



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: July-September 2016

- 34 hospitals were live as of 9/30/16 with 23 hospitals reporting Telepsychiatry patients in their ED (several additional hospitals were live but did not have telepsychiatry patients).
- 267 patient assessments were billed for Model 1 hospitals during the report period.
- The Average Length of Stay for all ED patients who received telepsychiatry services was 64.2 hours.
 - 59.8 hours for those discharged to home.
 - 71.5 hours for those transferred to another facility
- The Median Length of Stay was 38.4 hours.



NC-STeP Quality Management and Outcomes Monitoring Processes: July-September 2016

- 223 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
 - 89 (39.9%) of those patients did not have an IVC in place when discharged.
- Of the ED patients who received telepsychiatry services, 46% were discharged to home. 49.2% were discharged to another facility.



	Since project inception in November 2013	During Calendar Year 2014	During Calendar Year 2015	During Quarter July - Sept 2016
Total Patient Encounters	14,392	5,144	7,132	414
Model 1 hospital patient Encounters	11,772	4,578	5,852	278
Model 2 hospital patient Encounters	2,600	566	1,280	136
Number of Assessments (assessment numbers are only reported for Model 1 hospitals)	21,158	8,438	12,294	267



NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
1. The number of full-time equivalent (FTE) positions supported by these contracts	1.9 FTEs	3.24 FTEs	3.24 FTEs
2. The number of overturned involuntary commitments	2,009	3,269	89 in this quarter Cumulative total since program inception 2,152
3. The number of participating consultant providers	37	40	38

NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
4. The number of telepsychiatry assessments conducted.	20,783	35,783	267 in this quarter Cumulative total since program inception 21,158
5. The number of telepsychiatry referring sites	58	67	56
6. The reports of involuntary commitments to enrolled hospitals	8,264	12,264	223 in this quarter Cumulative total since program inception 8,636

NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
7. The average (mean) Length of Stay for all patients with a primary mental health diagnosis across all dispositions.	45 hours	43 hours	64.2 Median = 38.4
8. The rate of "satisfied" or "strongly satisfied" among emergency department staff participating in NC-STeP.	63%	85%	59%

NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
9. The rate of "satisfied" or "strongly satisfied" among hospital CEOs/COOs participating in NC-STeP.	NA	85%	Response too low to report
10. To rate of "satisfied" or "strongly satisfied" among consulting (hub) providers participating in NC-STeP.	70%	85%	72%

NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
11. The rate of "satisfied" or "strongly satisfied" among emergency department physicians participating in the statewide telepsychiatry program.	89%	85%	90%
12. The ratio of overall revenues (billing, subscription fees), exclusive of grant funding, to program costs (exclusive of start-up costs).	0.97:1.00	>1.00:1.00	0.08:1:00

NC-STeP Status as of September 30, 2016

EVALUATION CRITERIA	BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2016	TARGET TO BE REACHED BY 06/30/2017	VALUES/MEASURES REACHED AS OF 9/30/2016
13. Reduction in the 30-day emergency department recidivism rates for mental health patients.	TBD	15%	Data not currently available.
14. Cumulative return on investment to state psychiatric facilities through overturned involuntary commitments.	\$10,848,600	\$17,652,600	Cumulative total since program inception \$11,620,800 \$480,600 in this quarter

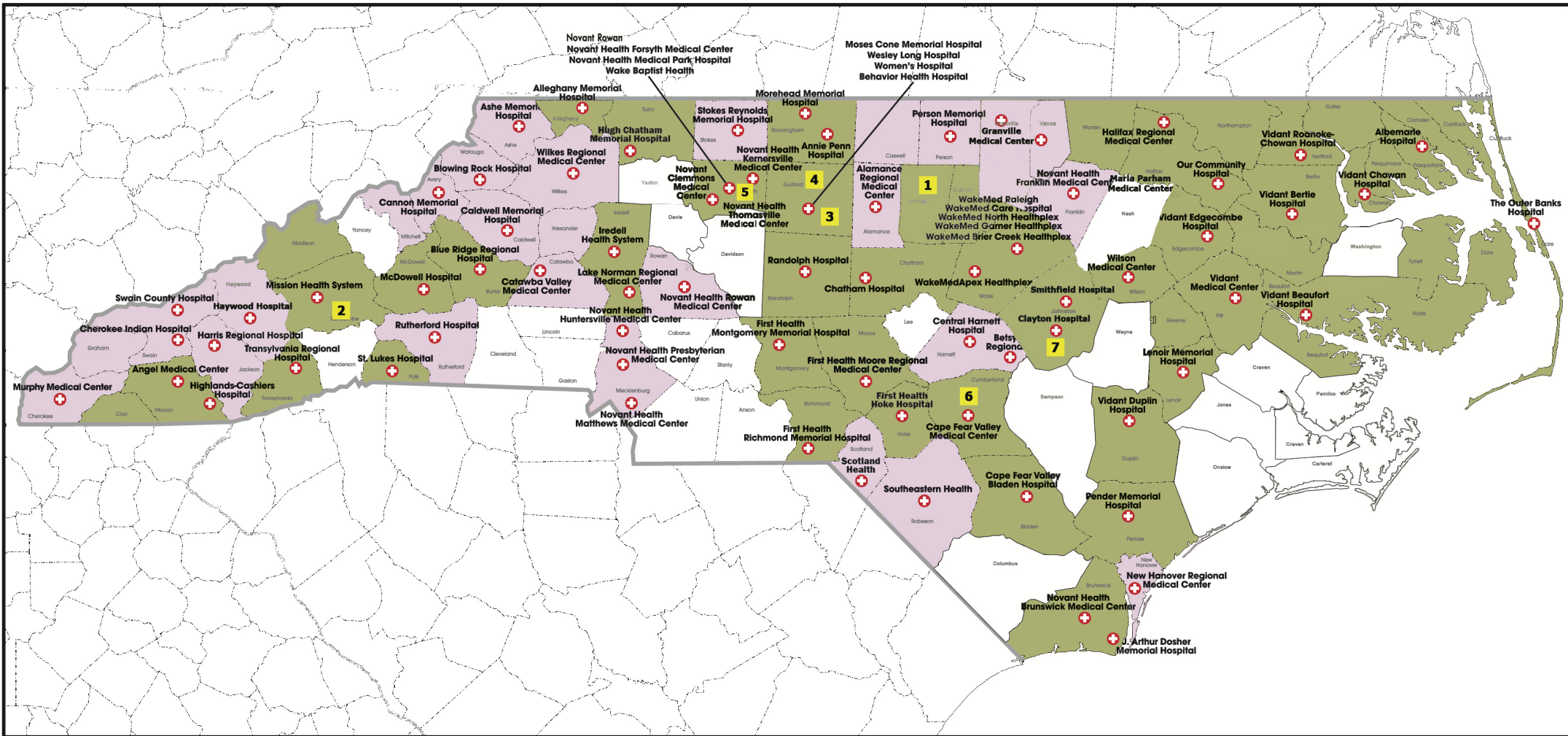
NC-STeP Status as of September 30, 2016

COMMENTS/EXPLANATIONS

Evaluation Criteria #12 – The Revenues to Cost Ratio is low due to Model 1 services starting via the NC-STeP Portal beginning in late August, 2016. Currently, the assessment/revenue volume is not high enough to offset the Provider Support and Pro Fee payments.



NC-STeP Status September 2016



Provider Hub

- 1. Carolina Behavioral Care**
- 2. Mission**
- 3. Cone Health**

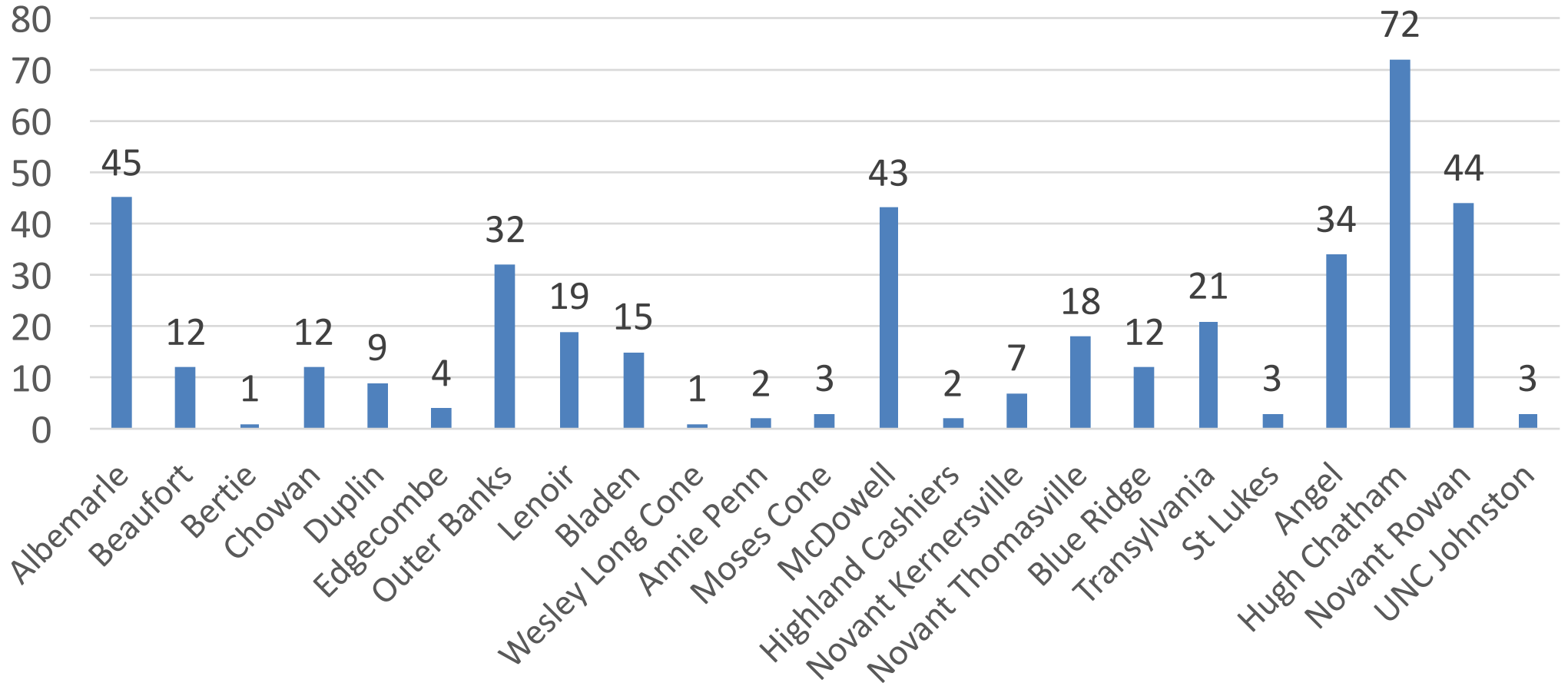
- 4. Old Vineyard**
- 5. Novant**
- 6. Cape Fear**

