



NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

Quarterly Progress Update



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North Carolina Statewide Telepsychiatry Program (NC-STeP)



NC-STeP Quality Management and Outcomes Monitoring Processes: April – June 2019

- The Median Length of Stay was 25.5 hours
- The Average Length of Stay was 46.8 hours
 - 45.9 hours for those discharged to home
 - 63.7 hours for those transferred to another facility
- Average Consult Elapsed Time (in Queue to Exam Complete) for Model 1 hospitals was 3 hours and 13 minutes.

NC-STeP Quality Management and Outcomes Monitoring Processes: April – June 2019


- 661 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
 - 236 (35.7%) of those patients did not have an IVC in place when discharged.
- Of the ED patients who received telepsychiatry services, 41.4% were discharged to home. 21.4% were discharged to another facility.

NC-STeP Quality Management and Outcomes Monitoring Processes: April – June 2019

Notes:

- Data for Novant hospitals was not included in this report, pending receipt of corrected data for Novant.
- Percent of patients discharged to another facility (“transfer”) is lower than normal due to a high number of patients coded as “other.”
- Data for Cone hospitals did not include a discharge disposition, so it was coded as “other”.
- Data for Mission hospitals contained ambiguous disposition codes, which were coded as “other”.
- Bladen hospital did not submit data for May or June.



|  | 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 | 27,768 | 5,144 | 7,128 | 1,896 | 3,970 | 6,100 |
| Model 1 Hospital Patient Encounters | 17,767 | 4,578 | 5,849 | 706 | 2,043 | 2,650 |
| Model 2 Hospital Patient Encounters | 10,001 | 566 | 1,279 | 1,190 | 1,927 | 3,450 |
| Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals) | 38,383 | 8,130 | 13,573 | 1,942 | 4,347 | 6,674 |

NC-STeP Benchmarks



| Goals | Values Reached | | |
|--|---|---|---|
| Cumulative Target to be reached by (06/30/2019) | Value Reached as of most recent previous quarter (03/31/2019) | Value Reached as of this reporting quarter (06/30/2019) | Year-to-Date Total with % of the Yearly Target (03/31/2019) |
| Number of IVCs | 2,817 | 2,217 | 2,878 102% of Yearly Target |
| Number of IVCs Overturned | 1,197 | 939 | 1,175 98% of Yearly Target |
| Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.) | 5,086 | 5,427 | 6,676 131% of Yearly Target |

NC-STeP Status as of June 30, 2019

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 6/30/2019 |
|---|--|------------------------------------|--|
| 1. The number of full-time equivalent (FTE) positions supported by these contracts | 2.3 FTEs | 3.65 FTEs | 4 FTEs |
| 2. The number of overturned involuntary commitments <small>(inpatient admission prevented)</small> | 835 | 1,197 | 236 in this quarter YTD Total 1,175 Cumulative total since program inception 5,195 |
| 3. The number of participating consultant providers | 47 | 48 | 54 |

NC-STeP Status as of June 30, 2019

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 06/30/2019 |
|---|--|------------------------------------|--|
| 4. The number of telepsychiatry assessments conducted. | 3,533 | 5,086 | 1,249 in this quarter YTD Total 6,676 Cumulative total since program inception 38,383 |
| 5. The number of telepsychiatry referring sites | 53 | 54 | 57 53 Live |
| 6. The reports of involuntary commitments to enrolled hospitals | 1,996 | 2,817 | 661 in this quarter YTD Total 2,878 Cumulative total since program inception 15,809 |

NC-STeP Status as of June 30, 2019

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 06/30/2019 |
|---|--|------------------------------------|---|
| 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 = 46.8 Median = 25.5 |
| 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 June 30, 2019

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 06/30/2019 |
|--|--|------------------------------------|---|
| 9. The rate of "satisfied" or "strongly satisfied" among hospital CEOs/COOs participating in NC-STeP. | 85% | 85% | Satisfaction surveys not conducted this quarter |
| 10. The rate of "satisfied" or "strongly satisfied" among consulting (hub) providers participating in NC-STeP. | 83% | 85% | Satisfaction surveys not conducted this quarter |

NC-STeP Status as of June 30, 2019

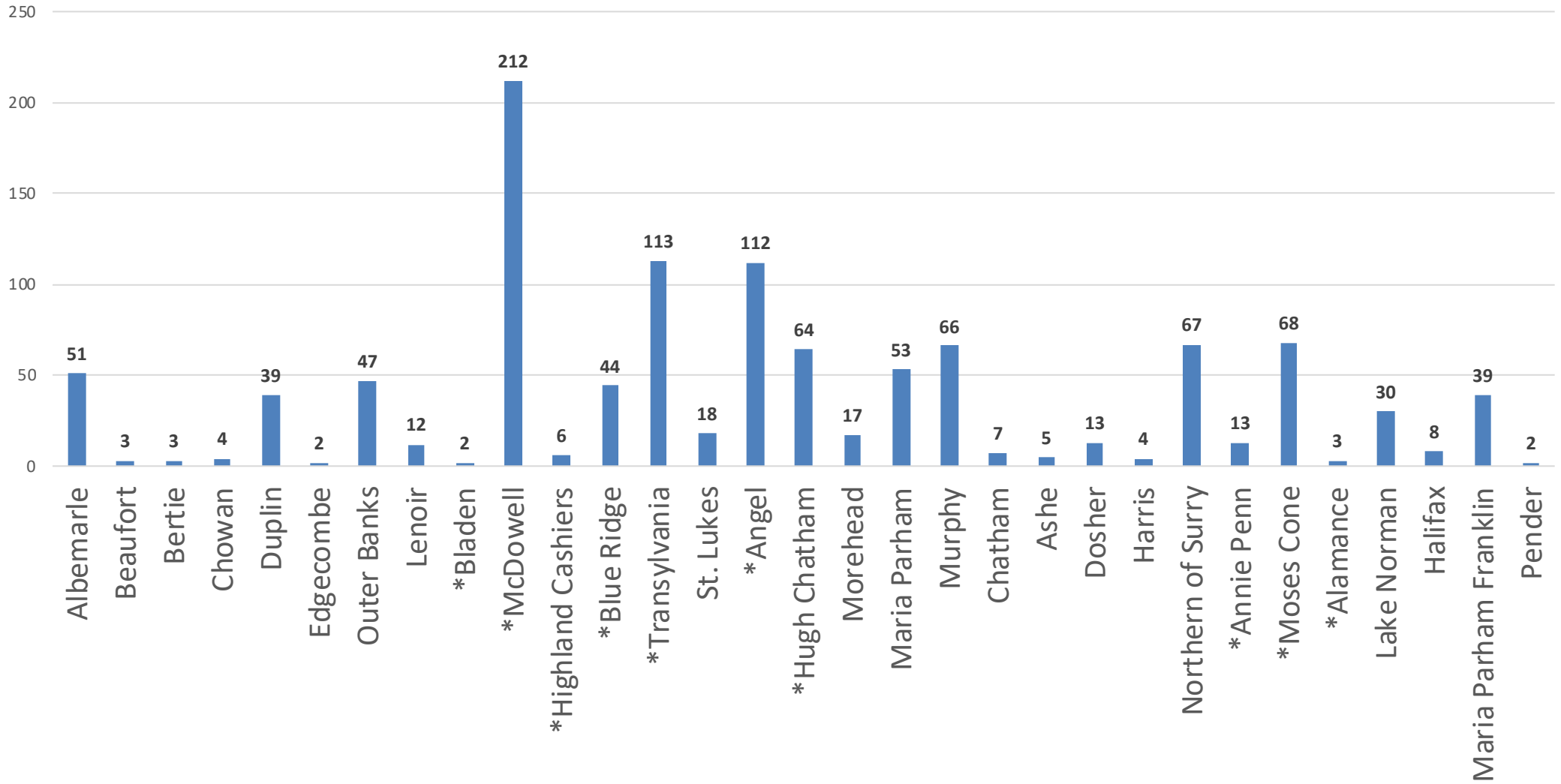
| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 06/30/2019 |
|--|--|------------------------------------|--|
| 11. The rate of "satisfied" or "strongly satisfied" among emergency department physicians participating in the statewide telepsychiatry program. | 60% | 68% | Satisfaction surveys not conducted this quarter |
| 12. The ratio of overall revenues (billing, subscription fees), exclusive of grant funding, to program costs (exclusive of start-up costs). | 0.21:1.00 | >1.00:1.00 | QTD 0.13:1.00 YTD Average 0.24:1.00 Cumulative average since program inception 0.24:1.00 |

NC-STeP Status as of June 30, 2019

| EVALUATION CRITERIA | BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018 | TARGET TO BE REACHED BY 06/30/2019 | VALUES/MEASURES REACHED AS OF 06/30/2019 |
|---|--|------------------------------------|--|
| <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>\$1,274,400 in this quarter</p> <p>YTD \$6,345,000</p> <p>Cumulative total since program inception \$28,053,000</p> |

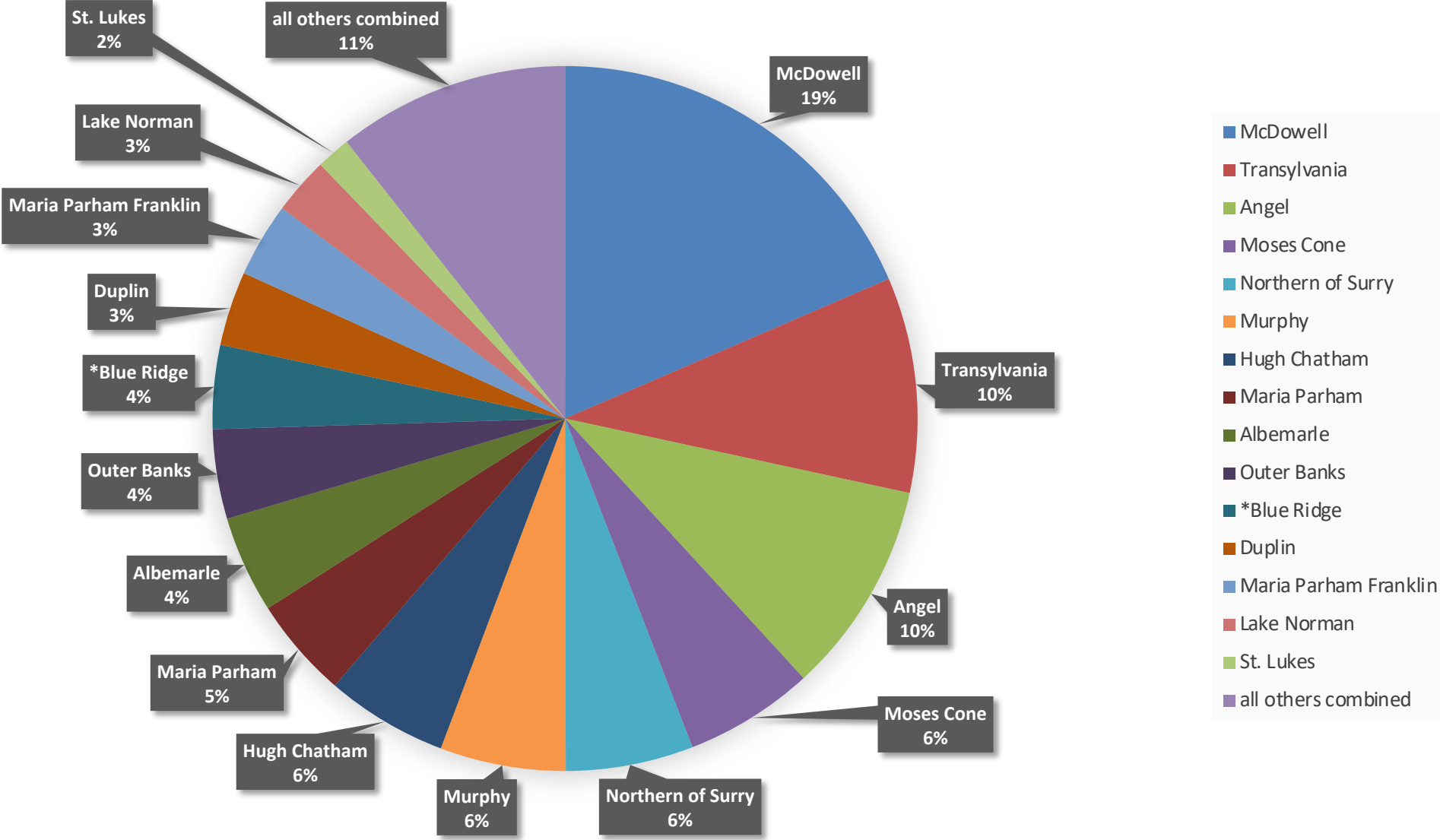
Number of NC-SteP Patients by Hospital

April - June 2019



Percent of use by Hospital Apr-Jun 2019

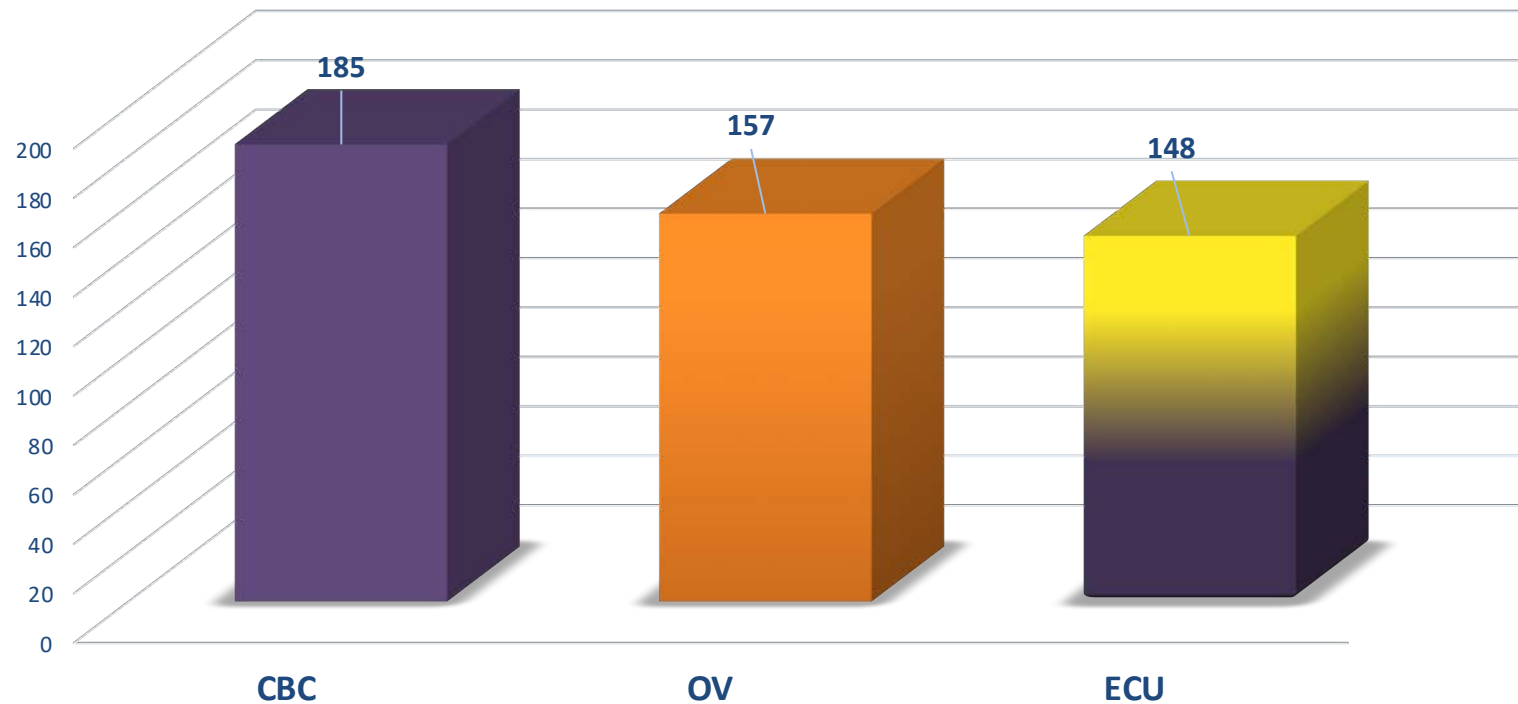
(based on number of patient encounters)



