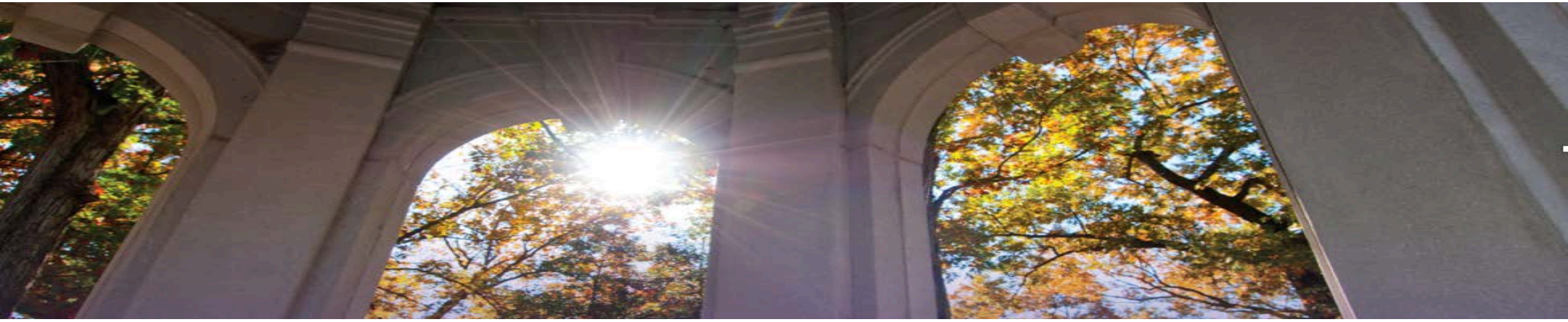
NC-STeP

NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

Quarterly Progress Update



Sy Atezaz Saeed, MD, MS, FACPsych,
Professor and Chair
Department of Psychiatry and Behavioral Medicine
Brody School of Medicine - East Carolina University

Director
North Carolina Statewide Telepsychiatry Program (NC-STeP)

ECU
BRODY SCHOOL OF MEDICINE

NC-STeP NORTH CAROLINA STATEWIDE TELEPSYCHIATRY PROGRAM

NC-STeP Advisory Council Meeting
Friday May 31, 2019
North Carolina Healthcare Association
2400 Weston Pkwy, Room B, Cary, NC 27513

Agenda

10:00- 10:10 a.m.	Welcome and Introductions
10:10- 10:15 a.m.	Review and Approval of March 1, 2019 Minutes
10:15- 11:30 a.m.	NC-STeP FY19-Q3 (Jan-Mar) Performance Data
11:30- 11:40 a.m.	Update on Community-Based Pilot(s)
11:40- 11:50 a.m.	Old Business Legislative Funding for next fiscal year
11:45- 11:55 a.m.	New Business Funding from DIT
11:55- 12:00 p.m.	Announcements
12:00 p.m.	Adjourn

Join WebEx meeting

Meeting number (access code): 737 072 306

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1-240-454-0879 USA Toll

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2. Scott W. Brown, MD, FACEP
   NCCEP Board of Directors/ Harnett Heath 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. Ryan Baker, NC-STeP/ECU
2. John Stephen Carbone, MD, JD, MBA, NC-STeP
3. Renee Clark, MSW, DHHS-ORH
4. Sheila Davies, Ph.D., NC-STeP/MedAccess Partners
5. Phil Donahue, NC-STeP/MedAccess Partners
6. Art Eccleston, DHHS, Division of Mental Health
7. Nick Galvez, DHHS-ORH
8. Katherine Jones, Ph.D., NC-STeP/ECU
9. Maggie Sauer, DHHS-ORH
10. Mary Schiller, NC-STeP/ECU

NC-STeP NORTH CAROLINA STATEWIDE TELEPSYCHIATRY PROGRAM

NC-STeP Quality Management and Outcomes Monitoring Processes: January - March 2019

- 53 hospitals were live, as of 3/31/19 with 34 hospitals reporting Telepsychiatry patients in their ED
  - not all live hospitals had telepsychiatry patients
- Total number of assessments for this quarter = 1419 *
- Total number of encounters for this quarter = 1296 *
- 622 patient assessments were billed for Model 1 hospitals during the reporting period

*For both model 1 and model 2

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NC-STeP Quality Management and Outcomes Monitoring Processes: January - March 2019

- The Median Length of Stay was 25.3 hours
- The Average Length of Stay was 46.7 hours
  - 47.9 hours for those discharged to home
  - 50.7 hours for those transferred to another facility
- Average Consult Elapsed Time (in queue to exam complete) for Model 1 hospitals was 3 hours and 17 minutes.

NC-STeP Quality Management and Outcomes Monitoring Processes: January - March 2019

- 631 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
  - 268 (42.5%) of those patients did not have an IVC in place when discharged.
- Of the ED patients who received telepsychiatry services, 33.8% were discharged to home. 30.1% were discharged to another facility.

* Note: Data for Novant hospitals for January through March 2019 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. Data for Bladen was not submitted.

	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	26,476	5,144	7,128	1,896	3,970	6,100
Model 1 Hospital Patient Encounters	17,267	4,578	5,849	706	2,043	2,650
Model 2 Hospital Patient Encounters	9,209	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)	36,959	8,130	13,573	1,942	4,347	6,674

NC-STeP	Since project inception in November 2013	During Calendar Year 2019	Quarter Jan- Mar 2019	Quarter Apr- Jun 2019	Quarter Jul- Sep 2019	Quarter Oct- Dec 2019
Total Patient Encounters	26,476	1,296	1,296			
Model 1 Hospital Patient Encounters	17,267	499	499			
Model 2 Hospital Patient Encounters	9,209	797	797			
Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)	36,959	1,419	1,419			

NC-STeP Benchmarks

	Goals	Values Reached		
	Cumulative Target to be reached by (06/30/2019)	Value Reached as of most recent previous quarter (12/31/2018)	Value Reached as of this reporting quarter (03/31/2019)	Year-to-Date Total with % of the Yearly Target (03/31/2019)
Number of IVCs	2,817	1,512	631	2,143 76% of Yearly Target
Number of IVCs Overturned	1,197	654	268	922 77% of Yearly Target
Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.)	5,086	3,833	1,419	5,252 103% of Yearly Target

NC-STeP Status as of March 31, 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 3/31/2019
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	268 in this quarter YTD Total 922 Cumulative total since program inception 4,942
3. The number of participating consultant providers	47	48	54

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NC-STeP Status as of March 31, 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 3/31/2019
4. The number of telepsychiatry assessments conducted.	3,533	5,086	1,419 in this quarter YTD Total 5,252 Cumulative total since program inception 36,959
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	631 in this quarter YTD Total 2,143 Cumulative total since program inception 15,074

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NC-STeP Status as of March 31, 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 3/31/2019
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 = 46.7 Median = 25.3
8. The rate of "satisfied" or "strongly satisfied" among emergency department staff participating in NC-STeP.	73%	73%	77.8%

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NC-STeP Status as of March 31, 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 3/31/2019
9. The rate of "satisfied" or "strongly satisfied" among hospital CEOs/COOs participating in NC-STeP.	85%	85%	100%
10. The rate of "satisfied" or "strongly satisfied" among consulting (hub) providers participating in NC-STeP.	83%	85%	100%

NC-STeP

NC-STeP Status as of March 31, 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 3/31/2019
11. The rate of "satisfied" or "strongly satisfied" among emergency department physicians participating in the statewide telepsychiatry program.	60%	68%	71.6%
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	0.22:1.00 YTD Average 0.23:1.00 Cumulative average since program inception 0.34:1.00

NC-STeP

NC-STeP Status as of March 31, 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 3/31/2019
13. Cumulative return on investment to state psychiatric facilities through overturned involuntary commitments. (inpatient admission prevented)	$4,509,000	$6,463,800	$1,447,200 in this quarter YTD $4,978,800 Cumulative total since program inception $26,686,800

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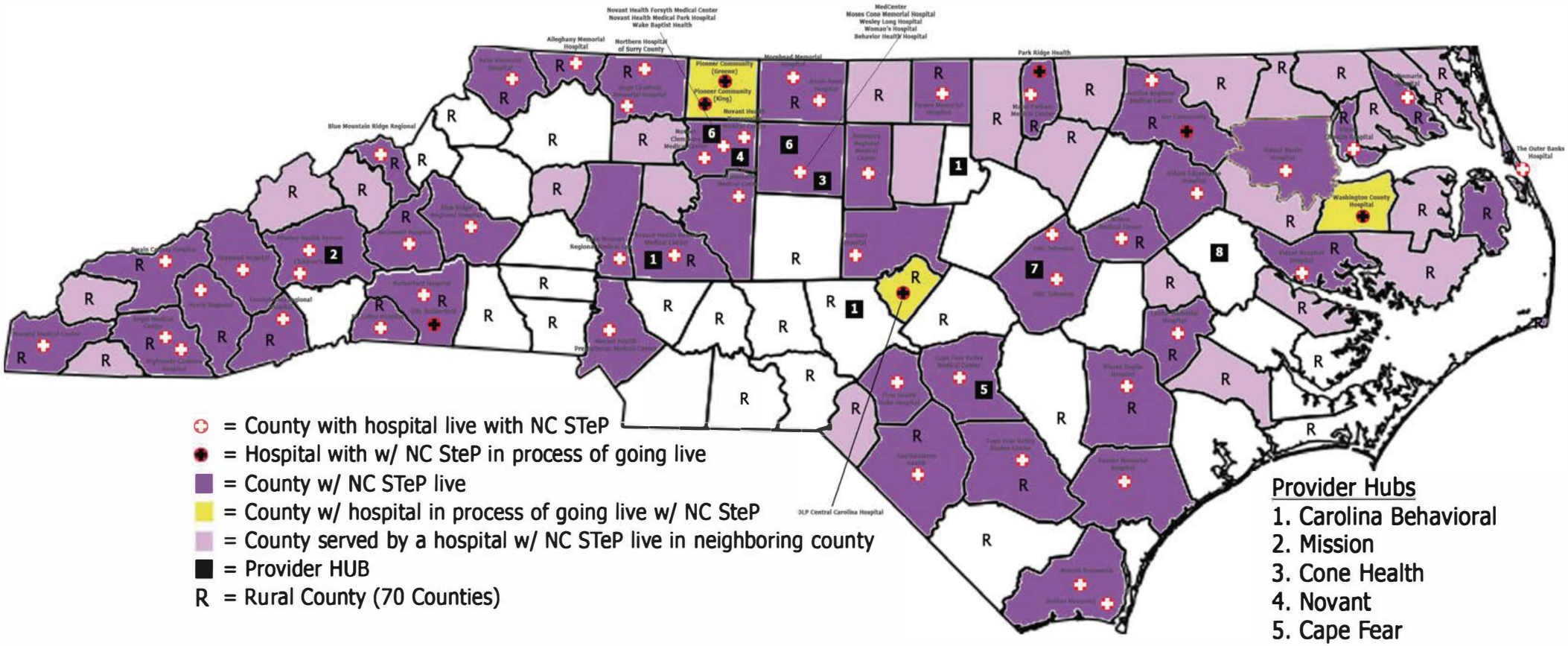
NC-STeP Status as of March 31, 2019



Provider Hubs

1. Carolina Behavioral
2. Mission
3. Cone Health
4. Novant
5. Cape Fear
6. Old Vineyard
7. UNC Johnston
8. ECU

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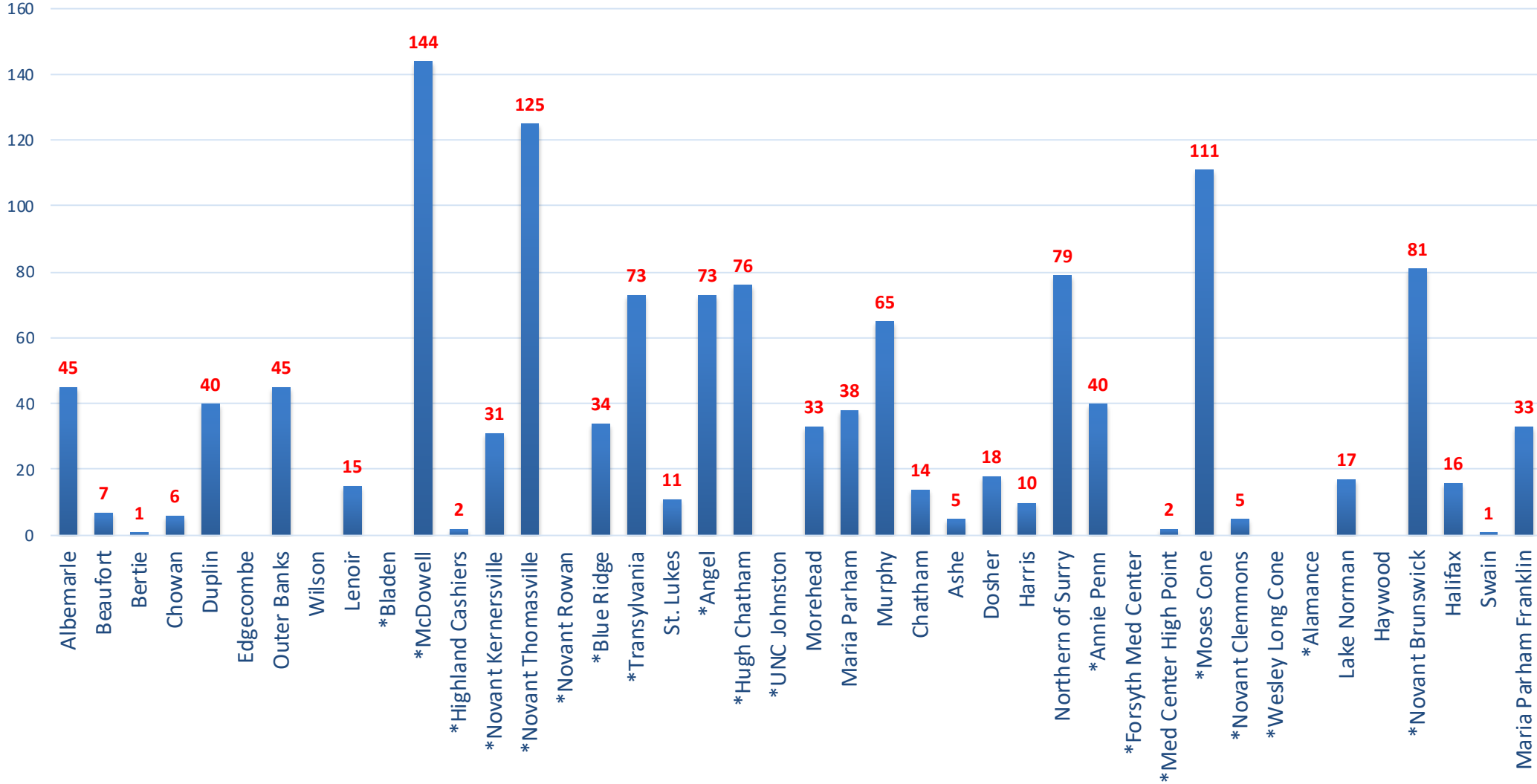
Number of NC-STeP Patients by Hospital

January - March 2019



* Indicates Model 2 hospitals

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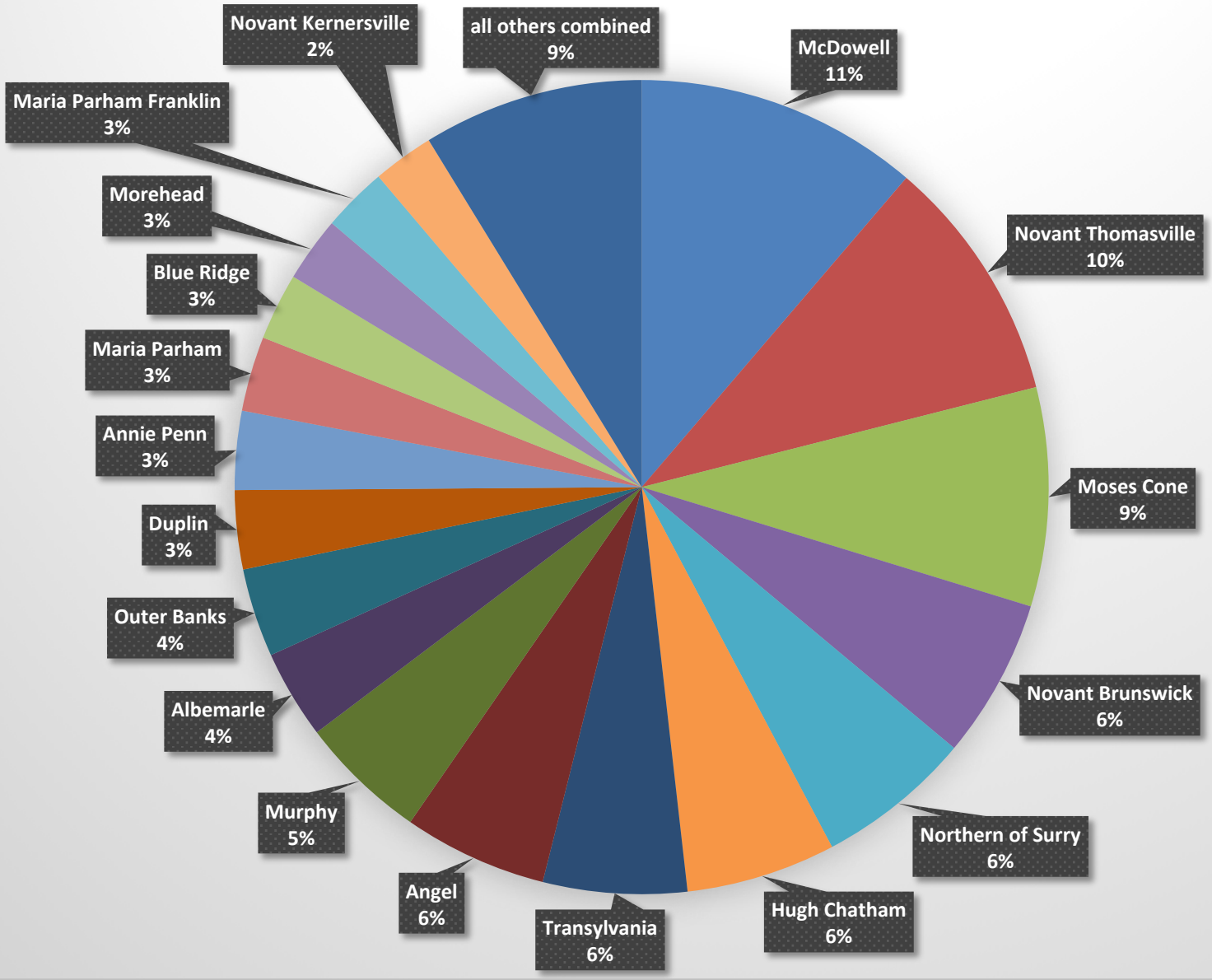
Percent of Use by Hospital Jan-Mar 2019

(based on number of patient encounters)



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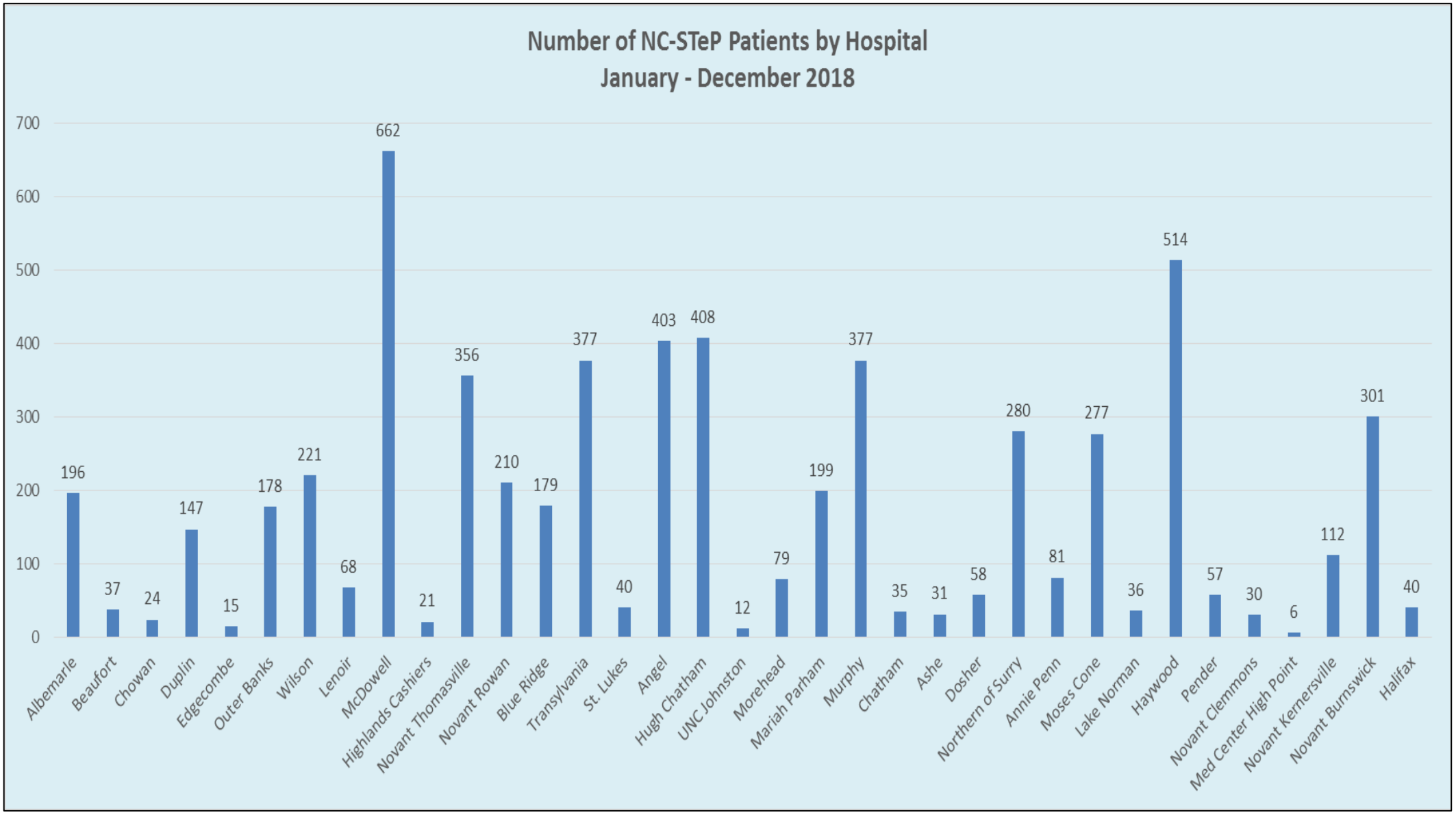