- 7. UNC Johnston**

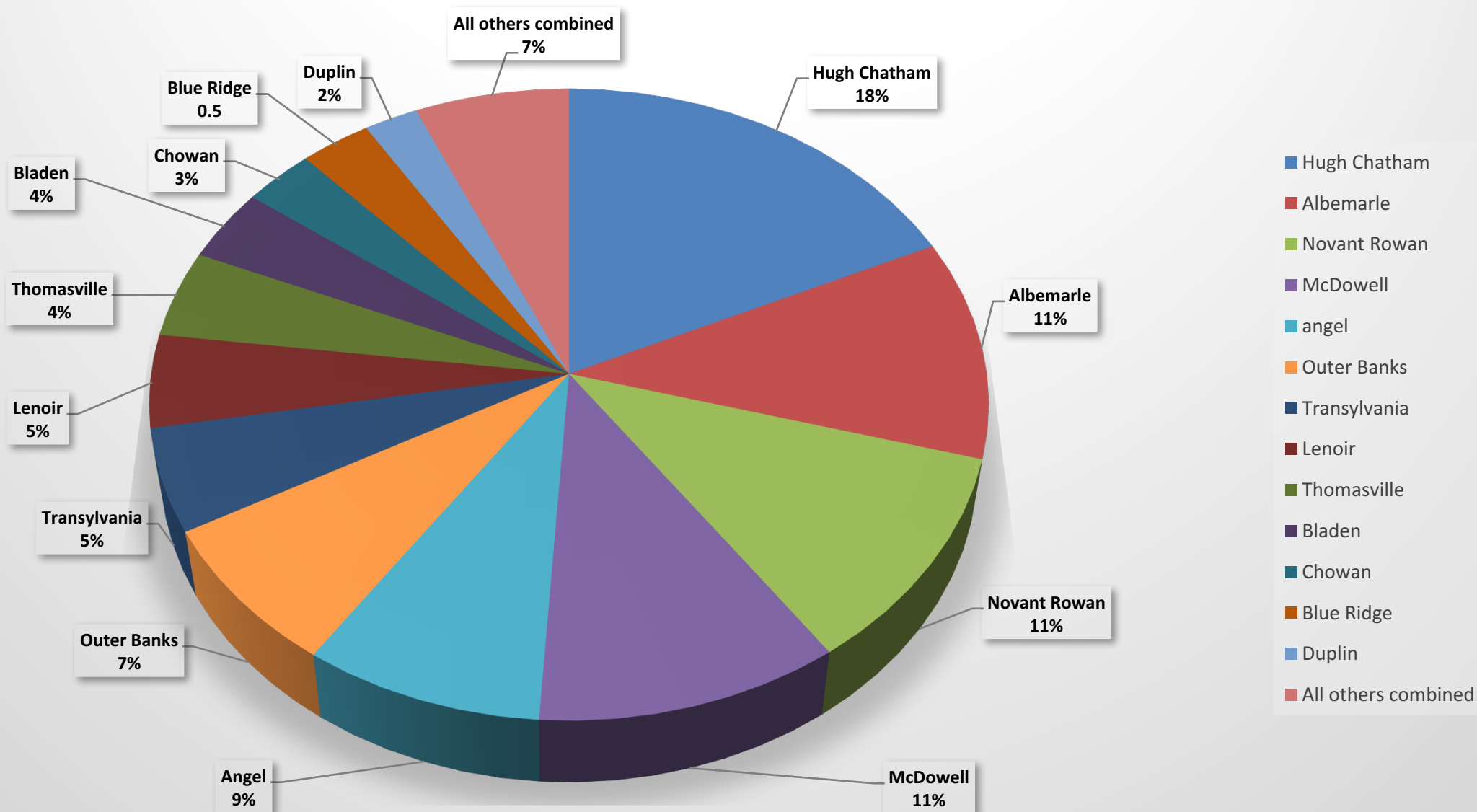


Number of ED Patients by Hospital

July - September 2016



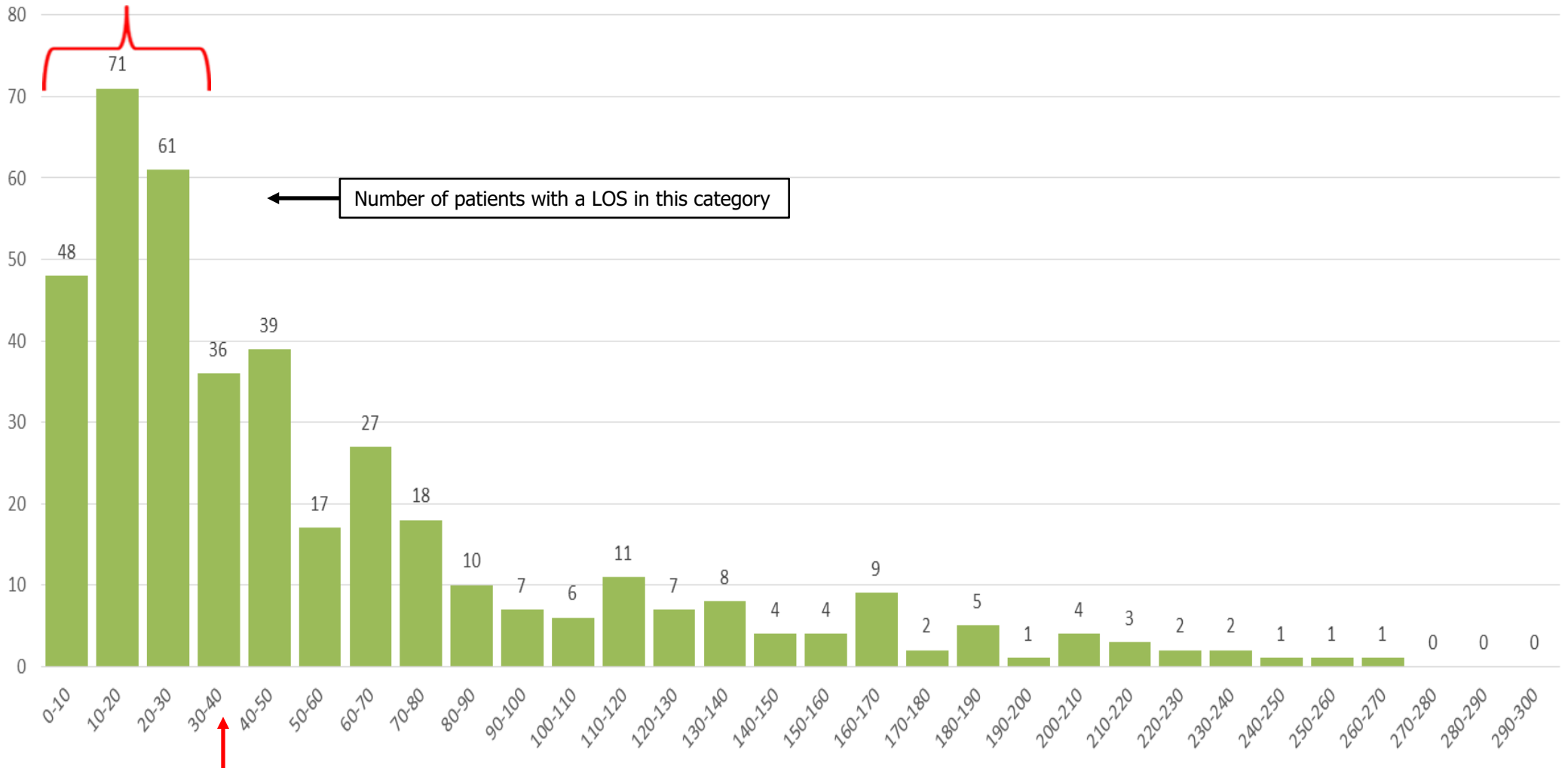
Percent of Use by Hospital July - September 2016 (based on number of patient encounters)



Length of Stay (in hours)

NC STeP July - September 2016 Number of Patients by LOS Category
(in hours)

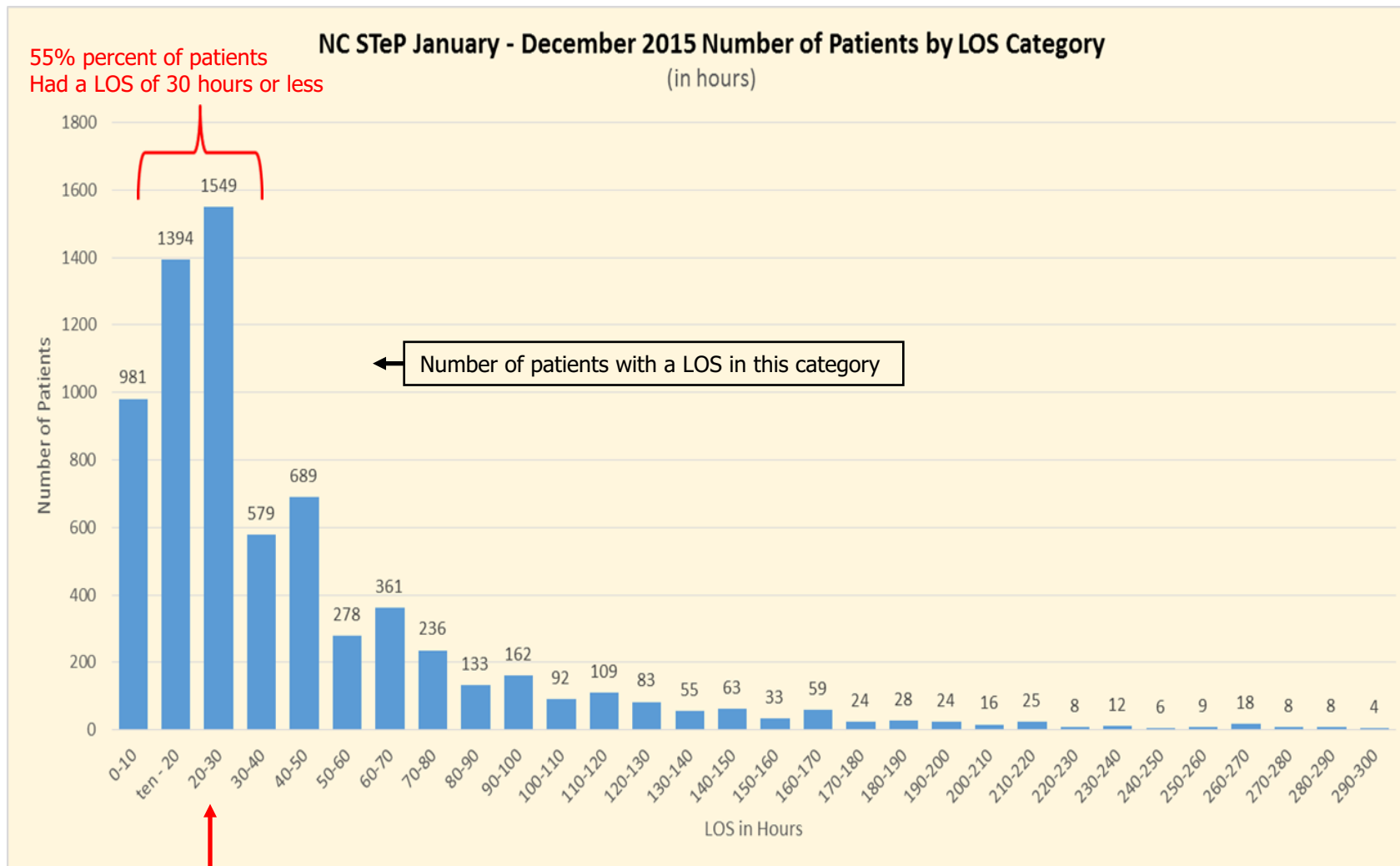
48% percent of patients
Had a LOS of 30 hours or less



Median Length of Stay for July 2016 – September 2016 = 38.4 Hours

9 patients had a LOS longer than 300 hours

Length of Stay (in hours): January- December 2015

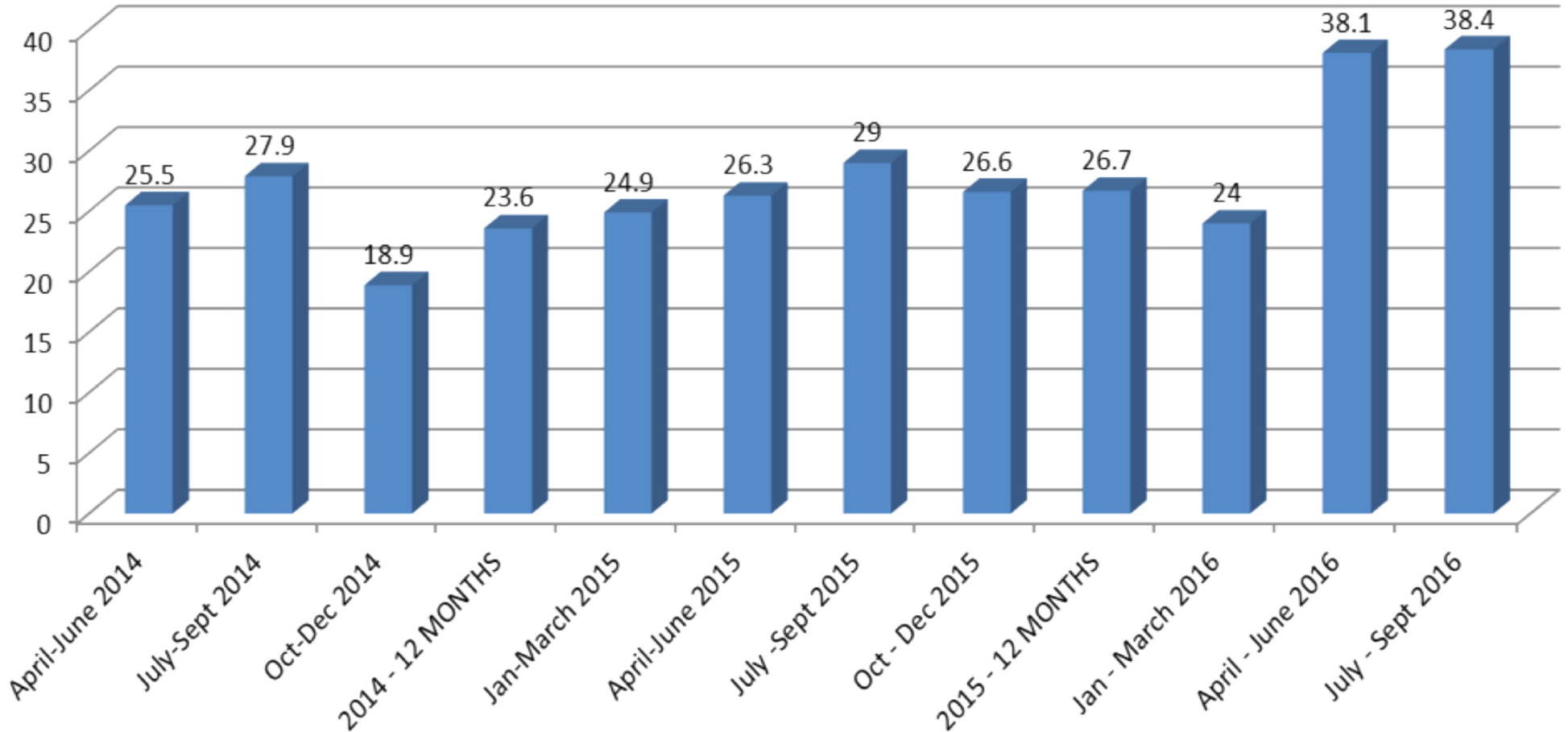


Median Length of Stay for January – December 2015 = 26.7 Hours

There were 90 patients (1.2%) with a length of stay longer than 300 hours.