Number of Patients by Provider (Model 1)

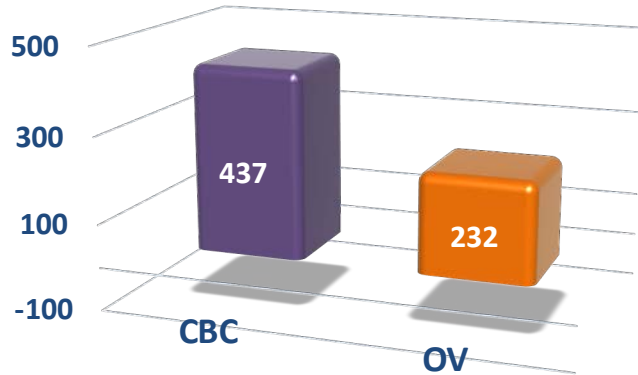
Number of Patients by Provider

Apr-Jun 2019

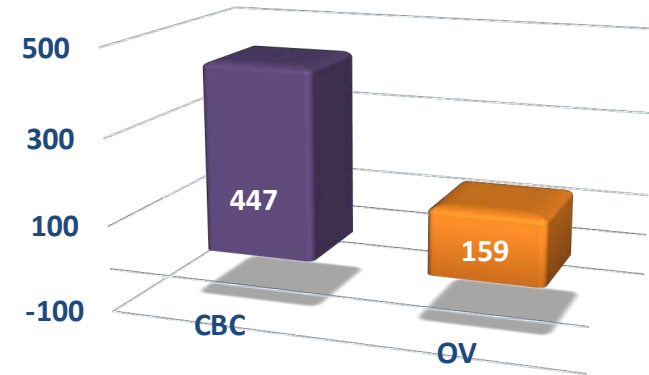


Number of Patients by Provider (Model 1)

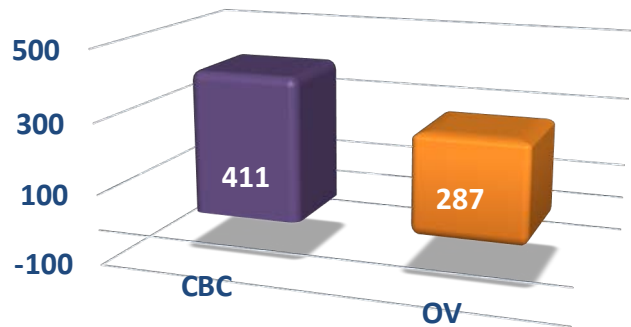
April - June 2018



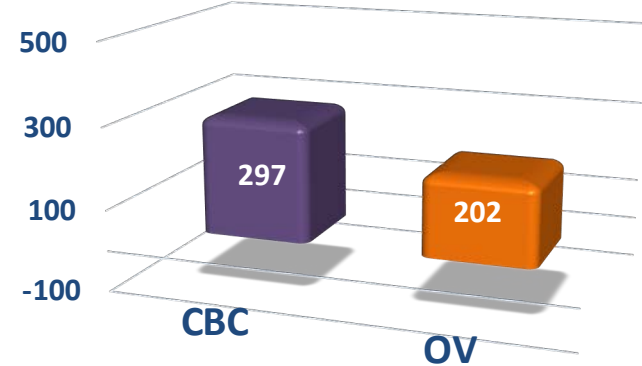
October- December 2018



July - September 2018

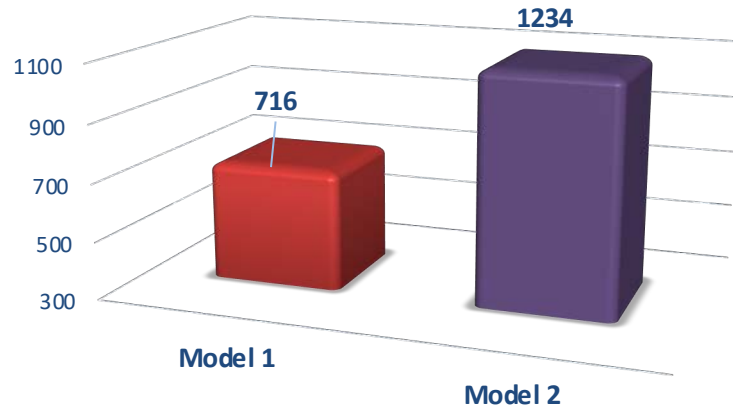


January- March 2019

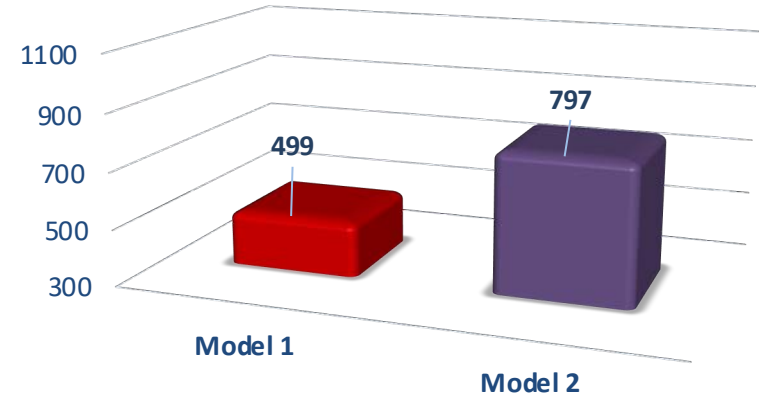


Number of Patients by Model (Full Fiscal Year 2018-19)

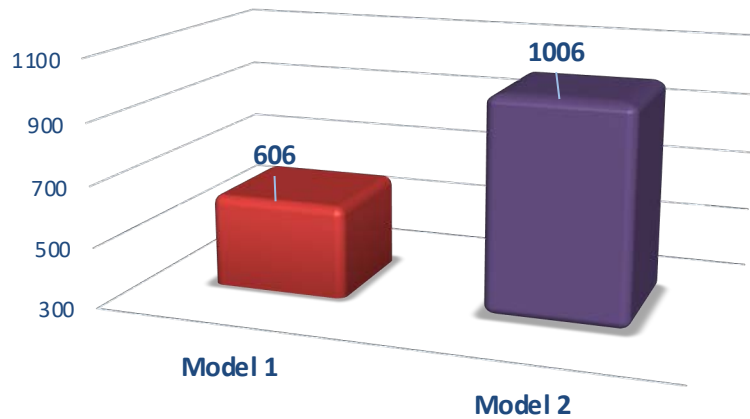
July-Sep 2018



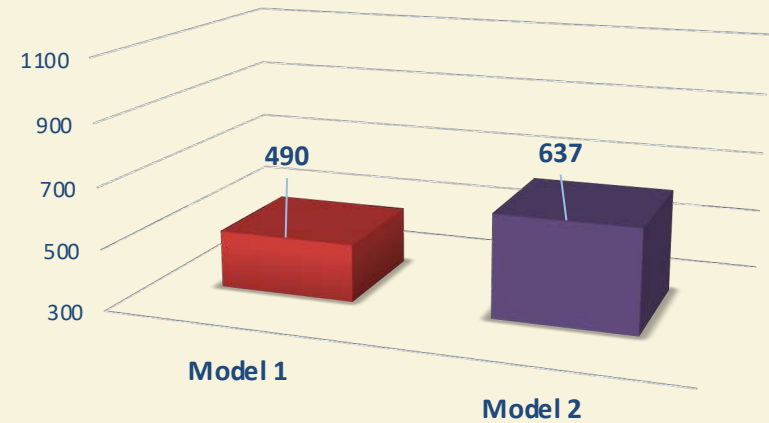
Jan-Mar 2019



Oct-Dec 2018

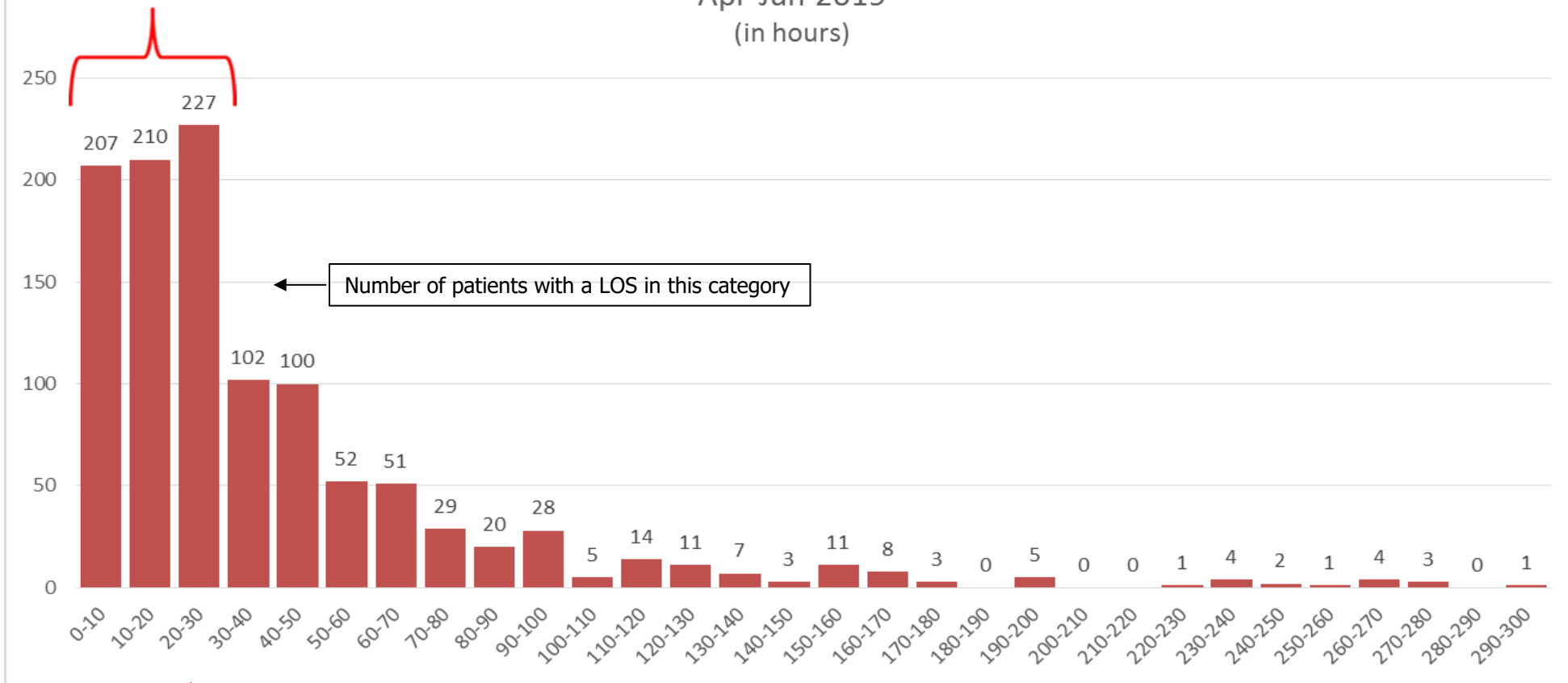


Apr-Jun 2019



Number of NC-STeP Patients by LOS Category Apr-Jun 2019 (in hours)

57.1% percent of patients had a LOS of 30 hours or less

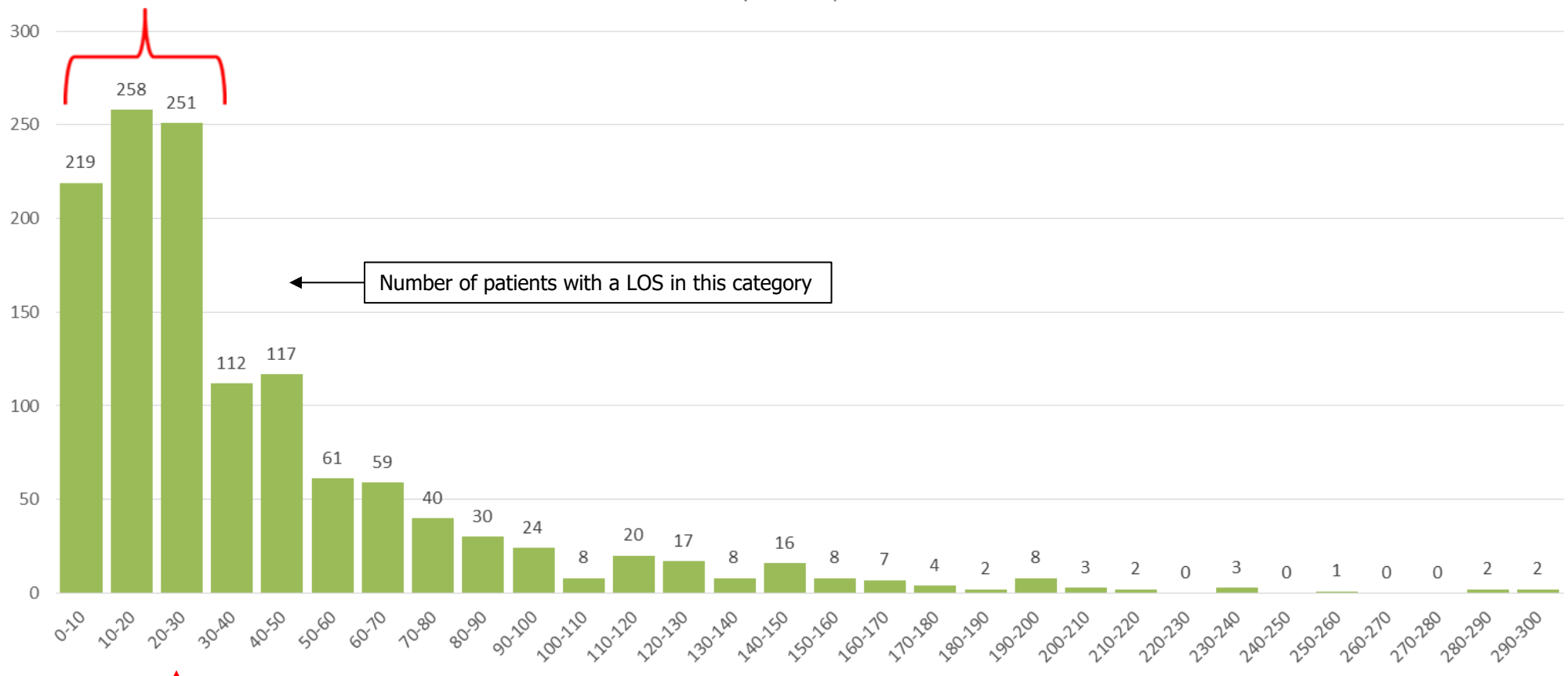


Median Length of Stay for Apr-Jun 2019 = 25.4 Hours

18 patients had a LOS longer than 300 hours

Number of NC-STeP Patients by LOS Category Jan-Mar 2019 (in hours)