Note: Several hospitals with a count of 5 or fewer were not included on this chart. Those hospitals are: Swain, Person, Wesley Long Cone, Alamance, Novant Forsyth, Bladen, Bertie

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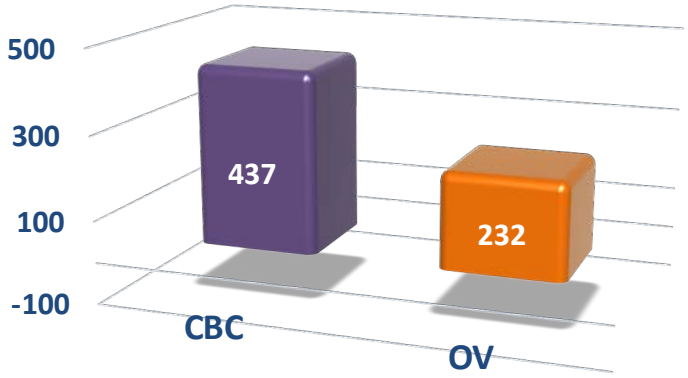
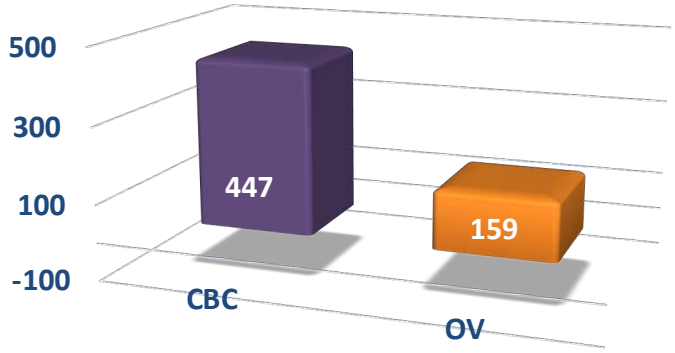
Number of Patients by Provider (Model 1)

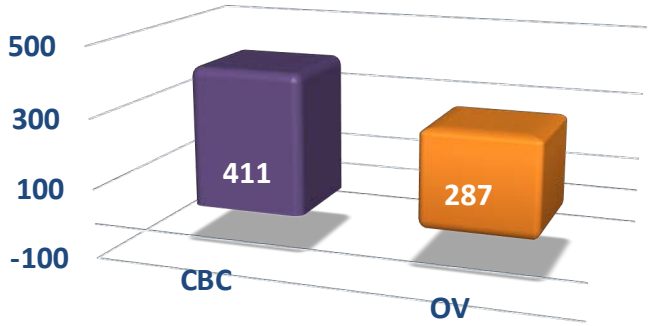
April - June 2018



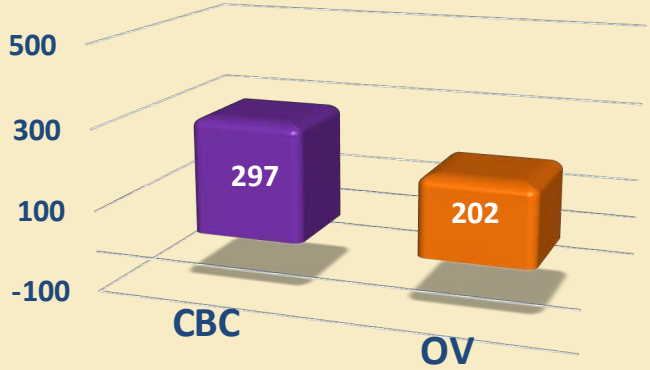
October- December 2018



July - September 2018



January- March 2019



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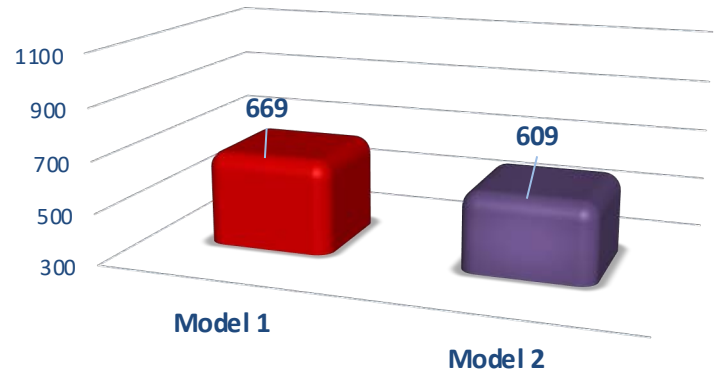
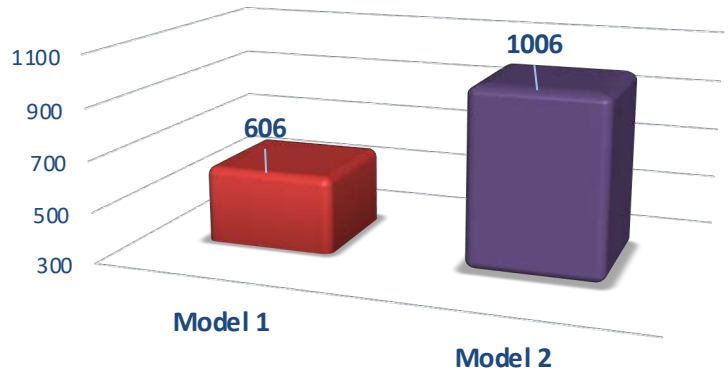
Number of Patients by Model

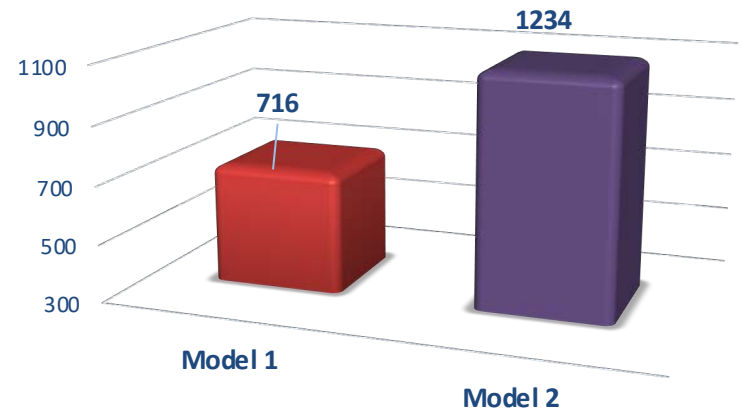
April - June 2018



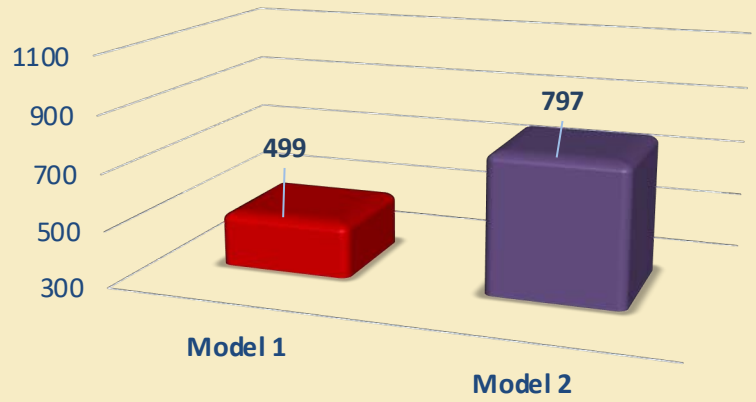
Oct-Dec 2018



July-Sep 2018



Jan-Mar 2019



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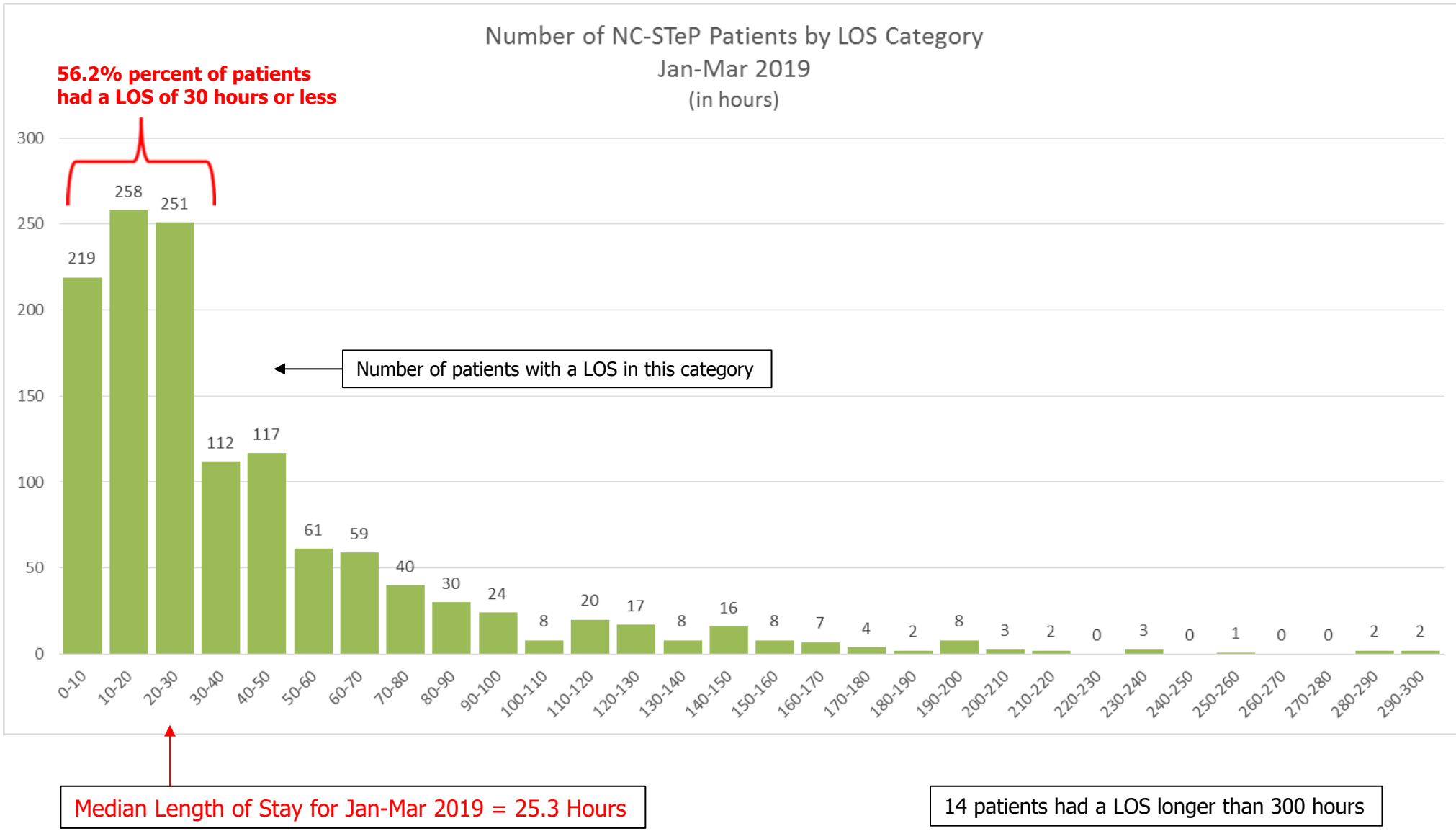

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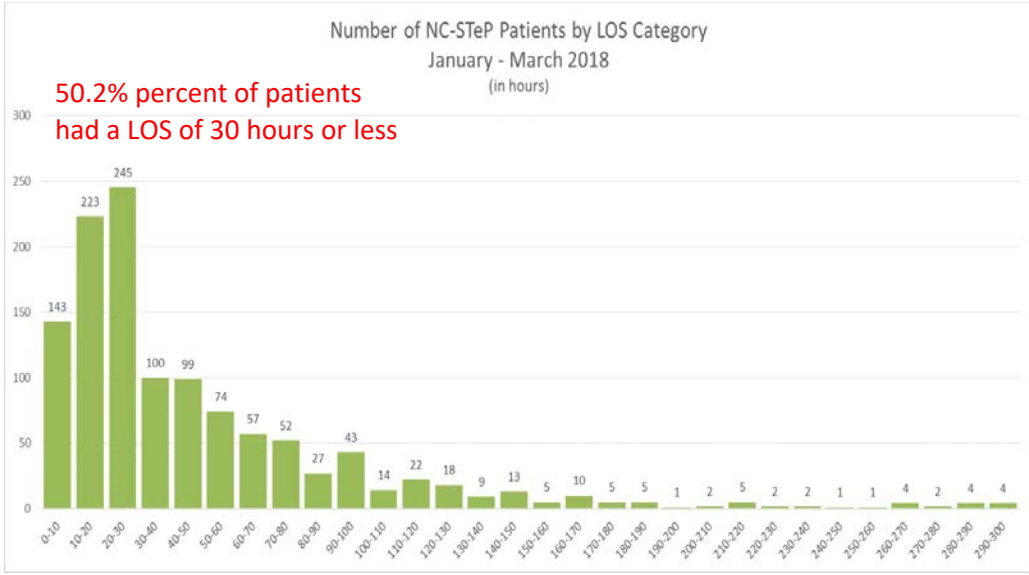