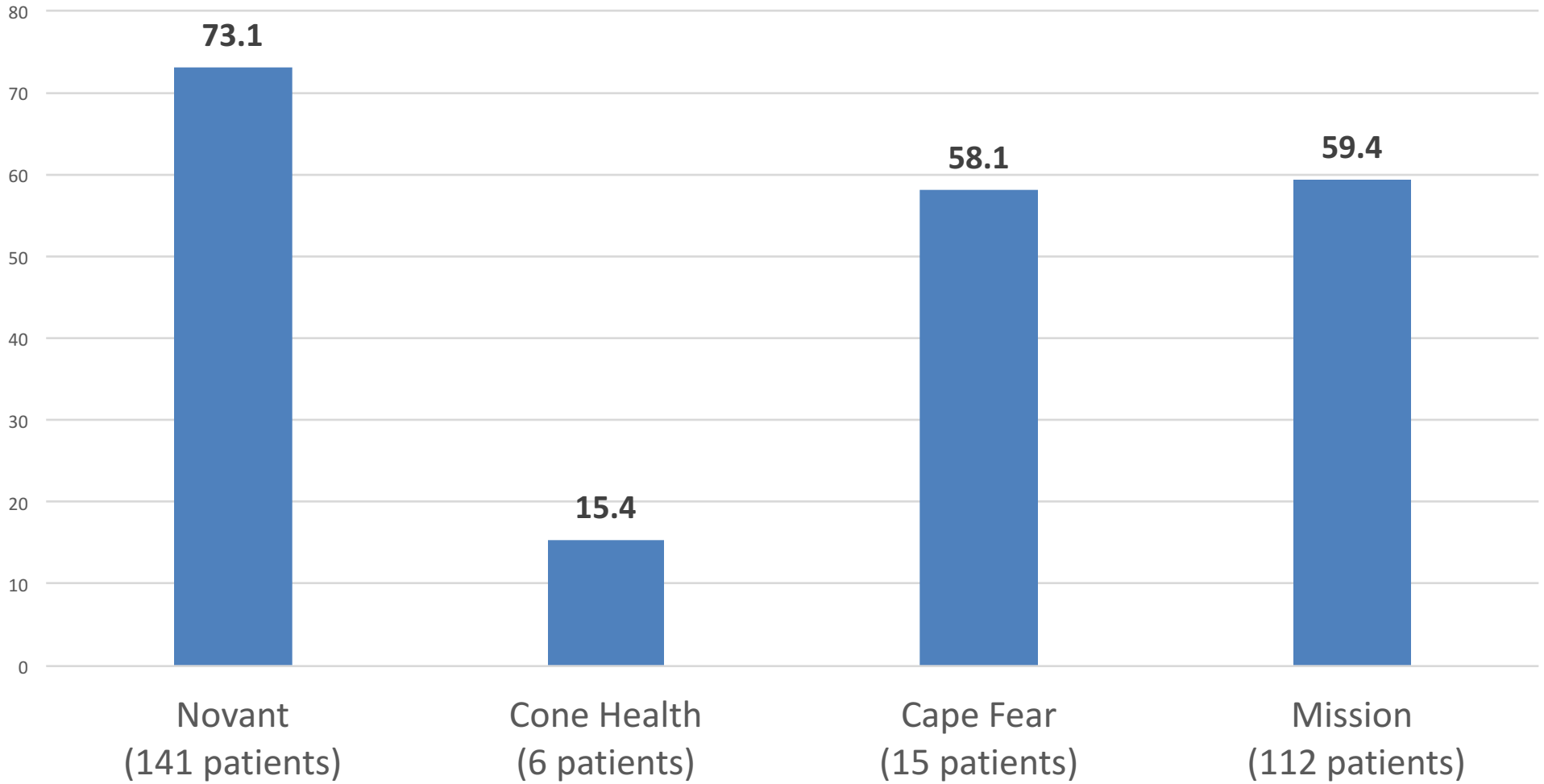


Median Length of Stay in Hours



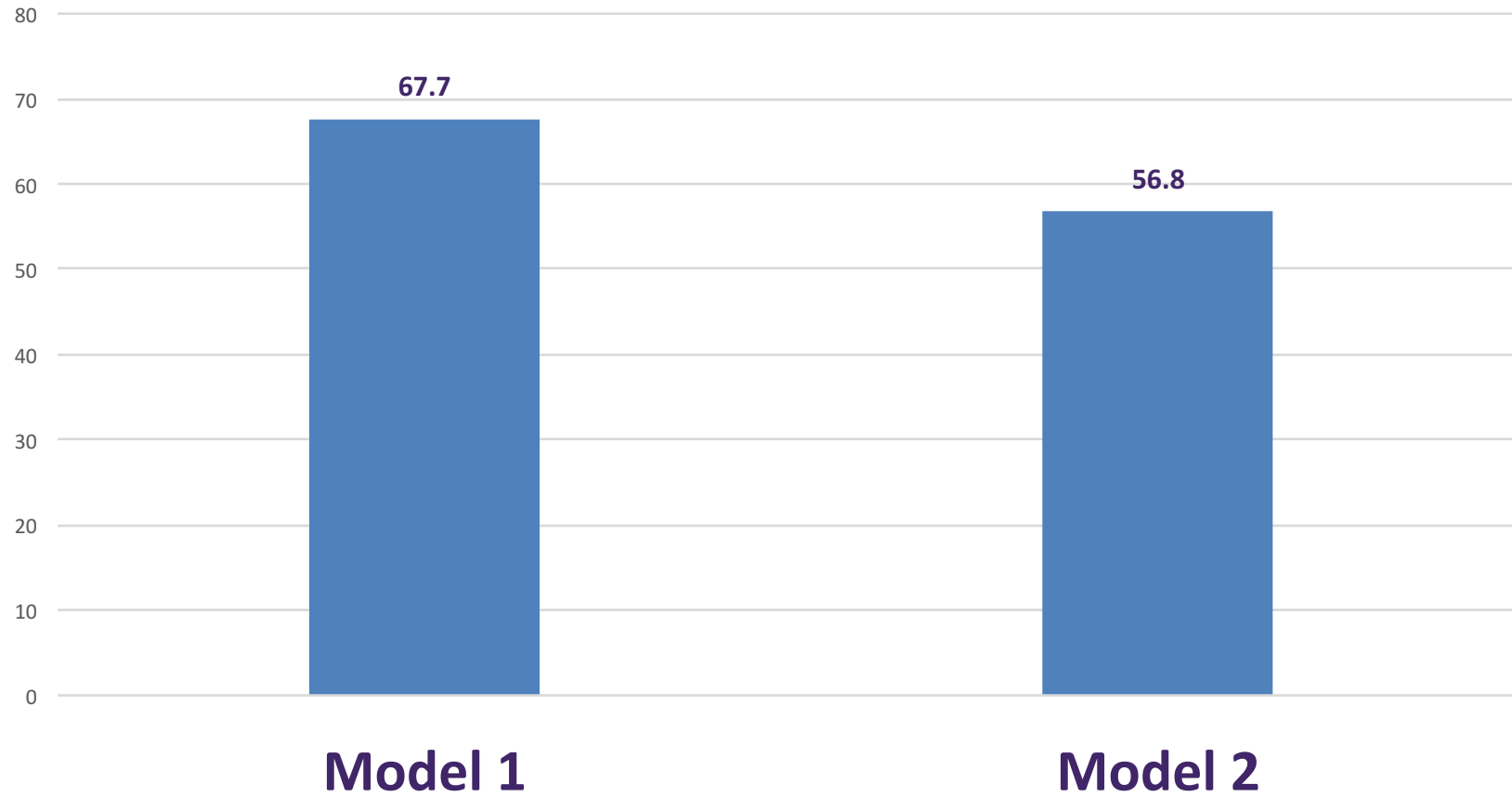
Average Length of Stay by Provider

July-September 2016
(in hours)

