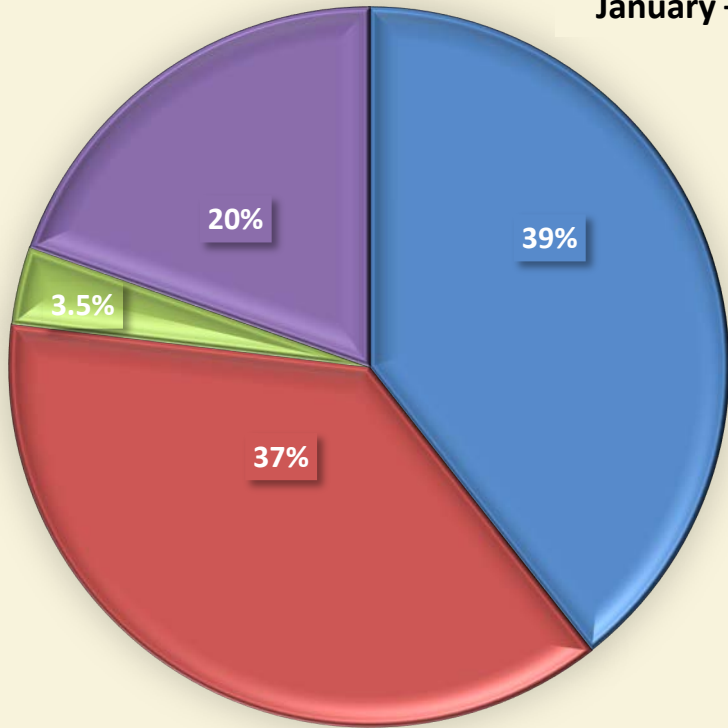
Jul-Sep 2018



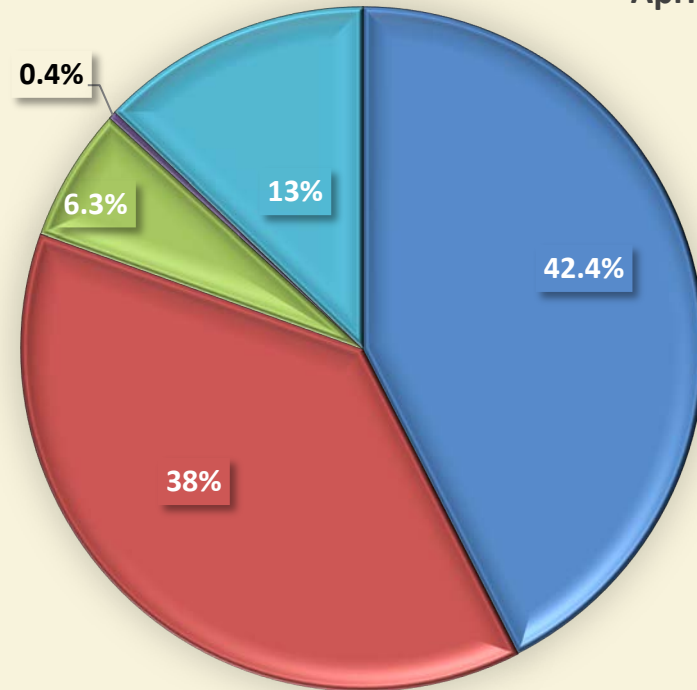
- Home
- Transfer
- Admit
- AMA
- Other

Percent of Patients by Discharge Disposition

January – March 2018



April - June 2018

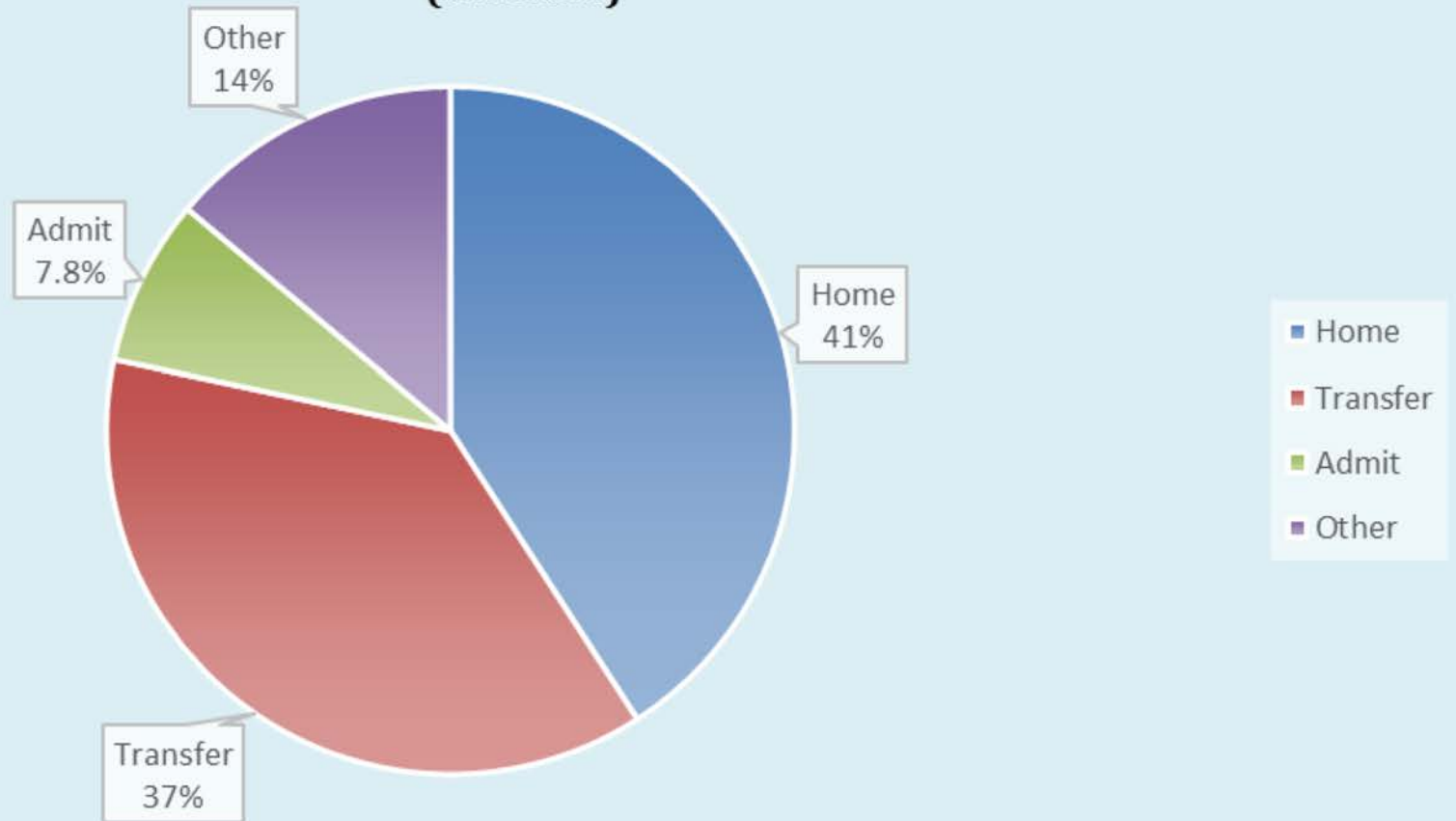


- Home
- Transfer
- Admit
- AMA
- Other

- Home
- Transfer
- Admit
- Other

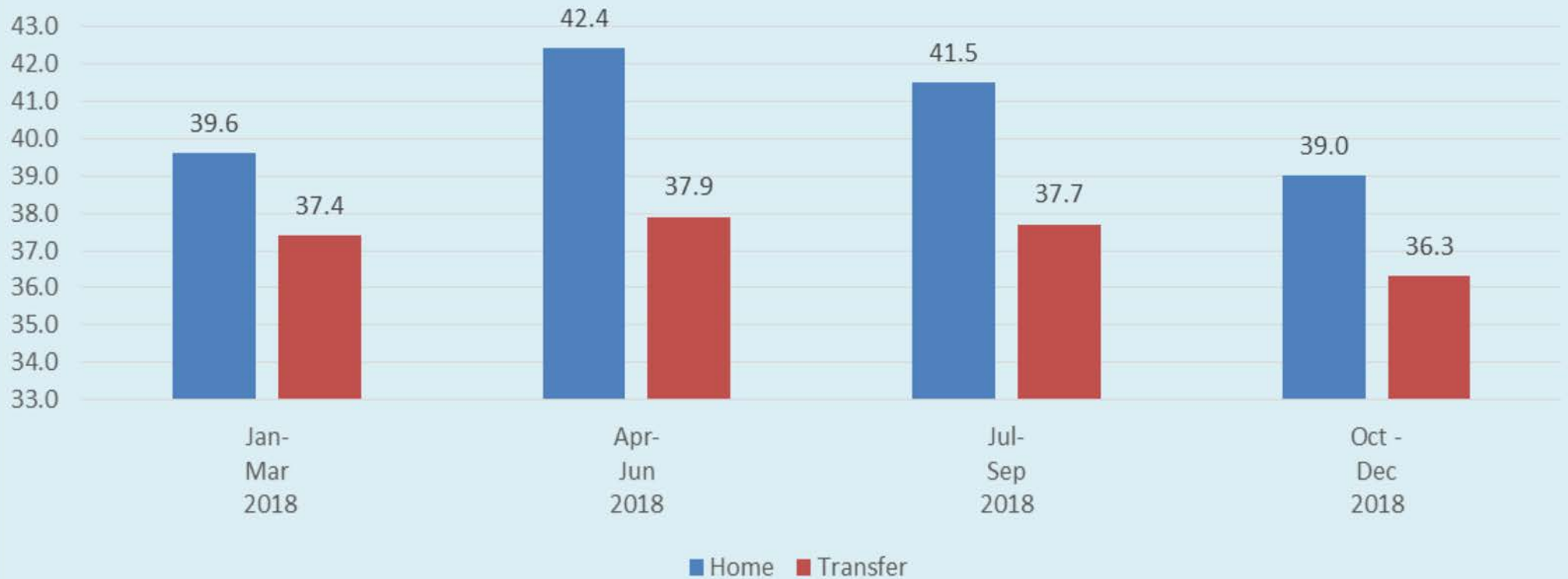