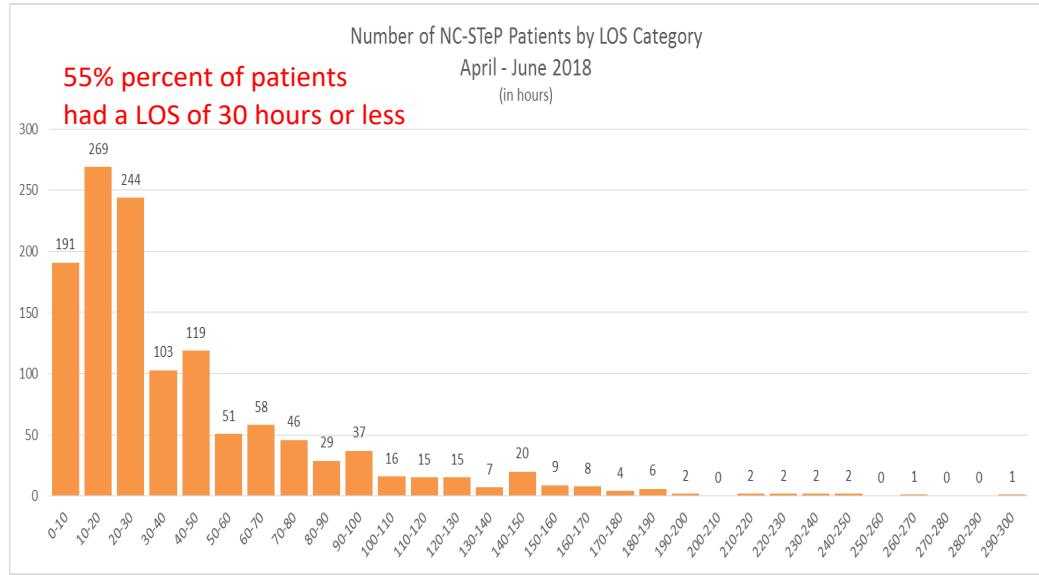

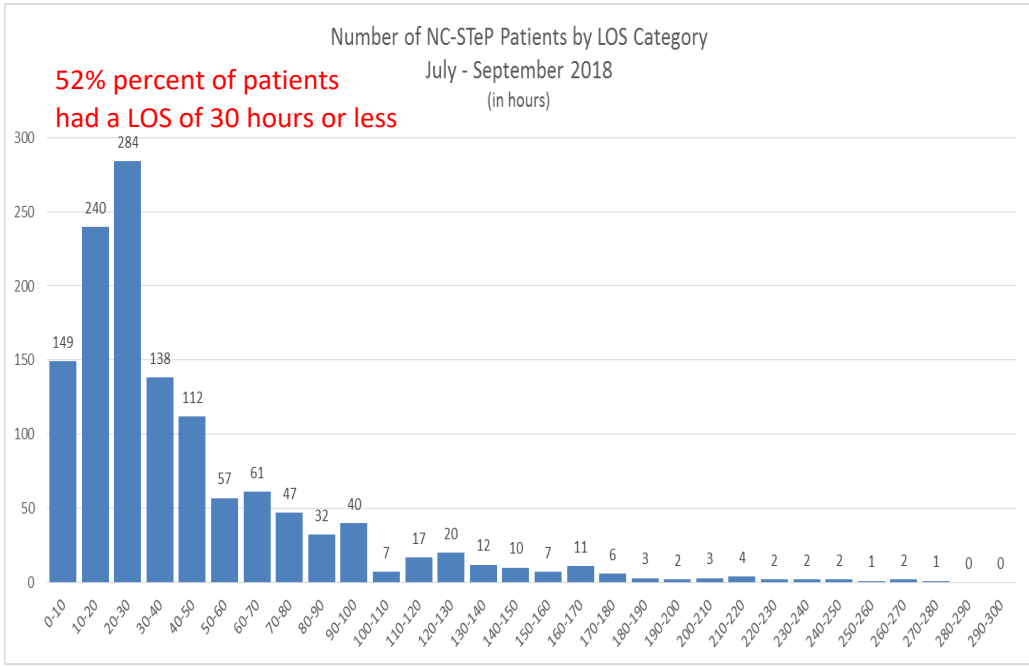

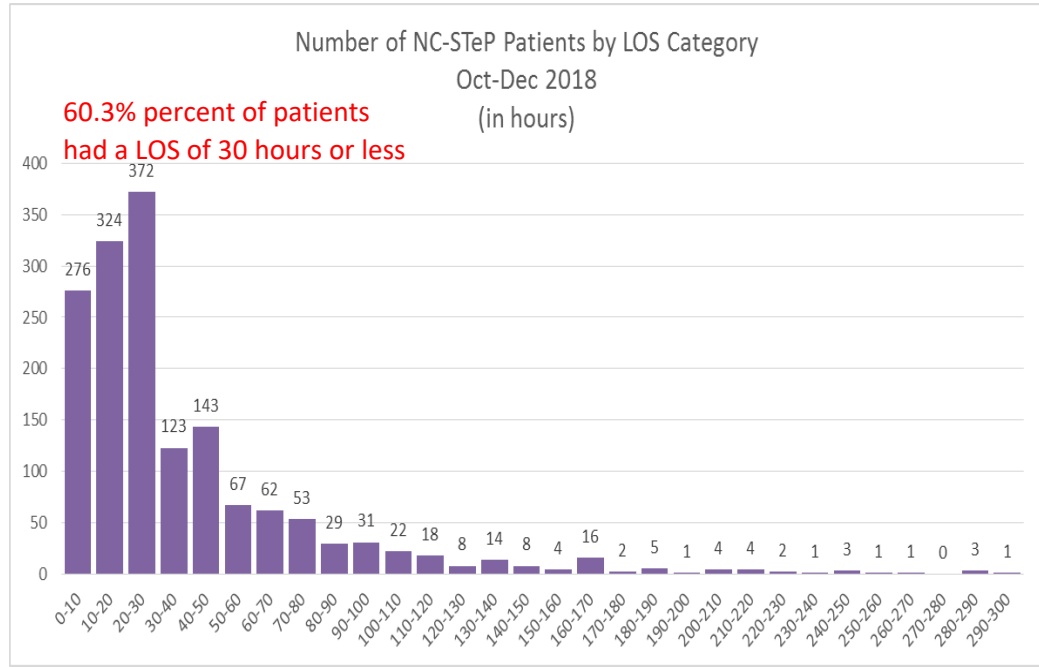

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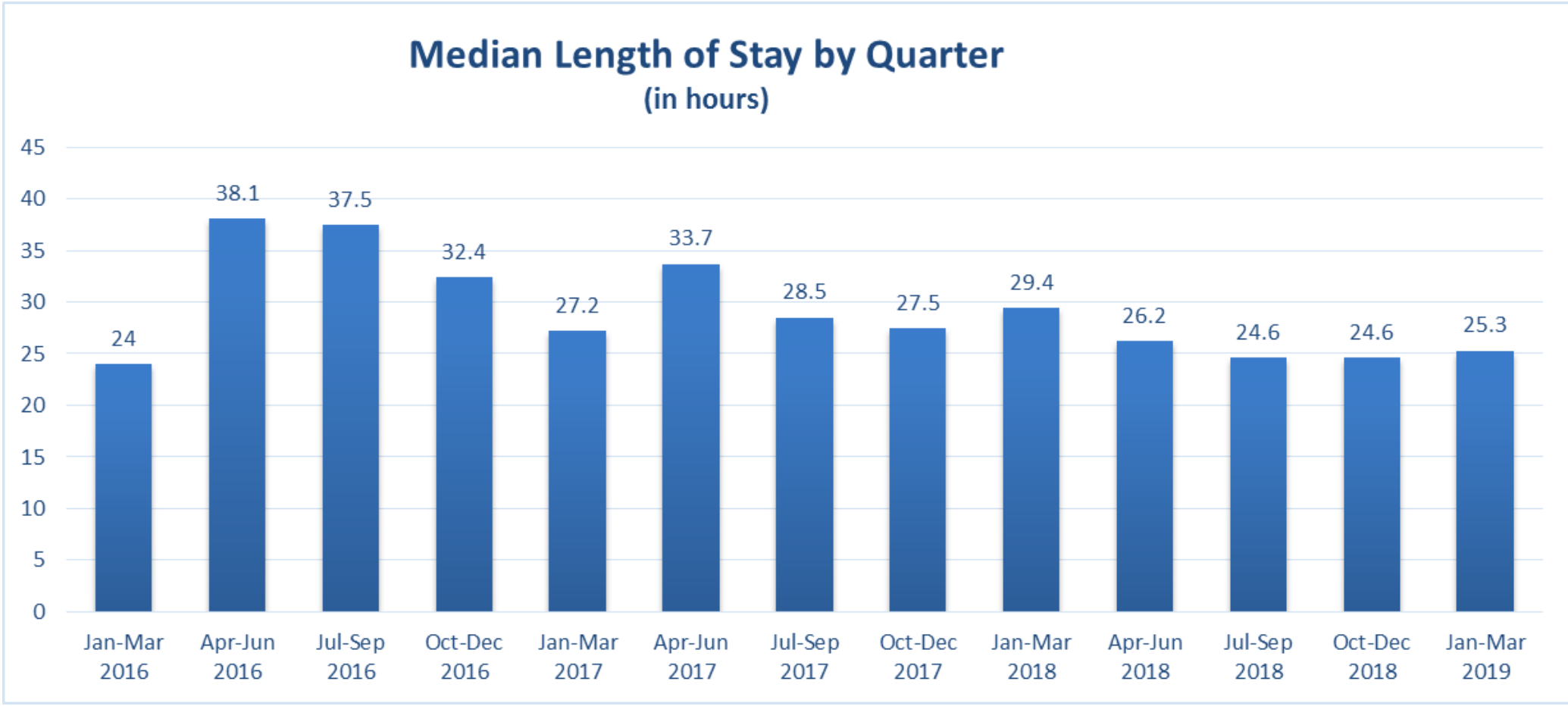
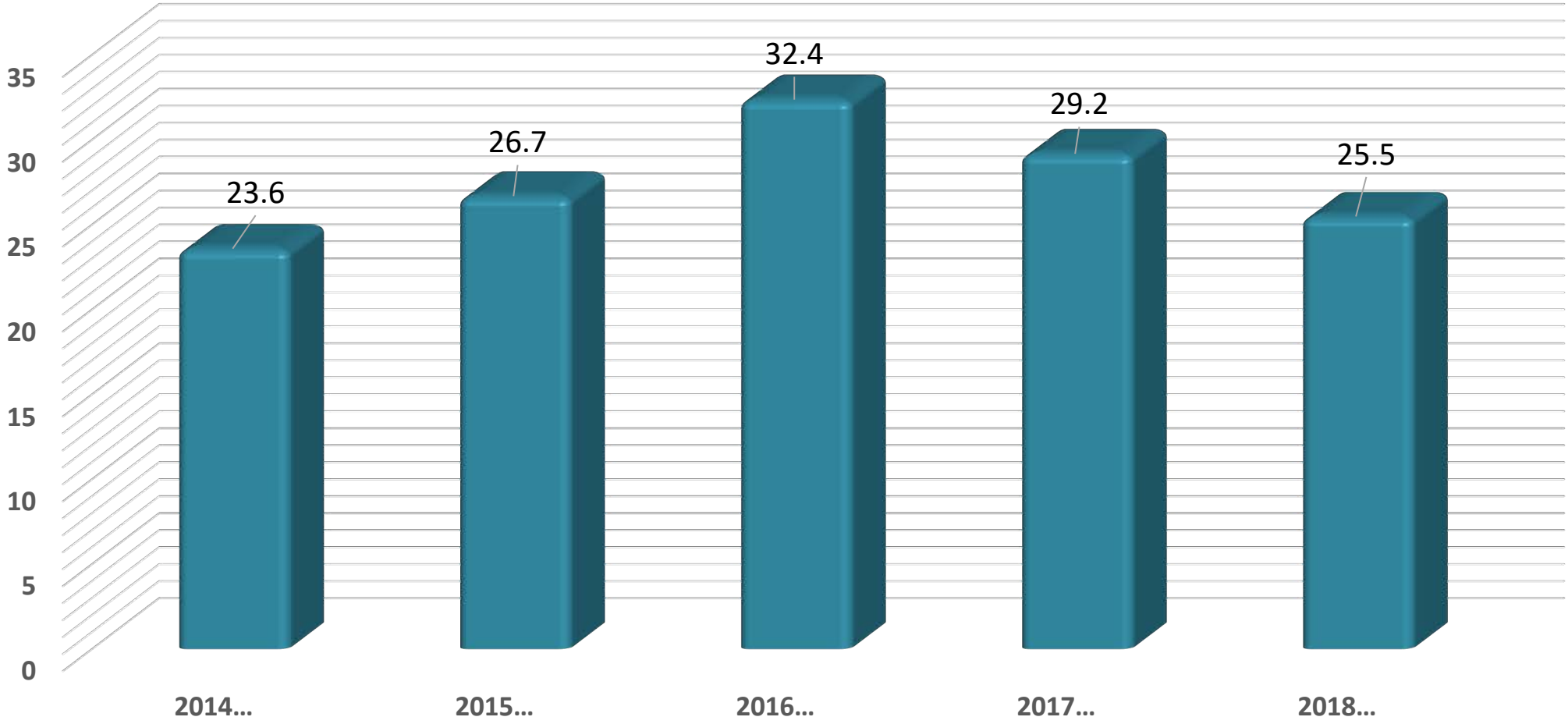

Median Length of Stay by Quarter
(in hours)
45
40
35
30
25
20
15
10
5
0
24
38.1
37.5
32.4
27.2
33.7
28.5
27.5
29.4
26.2
24.6
24.6
25.3
Jan-Mar 2016
Apr-Jun 2016
Jul-Sep 2016
Oct-Dec 2016
Jan-Mar 2017
Apr-Jun 2017
Jul-Sep 2017
Oct-Dec 2017
Jan-Mar 2018
Apr-Jun 2018
Jul-Sep 2018
Oct-Dec 2018
Jan-Mar 2019

Median Length of Stay by Year
(in hours)



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

Average Length of Stay by Year
(in hours)

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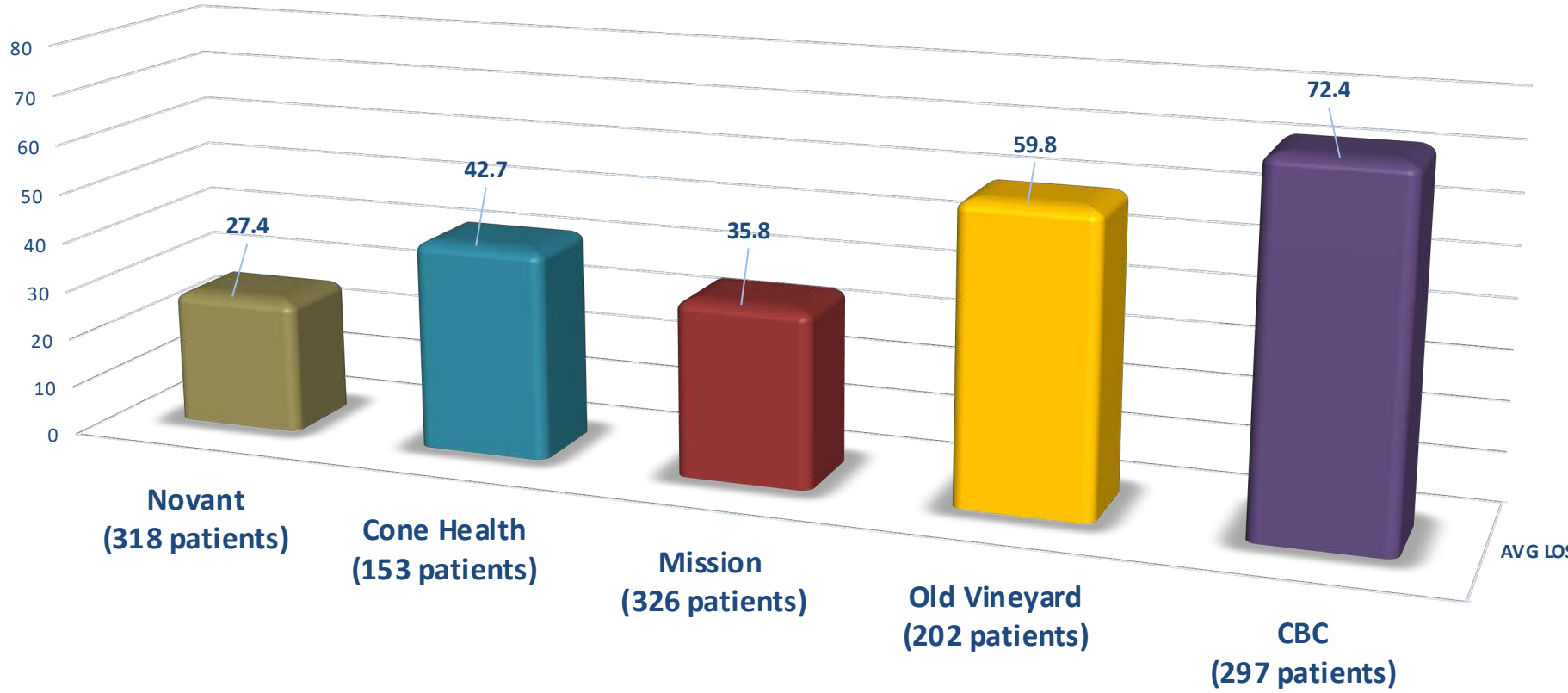
Average Length of Stay by Provider Jan-Mar 2019
(in hours)



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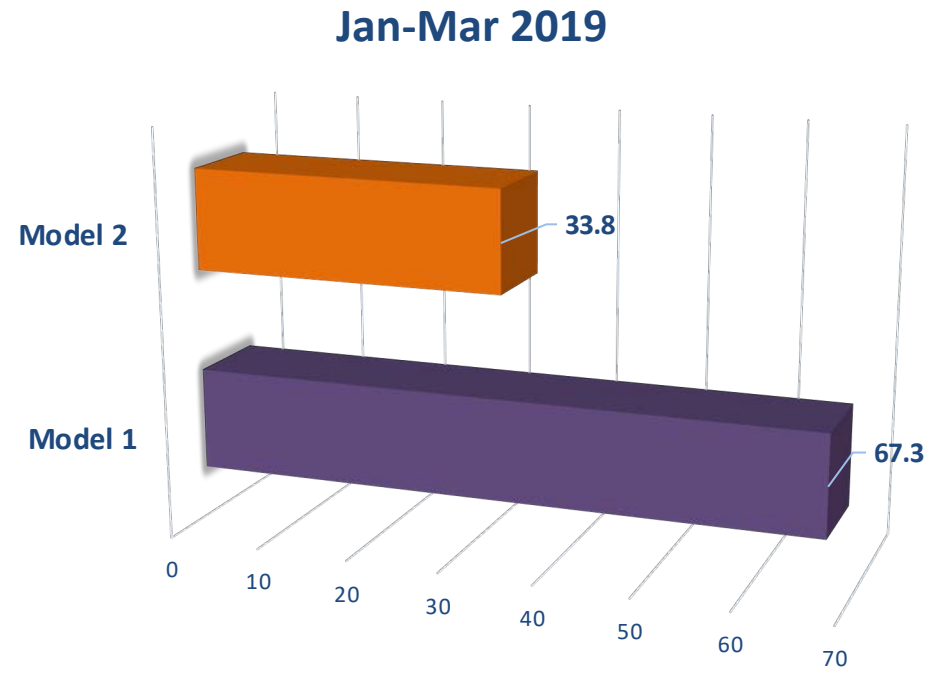
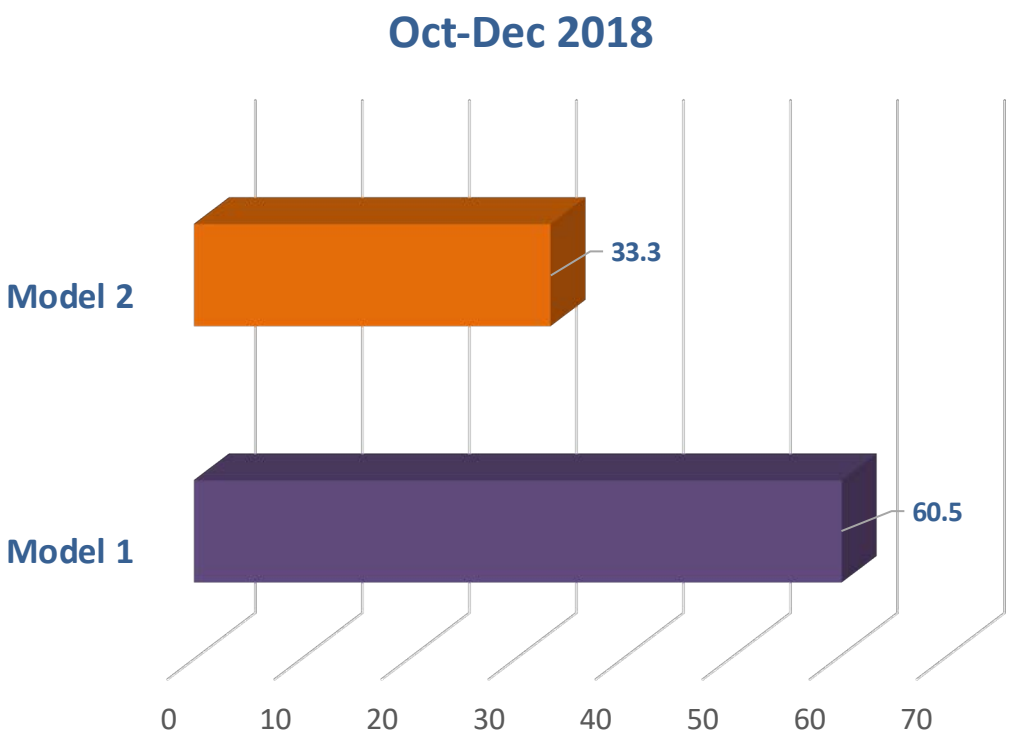
Average LOS by Model
(in hours)





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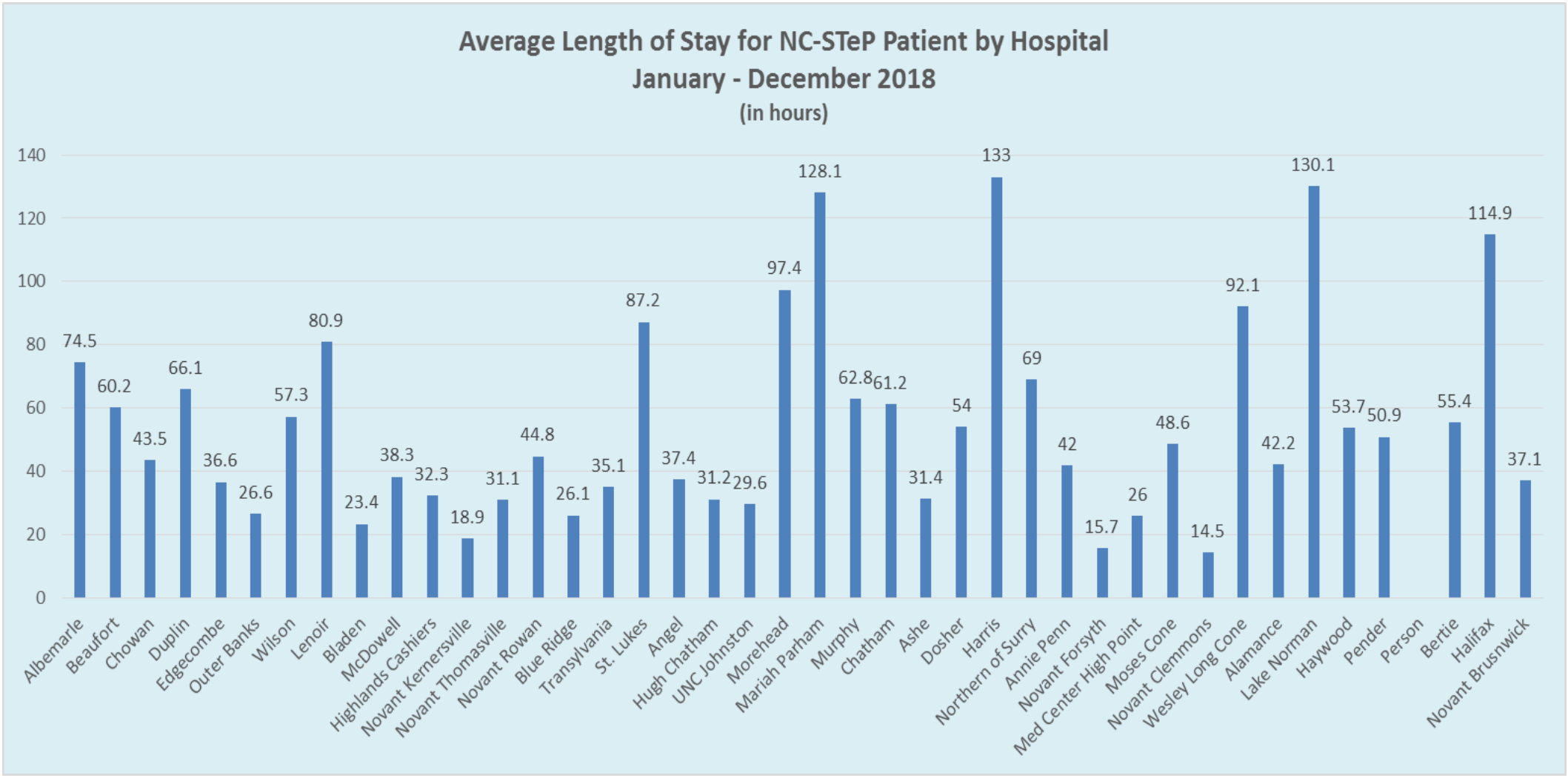

Note: Swain was not included on this chart. It had one patient, with a LOS of 252 hours.

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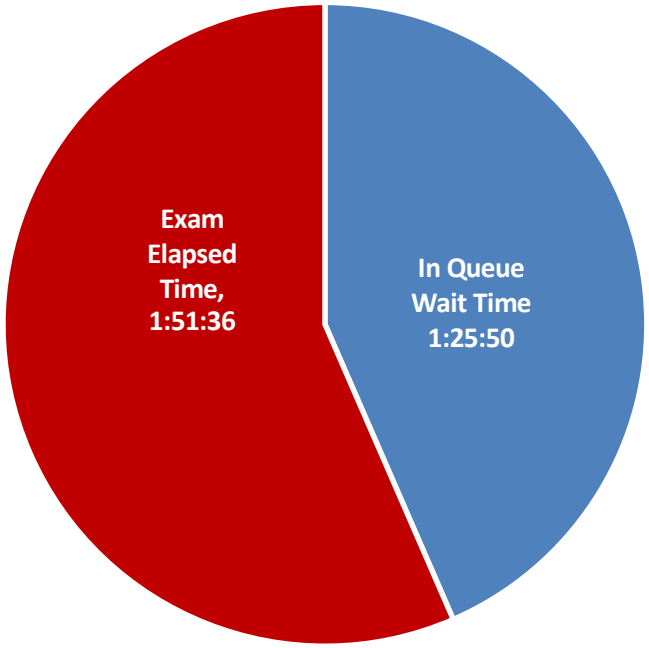
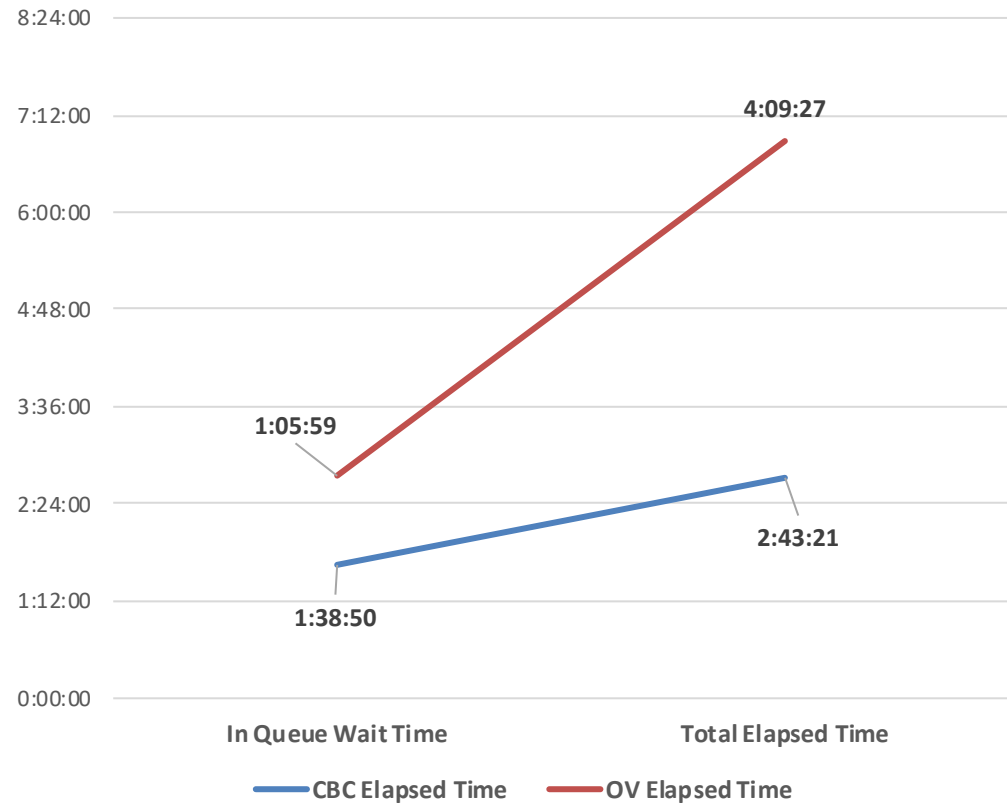
Consult Elapsed Time: January - March 2019

Average Consult Elapsed Time
In Queue to Exam Complete
(3:17:26)