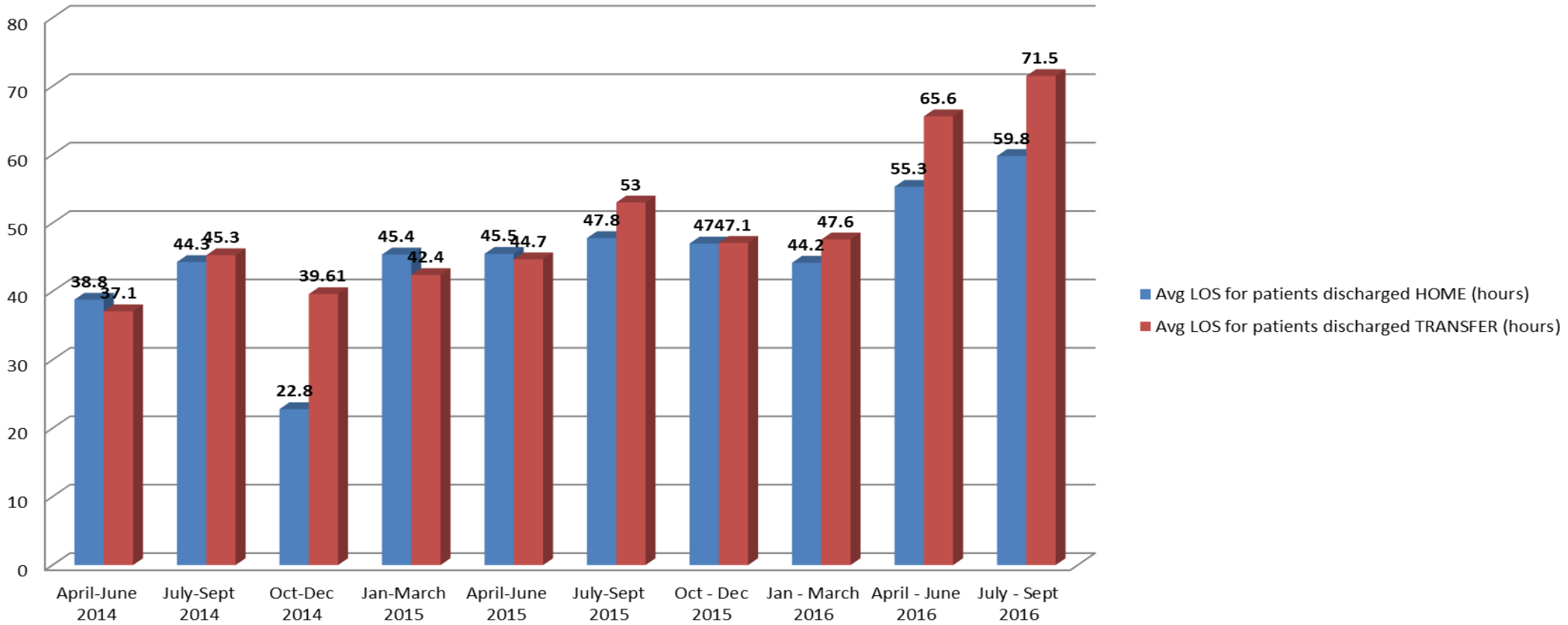


Average LOS in hours by Model

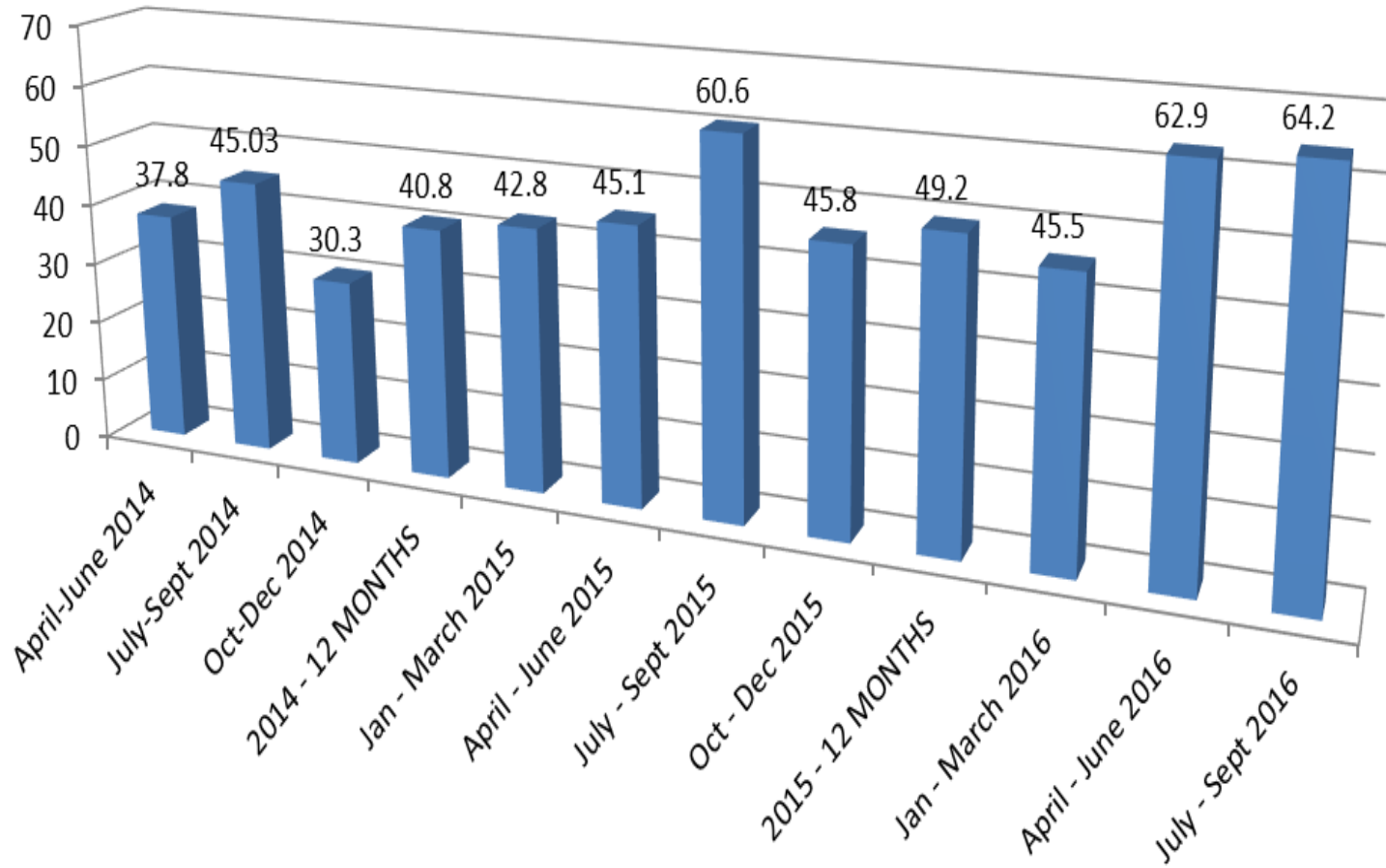
July-Sept 2016



Average Length of Stay for Patients Discharged to Home or Transfer

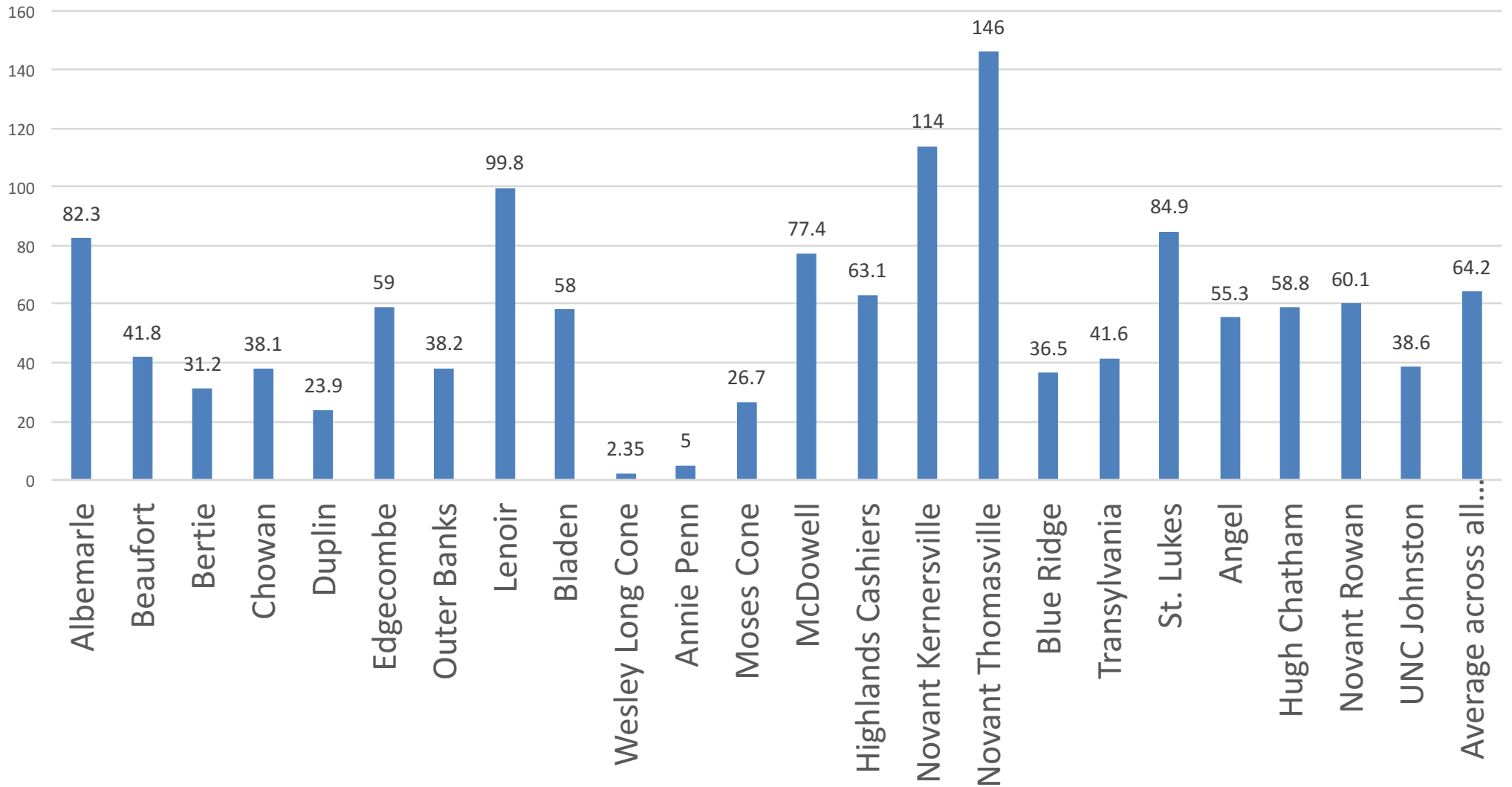


Average Length of Stay for Hospitals Participating in NC STeP

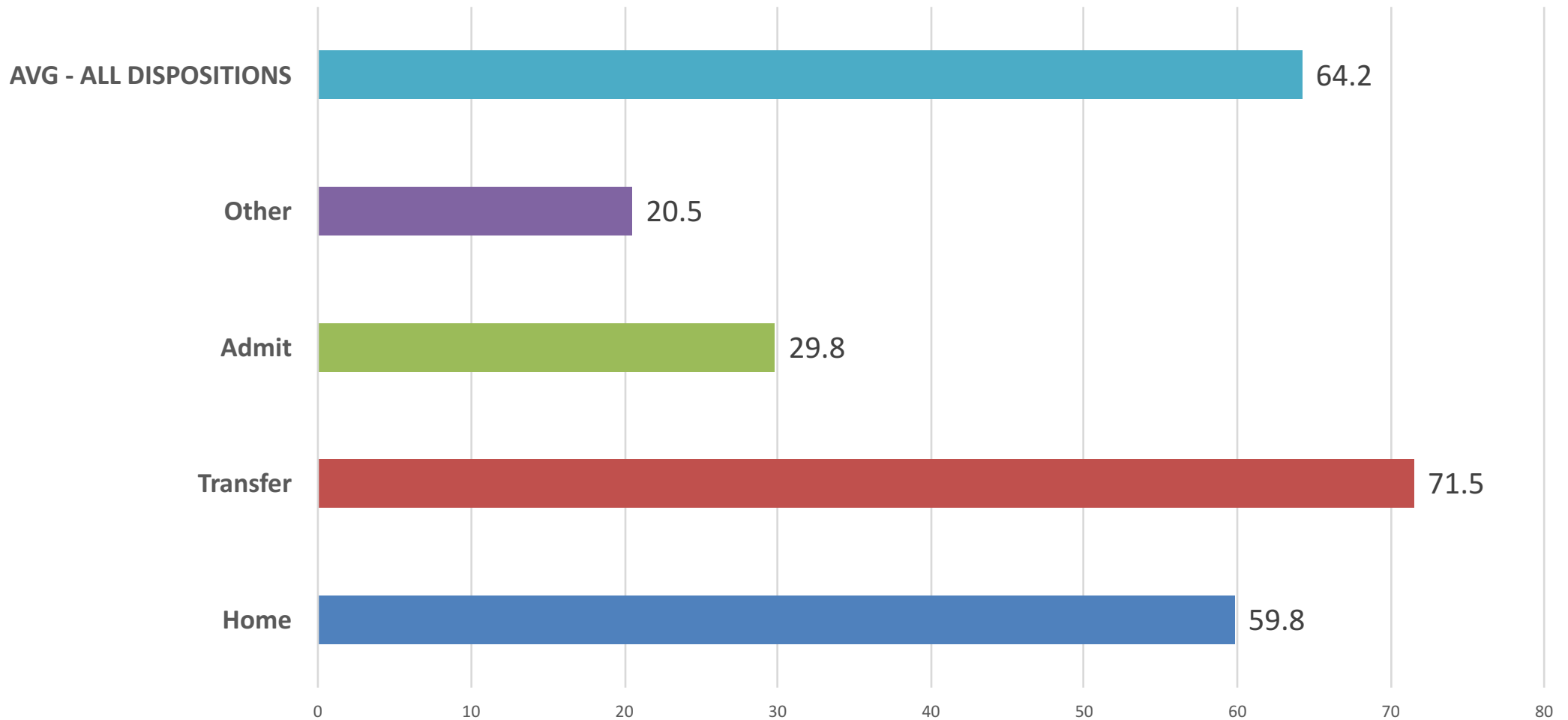


Average Length of Stay (in Hours) by Hospital

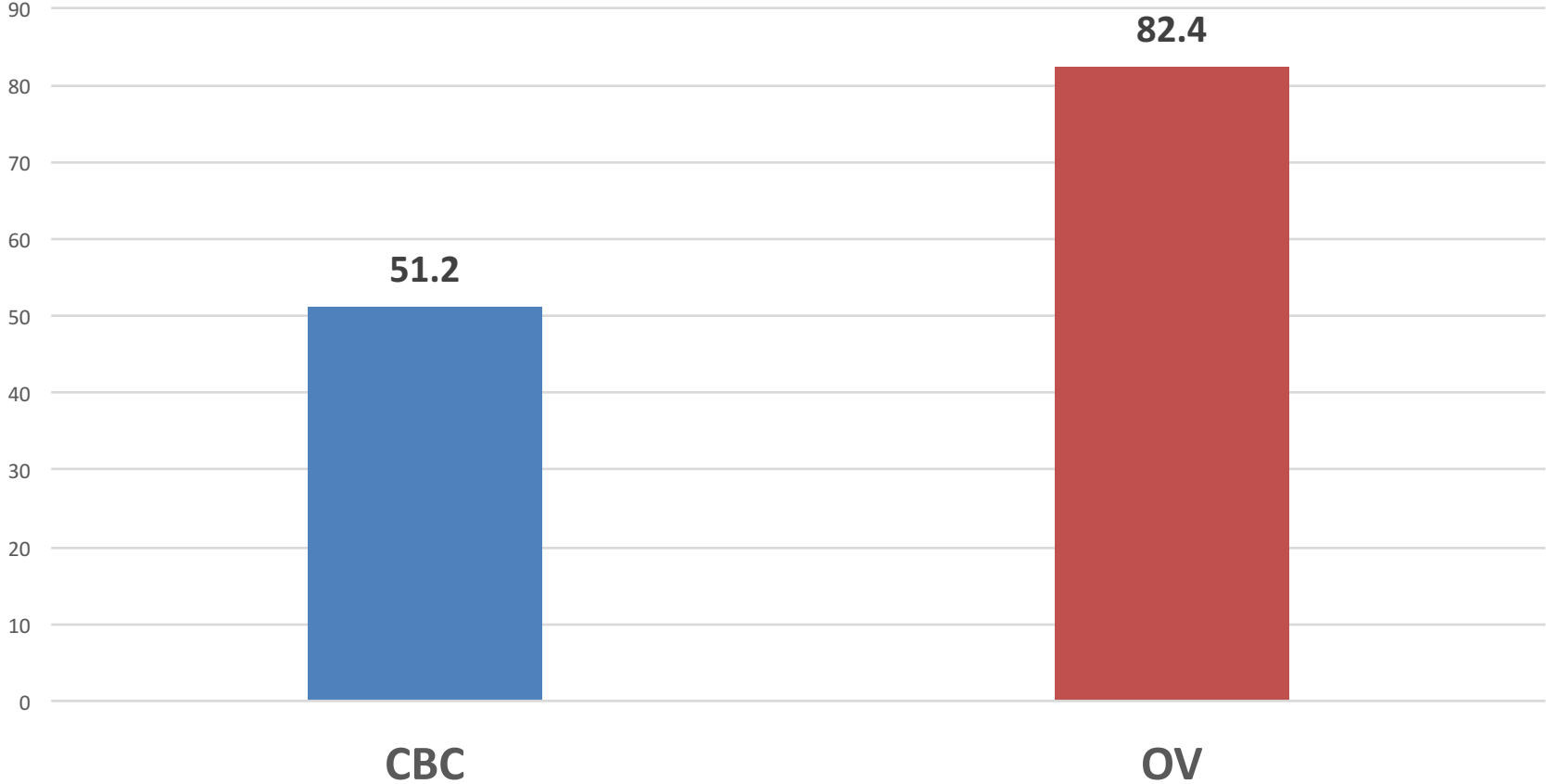
July - September 2016



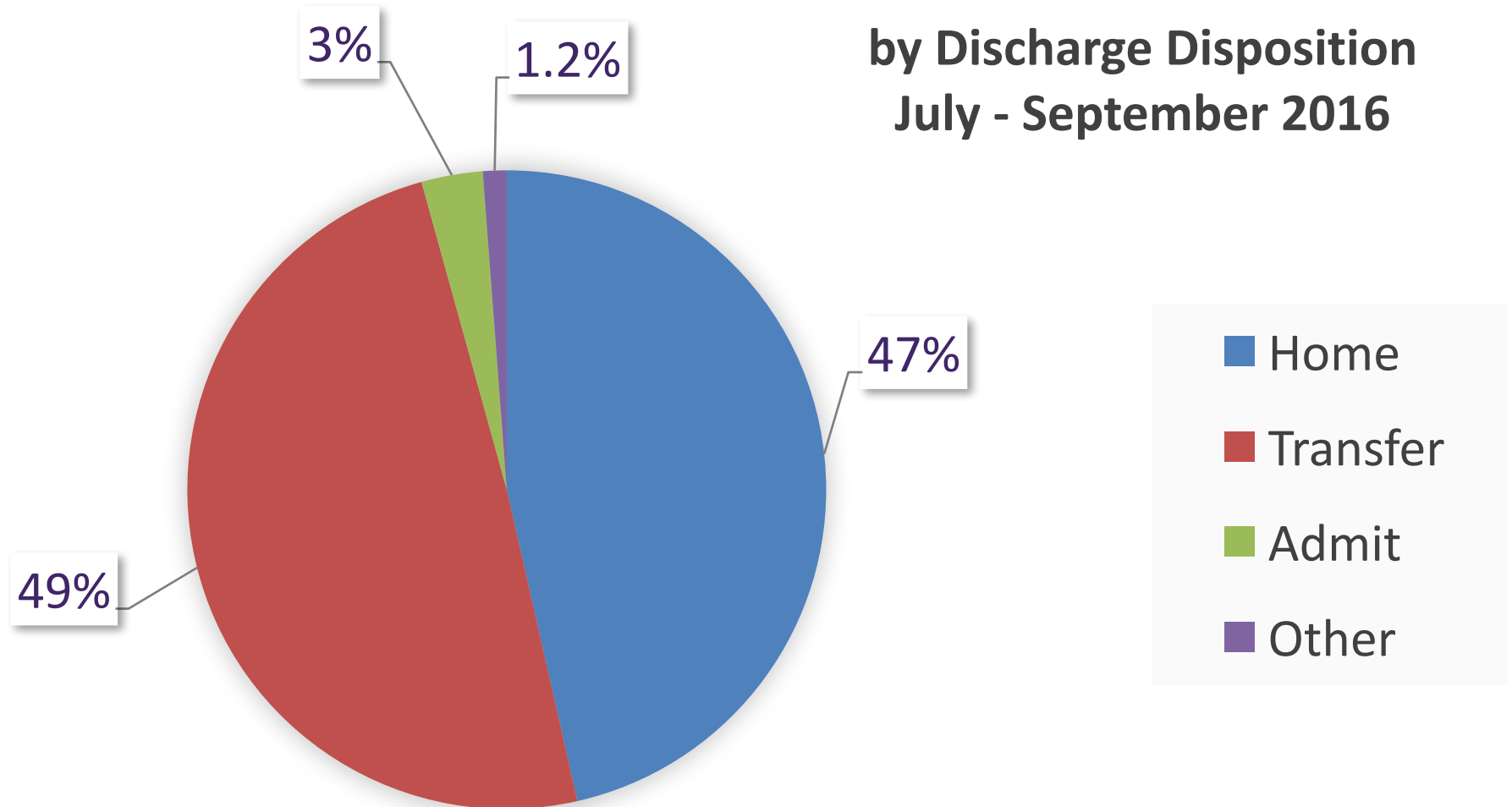
Average LOS by Disposition for ED Telepsychiatry Patients (in hours) July - September 2016