Note: Data for Cone hospitals did not include a discharge disposition so it was coded as "Other," so the 13% for "Other" is higher than it otherwise would be.

Percent of Patients by Discharge Disposition Jan-Dec 2018 (in hours)



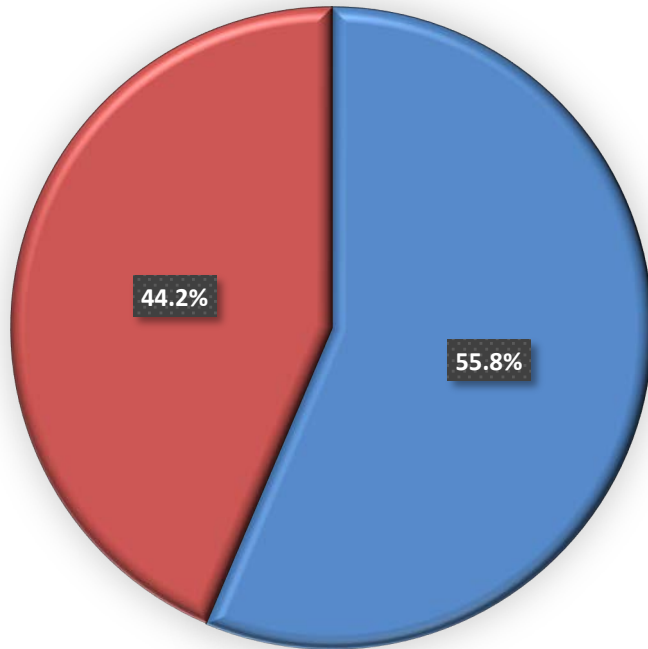
Note: Data for Cone hospitals did not include a discharge disposition so it was coded as "Other."