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



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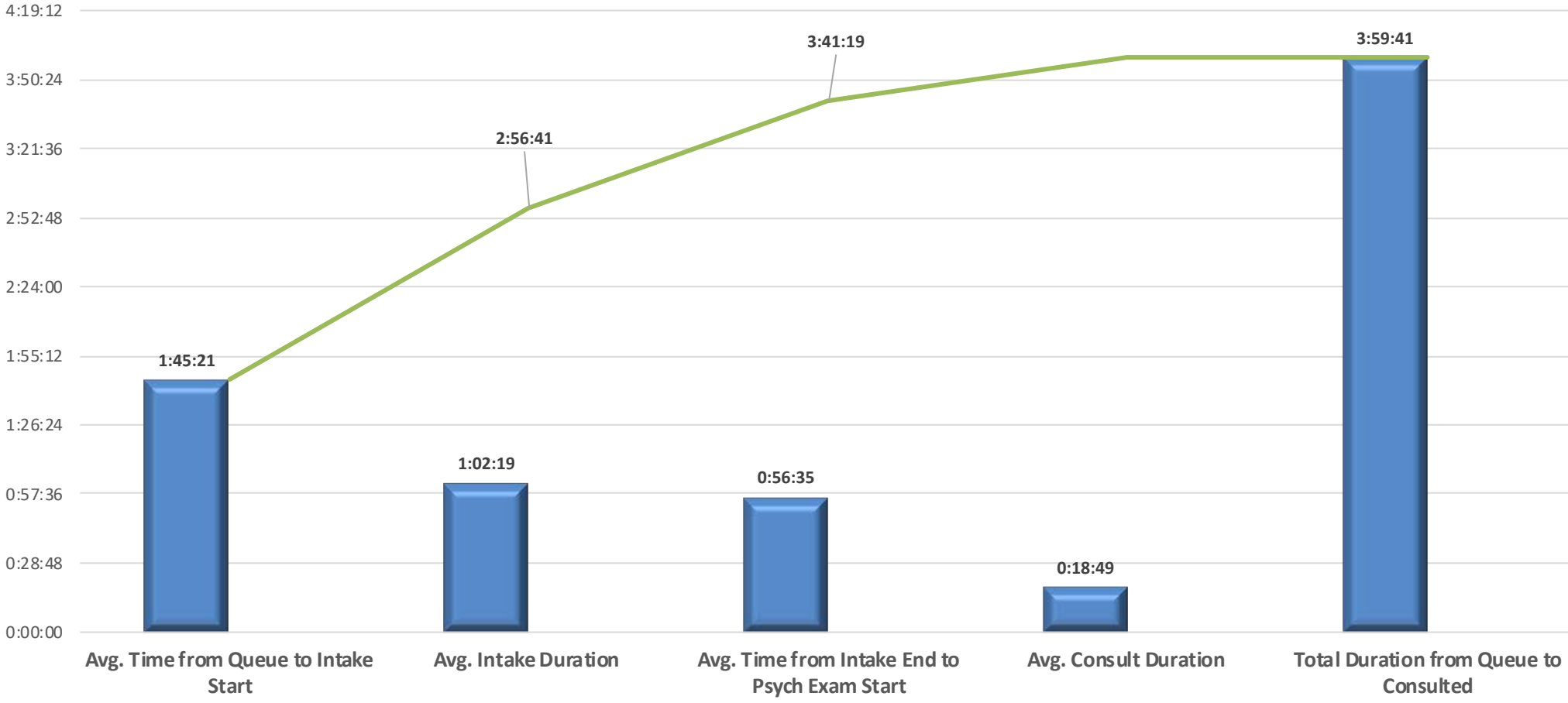
Carolina Behavioral Care & Old Vineyard Health Services

Key Processes and Elapsed Times Averages

January - December 2018



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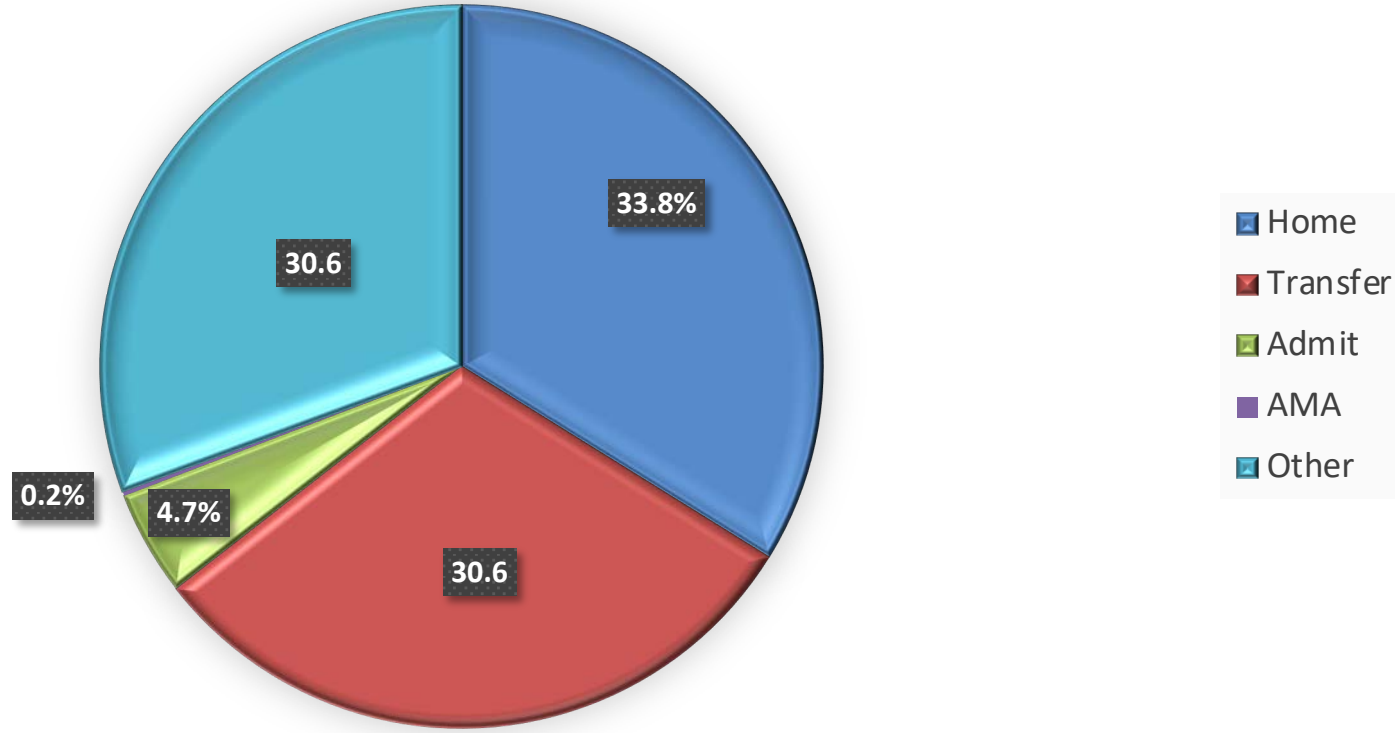
Percent of Patients by Discharge Disposition

Jan-Mar 2019



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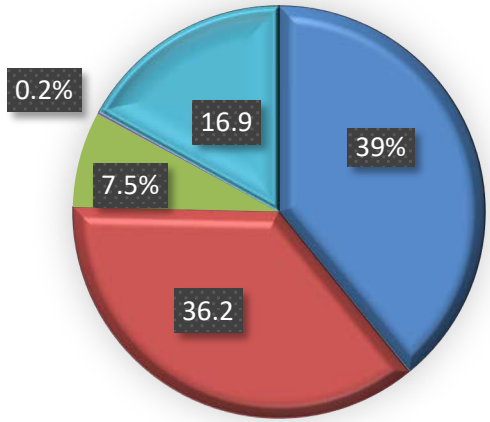
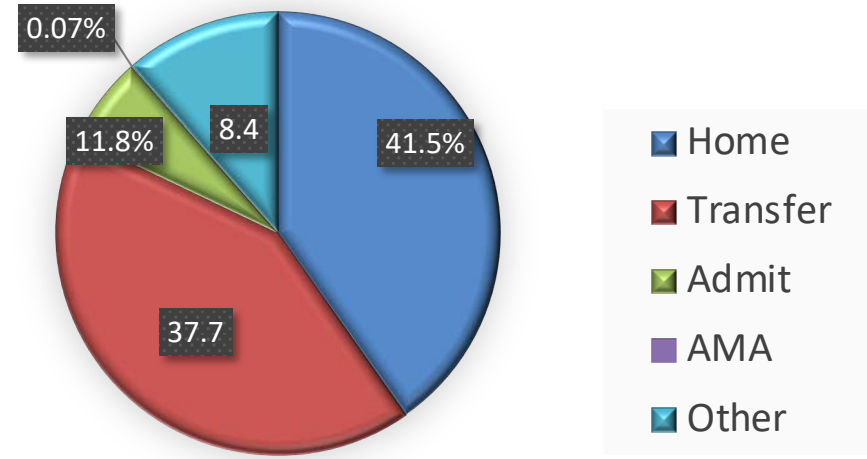
Percent of Patients by Discharge Disposition

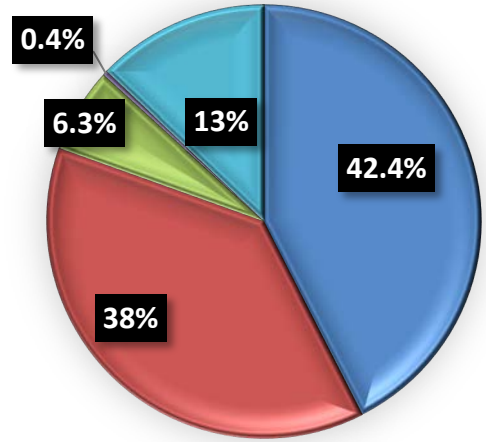
Oct-Dec 2018



Jul-Sep 2018



Apr-Jun 2018



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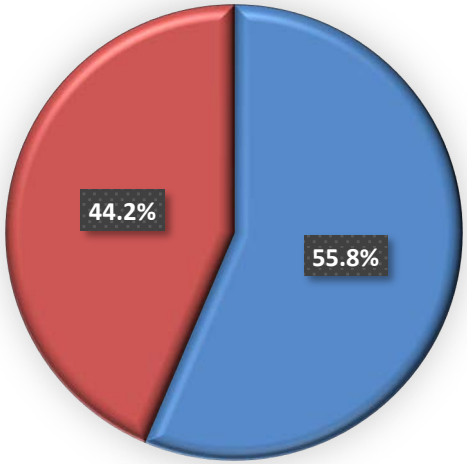
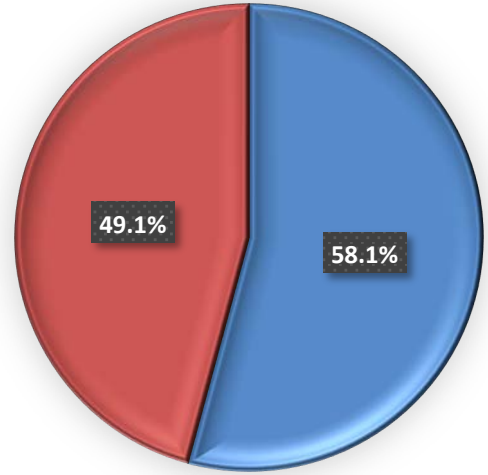
IVCs - By Release Status

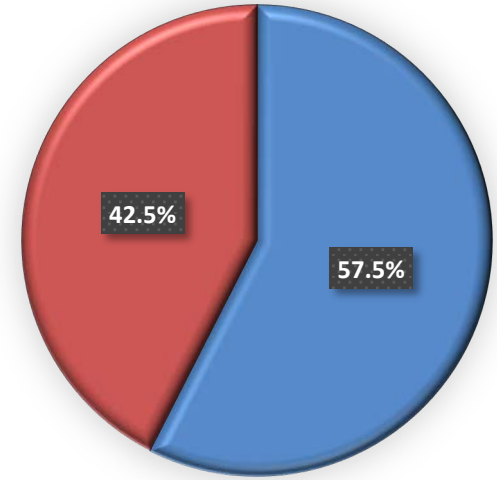
Jul-Sep 2018



Oct-Dec 2018



Jan-Mar 2019



IVCs - percent not released

IVCs - percent released

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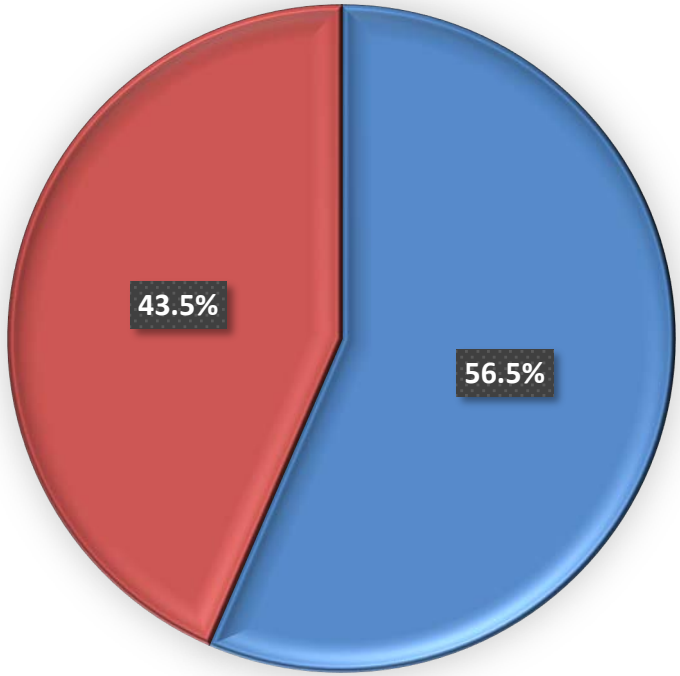
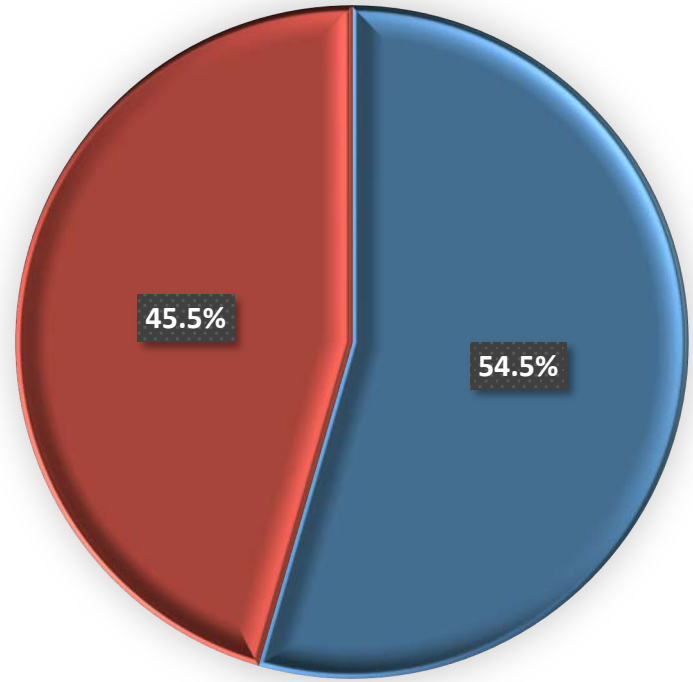
IVCs - By Release Status

April - June 2018



January - March 2018



IVCs - percent not released

IVCs - percent released

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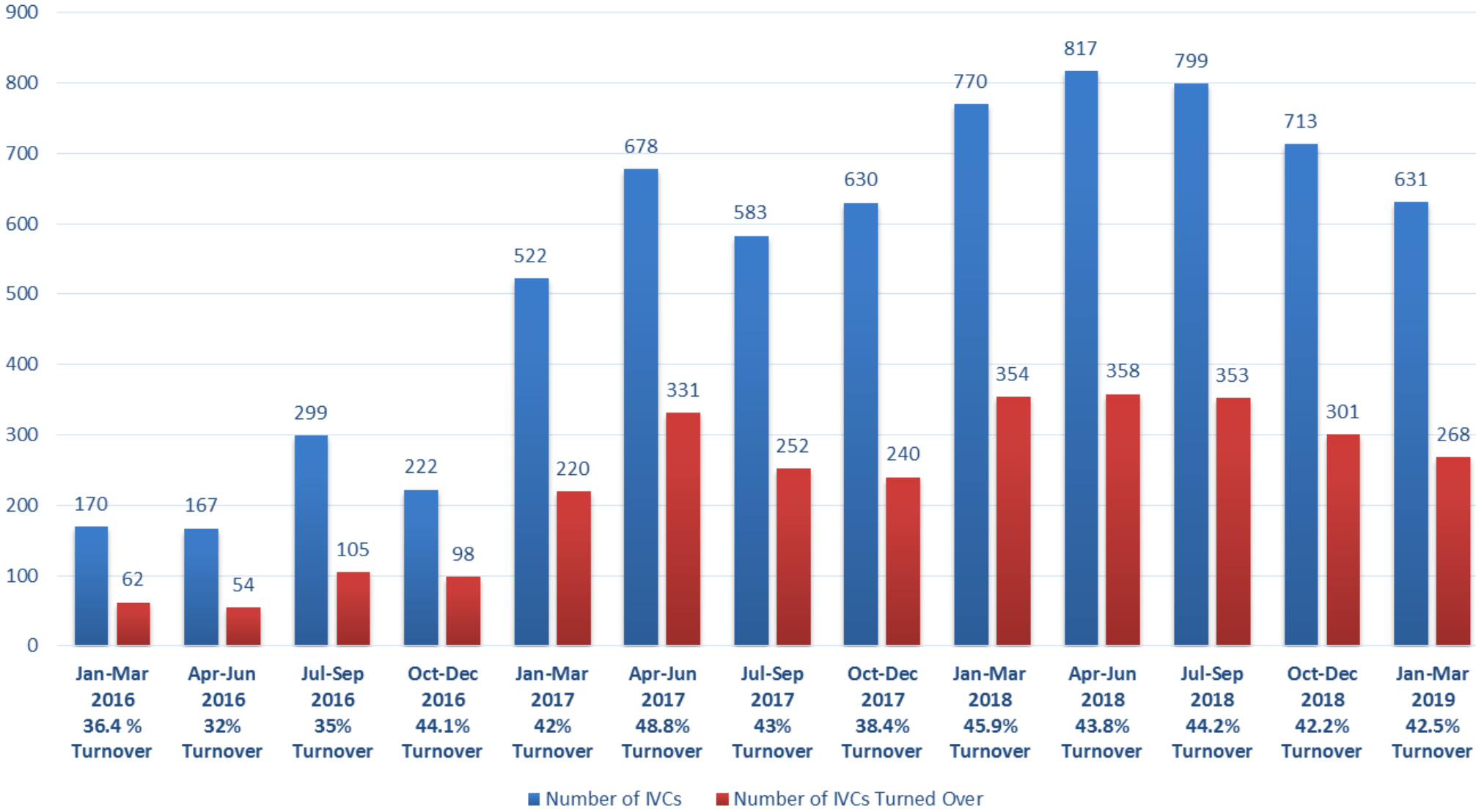
Number of IVCs and IVCs Turned Over by Quarter



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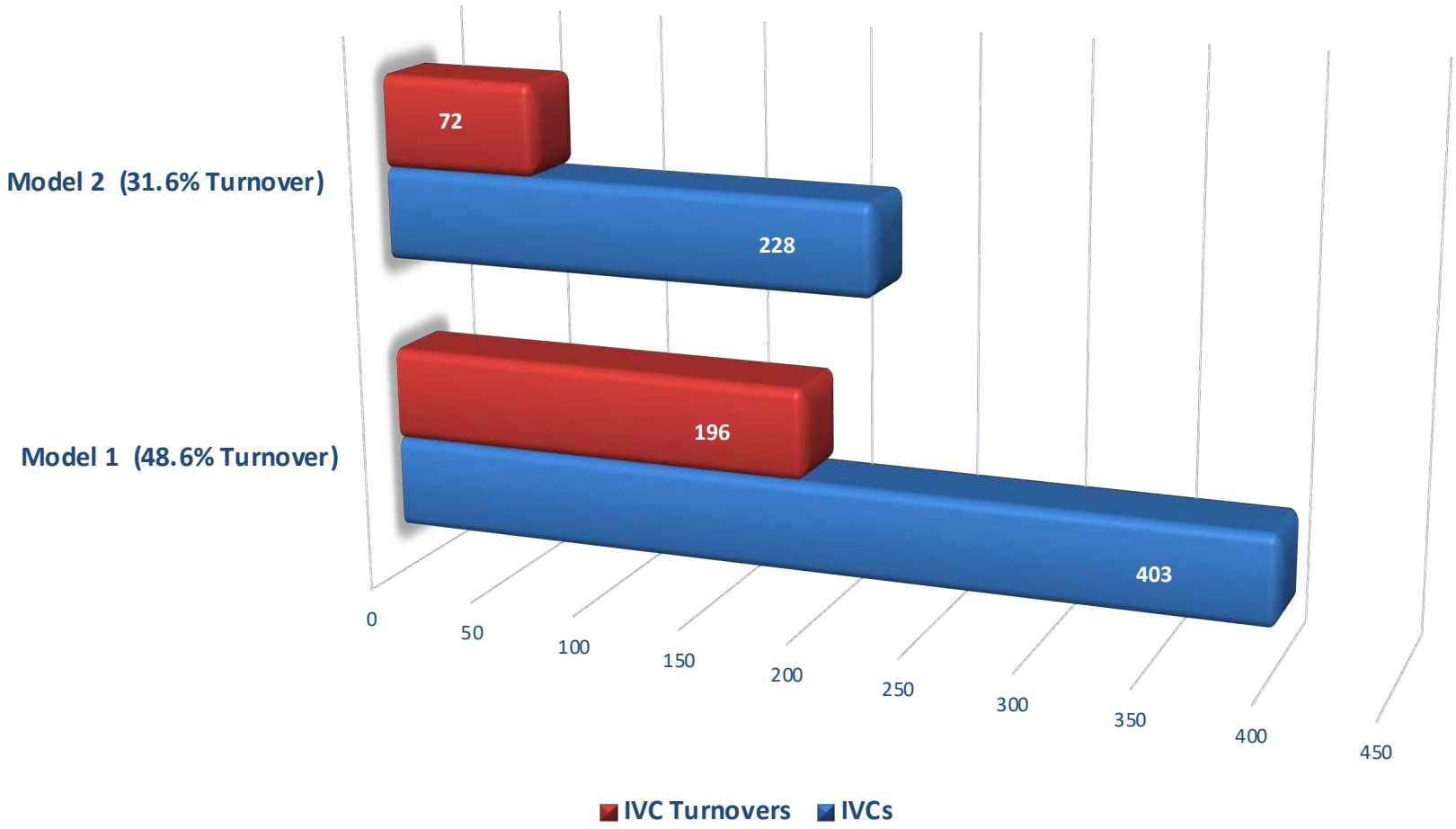
Number of IVCs and IVC Turnovers by Model

Jan-Mar 2019



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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

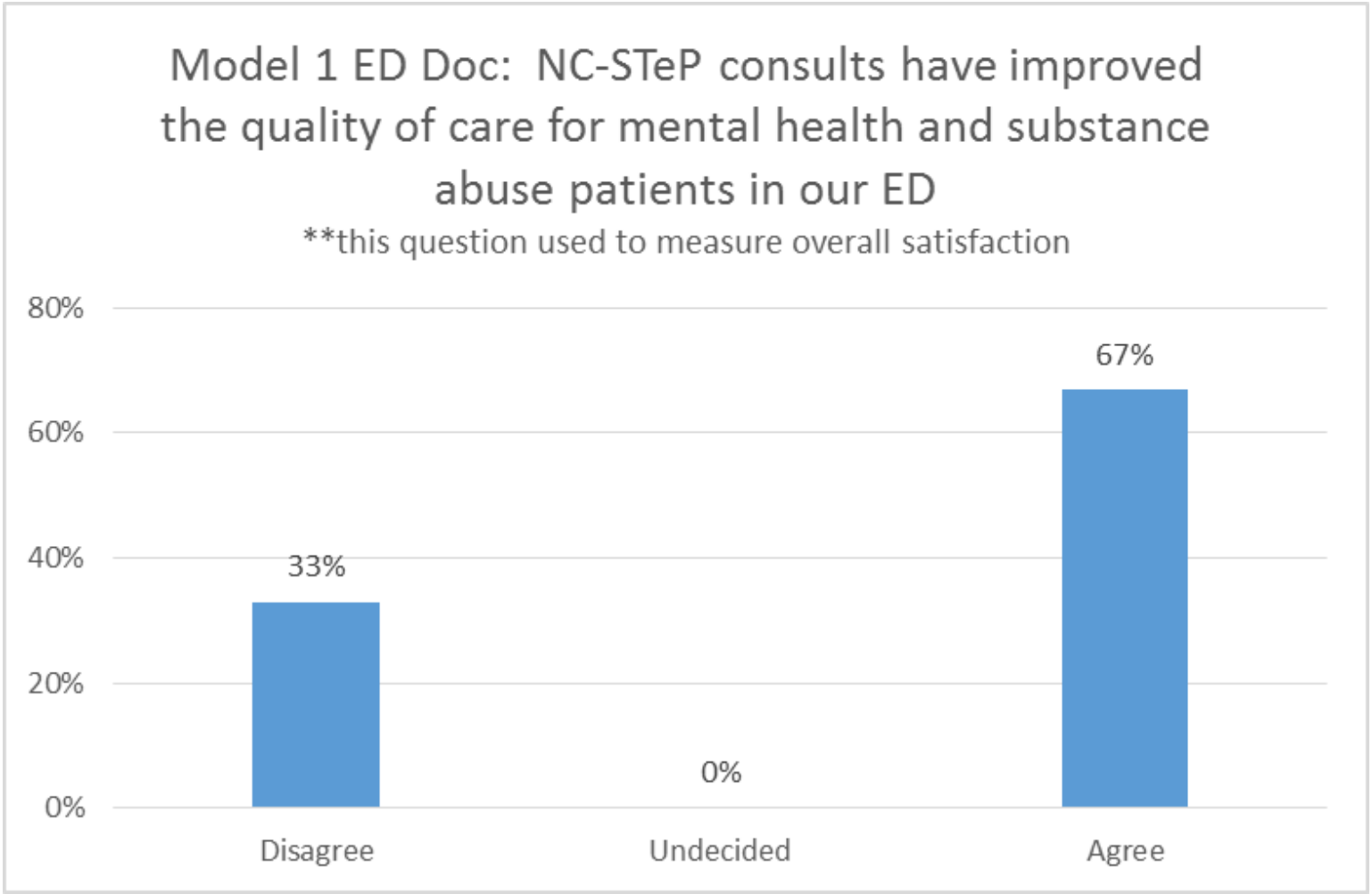
Each group was given a different survey (with different questions) based on their role in the program.