56.2% percent of patients had a LOS of 30 hours or less



Median Length of Stay for Jan-Mar 2019 = 25.3 Hours

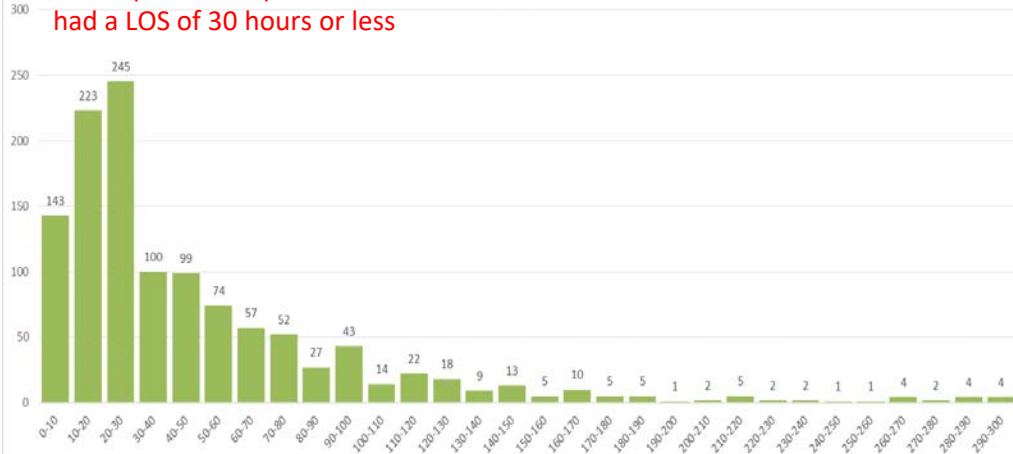
14 patients had a LOS longer than 300 hours

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

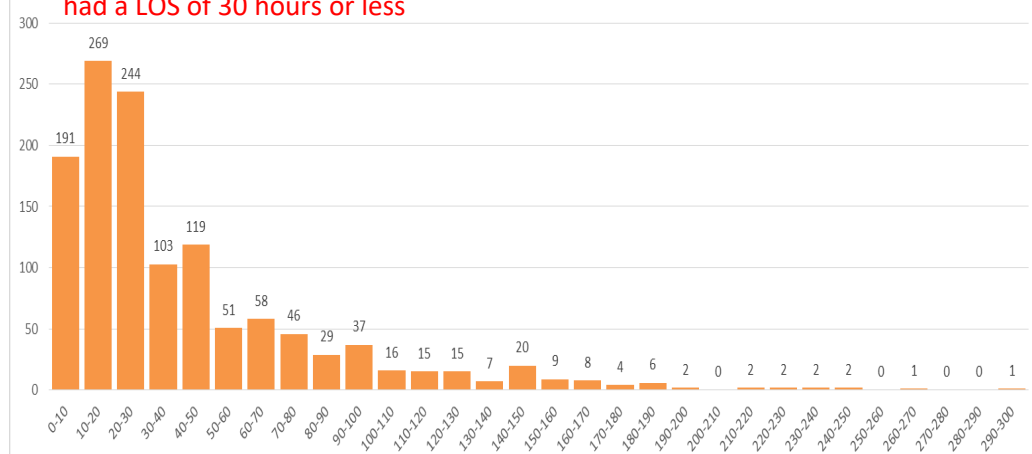


Number of NC-STeP Patients by LOS Category

April - June 2018

(in hours)

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

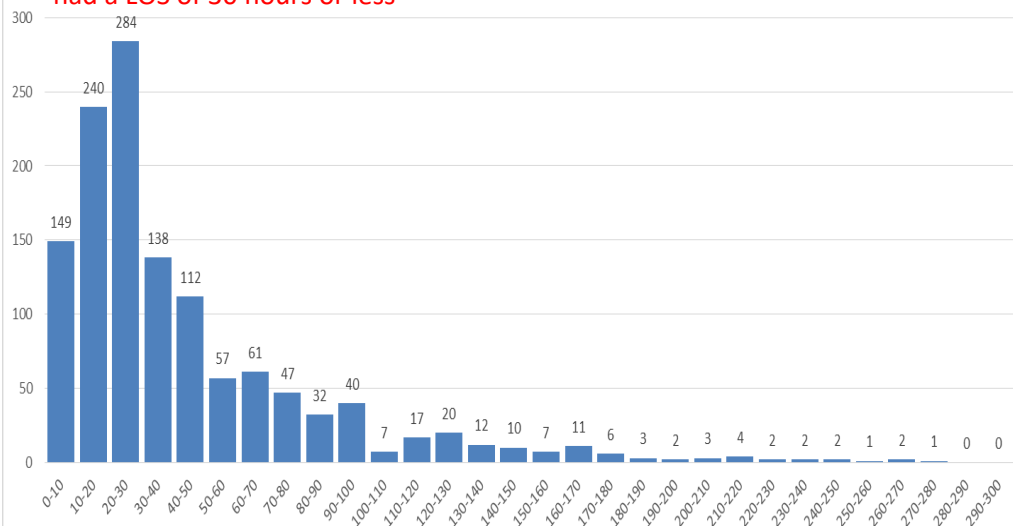


Number of NC-STeP Patients by LOS Category

July - September 2018

(in hours)

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

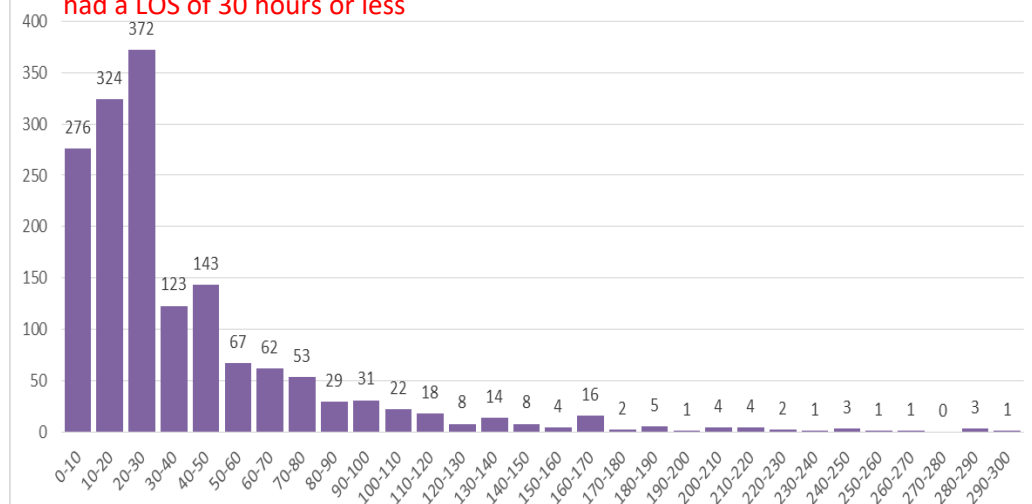


Number of NC-STeP Patients by LOS Category

Oct-Dec 2018

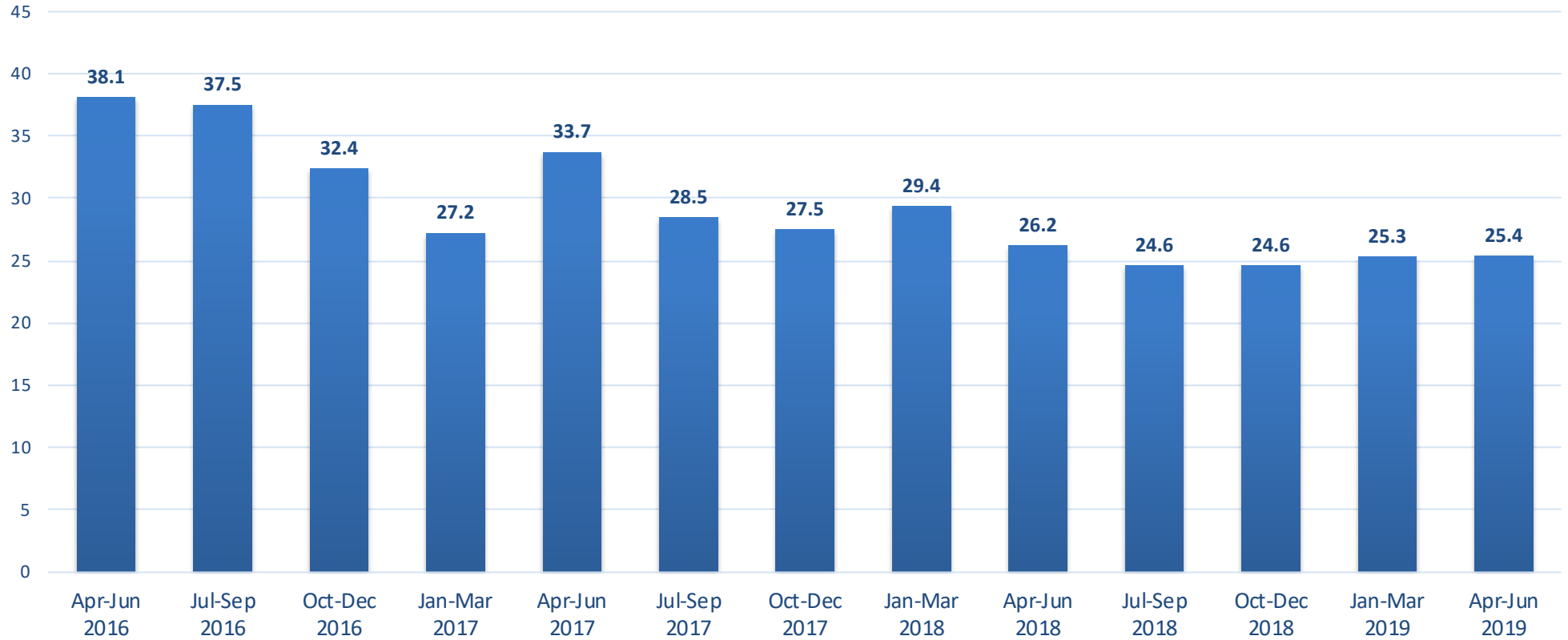
(in hours)

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



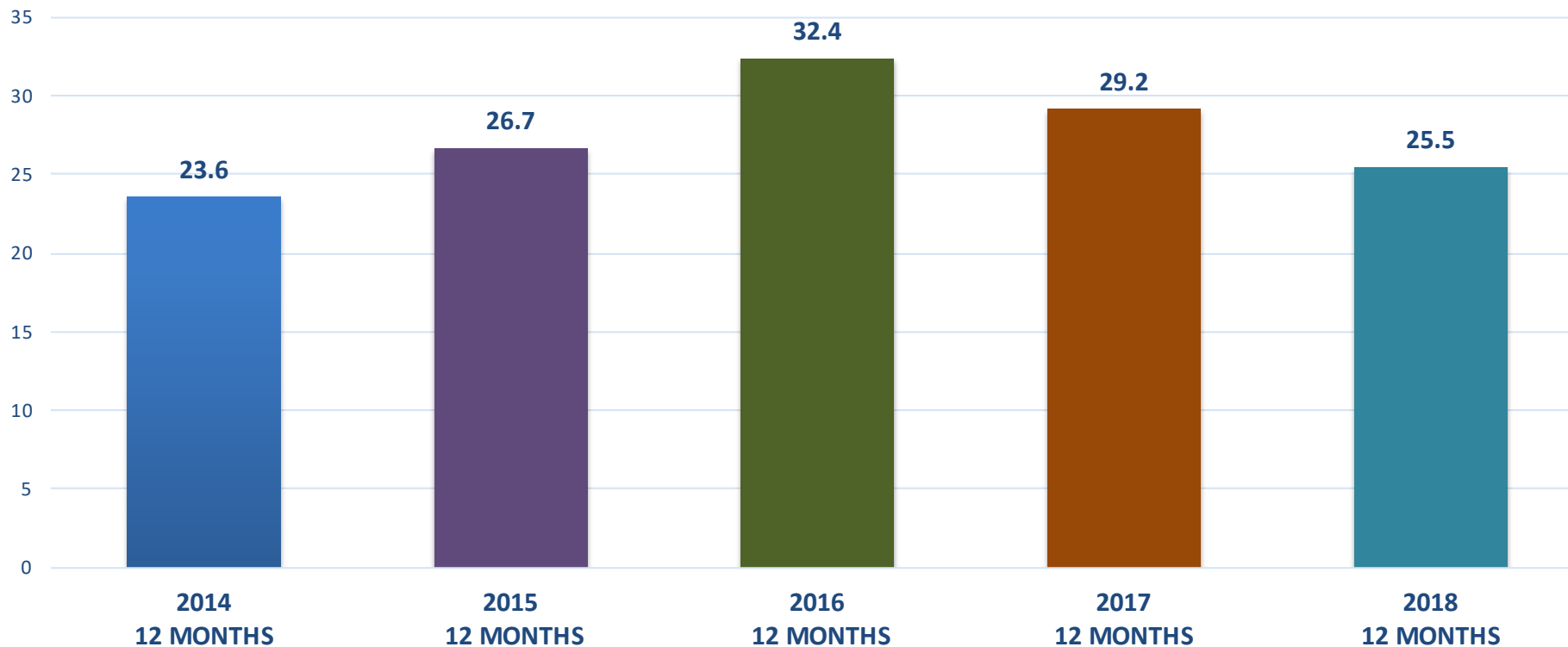
Median Length of Stay by Quarter

(in hours)