Percent of NC-STeP Patients by Discharge Disposition by Quarter January - December 2018

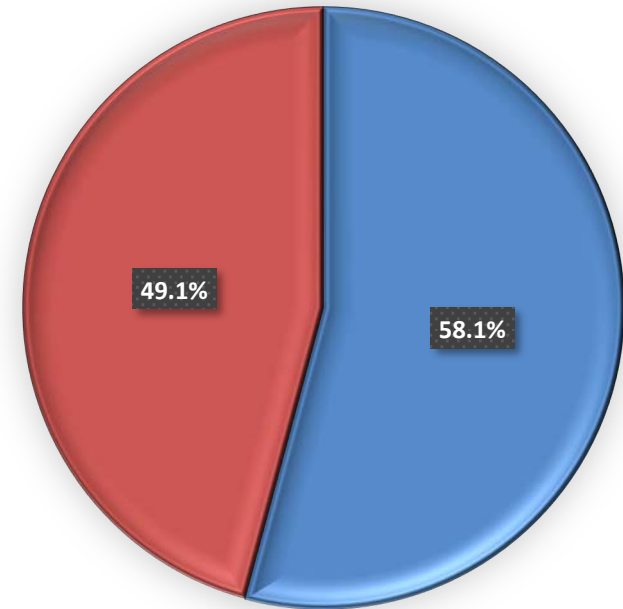


IVCs - By Release Status

Jul-Sep 2018



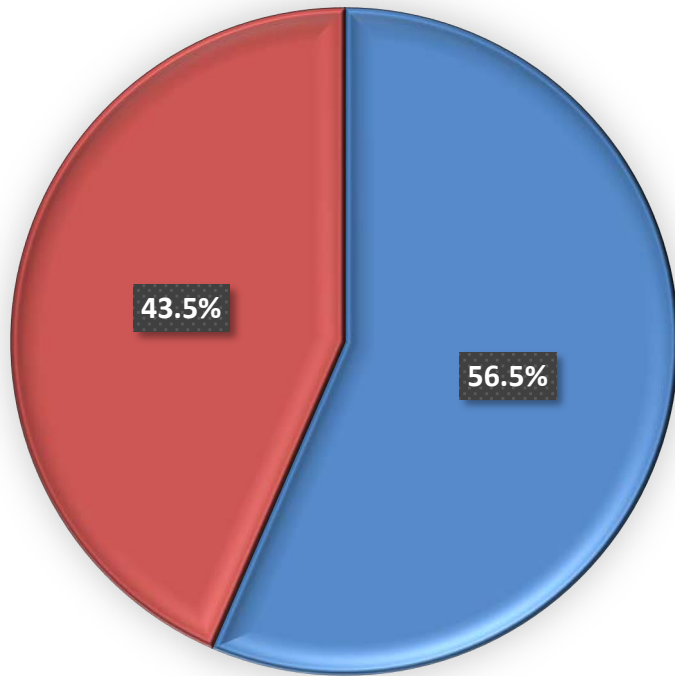
Oct-Dec 2018



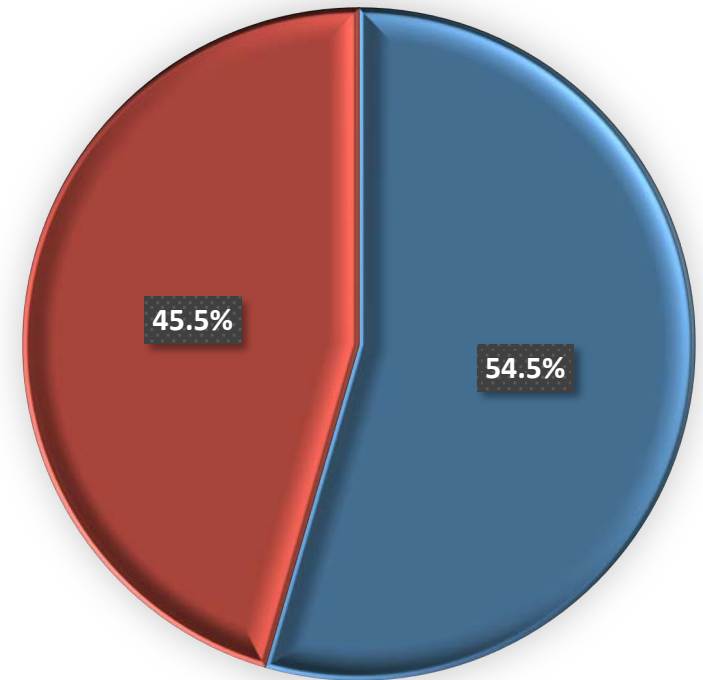
- IVCs - percent not released
- IVCs - percent released