Satisfaction Surveys Methodology

- Invitations to participate were sent via electronic mail.
- For groups that use the portal (Model 1 ED staff, psychiatrists, and intake specialists) there was a link to the survey on the portal log-in page.
- ED staff also received a pop-up within the portal with a link to the survey.
- Surveys were completed online via Qualtrics software.
- For each group, one summary question was selected for an overall “satisfaction” rate.
- **The overall satisfaction rate was 81%.**

Model 1 Hospital ED Physicians Results

67% report that NC-STeP consults have improved the quality of care for mental health/substance abuse patients in our ED



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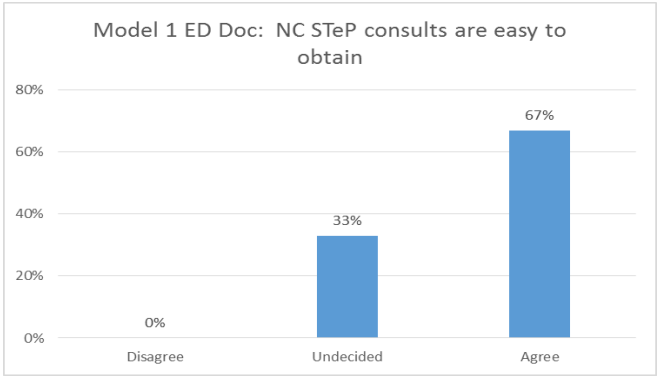
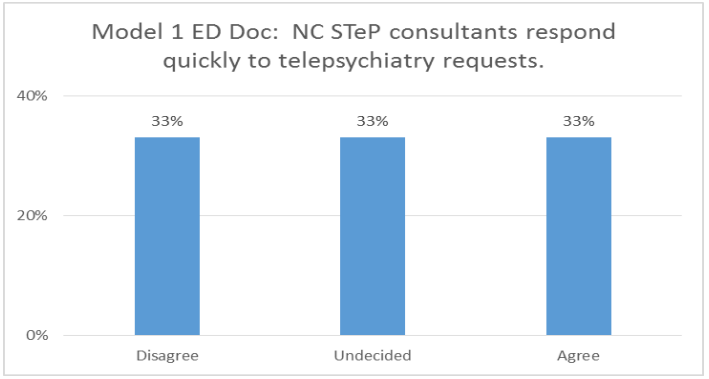
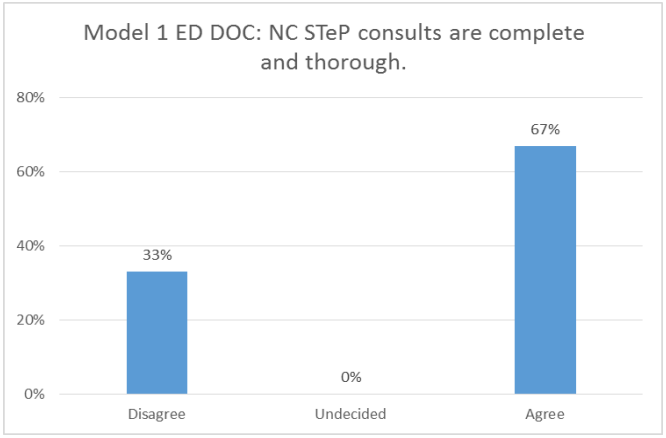
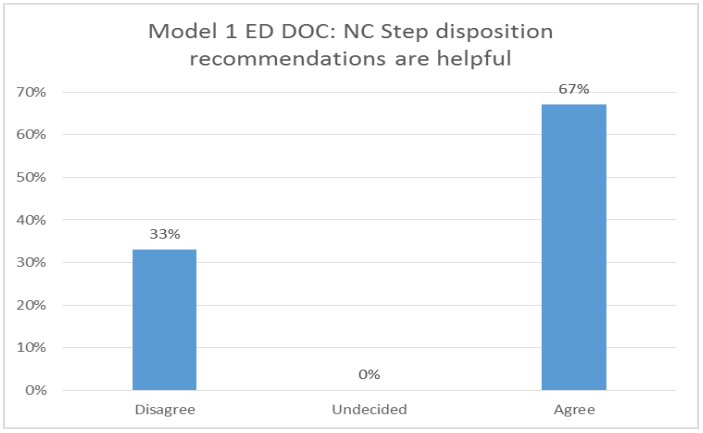
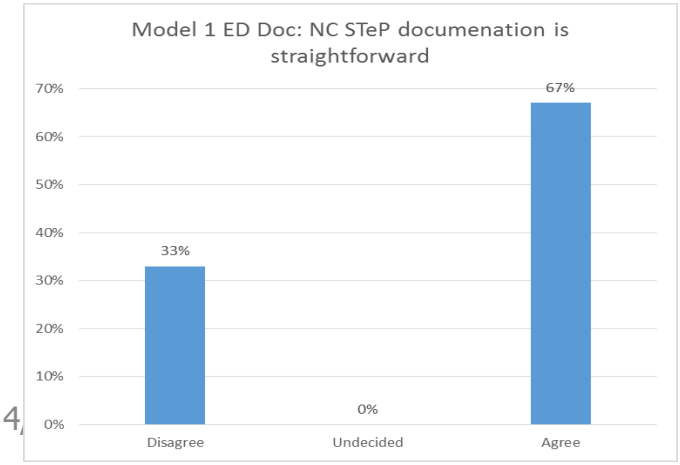
Model 1 Hospital ED Physicians Results

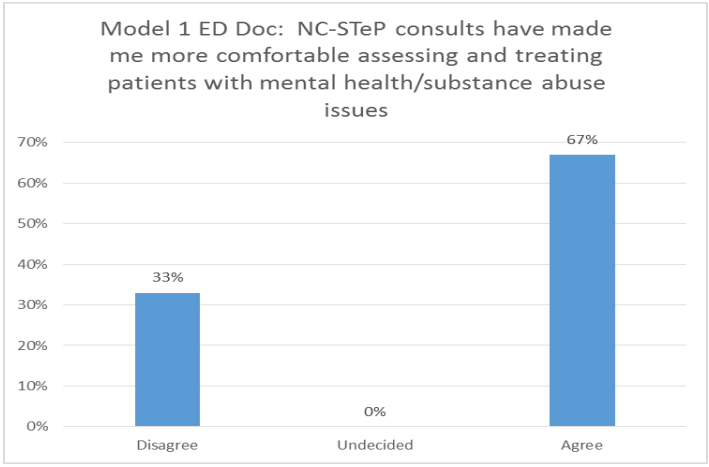






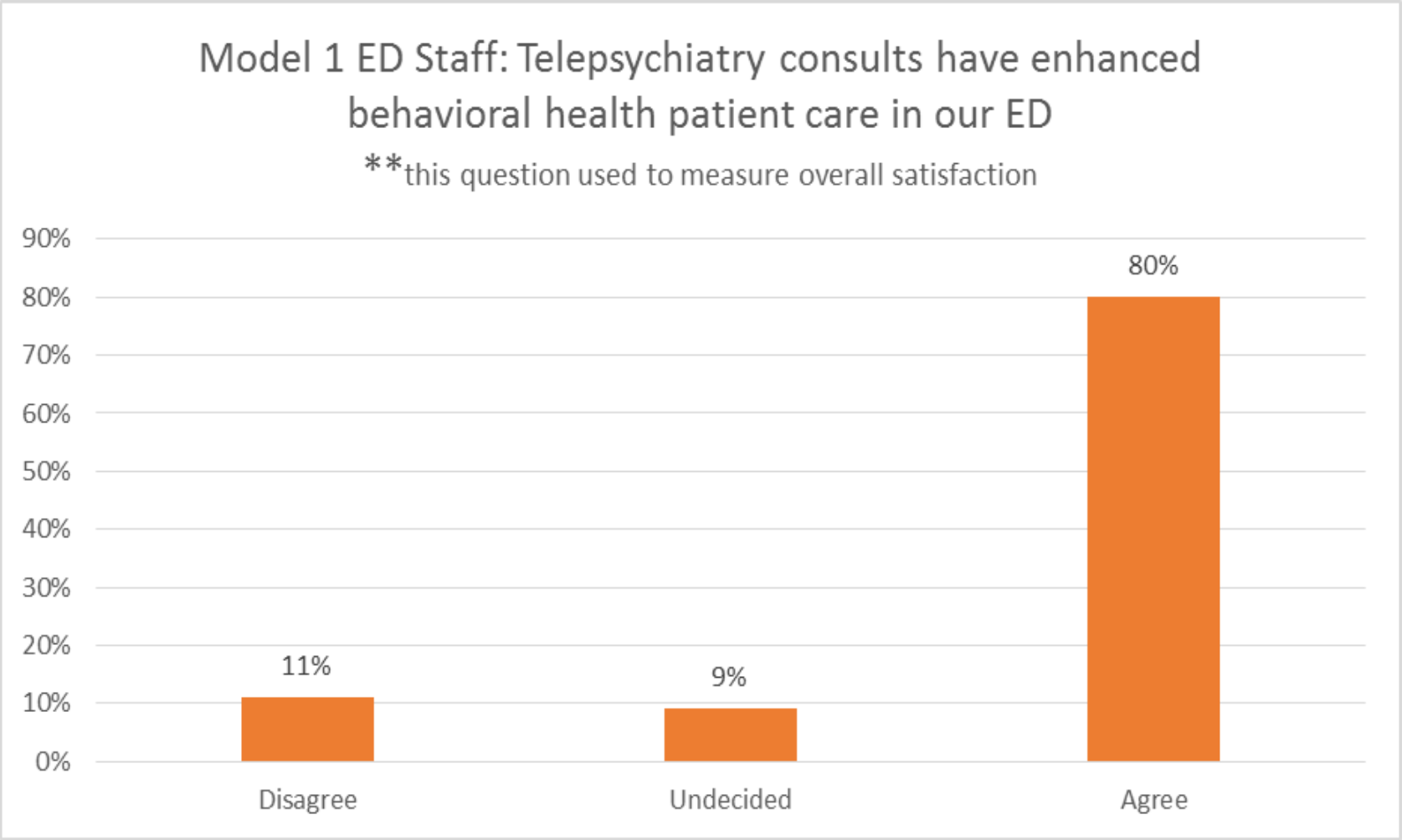






Model 1 Hospital ED Staff Results

80% agreed with the statement that telepsychiatry consults have enhanced behavioral health patient care in our ED, 11% disagreed, and 9% were undecided



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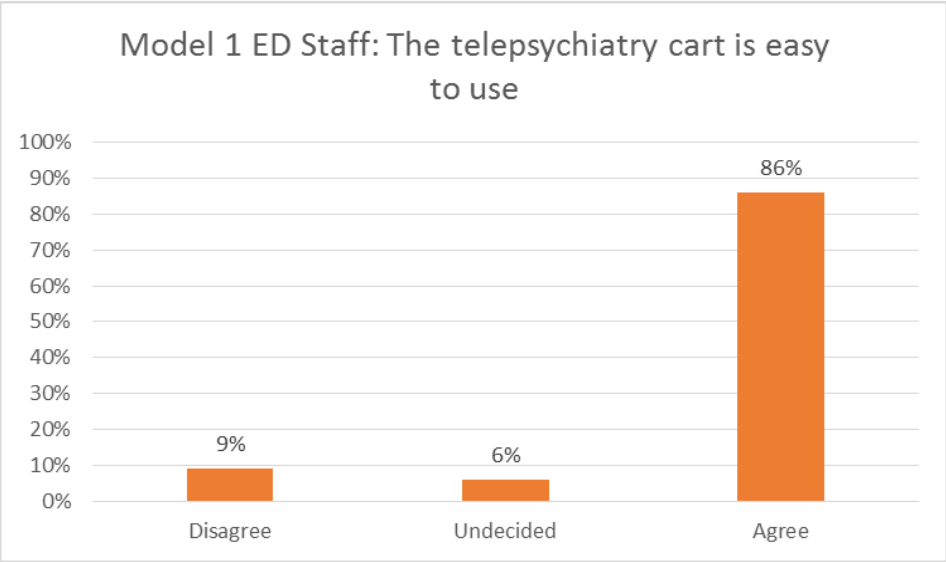
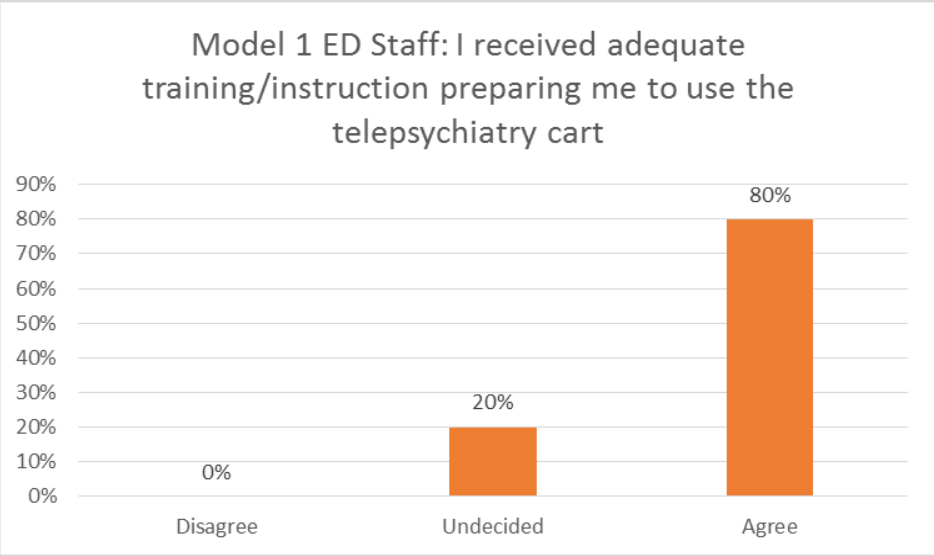
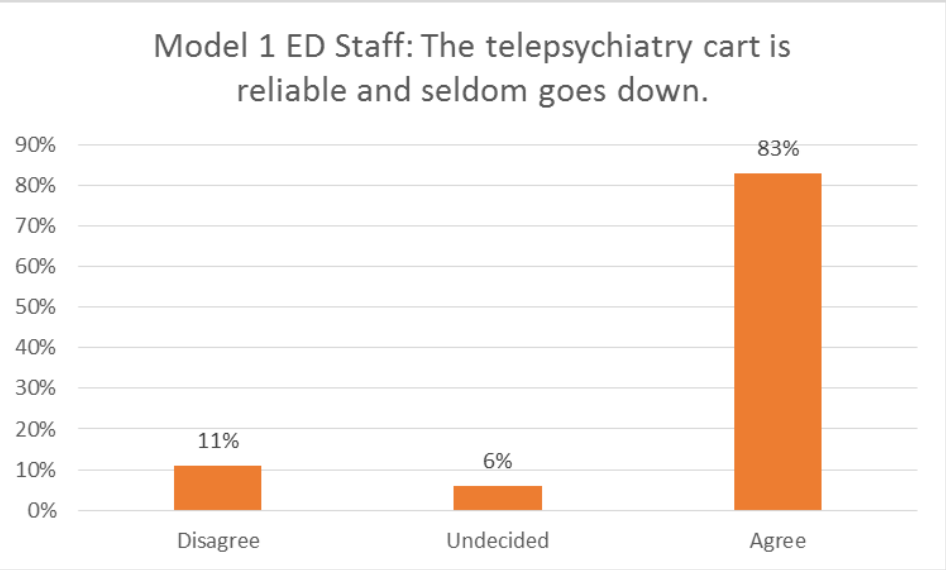
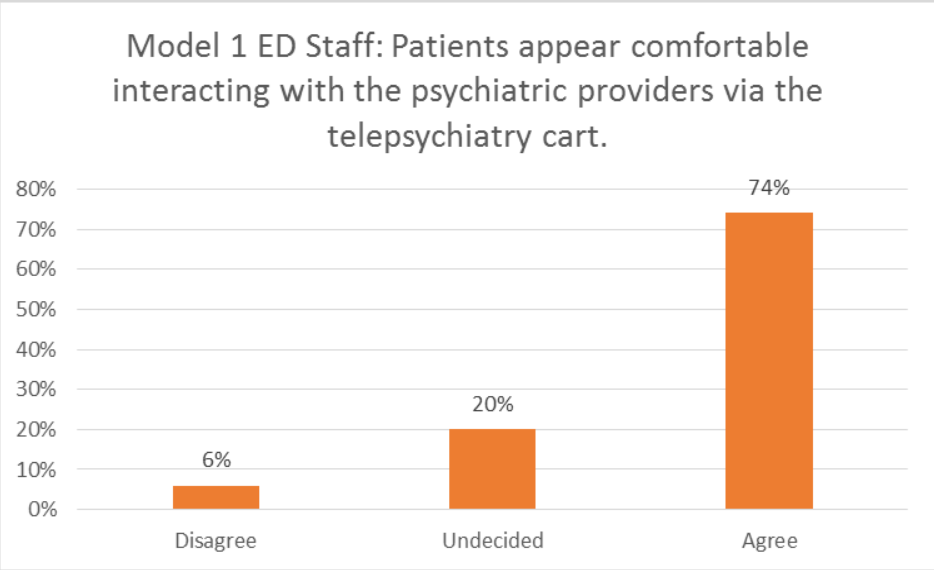
Model 1 Hospital ED Staff Results