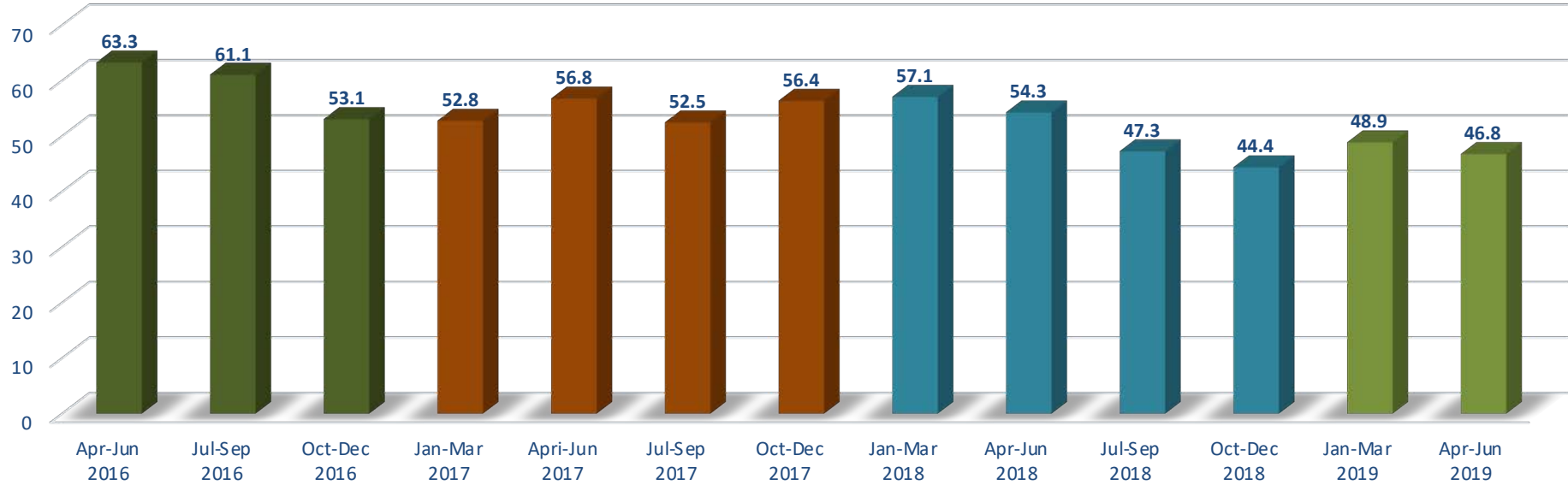


Median Length of Stay by Year

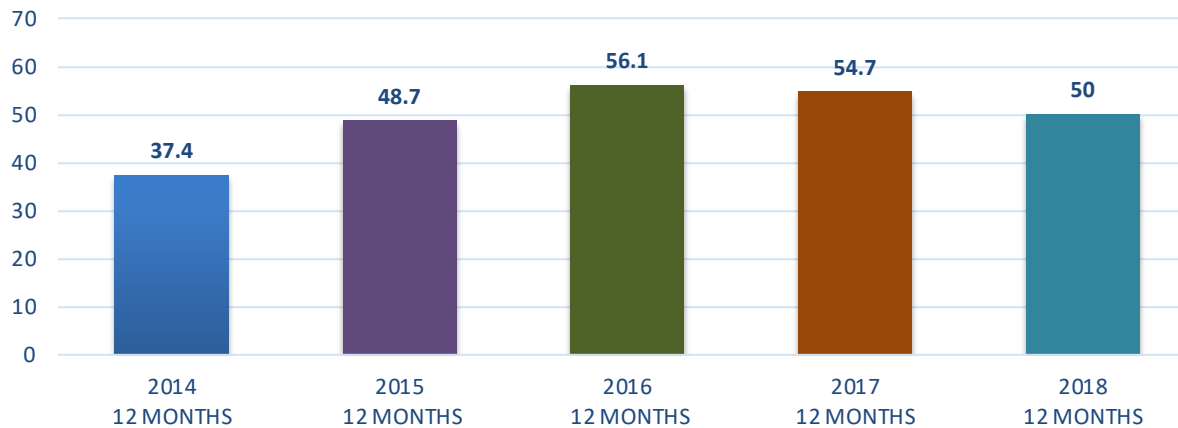
(in hours)



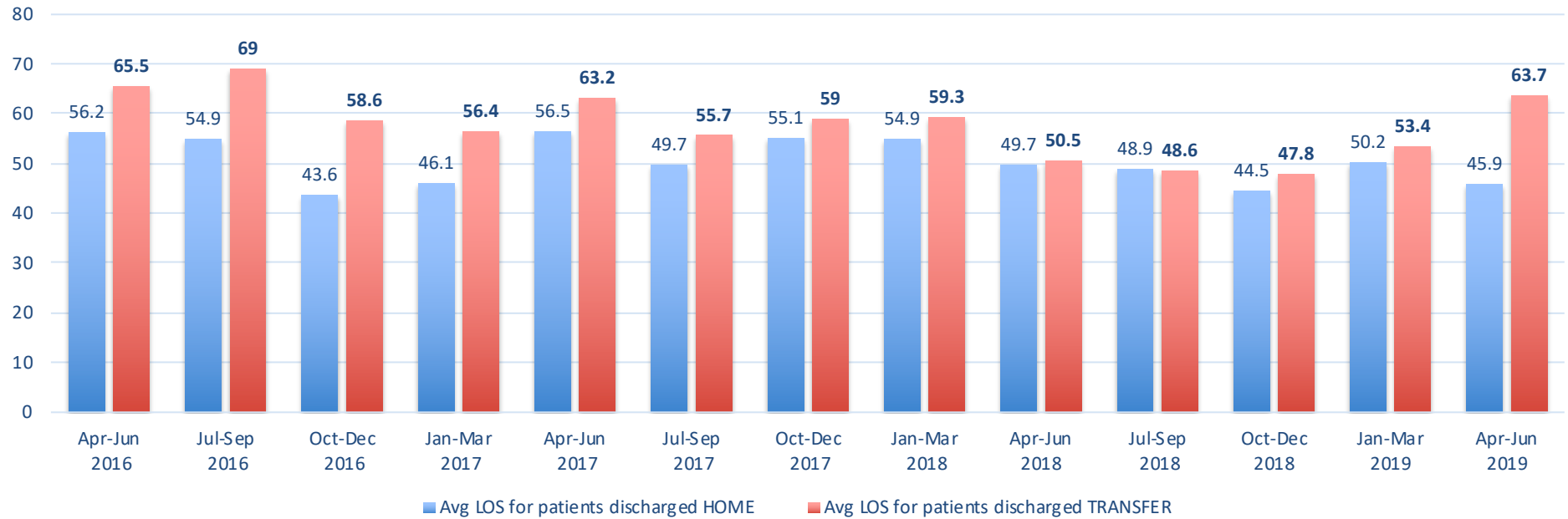
Average Length of Stay by Quarter for Hospitals Participating in NC-STeP (in hours)



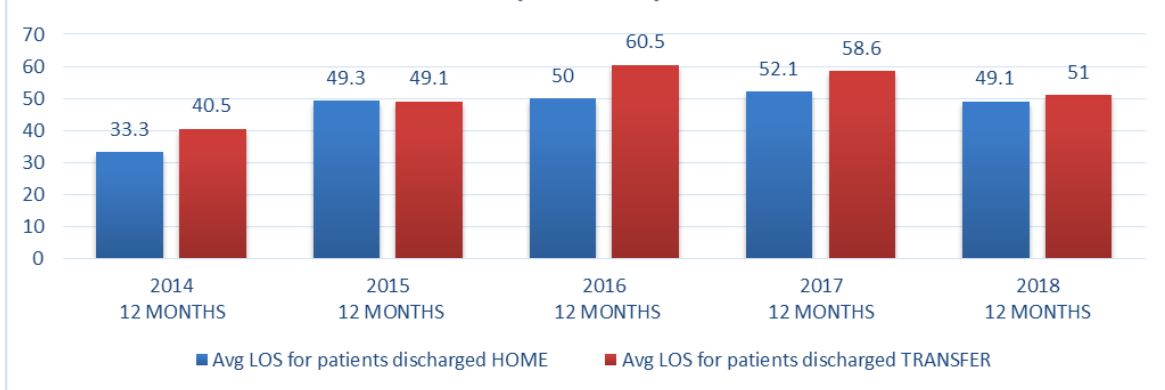
Average Length of Stay by Year (in hours)



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

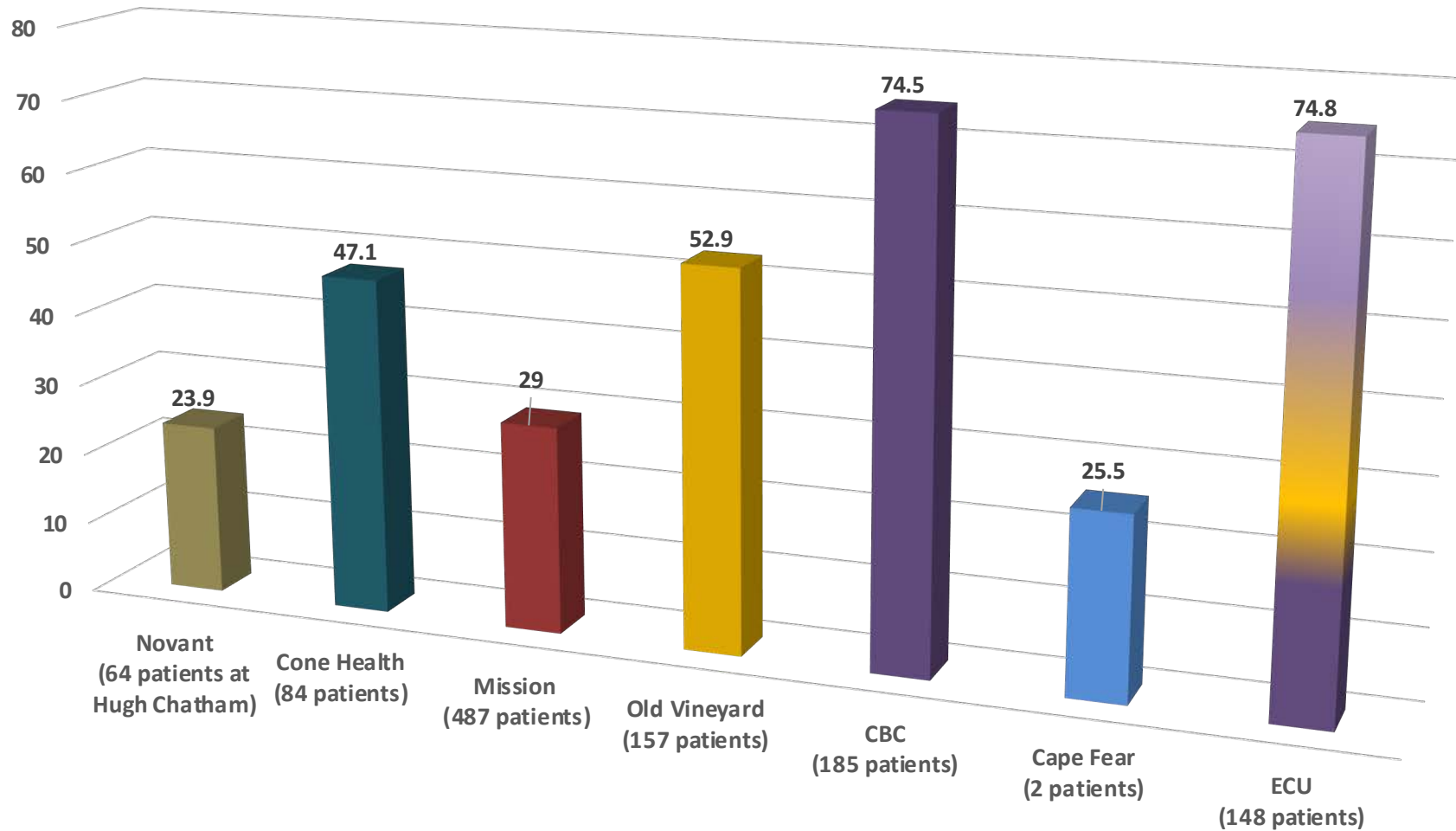


Average Length of Stay by Year for Patients Discharged to Home or Transfer (in hours)



Average Length of Stay by Provider

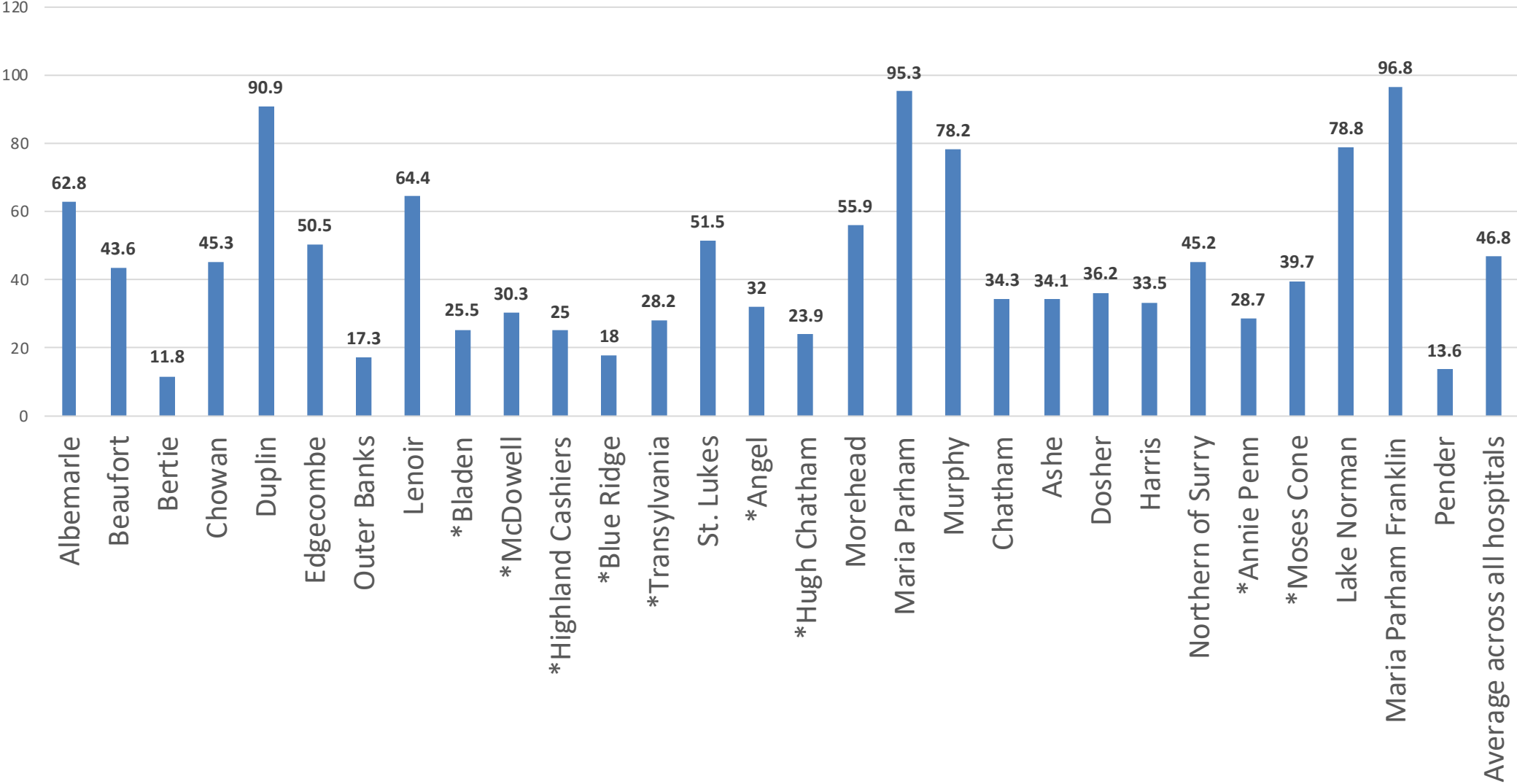
Apr-Jun 2019 (in hours)