IVCs - By Release Status

April - June 2018

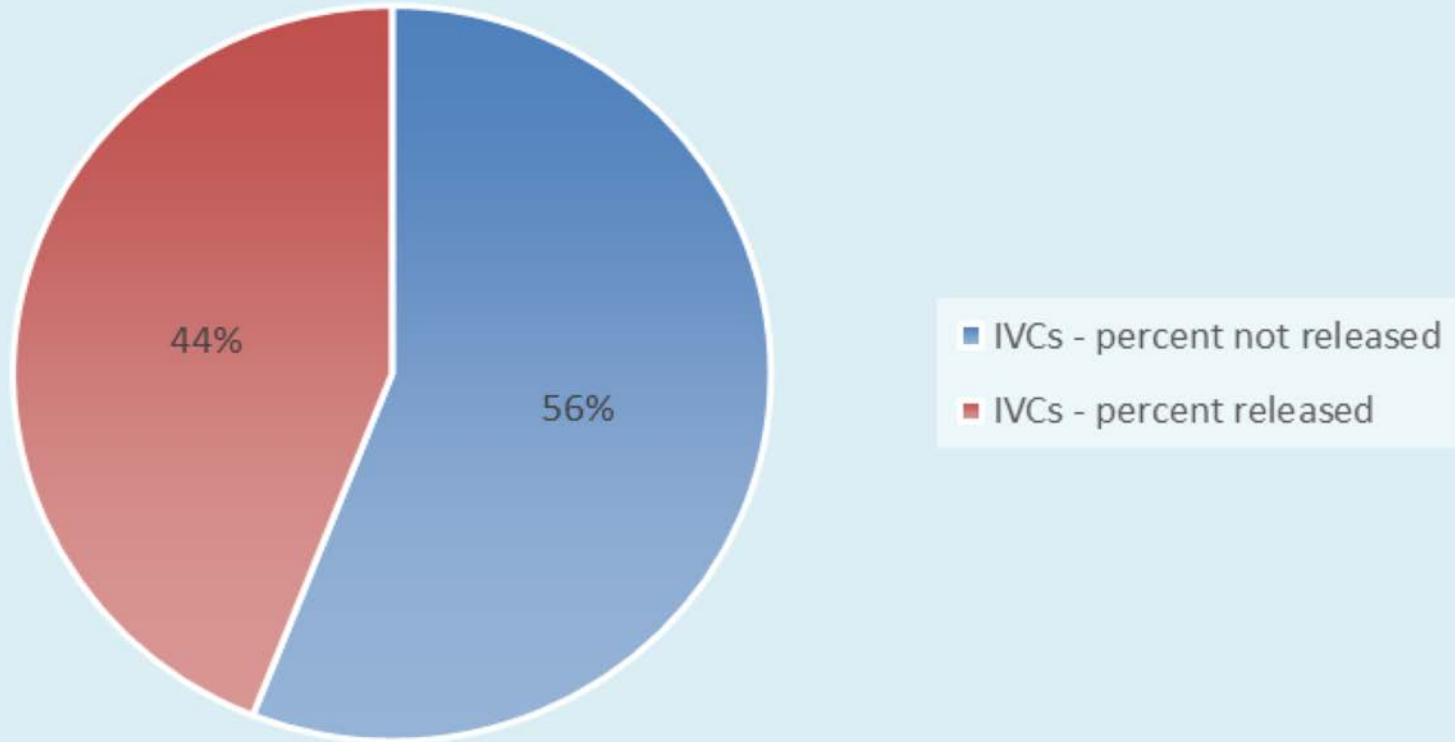


January - March 2018

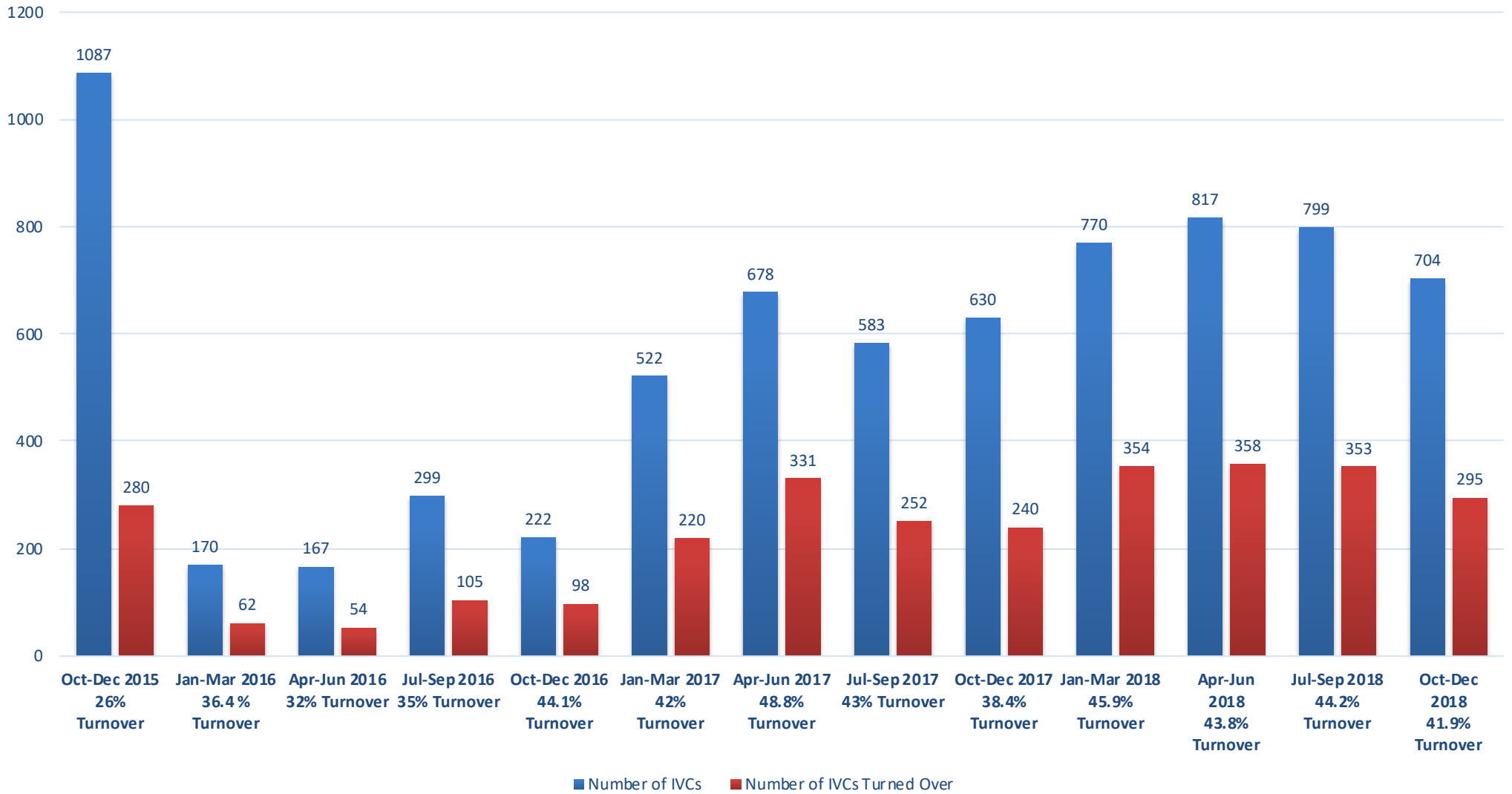


- IVCs - percent not released