Average LOS in hours by Provider for July - Sept 2016

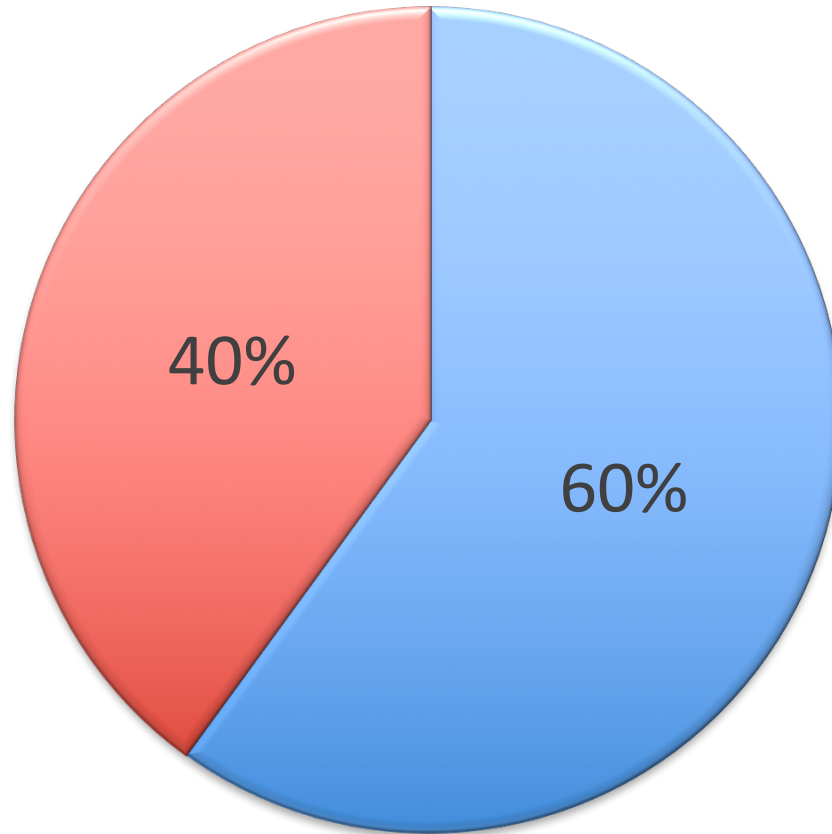


Percent of Patients by Discharge Disposition July - September 2016



IVCs - By Release Status

July - September 2016

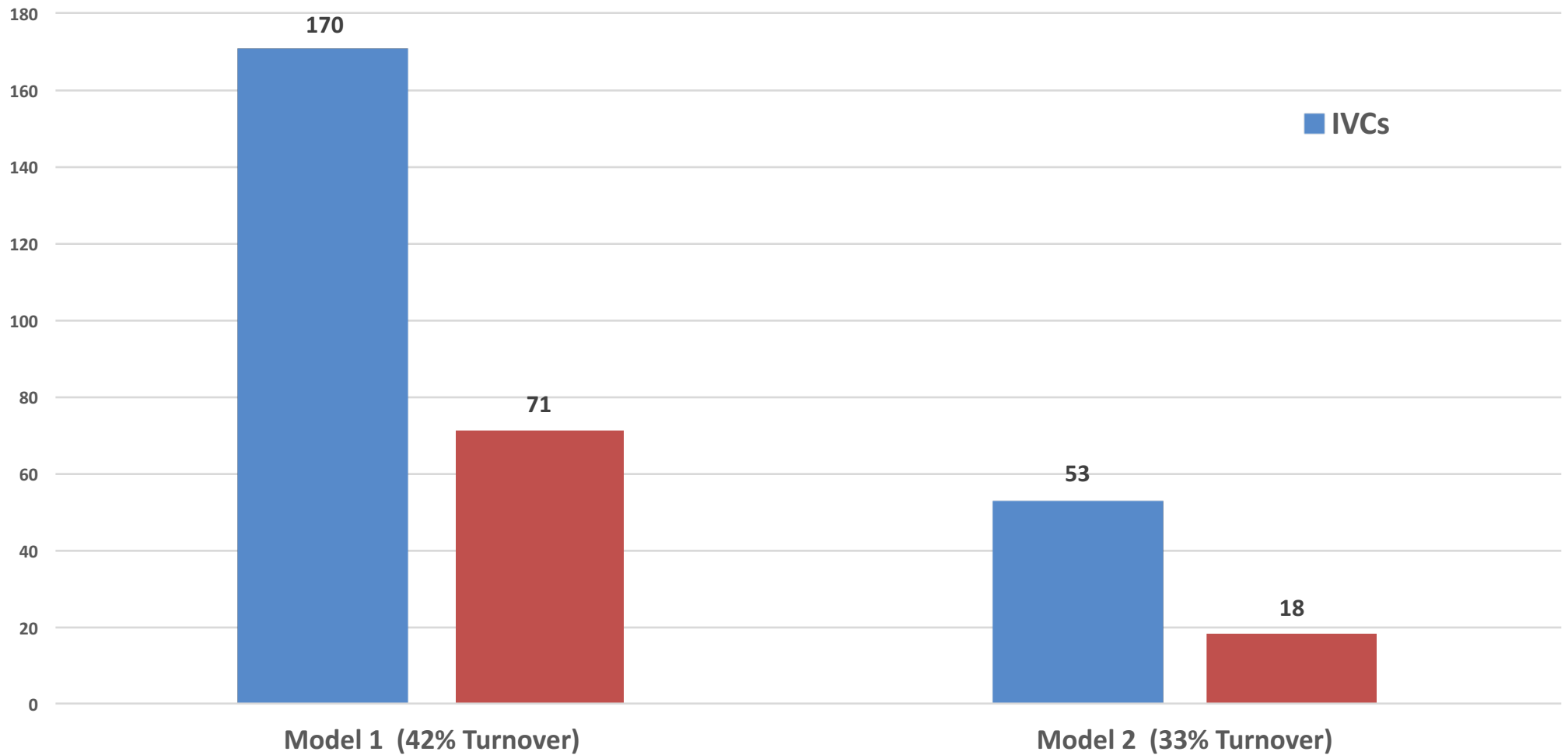


■ IVCs - percent not released

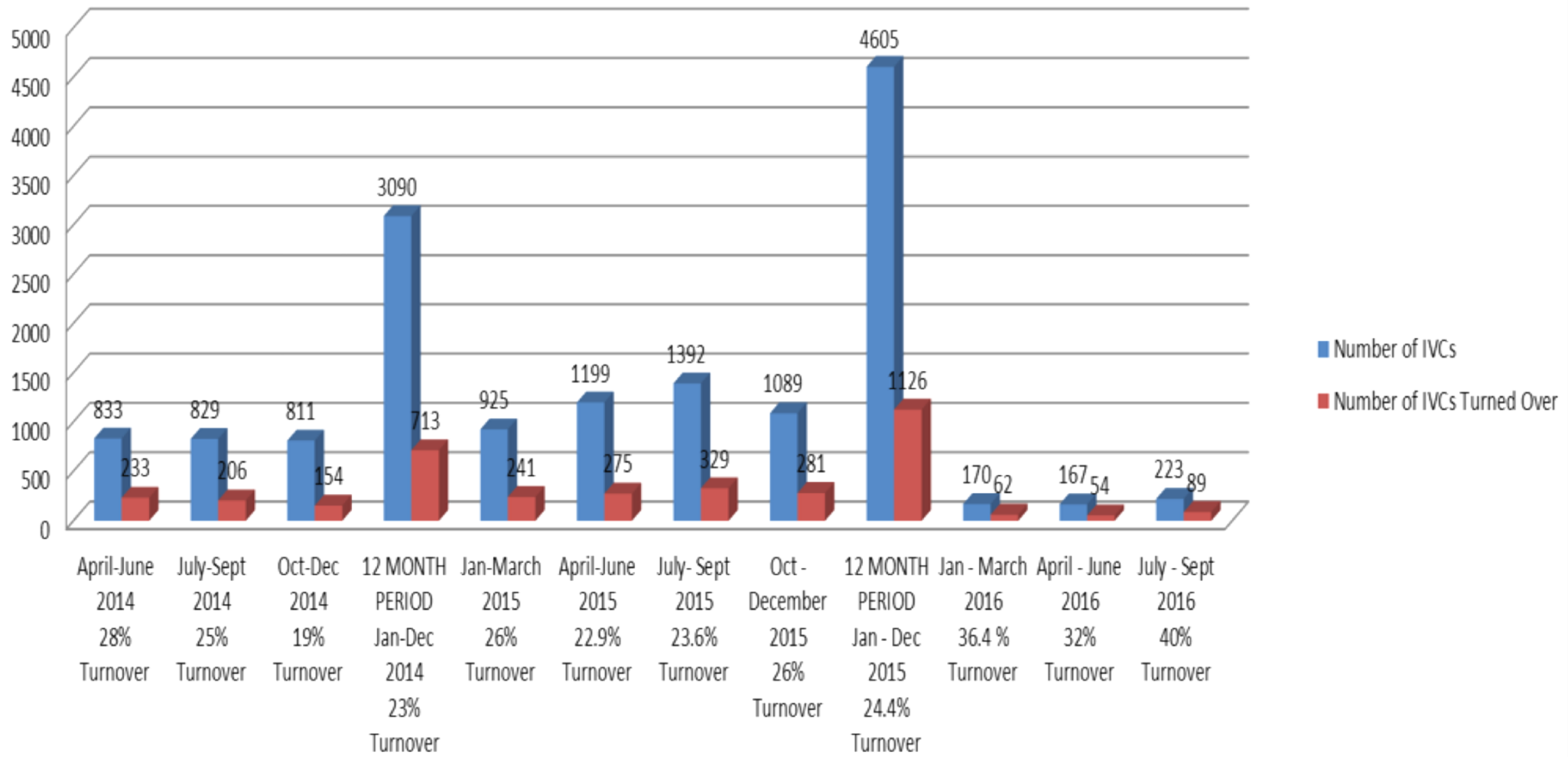
■ IVCs - percent released



Number of IVCs and IVC Turnovers during the quarter for Model 1 and Model 2

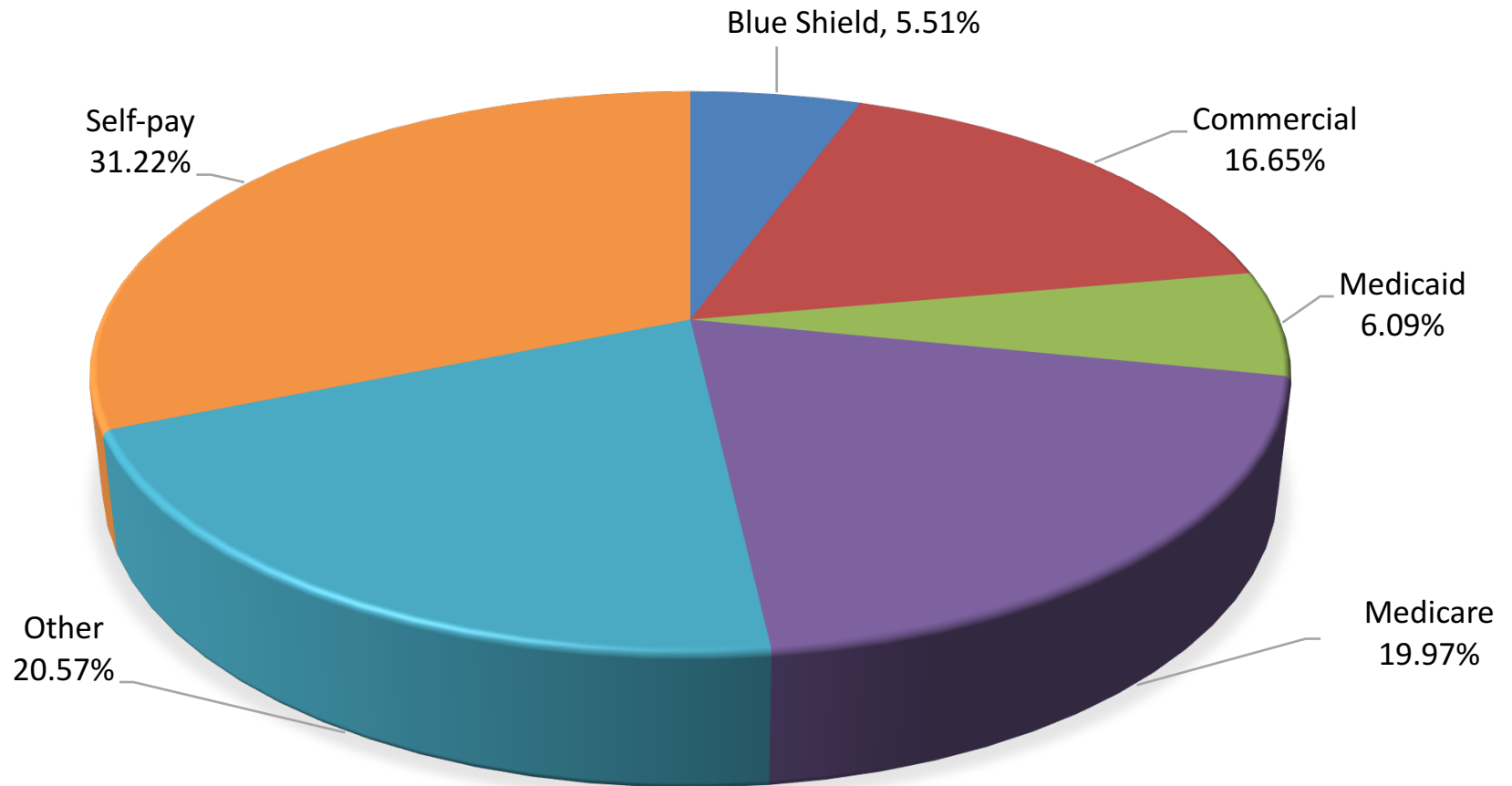


NC STeP: Number of IVCs for Participating Hospitals by Quarter



NC-STeP Charge Mix – Project to Date

Service Dates 10/01/2013 – 09/30/2016*

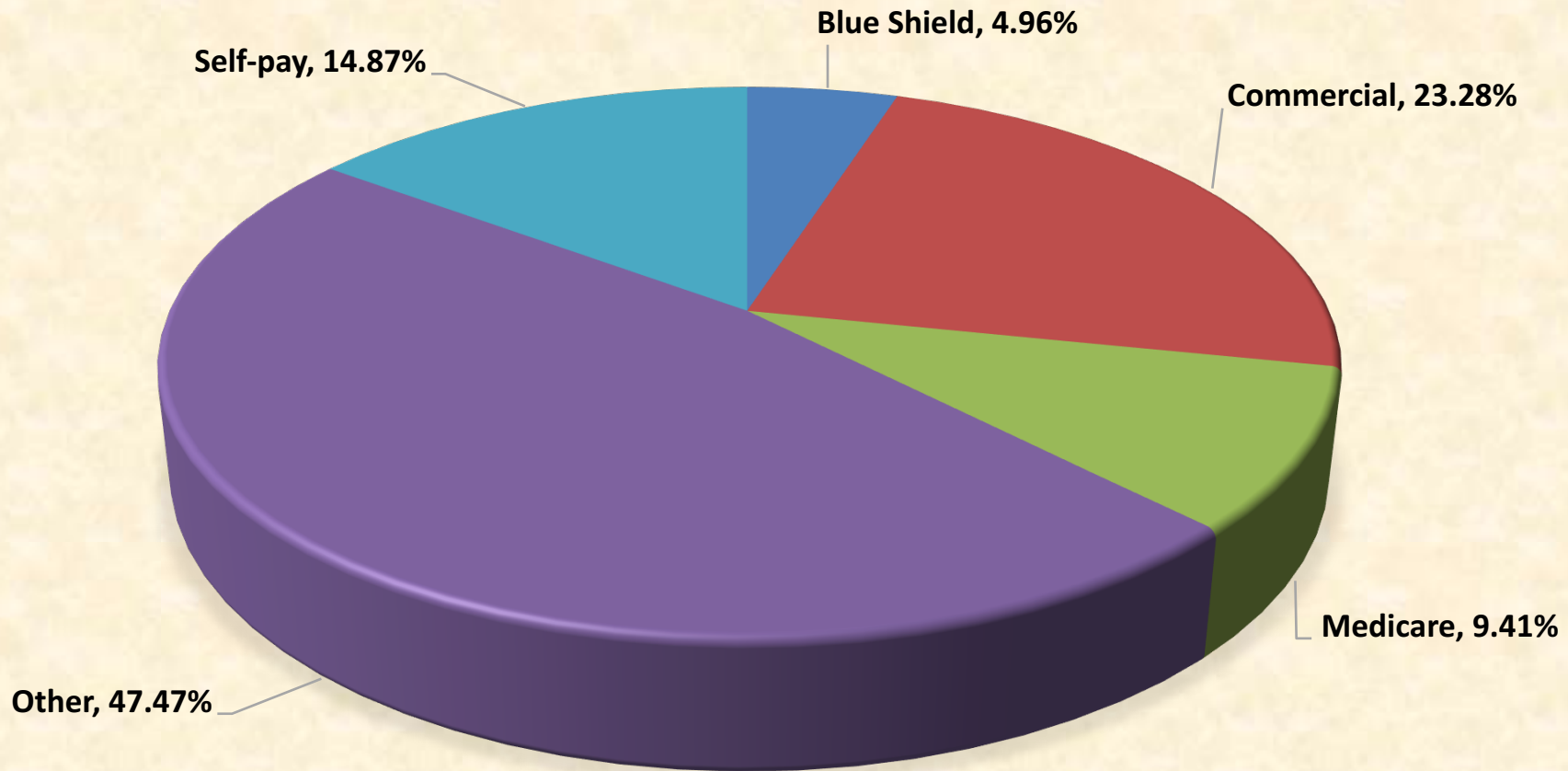


*BASED ON INITIAL STATUS



NC-STeP Charge Mix

FY 2017- Quarter 1



Satisfaction Survey Results

Satisfaction surveys were conducted in September 2016 with 8 groups