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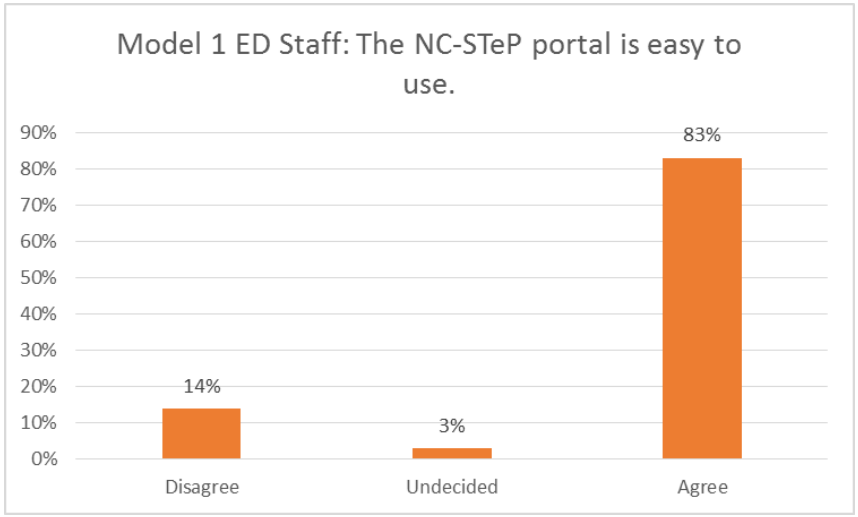
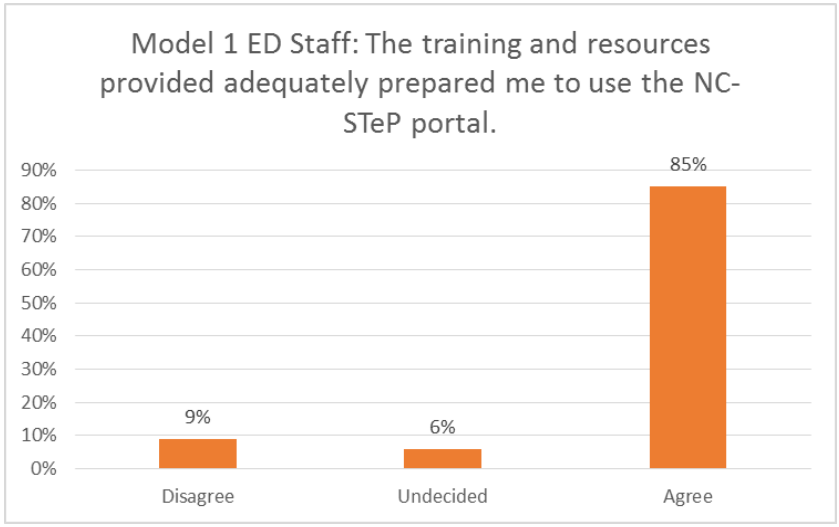
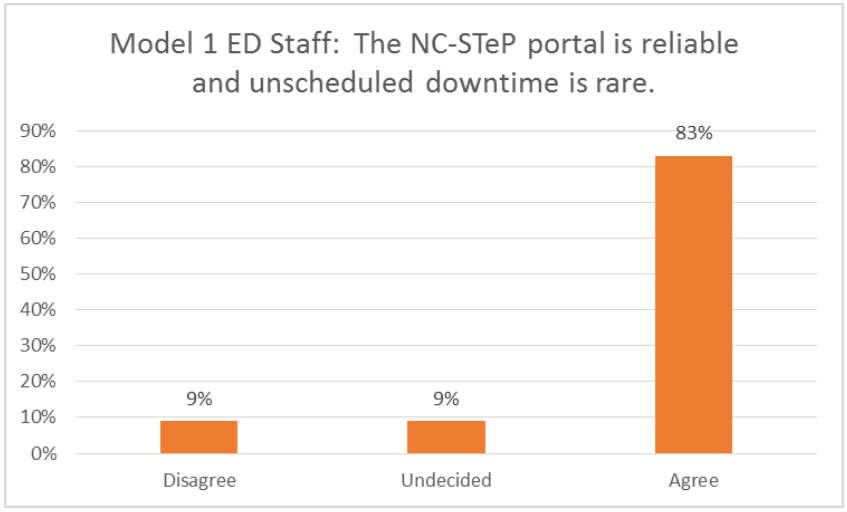
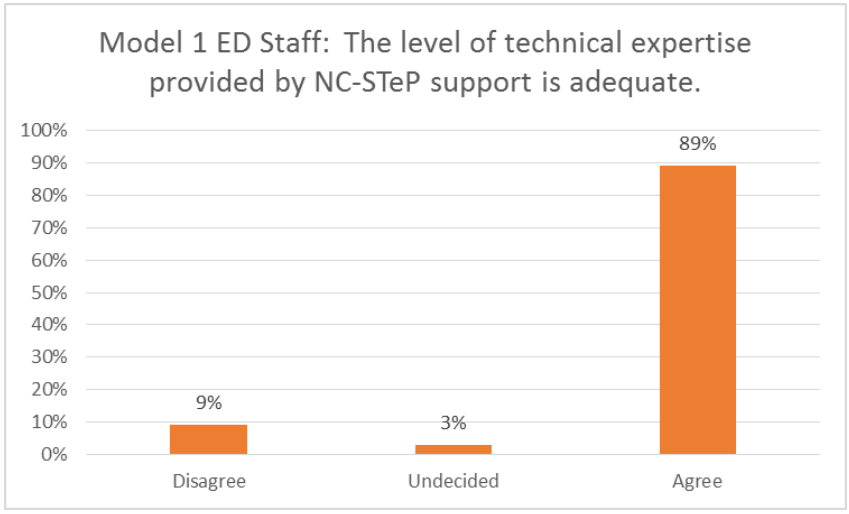
Model 1 Hospital ED Staff Results



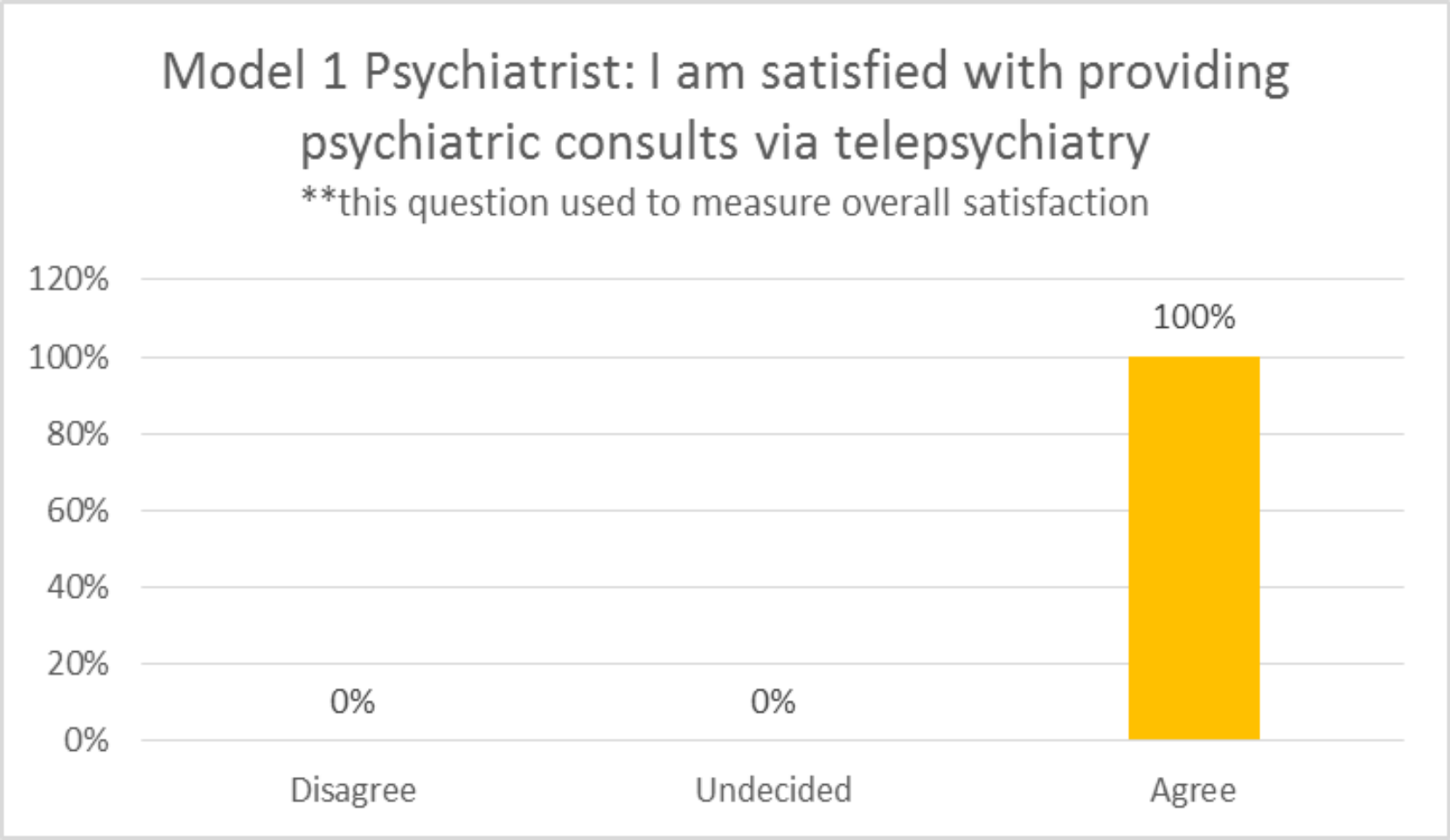






Model 1 Provider Psychiatrist Results

100% agreed, "I am satisfied with providing psychiatric consults via telepsychiatry"



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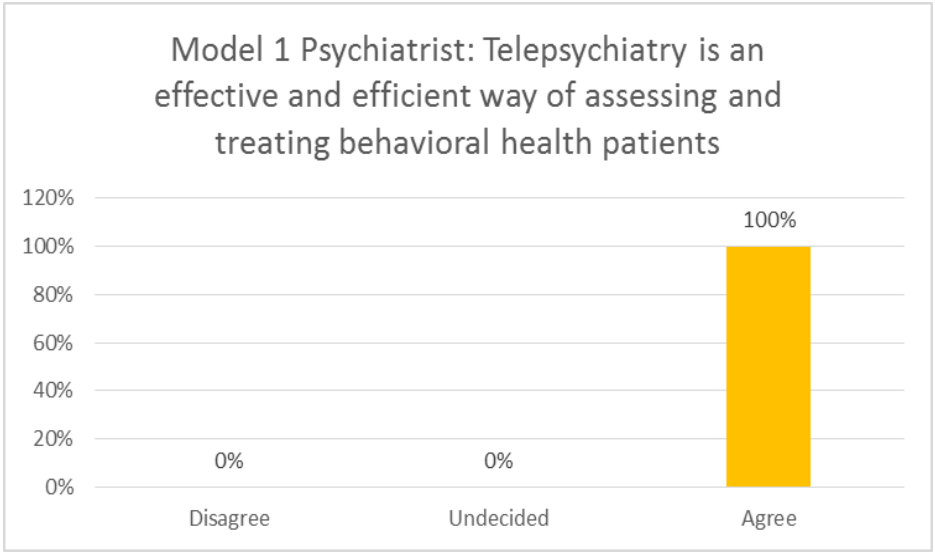
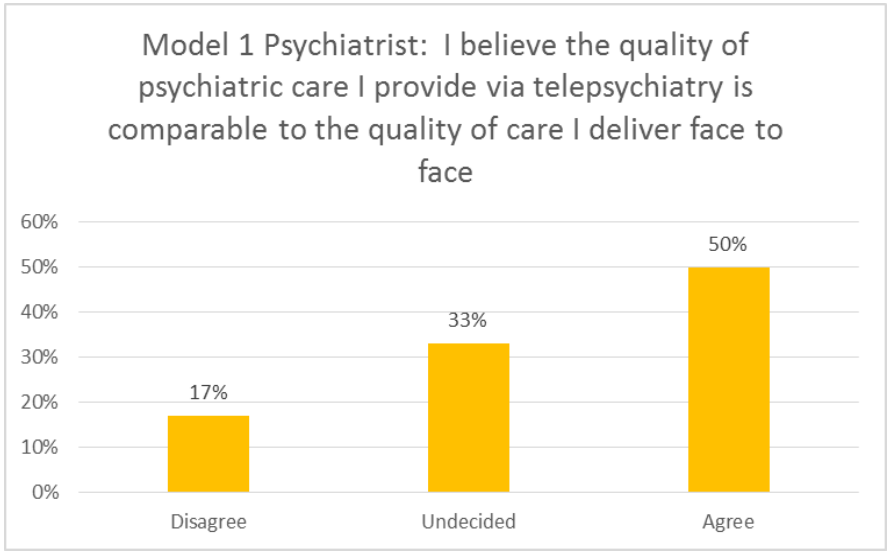
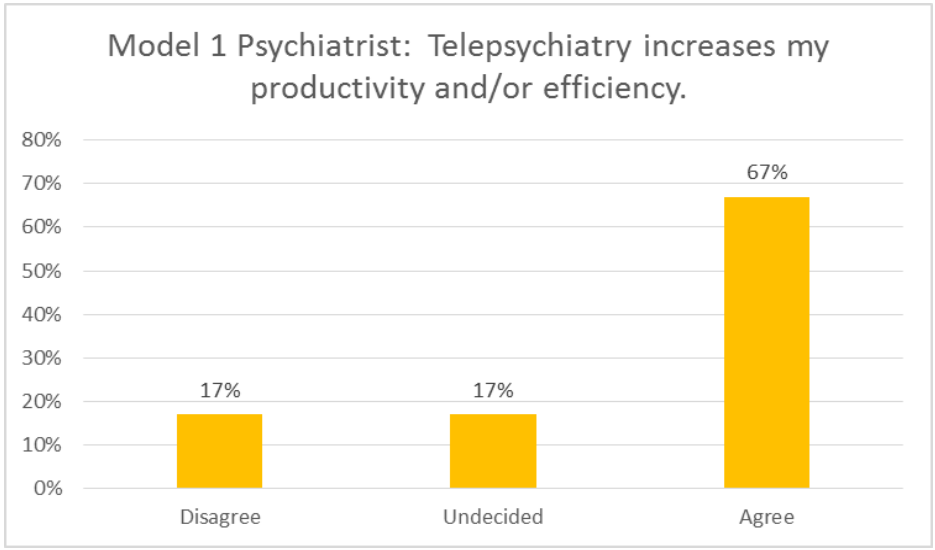
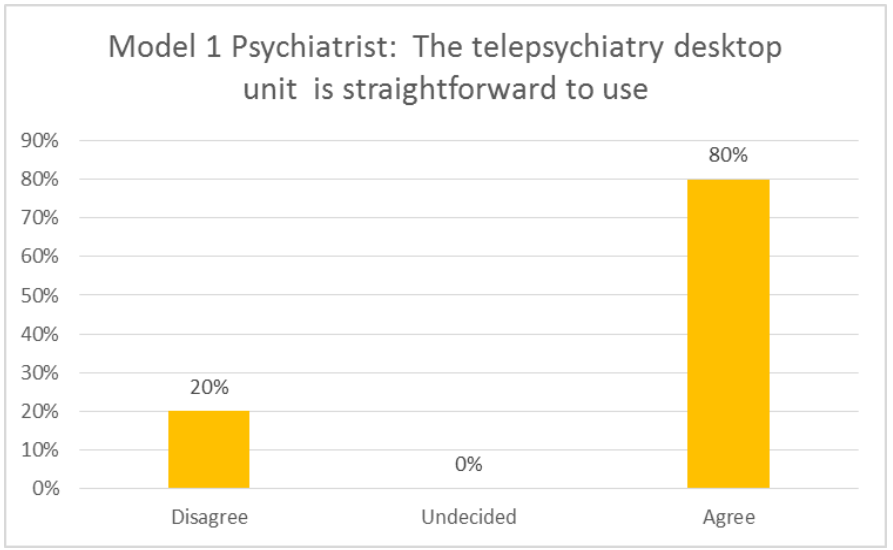
Model 1 Provider Psychiatrist Results









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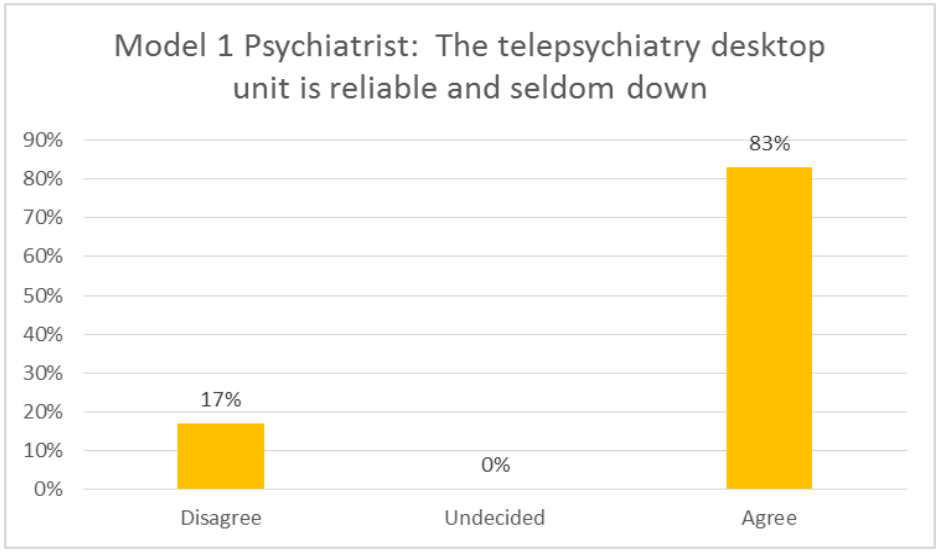
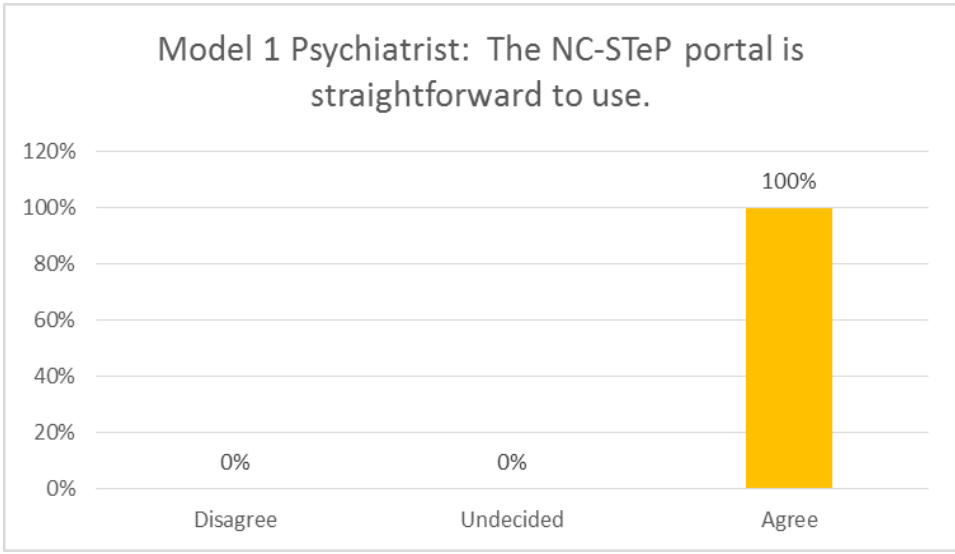
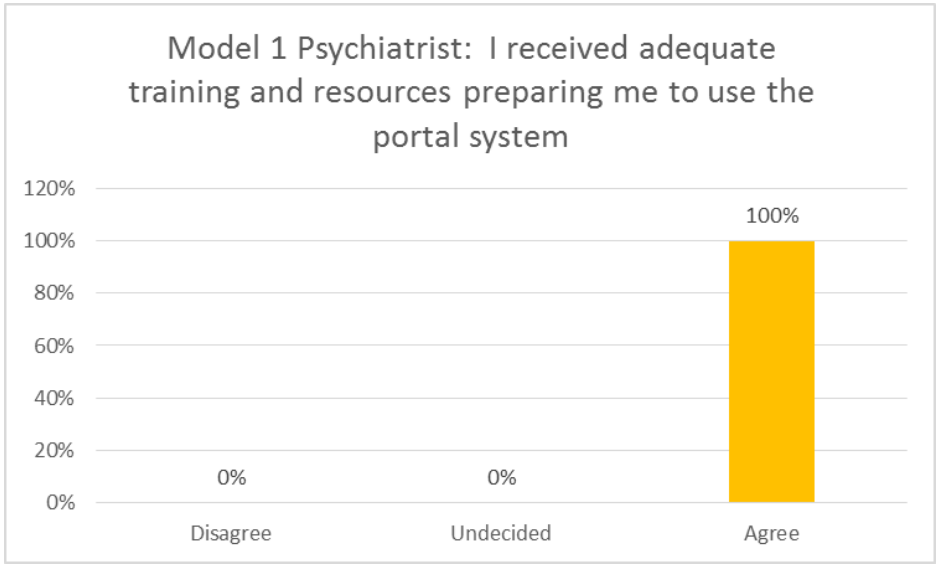
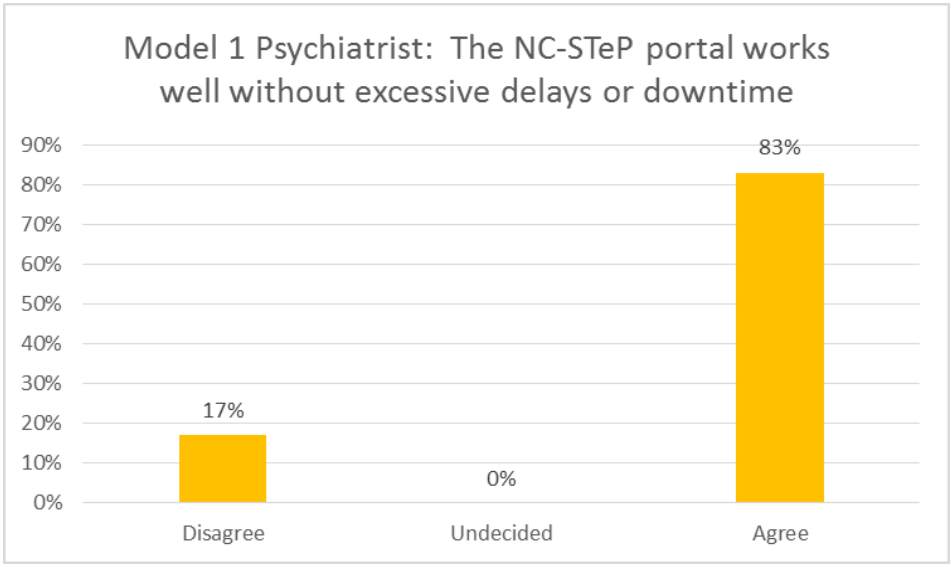
Model 1 Provider Psychiatrist Results









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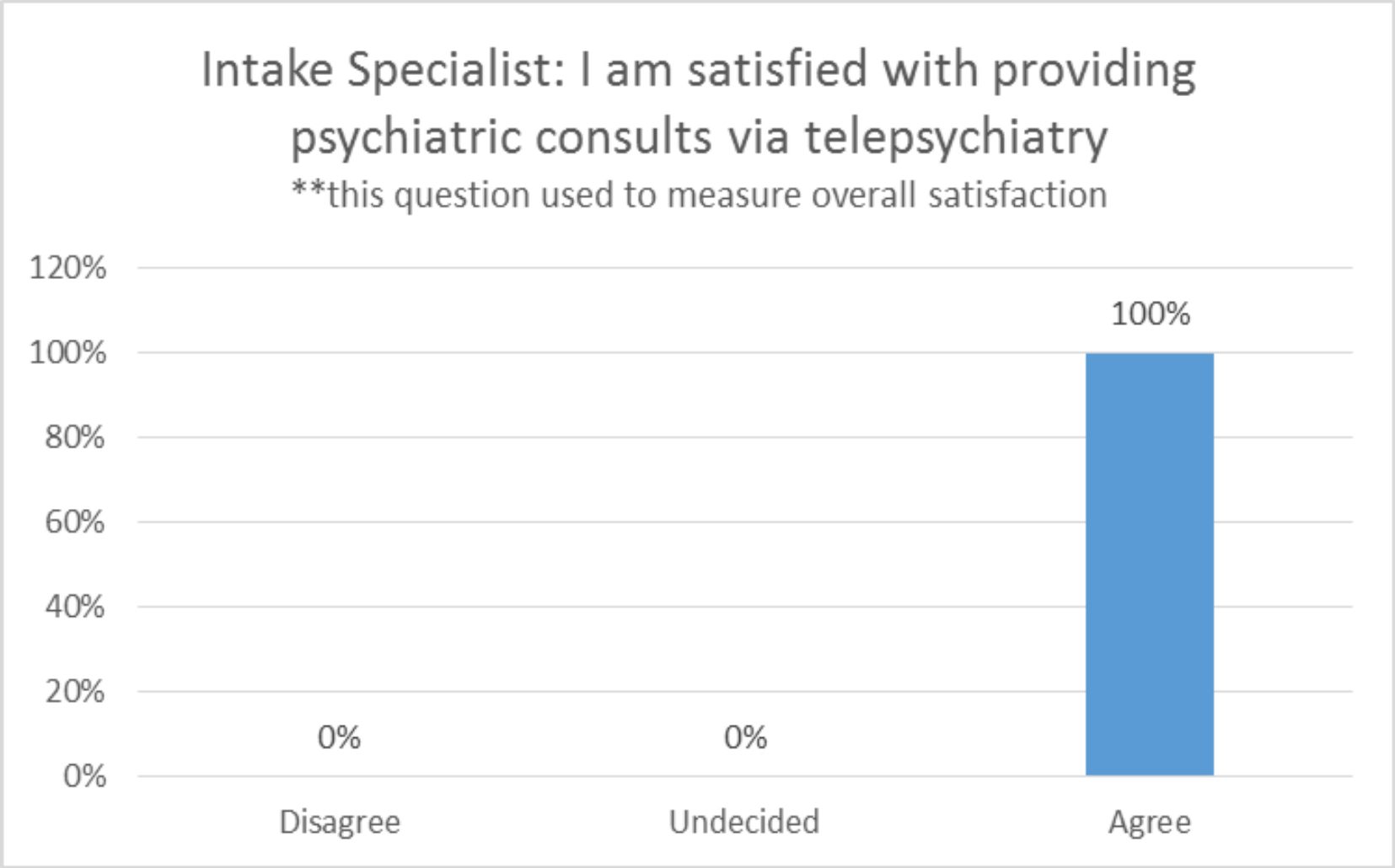
Model 1 Psychiatric Intake Specialist Results