Average Length of Stay for NC-STeP Patients by Hospital

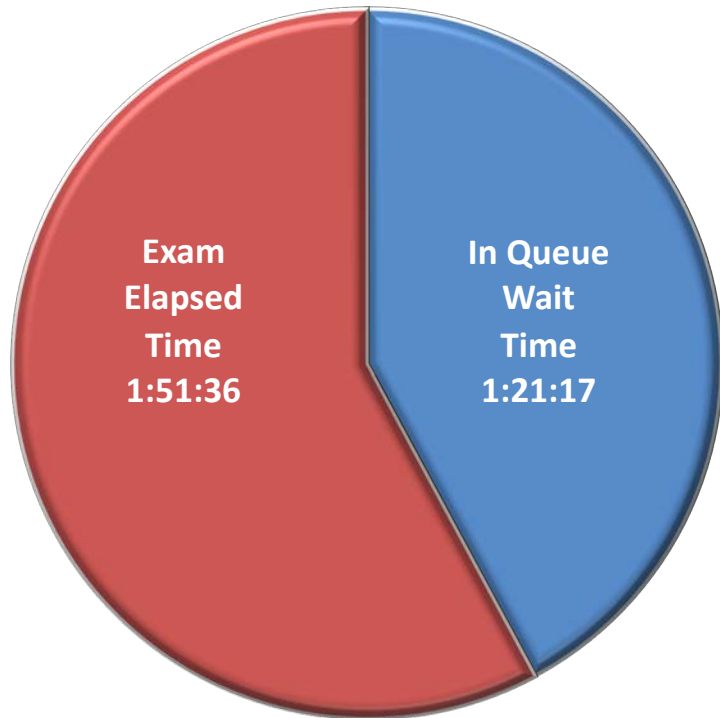
April - June 2019

(in hours)

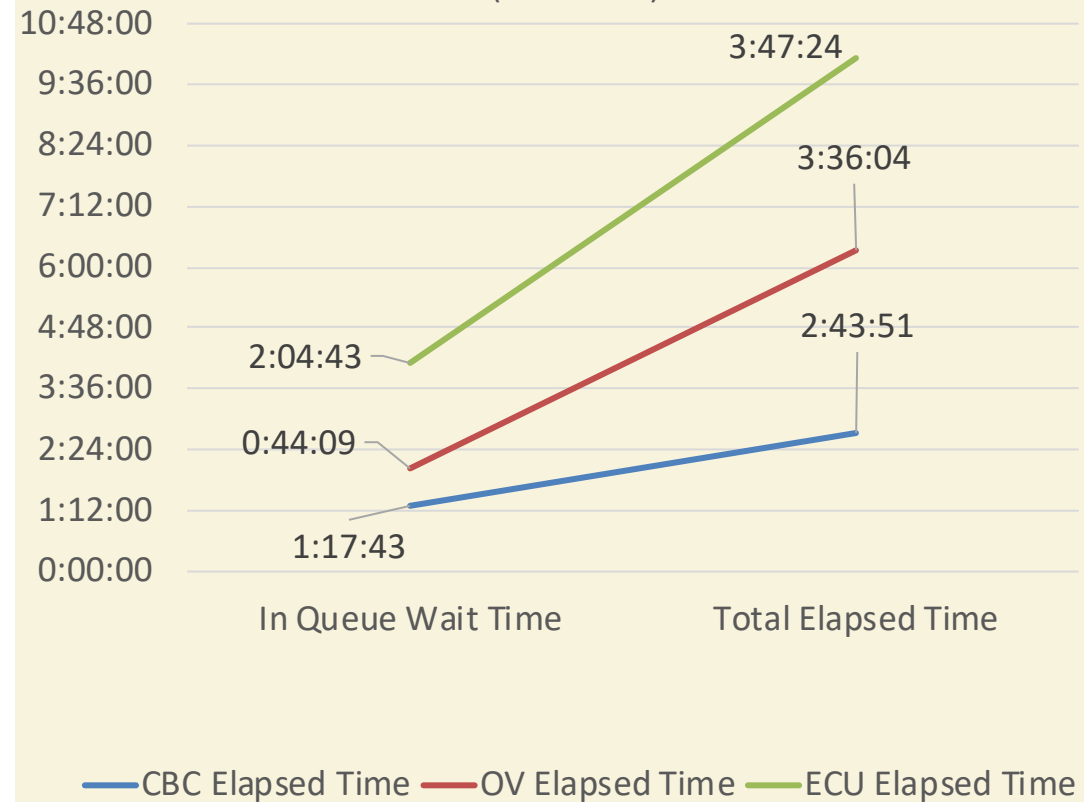


Consult Elapsed Time: April – June 2019

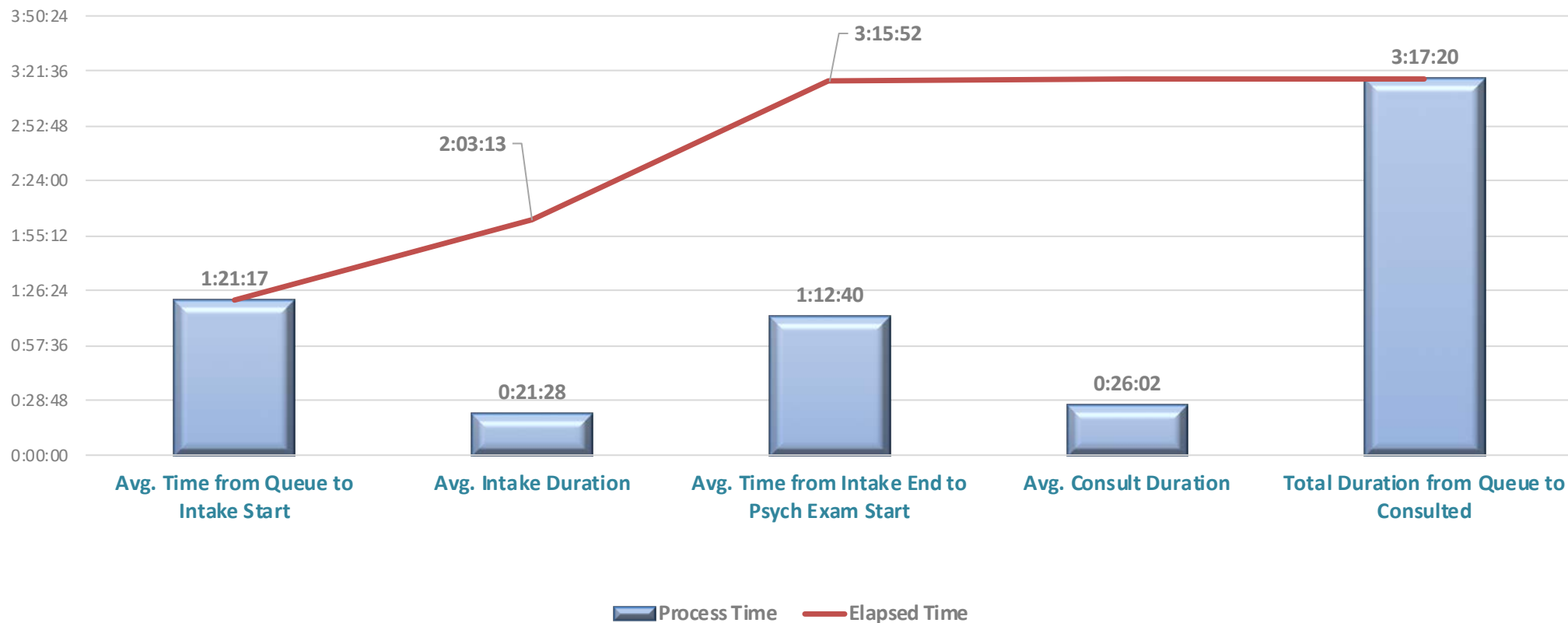
Average Consult Elapsed Time
In Queue to Exam Complete
(3 hrs. 13 min.)