- Invitations to participate were sent via electronic mail
- Surveys were completed online via Qualtrics software
- Each group was given a different survey (with different questions) based on their role in the telepsychiatry program

Survey Groups and N

1. Model 2 Emergency Department Physicians (21 responded)
2. Model 2 Emergency Department Staff (9 responded)
3. Model 2 Provider Psychiatrists (7 responded)
4. Model 1 Emergency Department Staff (13 responded)
5. Model 1 Provider Psychiatrists (4 responded)
6. Model 1 Hospital CEOs (2 responded)
7. Model 1 Emergency Department Physicians (1 responded – results not shown)
8. Model 1 Psychiatric Intake Specialists (1 responded – results not shown)

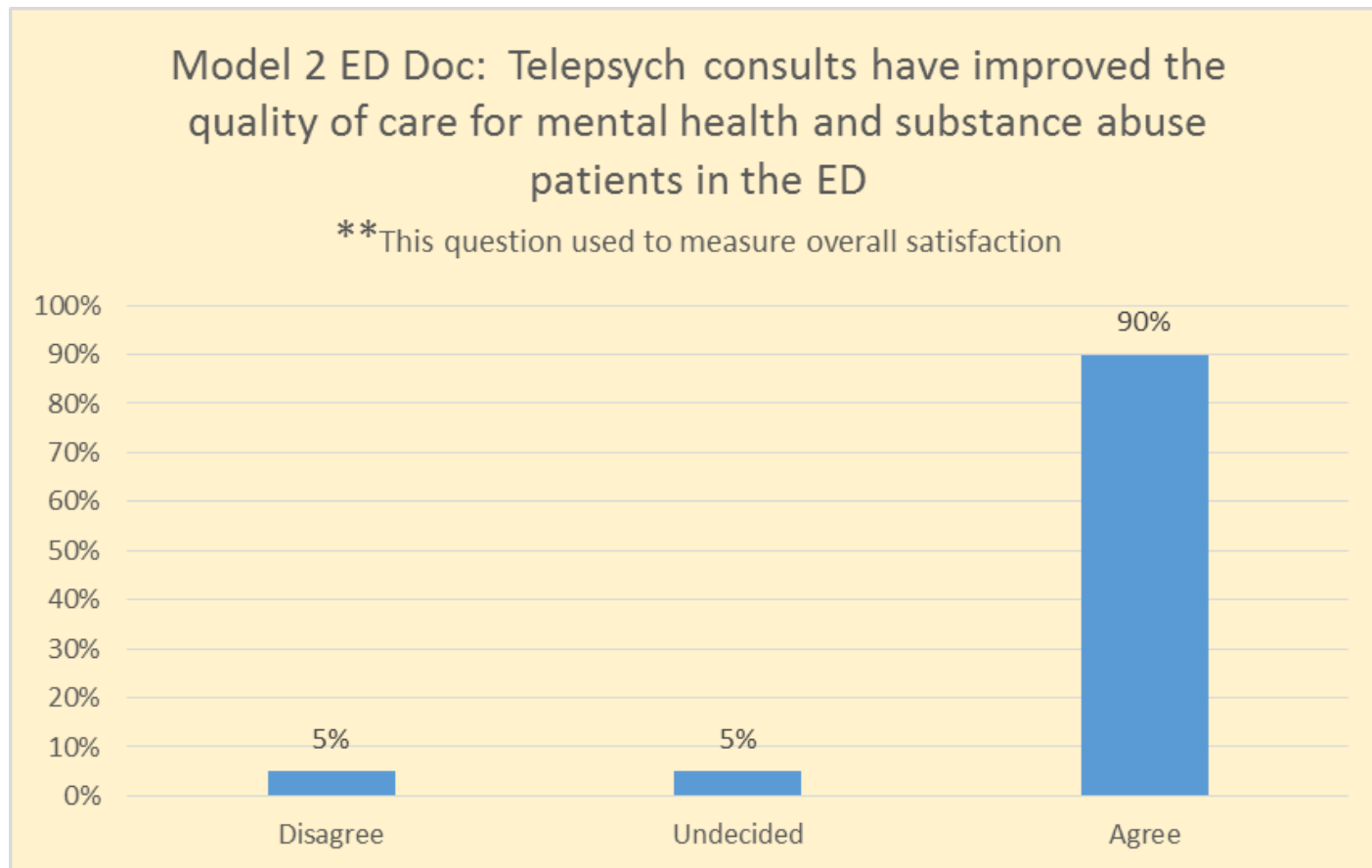
For each group, one summary question is selected for an overall “satisfaction” rate.