- IVCs - percent released

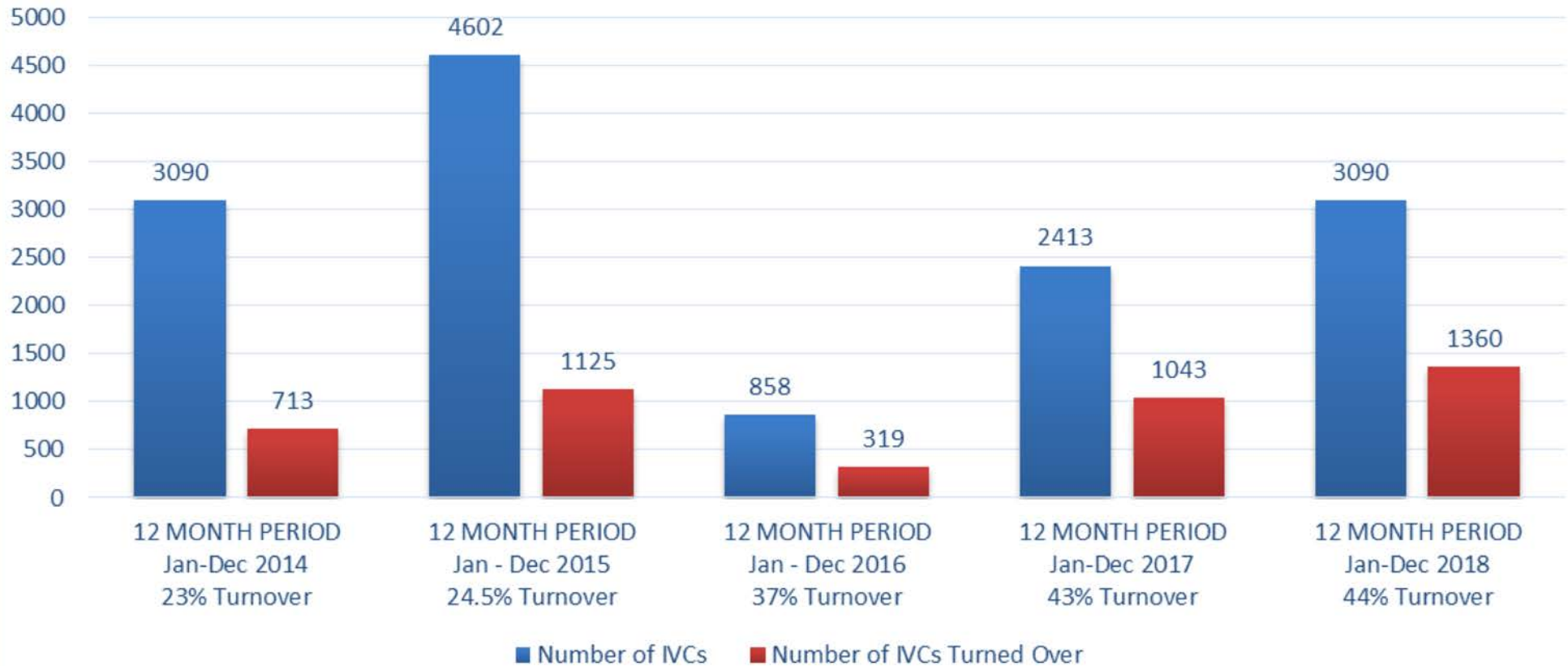
IVCs - By Release Status Jan-Dec 2018



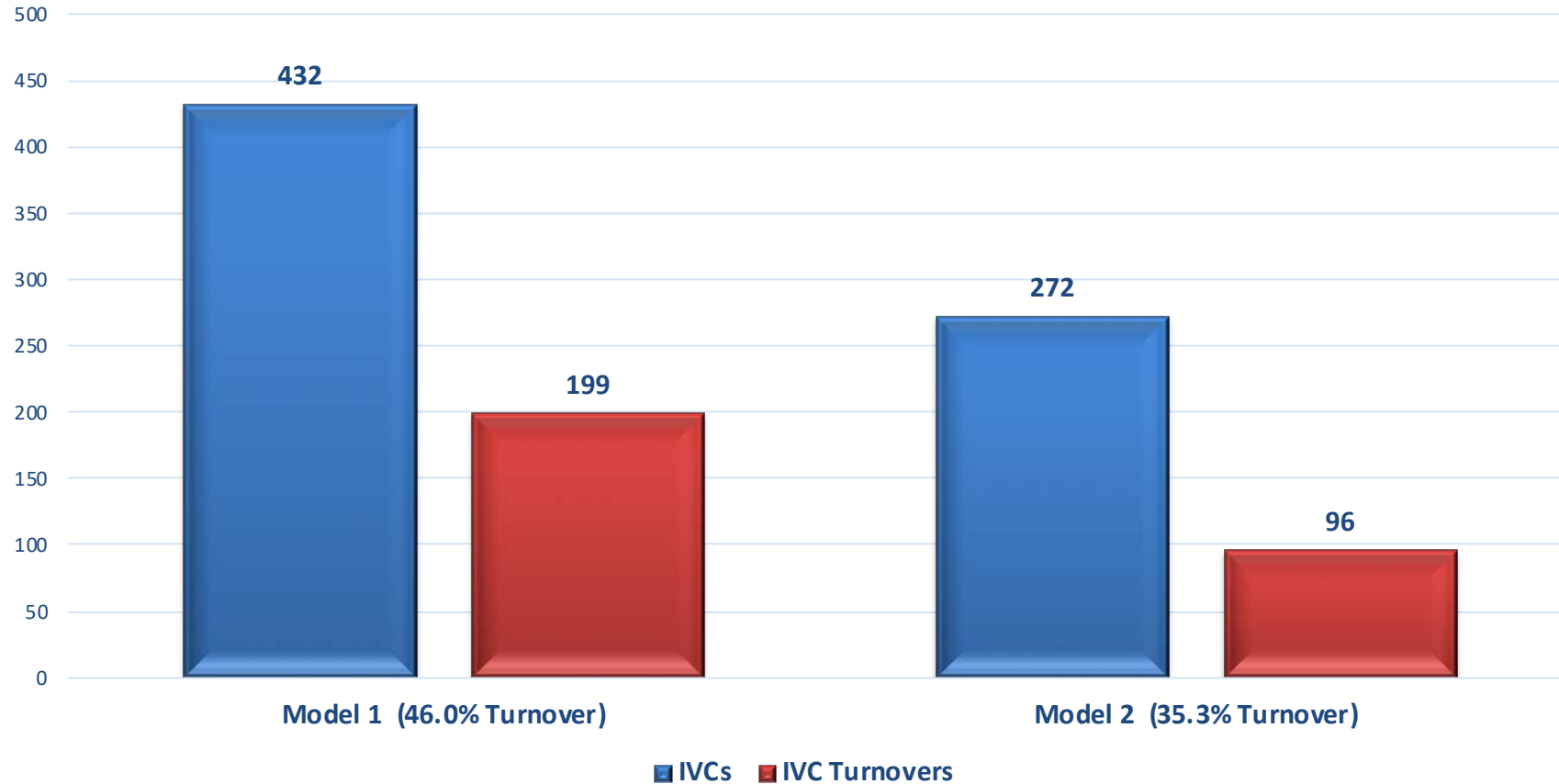
Number of IVCs and IVCs Turned Over by Quarter