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

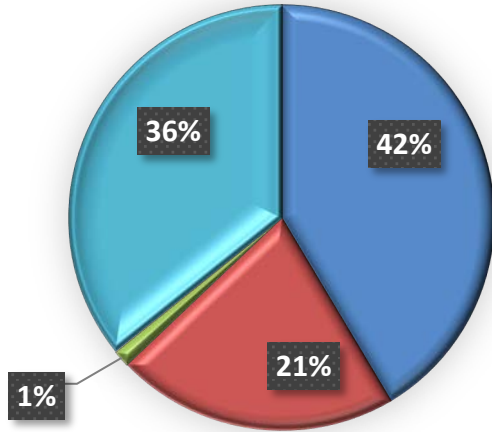


Key Processes and Elapsed Times Averages April - June 2019

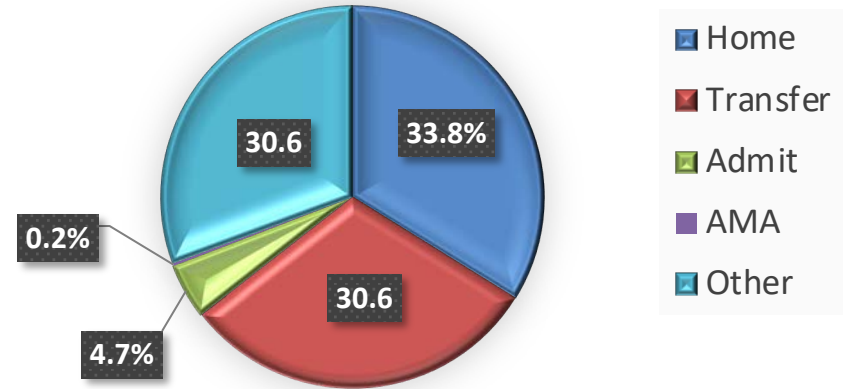


Percent of Patients by Discharge Disposition

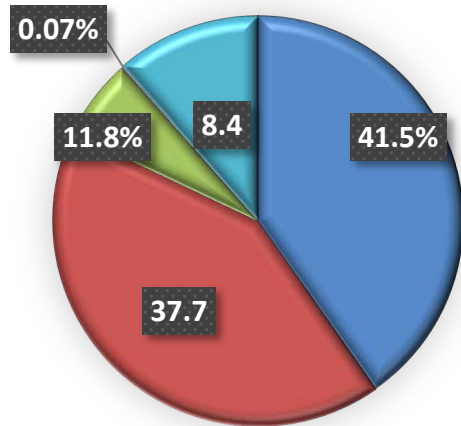
Apr-Jun 2019



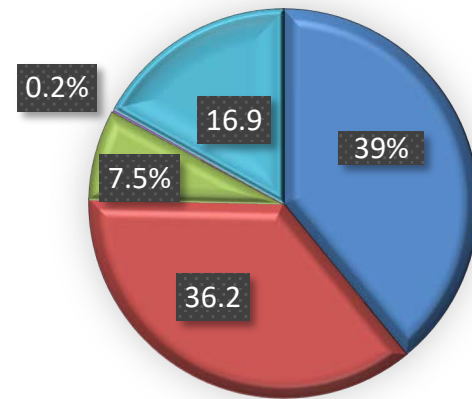
Jan-Mar 2019



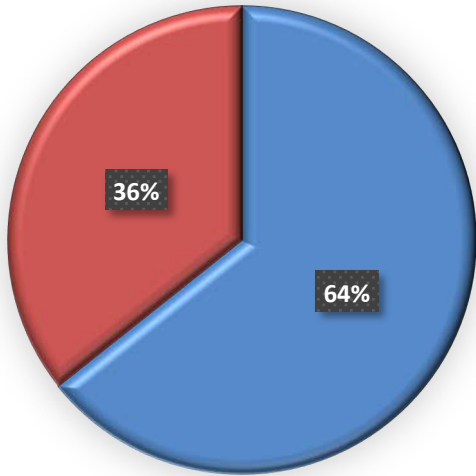
Jul-Sep 2018



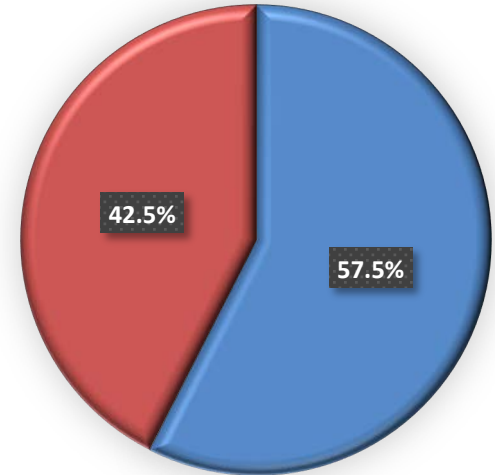
Oct-Dec 2018



Apr-Jun 2019



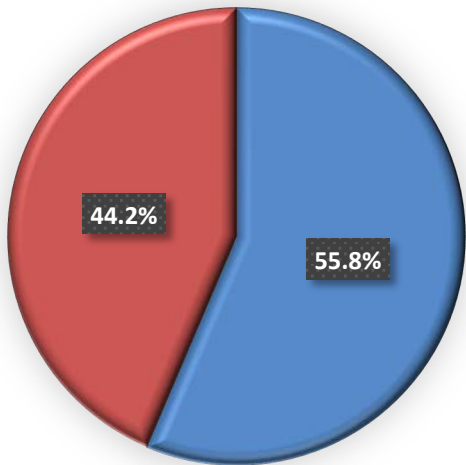
Jan-Mar 2019



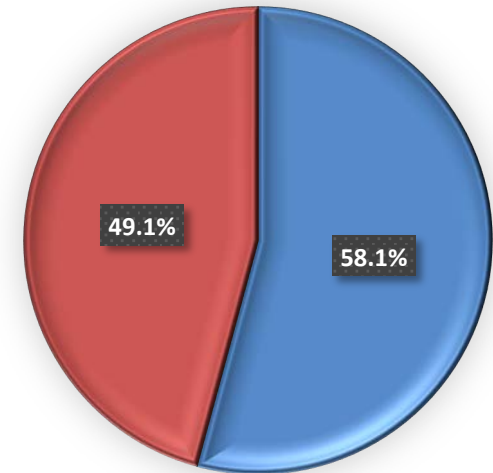
IVCs – By Release Status

- IVCs - percent not released
- IVCs - percent released

Jul-Sep 2018

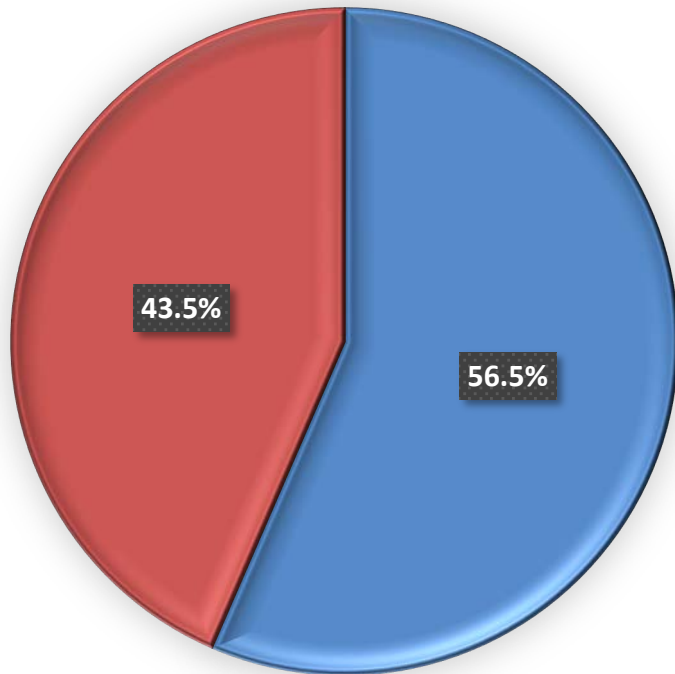


Oct-Dec 2018

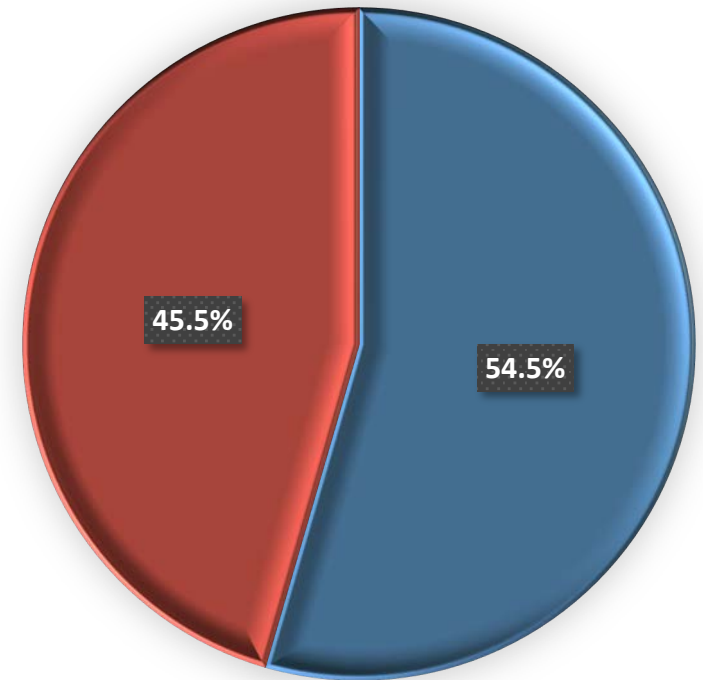


IVCs - By Release Status

April - June 2018



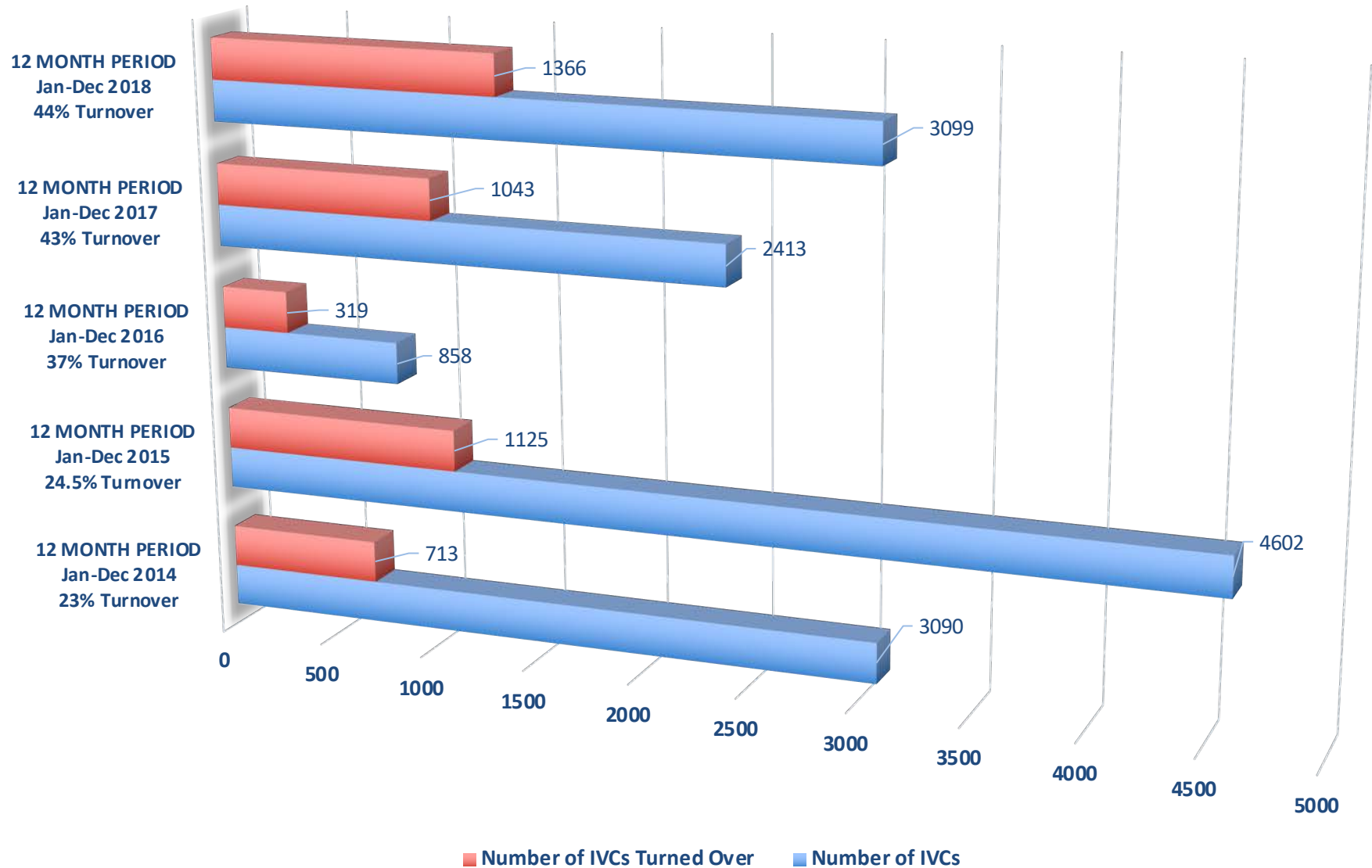
January - March 2018



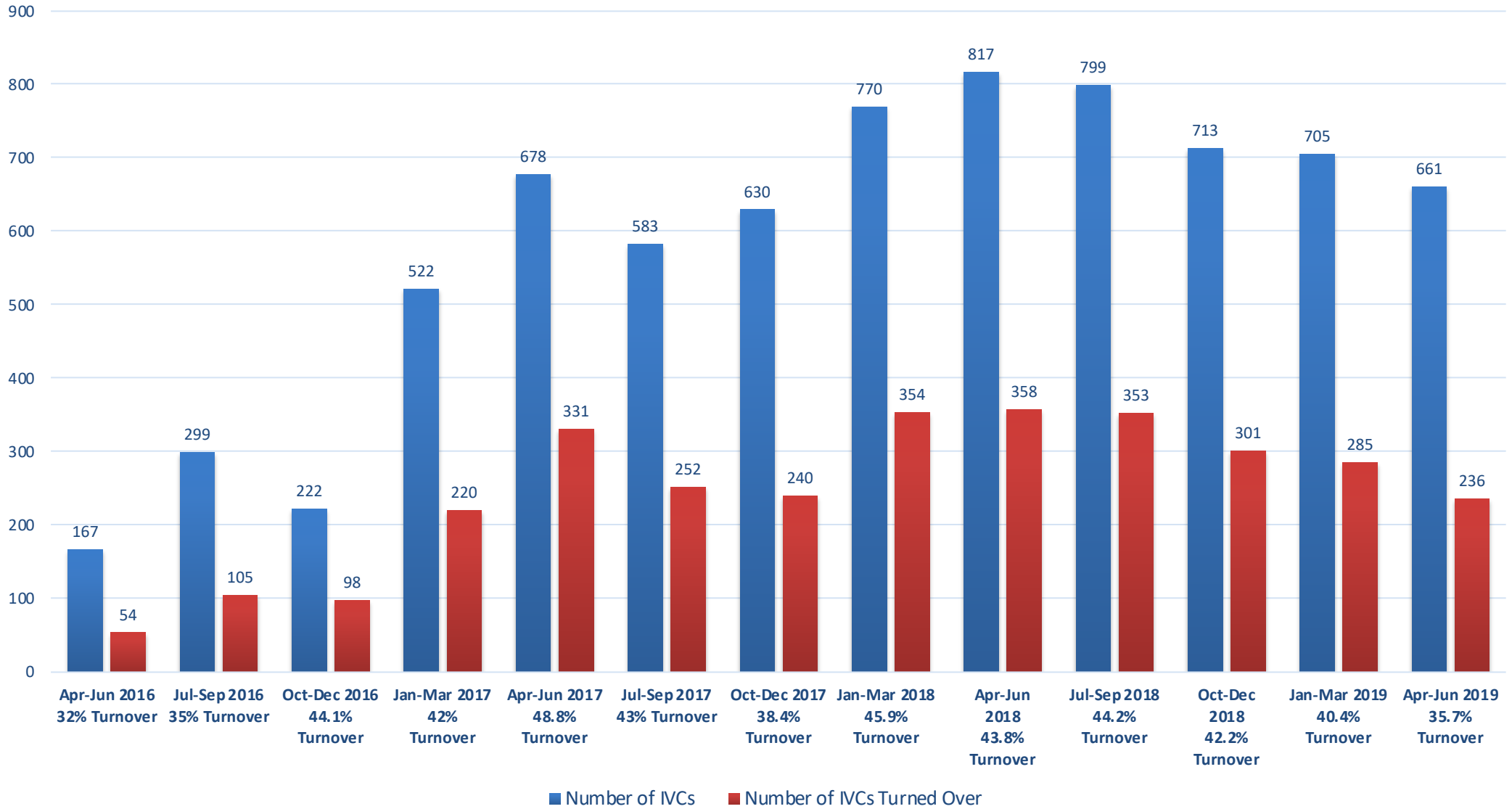
- IVCs - percent not released
- IVCs - percent released



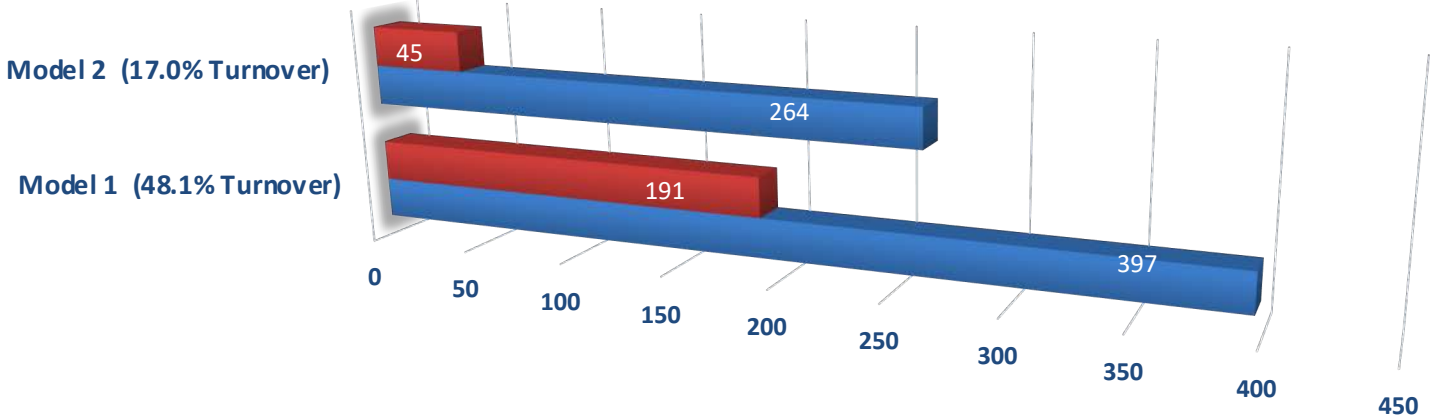
Number of IVCs and IVCs Turned Over by Year



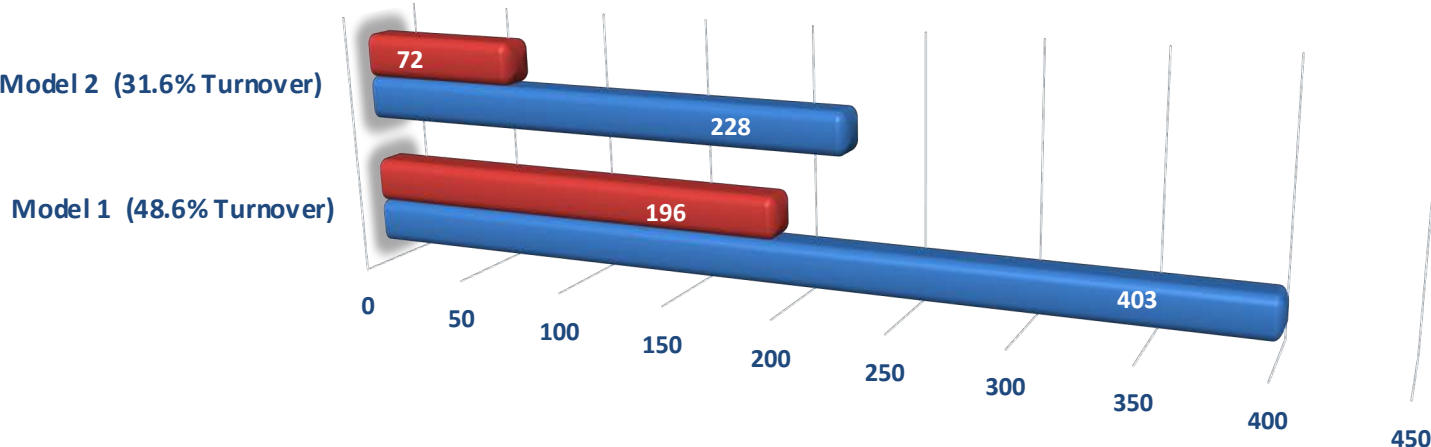
Number of IVCs and IVCs Turned Over by Quarter