100% agreed, "I am satisfied with providing psychiatric consults via telepsychiatry"



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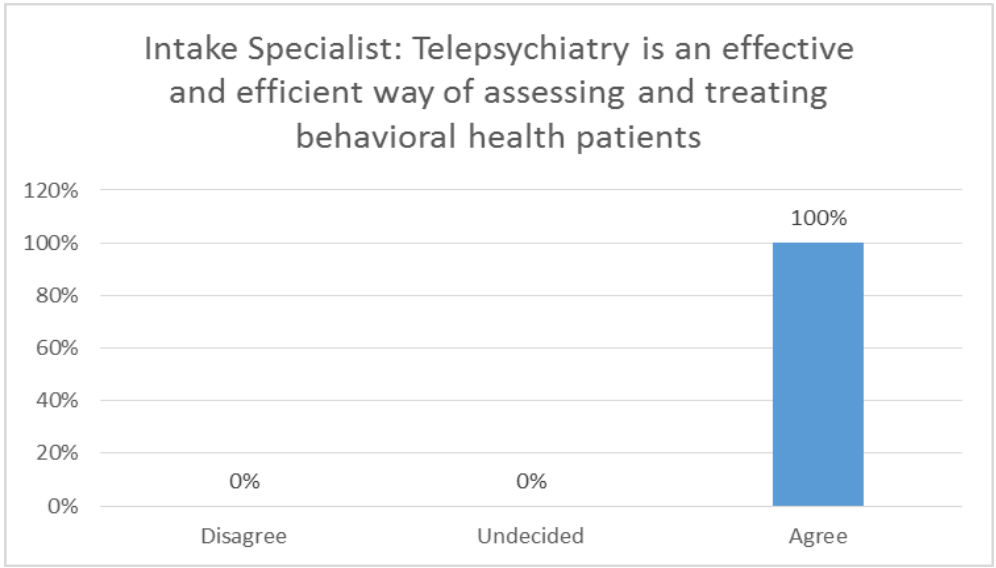
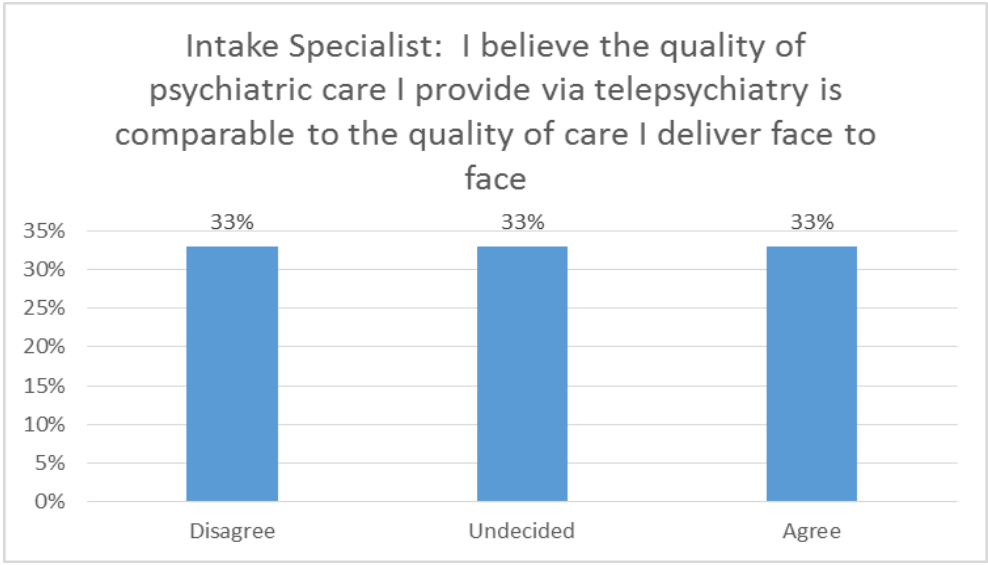
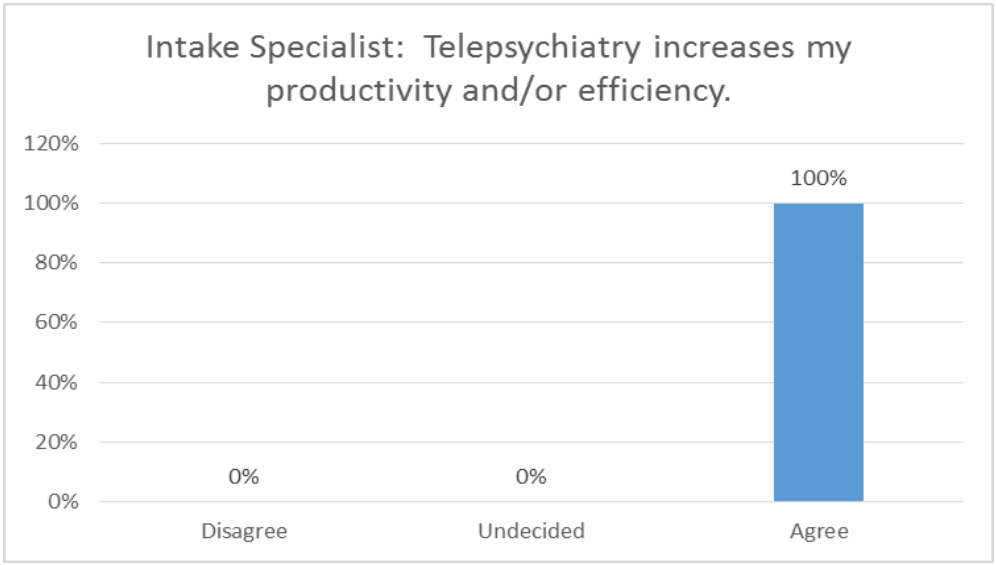
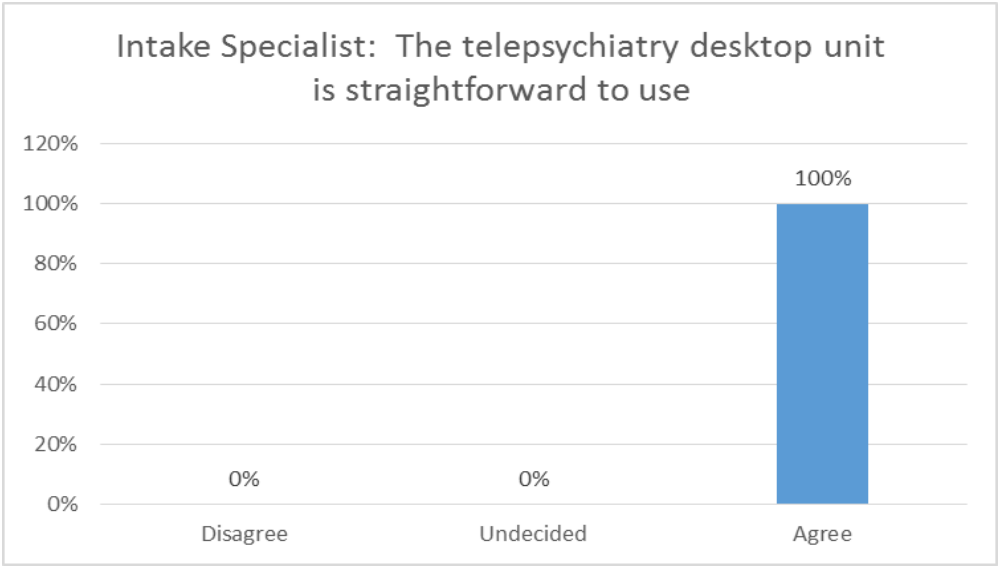
Model 1 Psychiatric Intake Specialist Results









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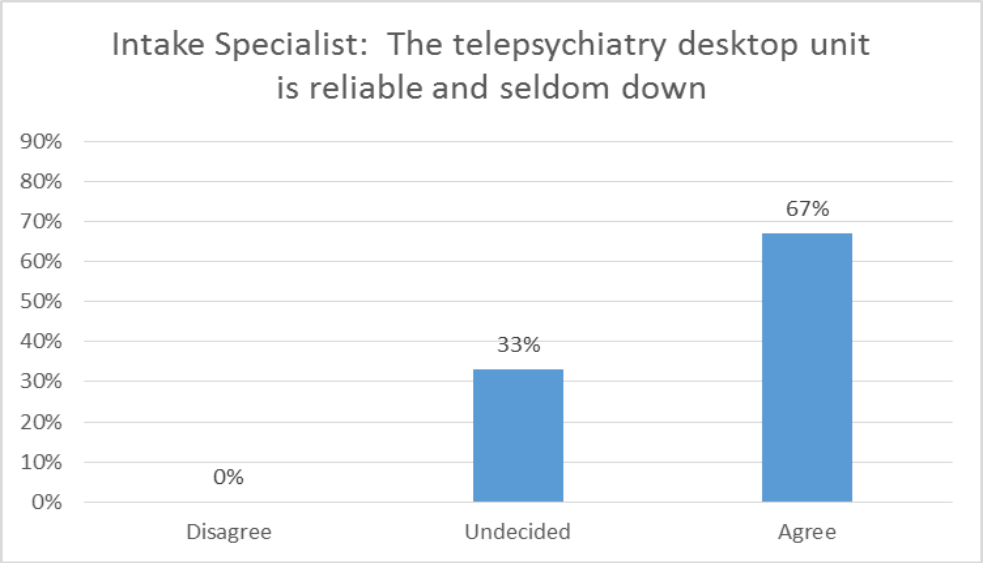
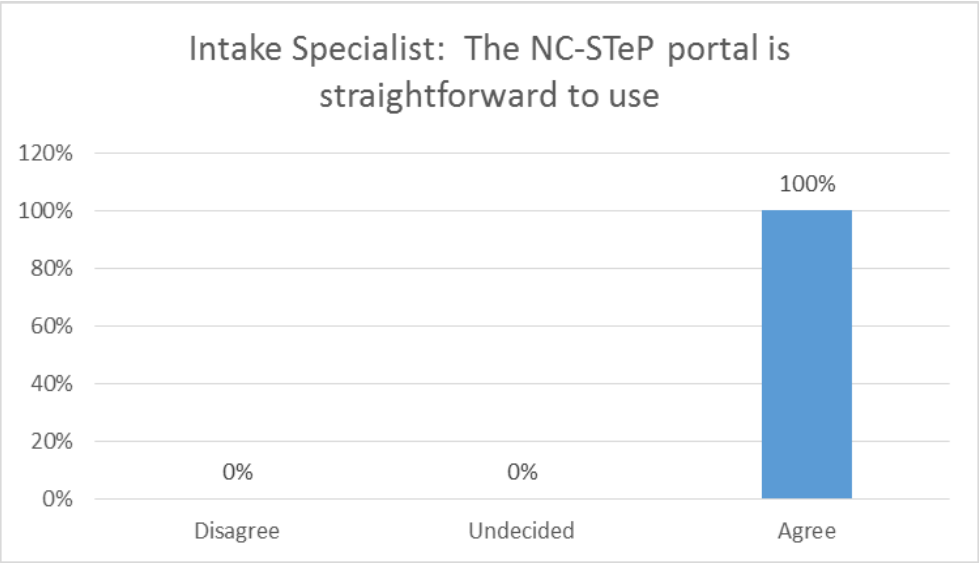
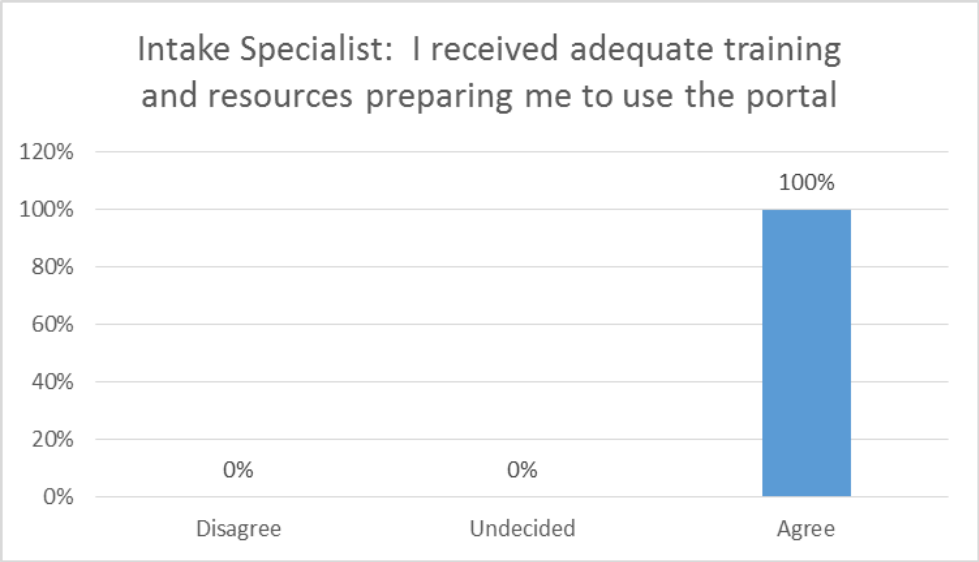
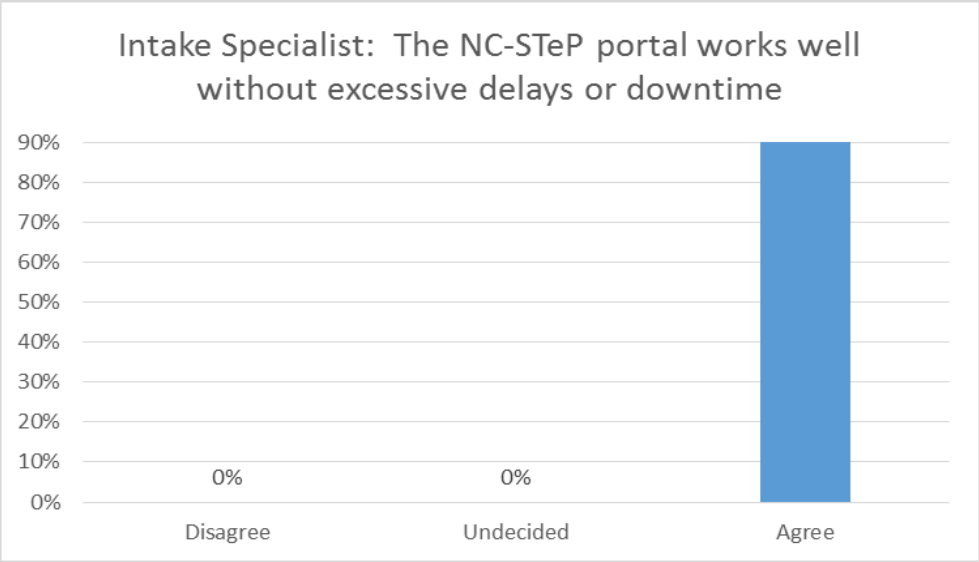
Model 1 Psychiatric Intake Specialist Results









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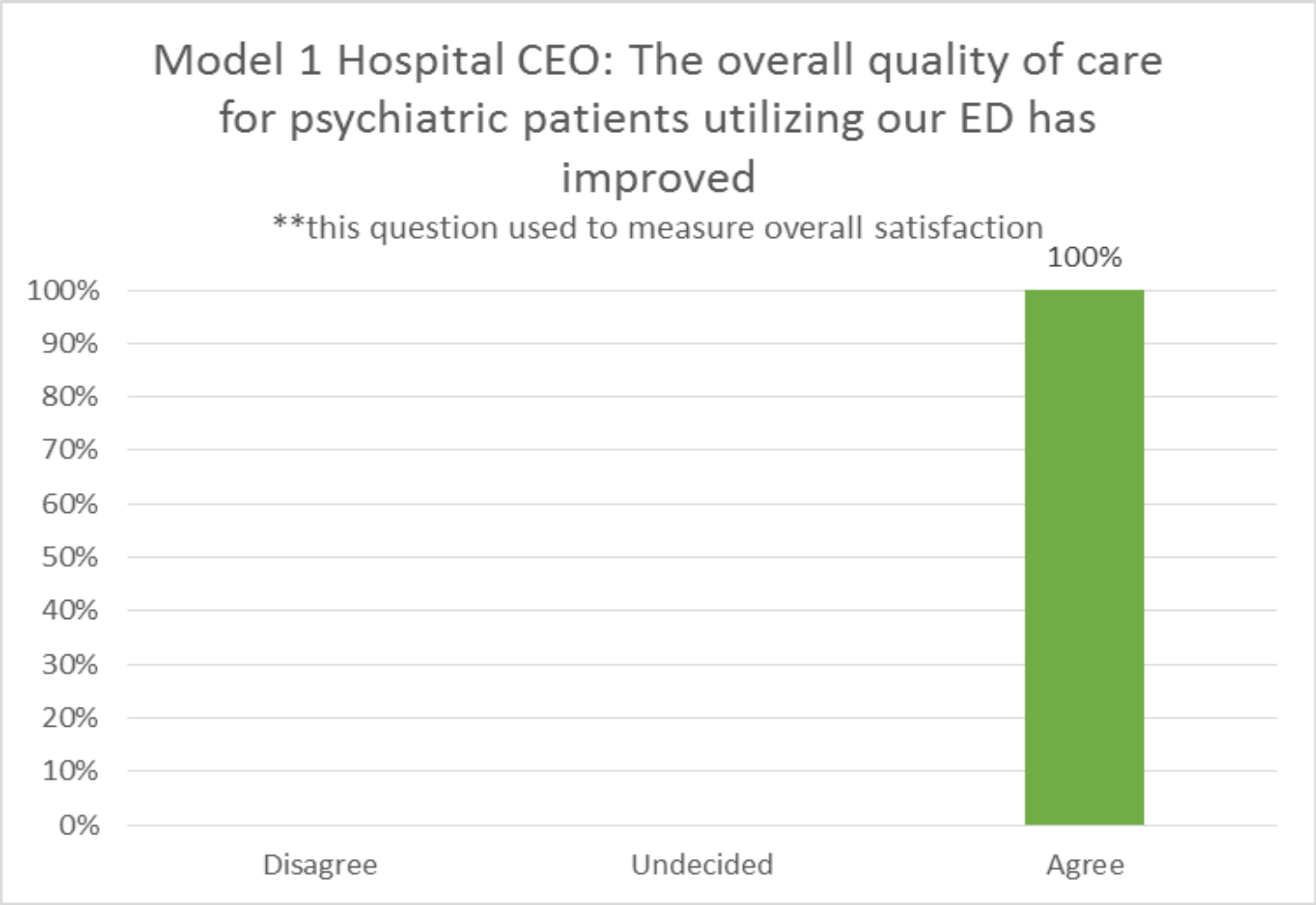
Model 1 CEO/COO/CNO/ED Manager Results

100% agree that, "the overall quality of care for psychiatric patients in our ED has improved"