Number of IVCs and IVCs Turned Over by Year

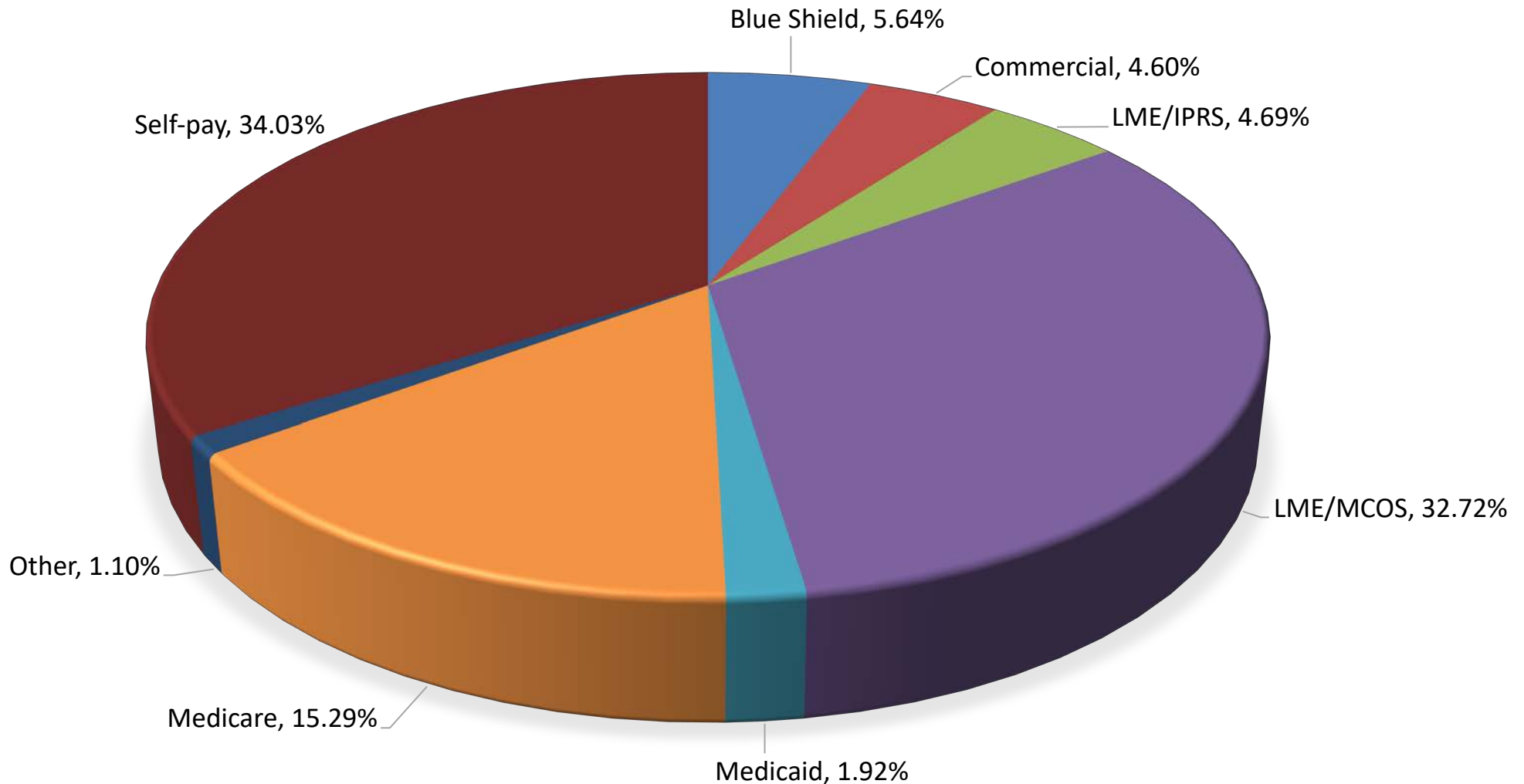


Number of IVCs and IVC Turnovers by Model Oct-Dec 2018



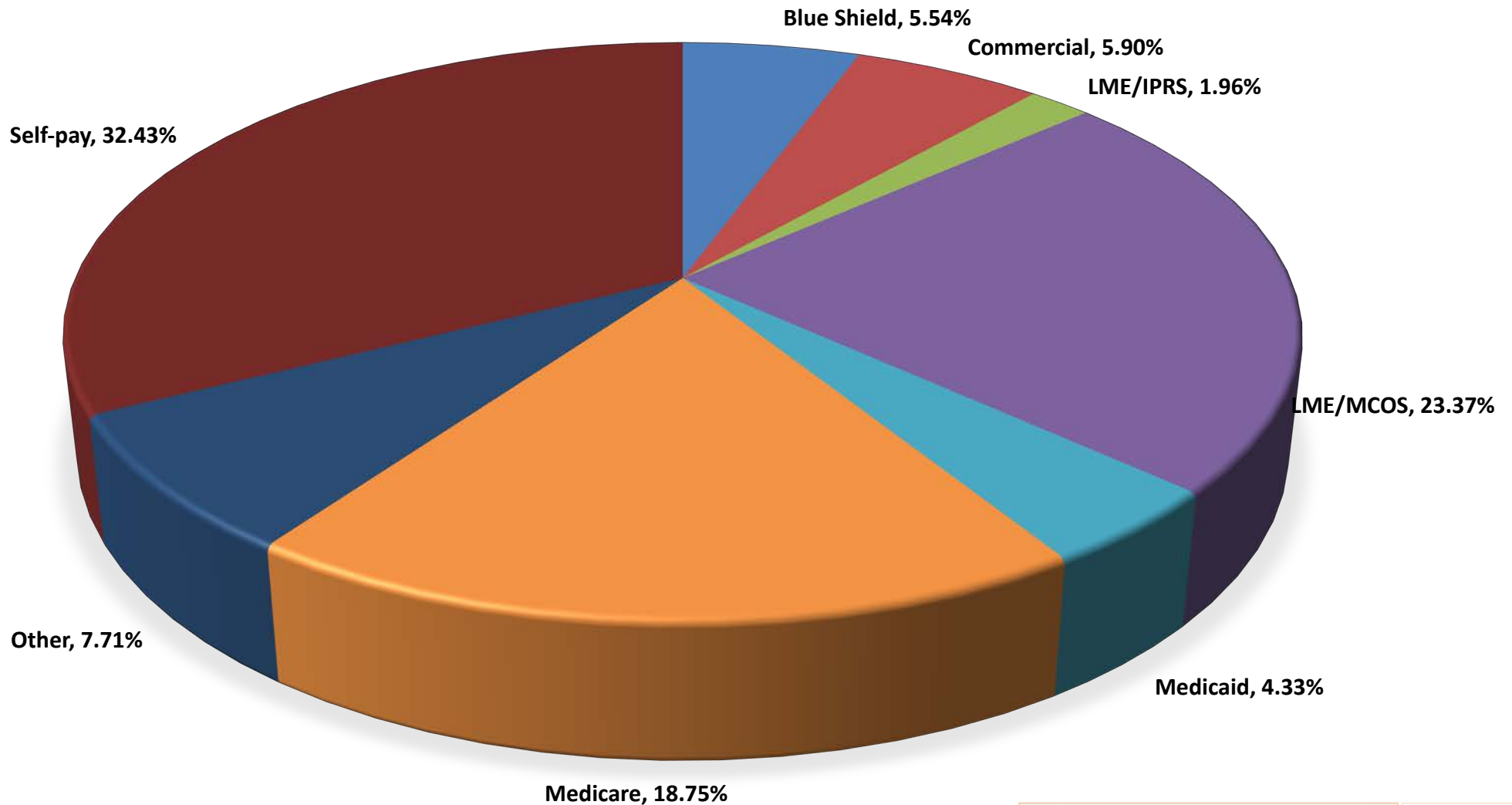
NC-STeP Charge Mix

QTD 2019 - Quarter 2 (October- December 2018)



NC-STeP Charge Mix – Project to Date

Service Dates: October 1, 2013 – December 31, 2018



NC-STeP Status as of December 31, 2018

- 56 hospitals in the network. 53 live.
- 35,524 total psychiatry assessments since program inception
- 4,668 IVCs overturned
 - Cumulative return on investment = \$25,207,200
(savings from preventing unnecessary hospitalizations)
- Seven Clinical Provider Hubs with 47 consultant providers
- Administrative costs below industry standard
- Over 30% of the patients served had no insurance coverage

Hospital Status Report as of December 2018

Model 1 – Live (page-1)



| Hospital Name | Portal Go Live |
|----------------------------------|----------------|
| Vidant Outer Banks Hospital | 08/08/2016 |
| Vidant Bertie Hospital | 08/15/2016 |
| Vidant Chowan Hospital | 08/15/2016 |
| Vidant Edgecombe Hospital | 08/15/2016 |
| Sentara Albemarle Medical Center | 08/17/2016 |
| Vidant Beaufort Hospital | 08/22/2016 |
| Vidant Duplin Hospital | 08/22/2016 |
| Lenoir Memorial Hospital | 09/06/2016 |
| St Lukes Hospital | 09/07/2016 |
| Wilson Medical Center | 09/20/2016 |
| Morehead Memorial Hospital | 10/05/2016 |
| DLP Harris Regional Medical | 10/14/2016 |
| DLP Swain Community Hospital | 10/14/2016 |

Hospital Status Report as of December 2018