Number of IVCs and IVC Turnovers by Model Apr-Jun 2019

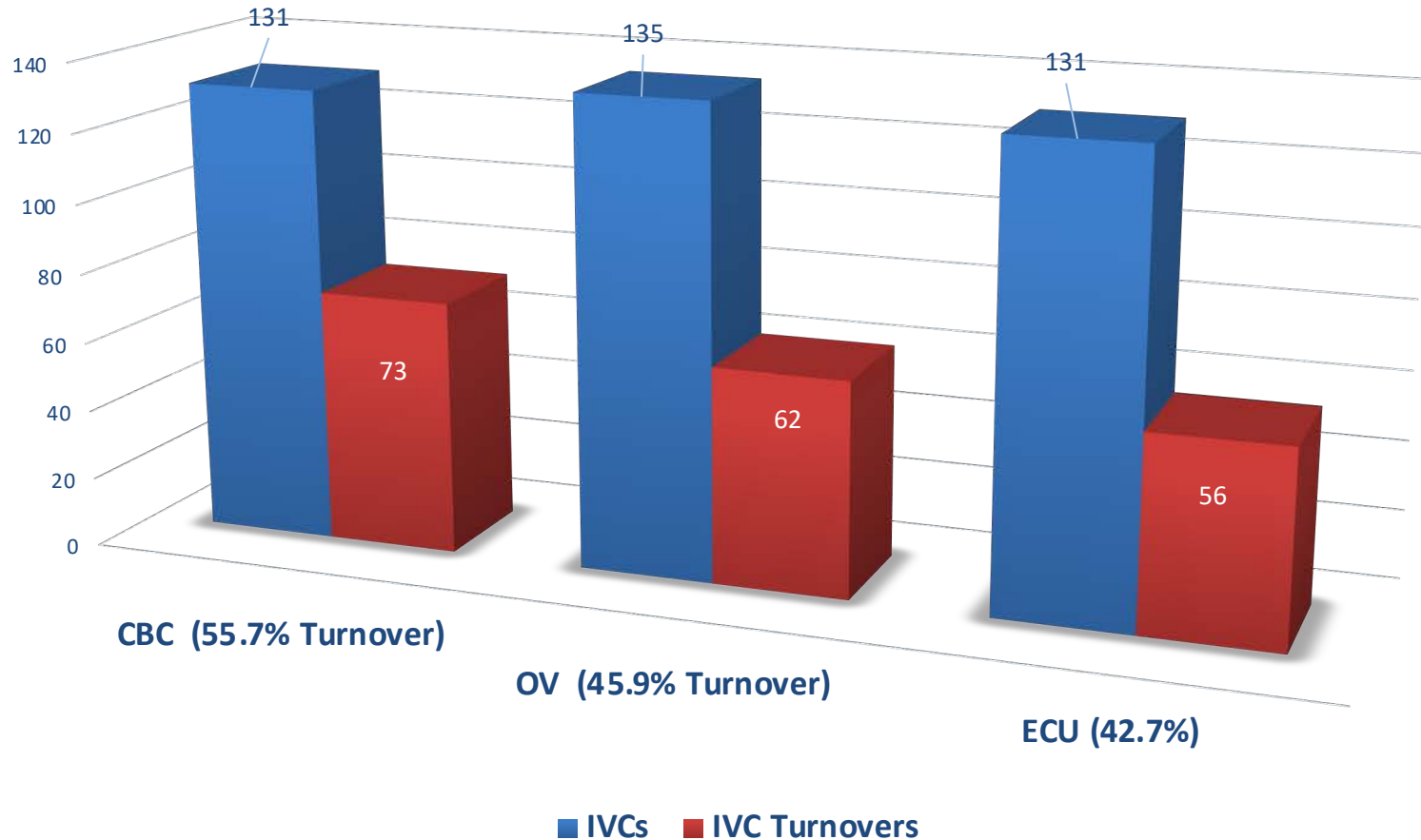


Jan-Mar 2019



■ IVC Turnovers ■ IVCs

Number of IVCs and IVC Turnovers by Provider Apr-Jun 2019



Satisfaction Surveys were not done this last quarter

- Satisfaction surveys are done twice a year.
- Most recent surveys were conducted in March 2019 with 9 groups.
- **The overall satisfaction rate was 81%.**



Satisfaction Surveys Methodology

Satisfaction surveys were conducted in March 2019 with 9 groups

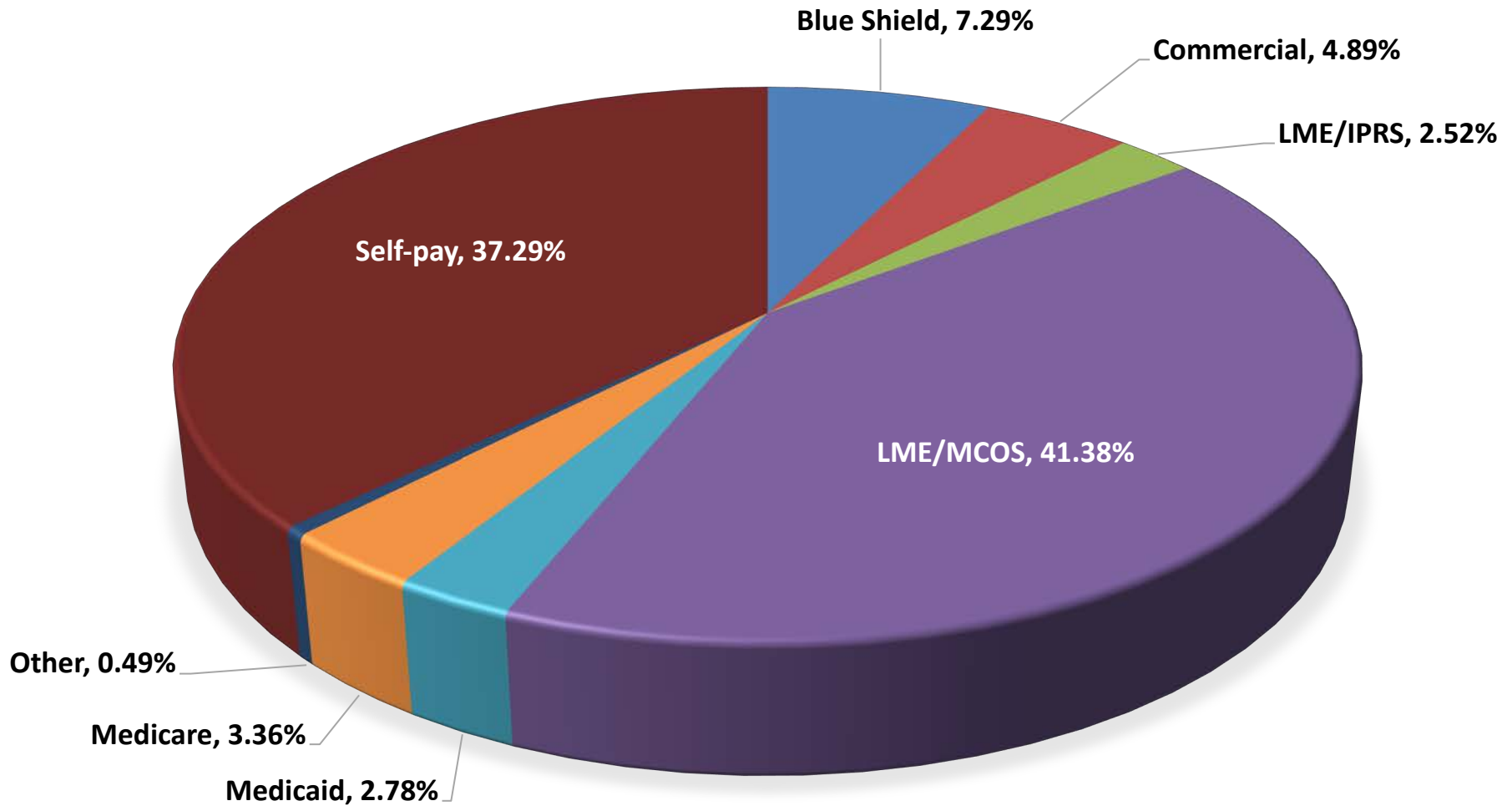
1. Model 1 Emergency Department Physicians
2. Model 1 Emergency Department Staff
3. Model 1 Provider Psychiatrists
4. Model 1 Psychiatric Intake Specialists
5. Model 1 Hospital CEOs
6. Model 2 Emergency Department Physicians
7. Model 2 Emergency Department Staff
8. Model 2 Provider Psychiatrists
9. Model 2 Hospital CEOs

Each group was given a different survey (with different questions) based on their role in the program.