The overall satisfaction rate is 72%.



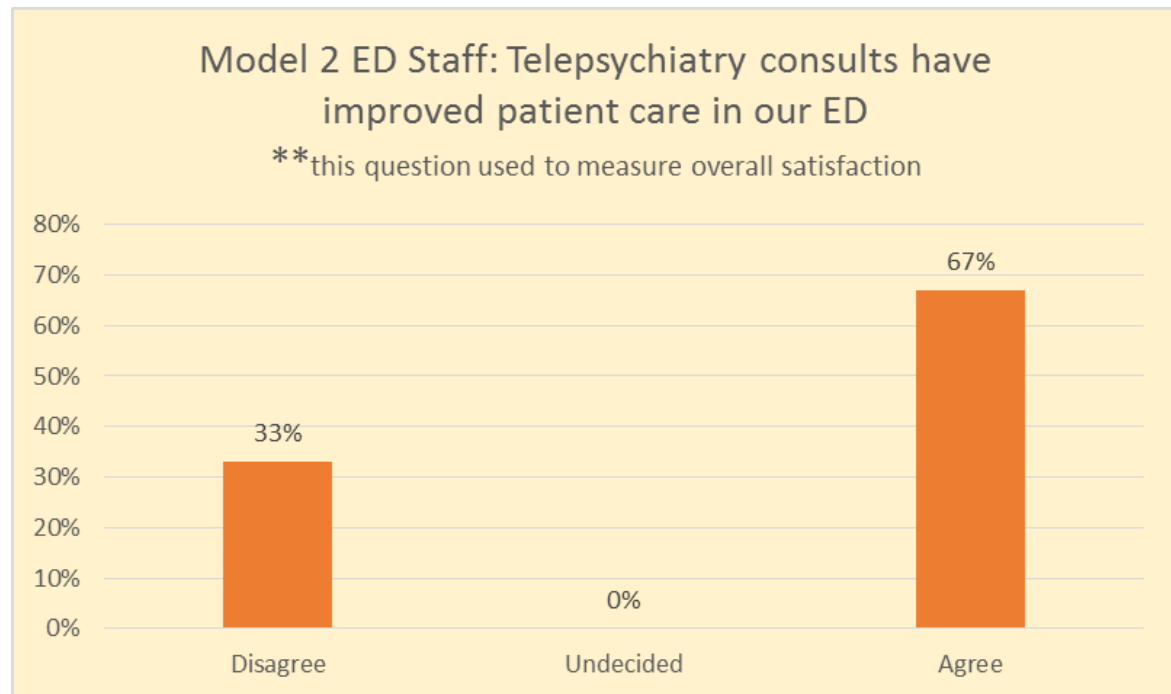
Model 2 Hospital ED Physicians results:

- 85% report that the telepsych consults are easy to obtain.
- 76% report that equipment is easy to use.
- 80% report that equipment is reliable and seldom down.
- 85% report that telepsych consults have made me more comfortable assessing and treating patients with mental health/substance abuse.
- **90% report that the consults have improved the quality of care for mental health/substance abuse patients in the ED.**



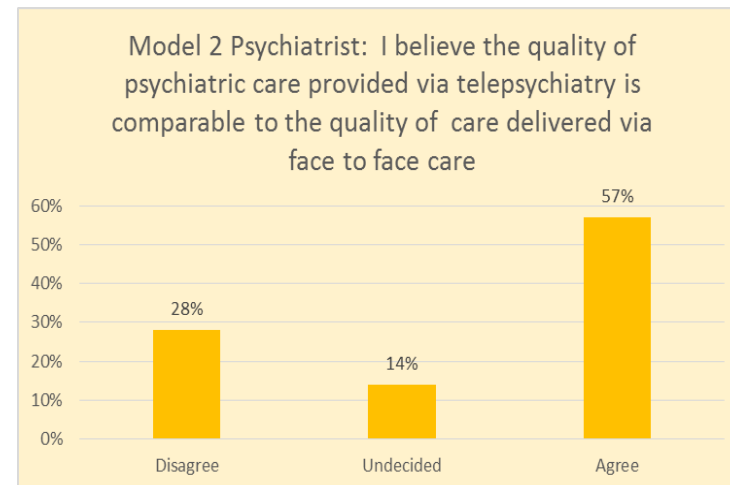
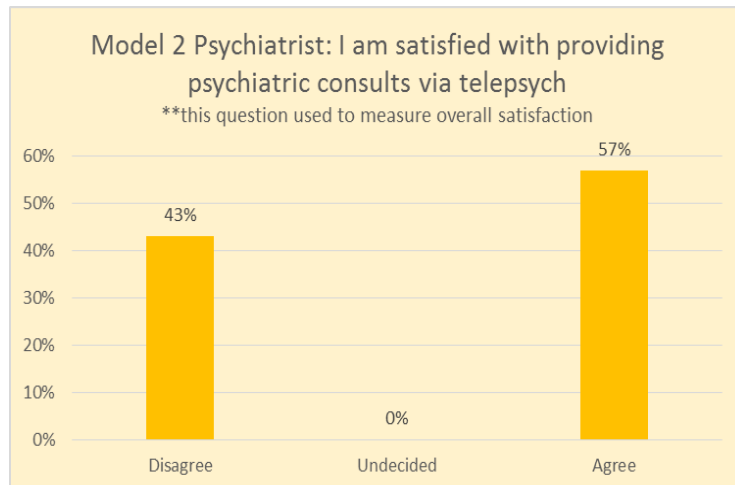
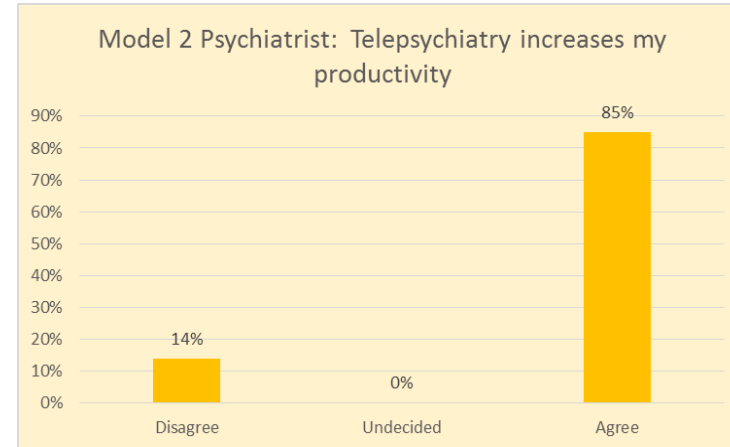
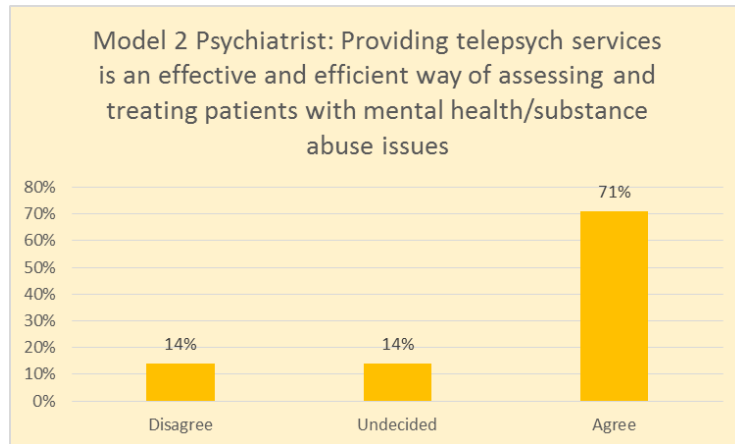
Model 2 Hospital ED Staff results:

- 89% report the equipment is easy to use.
- 66% reported that they received adequate training and instruction;
- 33% reported that the system works well, without static, delays in transmission, or limits of picture or audio. 33 % disagreed, 33% were undecided.
- 77% said they can do simple troubleshooting when the system does not work.
- 89% agreed with the statement that it is an efficient use of their time.
- 55% reported that patients appear comfortable, and 89% said patients were cooperative.
- 66% agreed with the statement that the program has improved patient care in our ED. 33% disagreed with this statement.



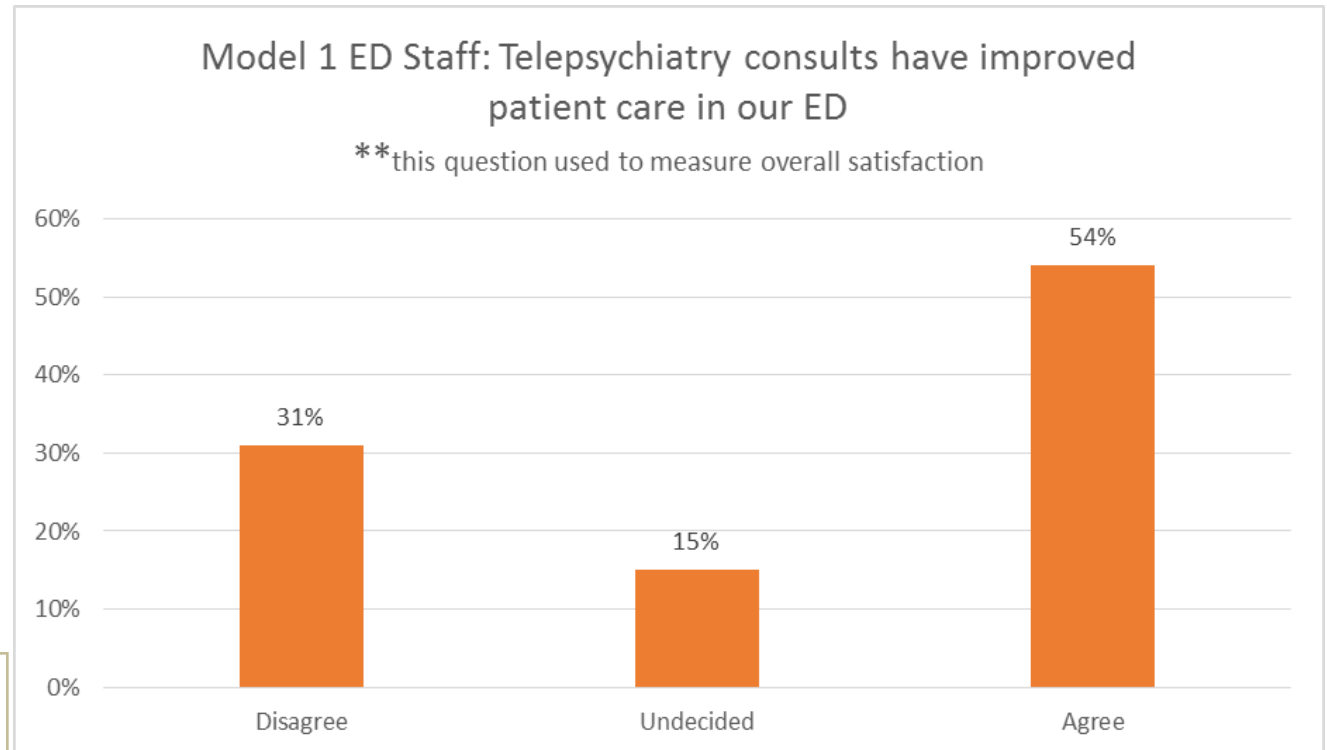
Model 2 Provider Psychiatrist results:

- 71% Believe that providing telepsychiatry services is an effective and efficient way of assessing and treating patients with mental health and substance abuse issues.
- 85% agree that the telepsychiatry equipment is easy to use and safely arranged.
- 57% are satisfied with providing psychiatric consults via telepsychiatry.
- 57% agree the quality of psychiatric care provided via telepsychiatry is comparable to face to face care. 28% disagree with that statement, 14% are undecided.
- 85% agree that "Telepsychiatry increases my productivity."