Model 1 – Live (page-2)



| Hospital Name | Portal Go Live |
|--------------------------------------|-----------------------|
| Murphy Medical Center | 10/26/2016 |
| DLP Maria Parham Medical Center | 11/15/2016 |
| UNC Chatham Hospital | 12/21/2016 |
| J. Arthur Doshier Memorial Hospital | 01/07/2017 |
| Ashe Memorial Hospital | 01/26/2017 |
| Northern Hospital of Surry County | 03/07/2017 |
| Southeastern Regional Medical Center | 08/08/2017 |
| Halifax Regional Medical Center | 08/08/2017 |
| DLP Person Memorial Hospital | 08/17/2017 |
| DLP Haywood Regional Medical Center | 08/22/2017 |
| Alleghany Memorial Hospital | 10/17/2017 |
| Lake Norman Regional Medical Center | 10/17/2017 |
| Pender Memorial Hospital | 12/07/2017 |

Hospital Status Report as of December 2018

Model 1 – In Process



| Hospital Name | Portal Go Live |
|--|----------------|
| DLP Rutherford Regional Medical Center | Fall 2019 |
| DLP Maria Parham Franklin | February 2019 |
| Park Ridge Health | March 2019 |

Hospital Status Report as of December 2018

Model 1 – Participation Pending



| Hospital Name | Program Status |
|---|--------------------|
| DLP Central Carolina Hospital | Reviewing Contract |
| Our Community Hospital | Reviewing Contract |
| Pioneer Community Hospital of Stokes (Greene) | Reviewing Contract |
| Pioneer Community Hospital of Stokes (King) | Reviewing Contract |
| Washington County Hospital | Reviewing Contract |
| Harnett Hospital | Reviewing Contract |
| Betsy Johnson Hospital | Reviewing Contract |