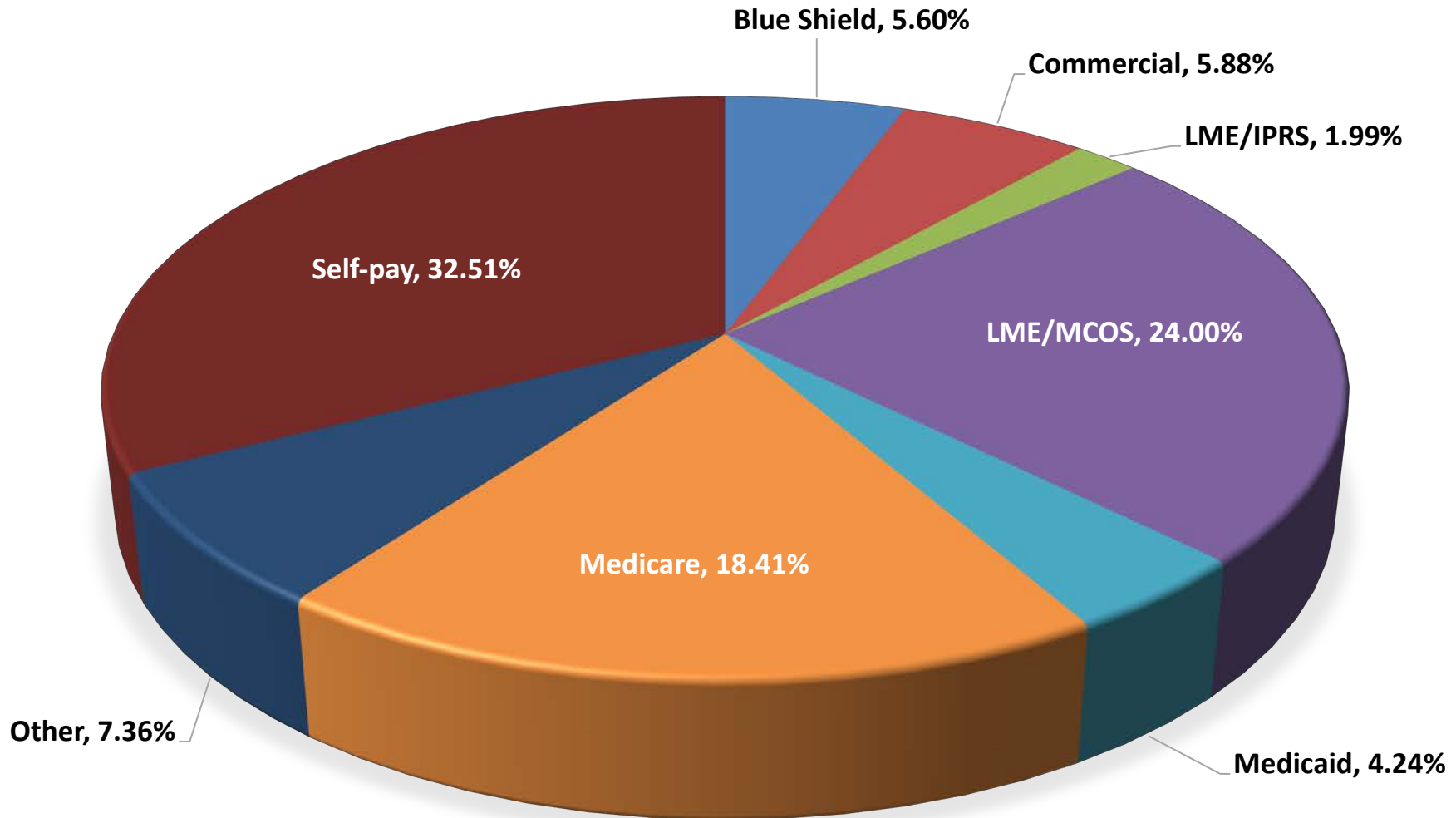
NC-SteP Charge Mix

QTD 2019 - Quarter 4



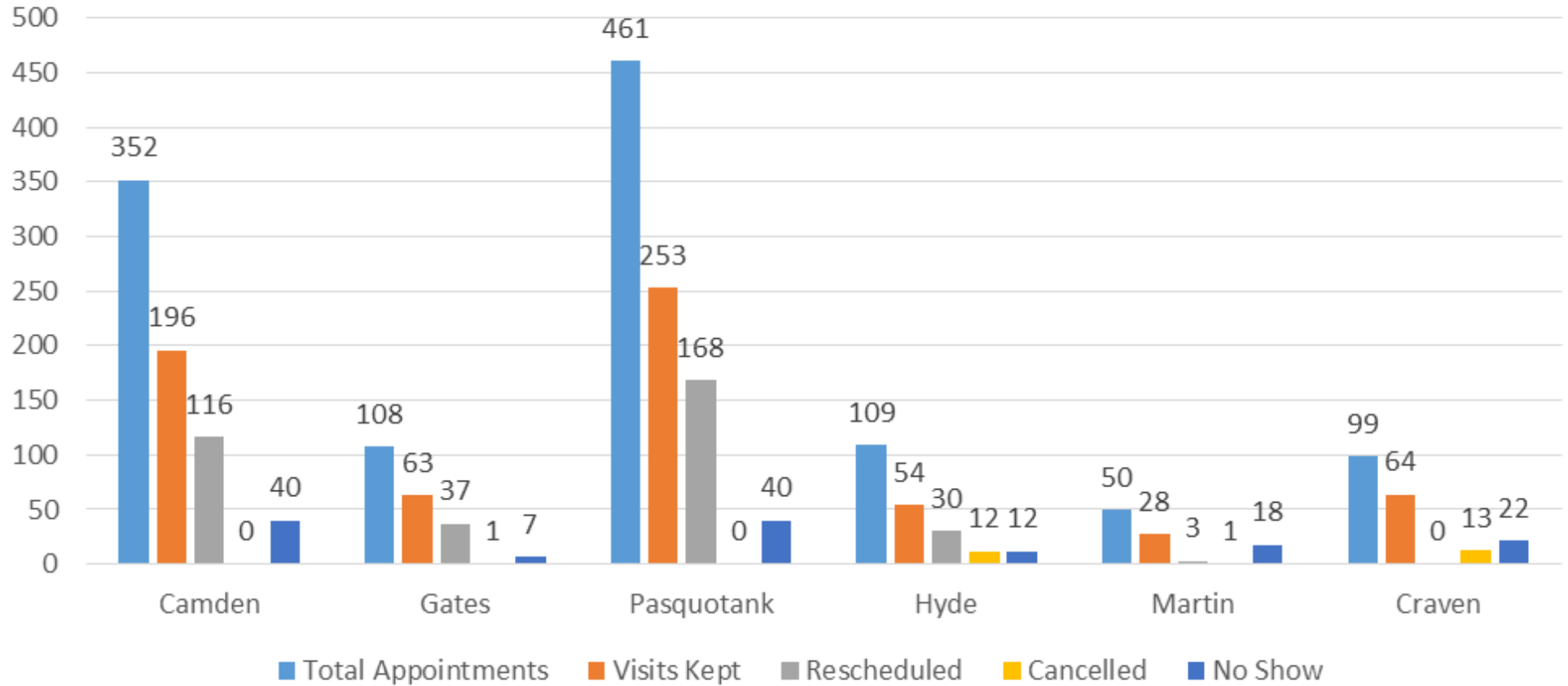
NC-STeP Charge Mix – Project to Date

Service Dates: October 1, 2013 – June 30, 2019



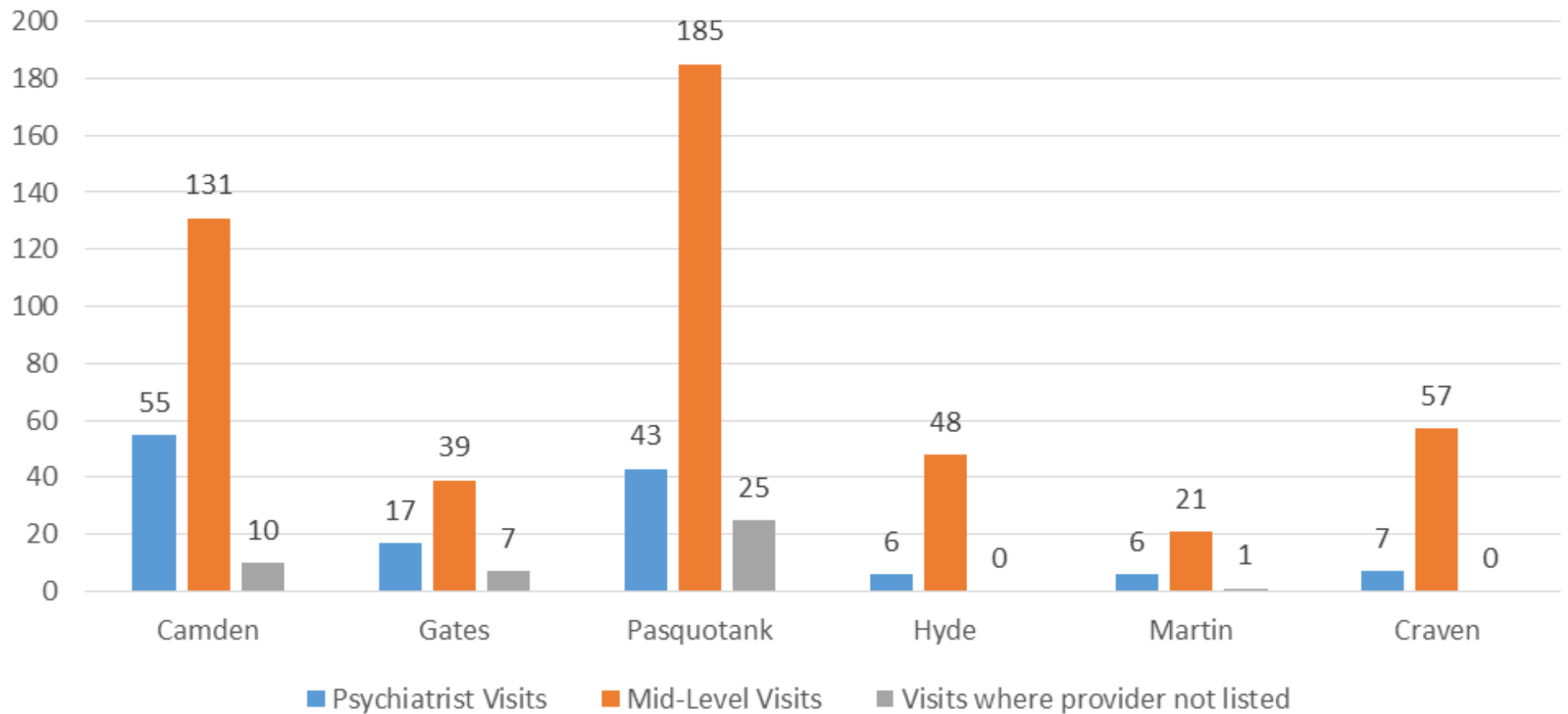
NC-STeP Community Appointments by Site

Appointments, Visits Kept, Rescheduled, Cancelled, No Show
April - June 2019



NC-STeP Community Visits by Site

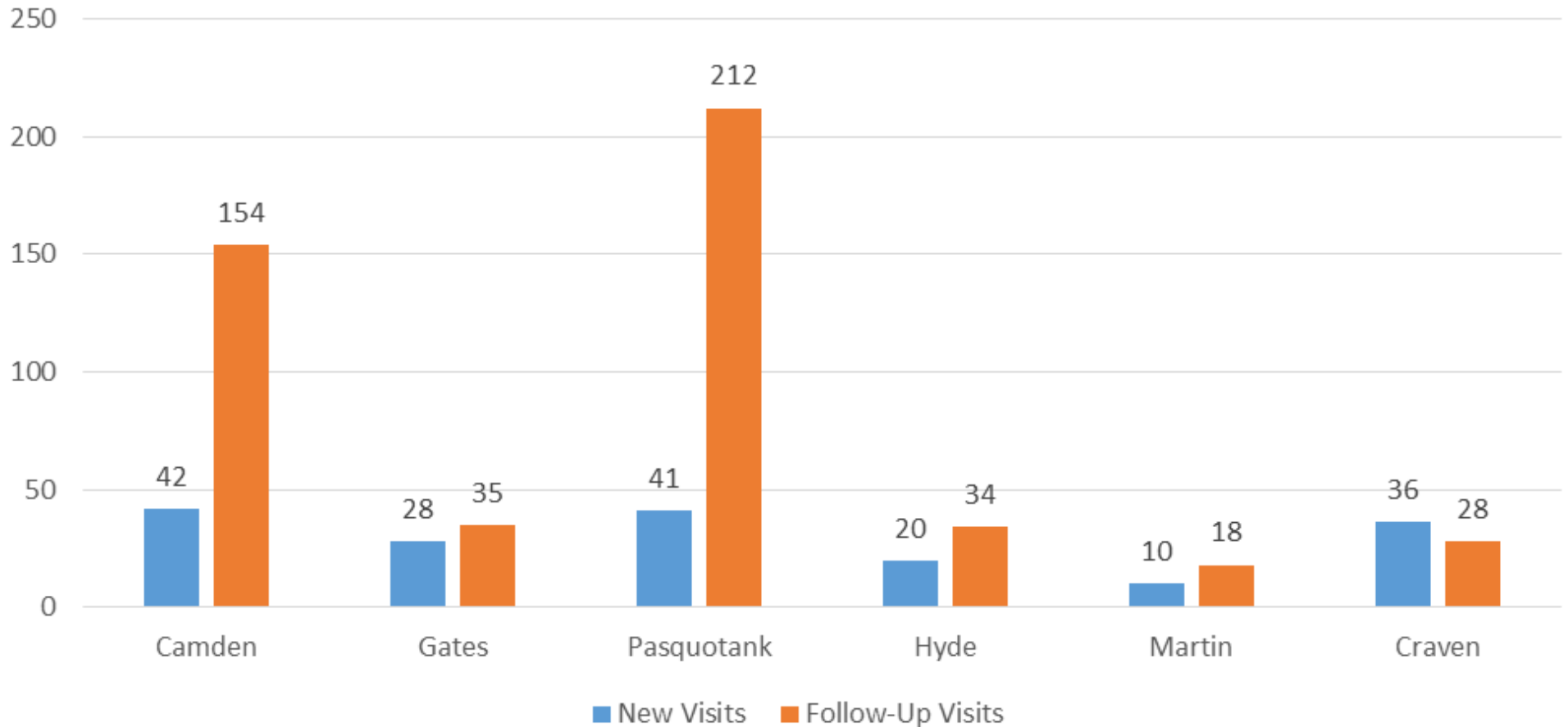
by provider type
April - June 2019



NC-STeP Community Visits by Site

New and Follow-up

April - June 2019



NC-STeP Status as of June 30, 2019

- 57 hospitals in the network. 53 live.
- 38,383 total psychiatry assessments since program inception
- 5,195 IVCs overturned
 - Cumulative return on investment = \$28,053,000
(savings from preventing unnecessary hospitalizations)
- Eight Clinical Provider Hubs with 54 consultant providers
- Administrative costs below industry standard
- Over 30% of the patients served had no insurance coverage

Hospital Status Report as of June 2019

Model 1 – Live



| 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 |
| 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 |
| Lake Norman Regional Medical Center | 10/17/2017 |
| Pender Memorial Hospital | 12/07/2017 |
| DLP Maria Parham Franklin | 2/1/2018 |

Hospital Status Report as of June 2019

Model 1 – In Process



| Hospital Name | | Portal Go Live |
|---------------------------|--|----------------|
| Park Ridge Health | | September 2019 |
| Harnett Hospital | | TBD |
| Betsy Johnson Hospital | | TBD |
| Iredell Memorial Hospital | | TBD |

Hospital Status Report as of June 2019

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 |
| Wayne Memorial Hospital | Reviewing Contract |

Hospital Status Report as of June 2019

Model 2



| 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 |
| 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 June 2019

Expressed Possible Interest



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

Hospital Status Report as of June 2019

Terminated



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

Hospital Status Report as of June 2019

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 |



East Carolina University
CENTER FOR TELEPSYCHIATRY



NC-STEP

Contact

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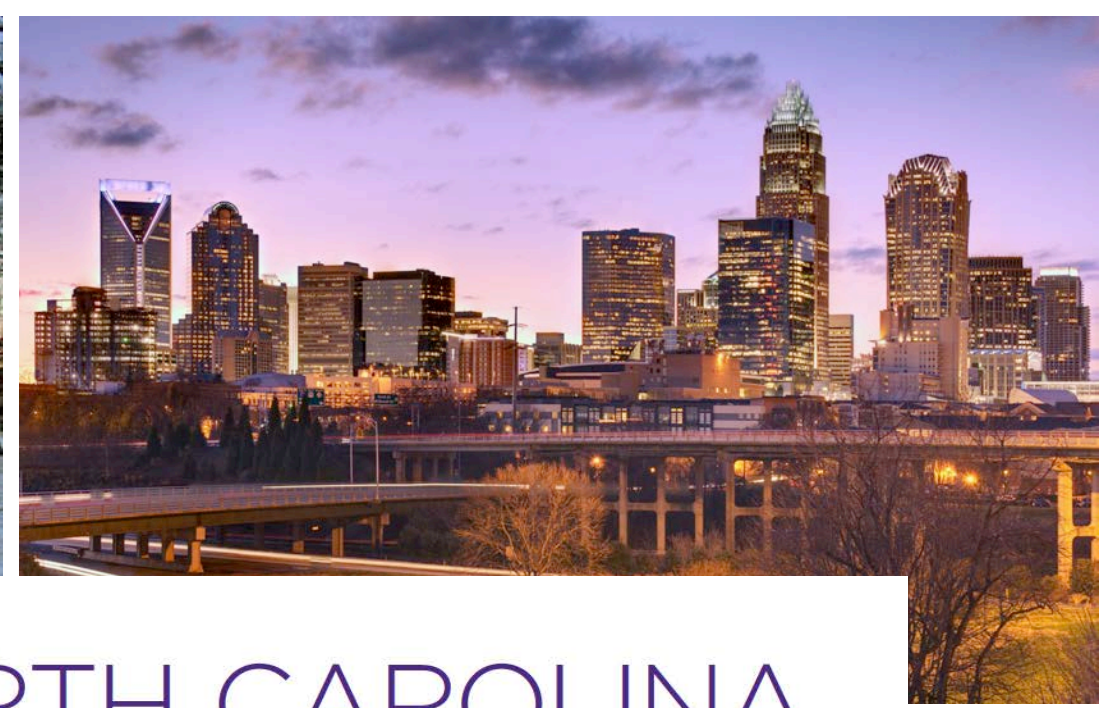
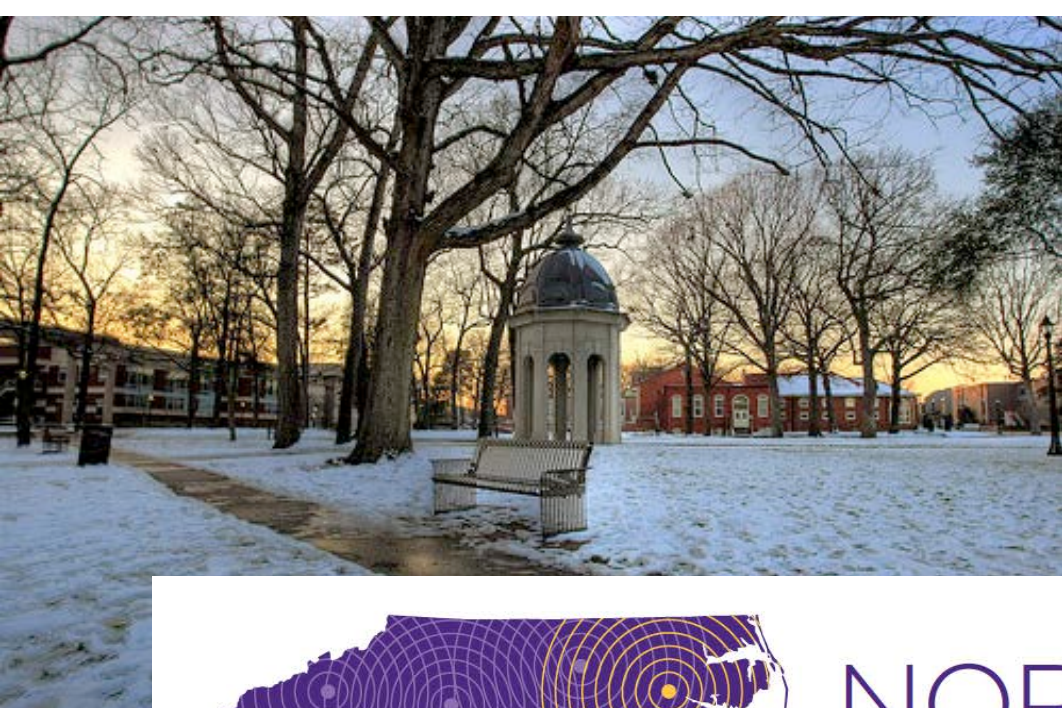
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NC-STeP

NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