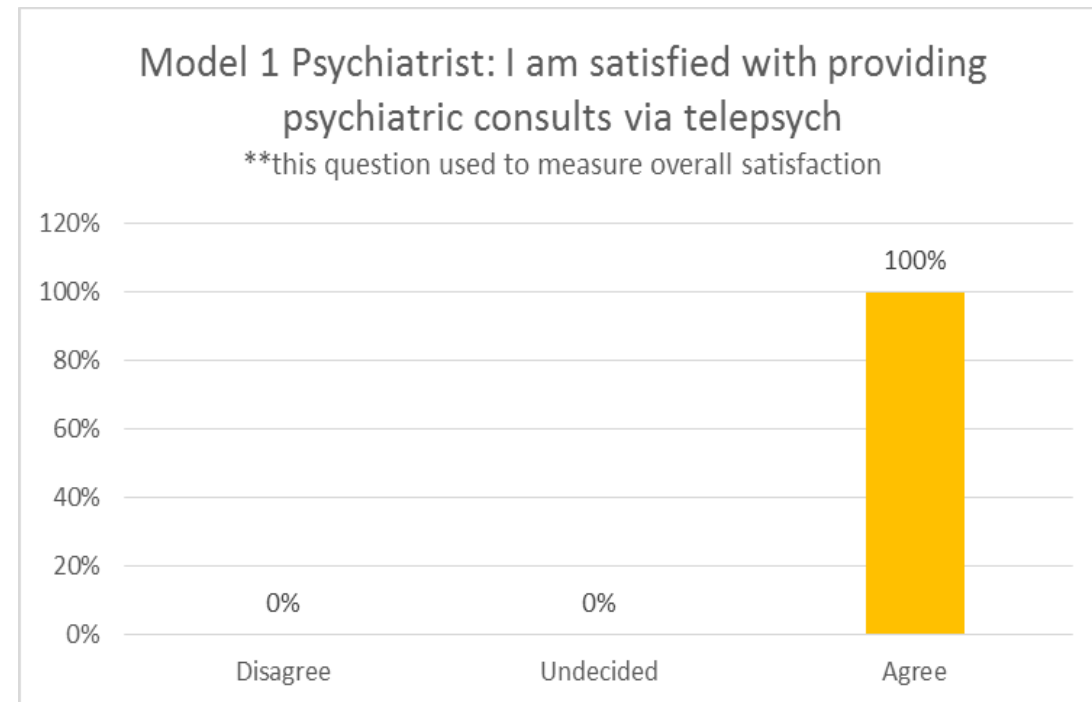
Model 1 Hospital ED Staff results:

- 100% report that the telepsychiatry cart is easy to use.
- 69% reported that they received adequate training and instruction to use the cart
- 15% reported that the portal system of requesting consultations is straight forward to use. 46% disagreed, and 38% were undecided.
- 23% said the portal system works well without excessive delays or downtime. 46% disagreed, 31% were undecided.
- 46% agreed that they received adequate training preparing them to use the portal. 46% disagreed, and 8% were undecided.
- 46% agreed with the statement that assisting in telepsych consults is an efficient use of their time. 46% disagreed, 8% were undecided.
- 54% agreed with the statement that the program has improved patient care in our ED. 31% disagreed, and 15% were undecided.



Model 1 Provider Psychiatrist results:

- 100 % Believe that providing telepsychiatry services is an effective and efficient way of assessing and treating patients with mental health and substance abuse issues.
- 100% agreed, "I am satisfied with providing psychiatric consults via telepsychiatry."
- 25% agree the quality of psychiatric care provided via telepsychiatry is comparable to face to face care. 25% disagree with that statement, 50% are undecided.
- 50% agree that "Telepsychiatry increases my productivity." 25% disagree, 25% undecided.
- 75% agree that the telepsychiatry desktop unit is straightforward to use.
- 100% agree that the portal system of sending consultations is straightforward to use.
- 75% agree that the portal system works well without excessive delays or downtime. 25% are undecided.
- 100% agree they received adequate training and resources preparing them to use the system.



Model 1 CEO comments:

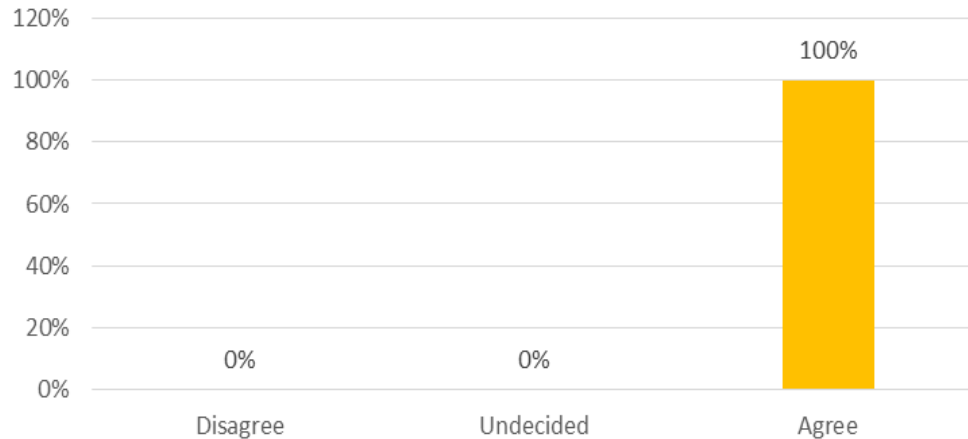
CEO #1. "Since NC STeP was re-activated in August - we admittedly don't have an accurate baseline for service due to a steep learning curve for entering patient data via the portal. There is an increased workload expected from our ancillary secretary staff as well as RN clinical staff. We had a record 26 telepsych consults in the month of August. The providers / clinical staff verbally report that the 'plan of care' for NC STeP consulted patients is brief at best with limited intervention advice. Again, I must preface that within the 1st 30 days of NC STeP operation, the impact of learning curve adjustment is being felt. We need an inpatient telepsych alternative. It is most appreciated that there is interest to check in with all sites utilizing NC STeP services."

CEO #2. "We are having trouble with increased length of stay of behavioral health patients in our emergency department along with a much higher incidents of patients being IVC'd."

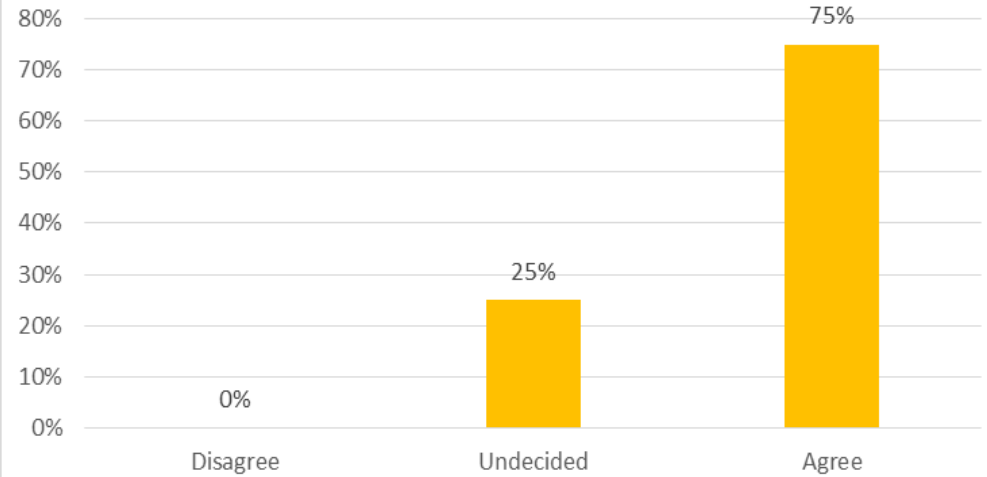


Satisfaction Survey Results: Portal System

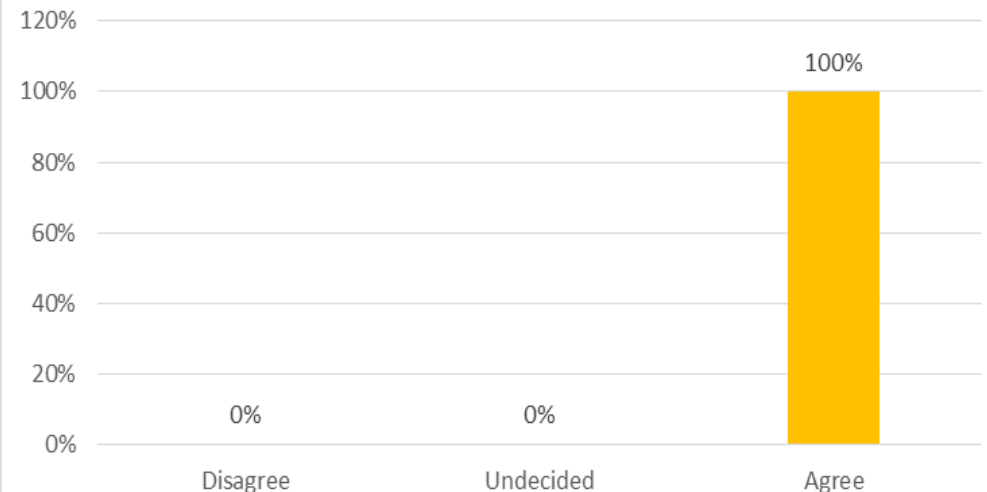
Model 1 Psychiatrist: I received adequate training and resources preparing me to use the portal system



Model 1 Psychiatrist: The portal system works well without excessive delays or downtime



Model 1 Psychiatrist: The portal system of sending consultations is straightforward to use



Hospital Status Report as of September 2016

Model 1 - Live



Hospital Name	Portal Go Live
Vidant Outer Banks Hospital	08/08/16
Vidant Bertie Hospital	08/15/16
Vidant Chowan Hospital	08/15/16
Vidant Edgecombe Hospital	08/15/16
Sentara Albemarle Medical Center	08/17/16
Vidant Beaufort Hospital	08/22/16
Vidant Duplin Hospital	08/22/16
Lenoir Memorial Hospital	09/06/16
St Luke's Hospital	09/07/16
Wilson Medical Center	09/20/16
Morehead Memorial Hospital	10/05/16
DLP Harris Regional Hospital	10/14/16
DLP Swain Community Hospital	10/14/16
Murphy Medical Center	10/26/16

Hospital Status Report as of September 2016

Model 1 - In Process



Hospital Name	Anticipated Go Live*
Ashe Memorial Hospital	12/16
DLP Mariah Parham Medical Center	12/16
Alleghany Memorial Hospital	1/17
J. Arthur Doshier Memorial Hospital	1/17
UNC Chatham Hospital	1/17
DLP Haywood Regional Medical Center	3/17
DLP Person Memorial Hospital	3/17
Halifax Regional Medical Center	2/17
Rutherford Regional Medical Center	3/17
Southeastern Regional Medical Center	3/17
Northern Hospital of Surry County	3/17
Our Community Hospital	3/17

Hospital Status Report as of September 2016

Model 1 - Participation Pending



Hospital Name	Program Status
Pender Memorial Hospital	reviewing contract
Randolph Hospital	reviewing contract
Lake Norman Regional Medical	reviewing contract
Washington County Hospital	reviewing contract
FirstHealth Moore Regional Hospital - Hoke	reviewing contract
FirstHealth Montgomery Memorial Hospital	reviewing contract
FirstHealth Moore Regional Hospital	reviewing contract
FirstHealth Richmond Memorial Hospital	reviewing contract
DLP Central Carolina Hospital	reviewing contract

Hospital Status Report as of September 2016

Model 2*



Hospital Name	Program Status
Cape Fear Valley - Bladen County Hospital	6/14
Cape Fear Valley Hoke Hospital	6/16
Cape Fear Valley Medical Center	6/14
Annie Penn Hospital	8/14
Cone Health Behavioral Health Hospital	7/14
Cone Health MedCenter High Point	7/14
Moses H. Cone Memorial Hospital	8/14
Wesley Long Hospital	7/14
Women's Hospital – Cone Health	10/14
Angel Medical Center	1/15
Blue Ridge Regional Hospital	9/14
Highlands-Cashiers Hospital	3/15
McDowell Hospital	7/14
Mission Hospital	7/14
Transylvania Regional Hospital	9/14
Forsyth Medical Center	7/14
Hugh Chatham Memorial Hospital	12/15
Novant Health Brunswick Medical Center	Anticipated
Novant Health Clemmons Medical Center	7/14
Novant Health Kernersville Medical Center	7/14
Novant Health Rowan Medical Center	Contract in process
Thomasville Medical Center	3/15
UNC Johnston, Clayton	6/16
UNC Johnston, Smithfield	6/16

*Model 2 hospitals did not experience any interruption in services

Hospital Status Report as of September 2016

Expressed Possible Interest



Hospital Name	Program Status	NC-STeP Model
Betsy Johnson Regional Hospital	TBD	TBD
Granville Medical Center	TBD	TBD
Central Harnett Hospital	TBD	TBD
Iredell Memorial Hospital	TBD	TBD
Pioneer Community Hospital of Stokes (King & Greene)	TBD	TBD

Hospital Status Report as of September 2016

Terminated



Hospital Name	Program Status	NC-STeP Model
Martin County General	Terminated	N/A
Wayne Memorial Hospital	Terminated	N/A
Sampson	Terminated	N/A
UNC Hillsborough	Terminated	N/A
Columbus Regional	Terminated	N/A
Davie Medical	Terminated	N/A
Lexington	Terminated	N/A
Nash	Terminated	N/A
Carteret	Terminated	N/A
Carolina East	Terminated	N/A
WakeMed Apex	Terminated	N/A
WakeMed Briar Creek	Terminated	N/A
WakeMed Cary	Terminated	N/A
WakeMed Garner	Terminated	N/A
WakeMed North Healthplex	Terminated	N/A
WakeMed Psychiatric Observation Unit	Terminated	N/A
WakeMed Raleigh	Terminated	N/A
WakeMed Raleigh Children's ED	Terminated	N/A

Hospital Status Report as of September 2016

No Information Available



Hospital Name	Program Status	NC-STeP Model
Onslow Memorial	TBD	TBD
Cherokee Indian Hospital	TBD	TBD
New Hanover	TBD	TBD
Novant Mathews Medical	TBD	TBD
Caldwell Memorial	TBD	TBD
Scotland Health	TBD	TBD
Wilkes Regional Medical	TBD	TBD
Alamance Regional	TBD	TBD
Blowing Rock Hospital	TBD	TBD
Catawba Valley Medical	TBD	TBD