Hospital Status Report as of December 2018

Model 2 (page-1)



| Hospital Name | Go Live Date/Status |
|---|---------------------|
| Cape Fear Valley Medical Center | 06/2014 |
| Cape Fear Valley Bladen Hospital | 07/2014 |
| Cone Health Behavioral Health Hospital | 07/2014 |
| Cone Health MedCenter High Point | 07/2014 |
| Forsyth Medical Center | 07/2014 |
| McDowell Hospital | 07/2014 |
| Mission Hospital | 07/2014 |
| Novant Health Clemmons Medical Center | 07/2014 |
| Novant Health Kernersville Medical Center | 07/2014 |
| Wesley Long Hospital | 07/2014 |
| Mission Children's Hospital | 08/2014 |
| Annie Penn Hospital | 08/2014 |
| Moses H. Cone Memorial Hospital | 08/2014 |
| Blue Ridge Regional Hospital | 09/2014 |

Hospital Status Report as of December 2018

Model 2 (page-2)



| Hospital Name | Go Live Date/Status |
|--|---------------------|
| Transylvania Regional Hospital | 09/2014 |
| Women's Hospital – Cone Health | 10/2014 |
| Angel Medical Center | 01/2015 |
| Highlands-Cashiers Hospital | 03/2015 |
| Novant Health Thomasville Medical Center | 03/2015 |
| Alamance Regional Medical Center | 04/2015 |
| Hugh Chatham Memorial Hospital | 12/2015 |
| Cape Fear Valley Hoke Hospital | 06/2016 |
| UNC Johnston, Clayton | 06/2016 |
| UNC Johnston, Smithfield | 06/2016 |
| Novant Health Presbyterian Hospital | 11/2016 |
| Novant Health Rowan Medical Center | 07/2017 |
| Novant Health Brunswick Medical Center | 07/2017 |

Hospital Status Report as of December 2018

Expressed Possible Interest



| Hospital Name | Program Status | NC-SteP Model |
|---------------------------|----------------|---------------|
| Duke Regional Hospitals | TBD | TBD |
| Novant Matthews Medical | TBD | Model 2 |
| Iredell Memorial Hospital | TBD | TBD |

Hospital Status Report as of December 2018

Terminated



| Hospital Name | Hospital Name |
|--|--------------------------------------|
| Carolina East | Nash General Hospital |
| Carteret | Sampson |
| Columbus Regional | UNC Hillsborough |
| Davie Medical | WakeMed Apex |
| FirstHealth Montgomery Memorial Hospital | WakeMed Briar Creek |
| FirstHealth Moore Regional Hospital | WakeMed Cary |
| FirstHealth Regional Hospital - Hoke | WakeMed Garner |
| FirstHealth Richmond Memorial Hospital | WakeMed North Healthplex |
| FirstHealth Sandhills Regional Medical | WakeMed Raleigh |
| Lexington | WakeMed Raleigh Children's ED |
| Martin County General | WakeMed Psychiatric Observation Unit |

Hospital Status Report as of December 2018

No Information Available



| Hospital Name | Program Status | NC-STeP Model |
|--------------------------|----------------|---------------|
| Caldwell Memorial | TBD | TBD |
| Cherokee Indian Hospital | TBD | TBD |
| New Hanover | TBD | TBD |
| Novant Franklin Medical | TBD | TBD |
| Onslow Memorial | TBD | TBD |
| Scotland Health | TBD | TBD |
| Wilkes Regional Medical | TBD | TBD |

Contact

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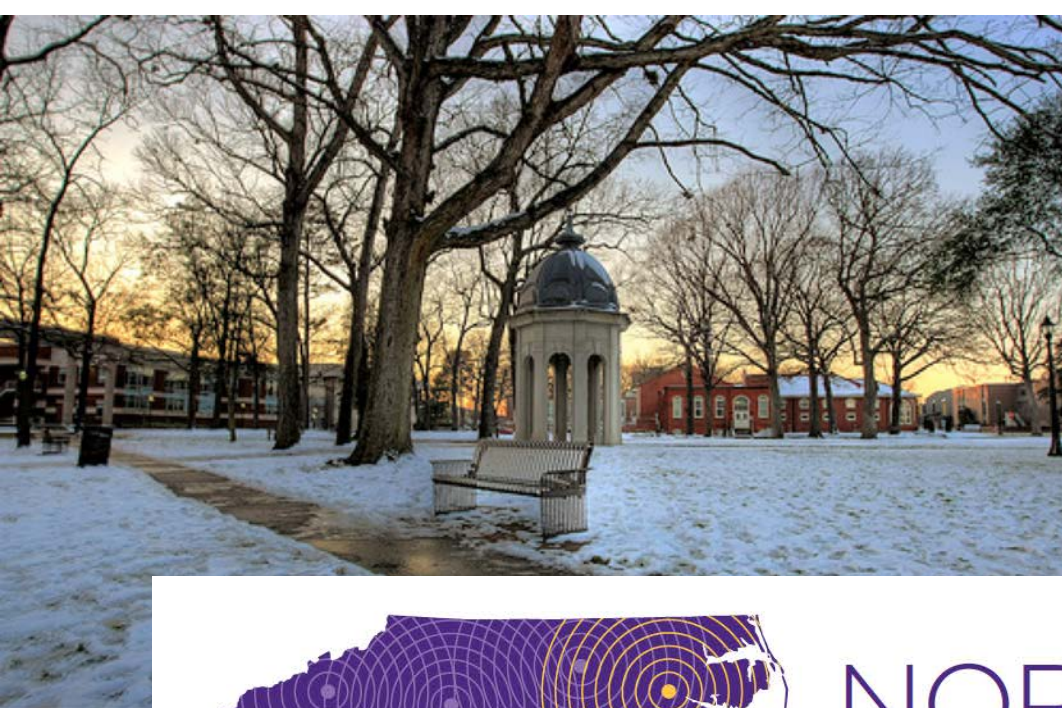
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NC-STeP

NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