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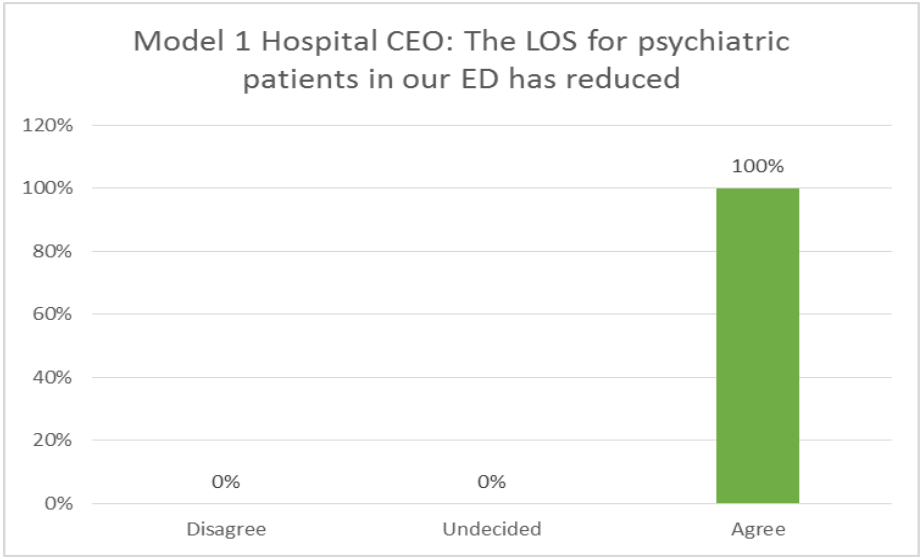
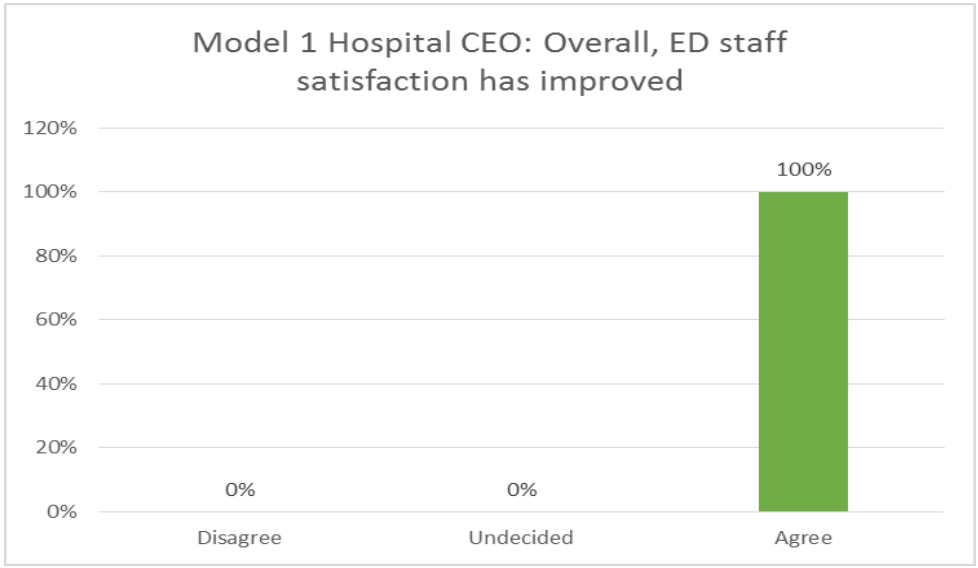
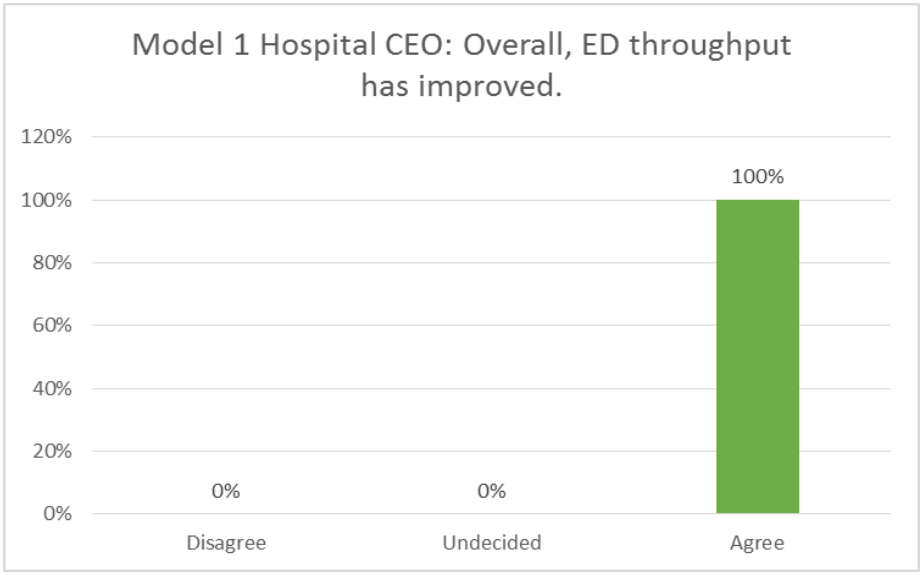
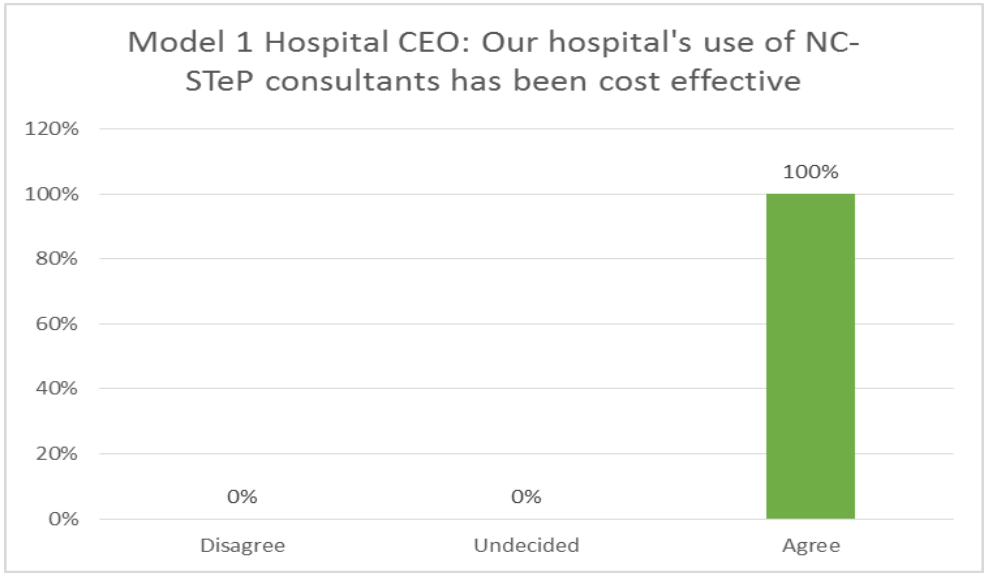
Model 1 CEO/COO/CNO/ED Manager Results









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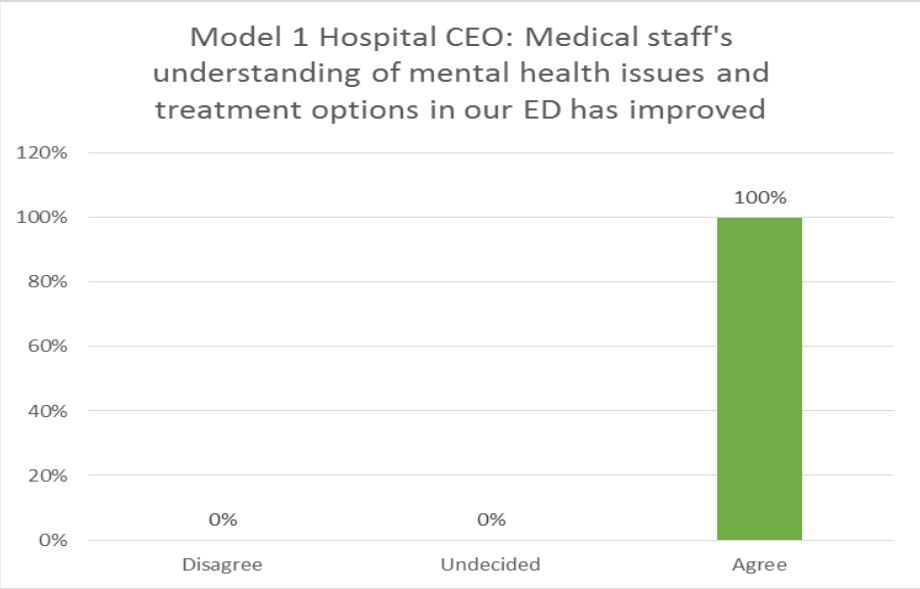
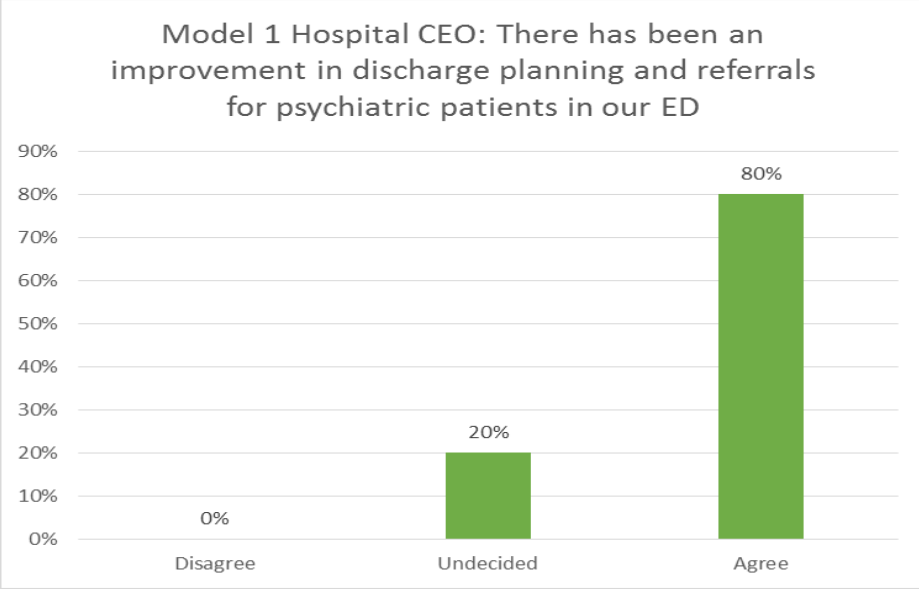
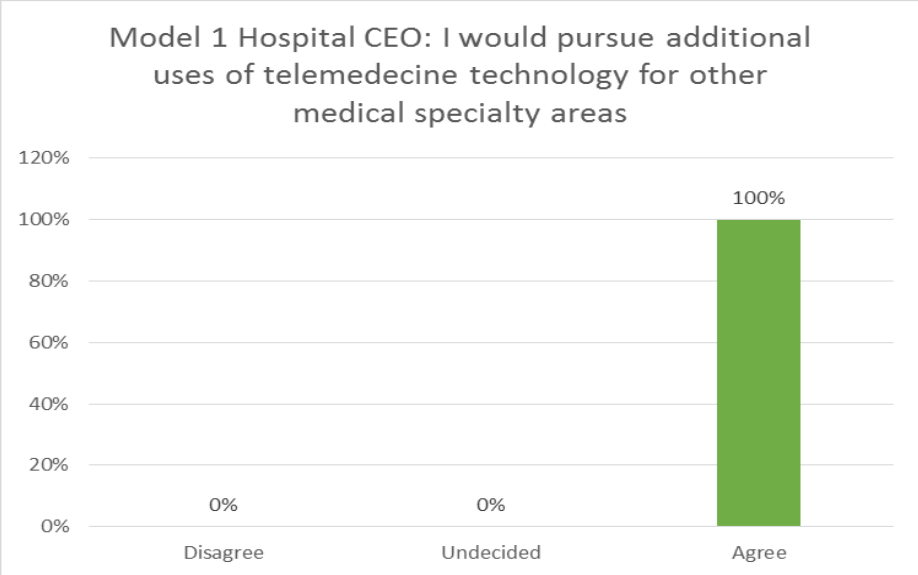
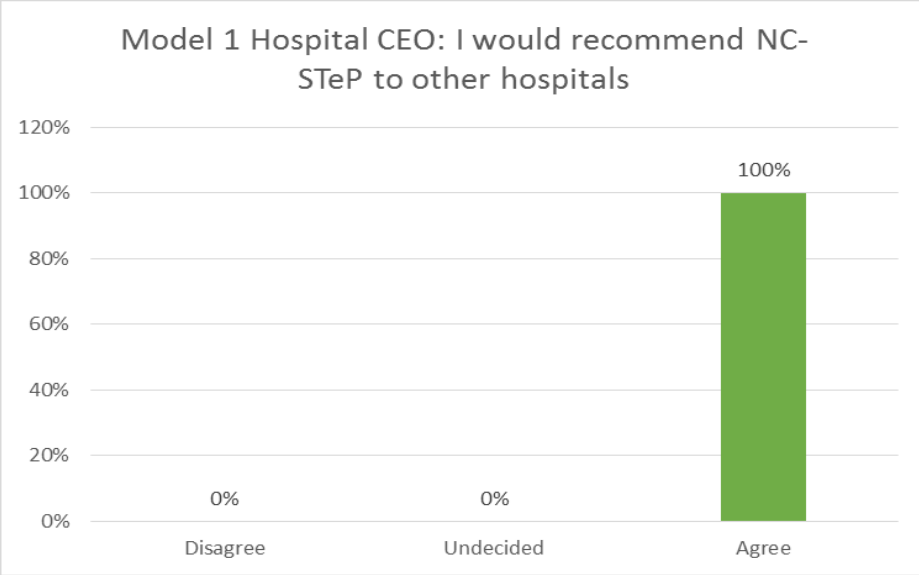
Model 1 CEO/COO/CNO/ED Manager Results









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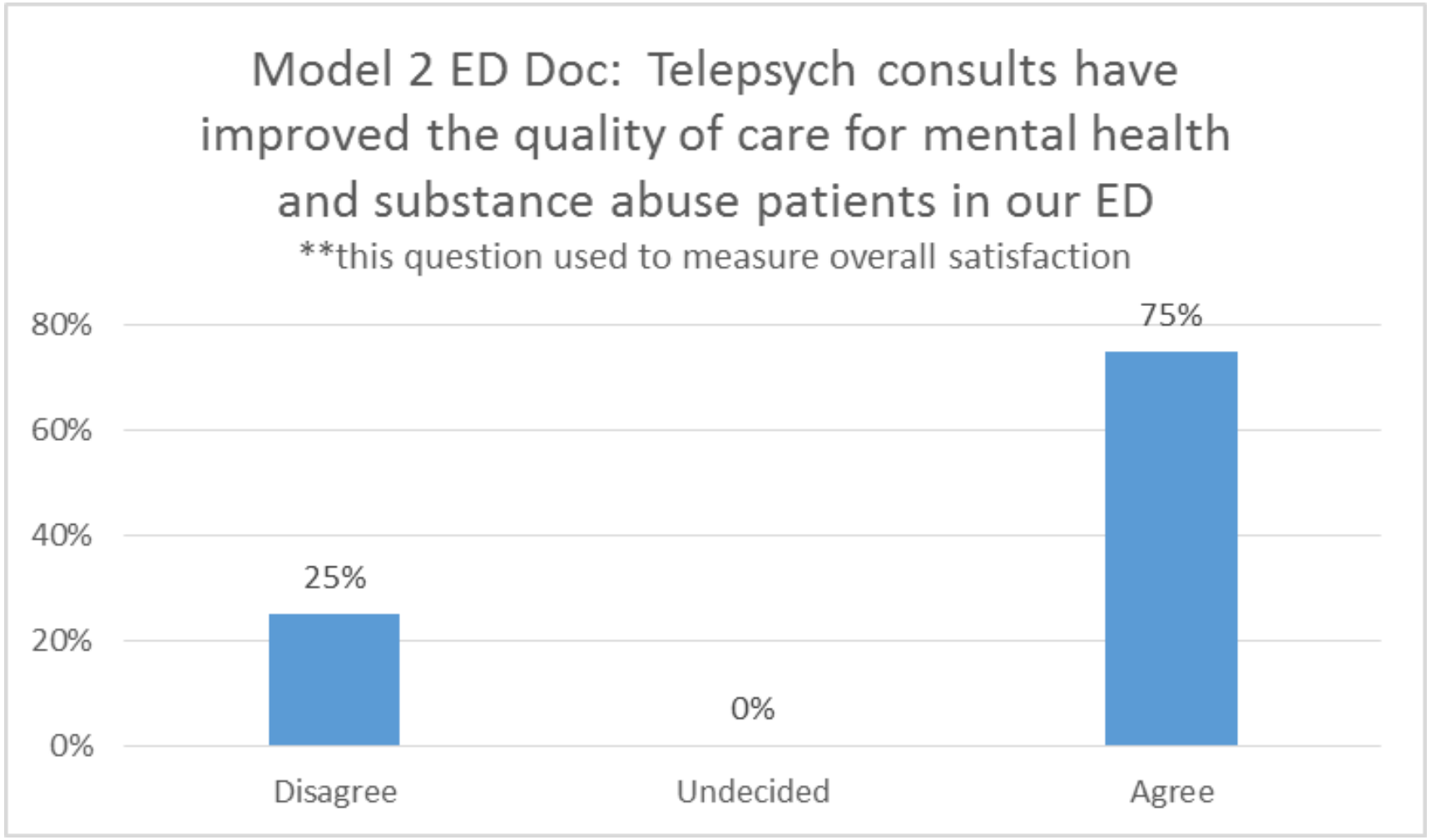
Model 2 Hospital ED Physicians Results

75% report that telepsych consults have improved the quality of care for mental health/substance abuse patients in the ED



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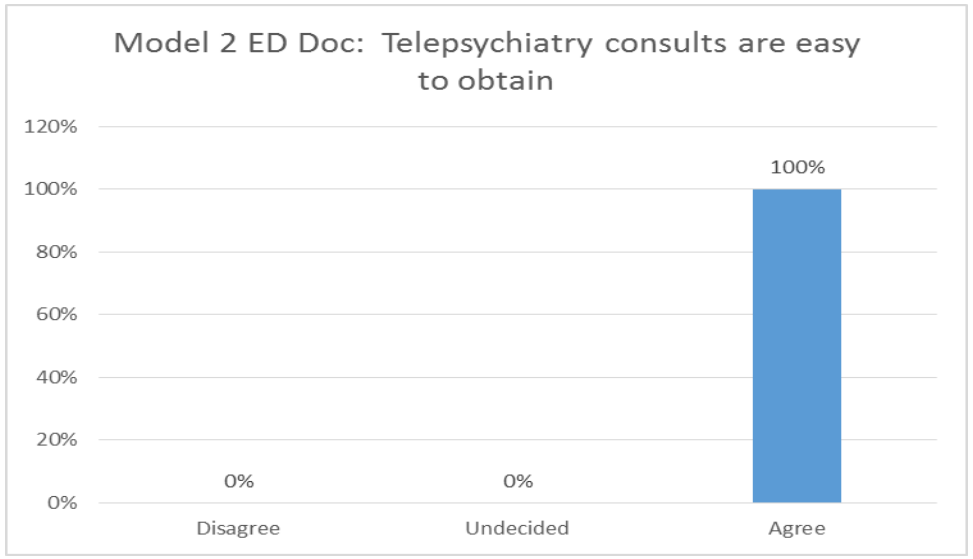
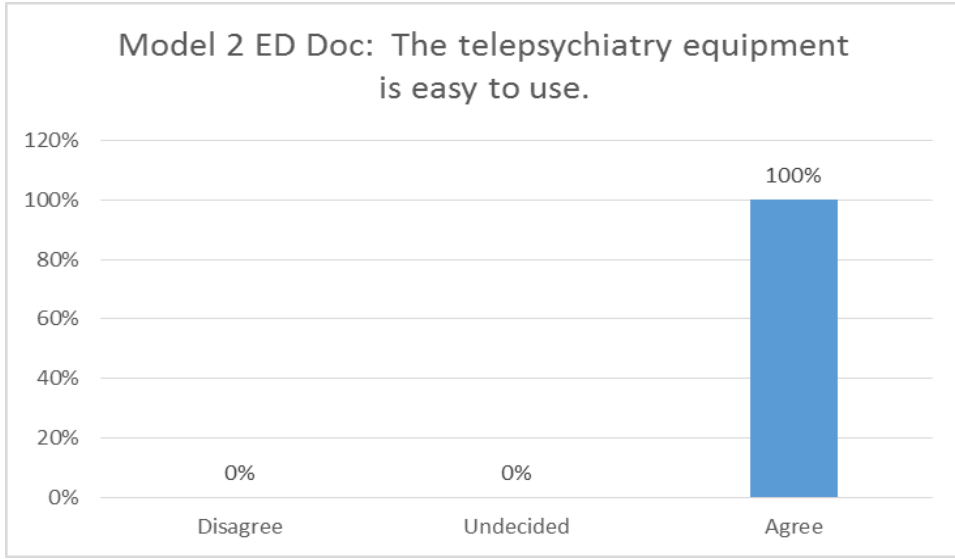
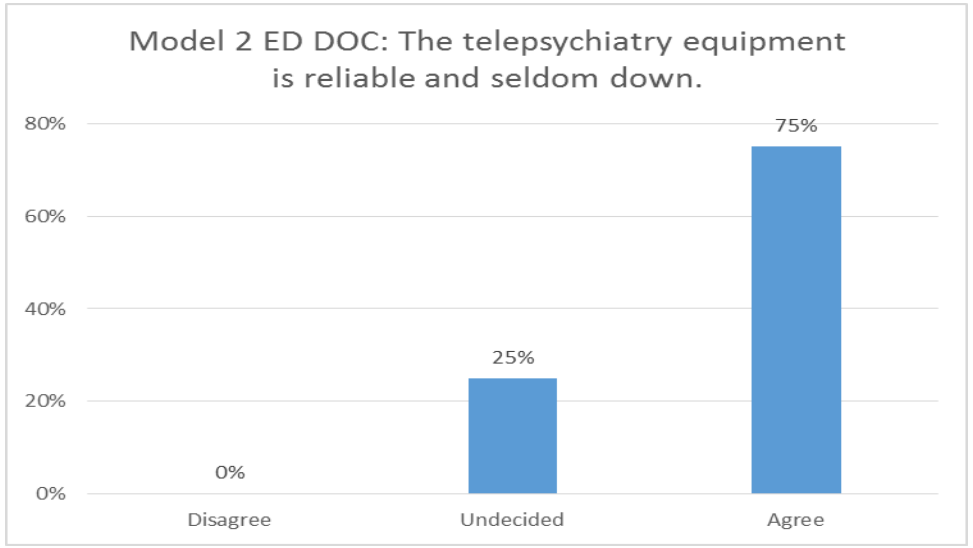
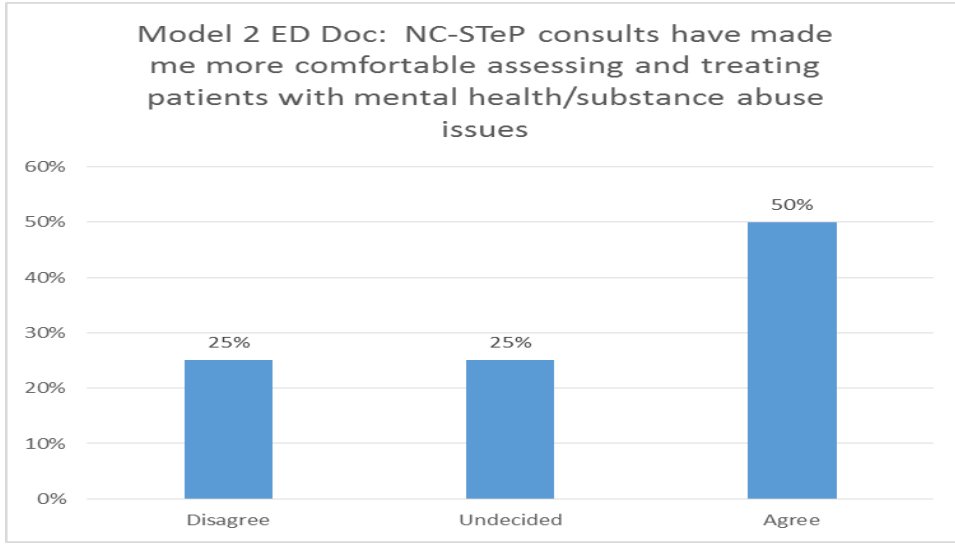
Model 2 Hospital ED Physicians Results









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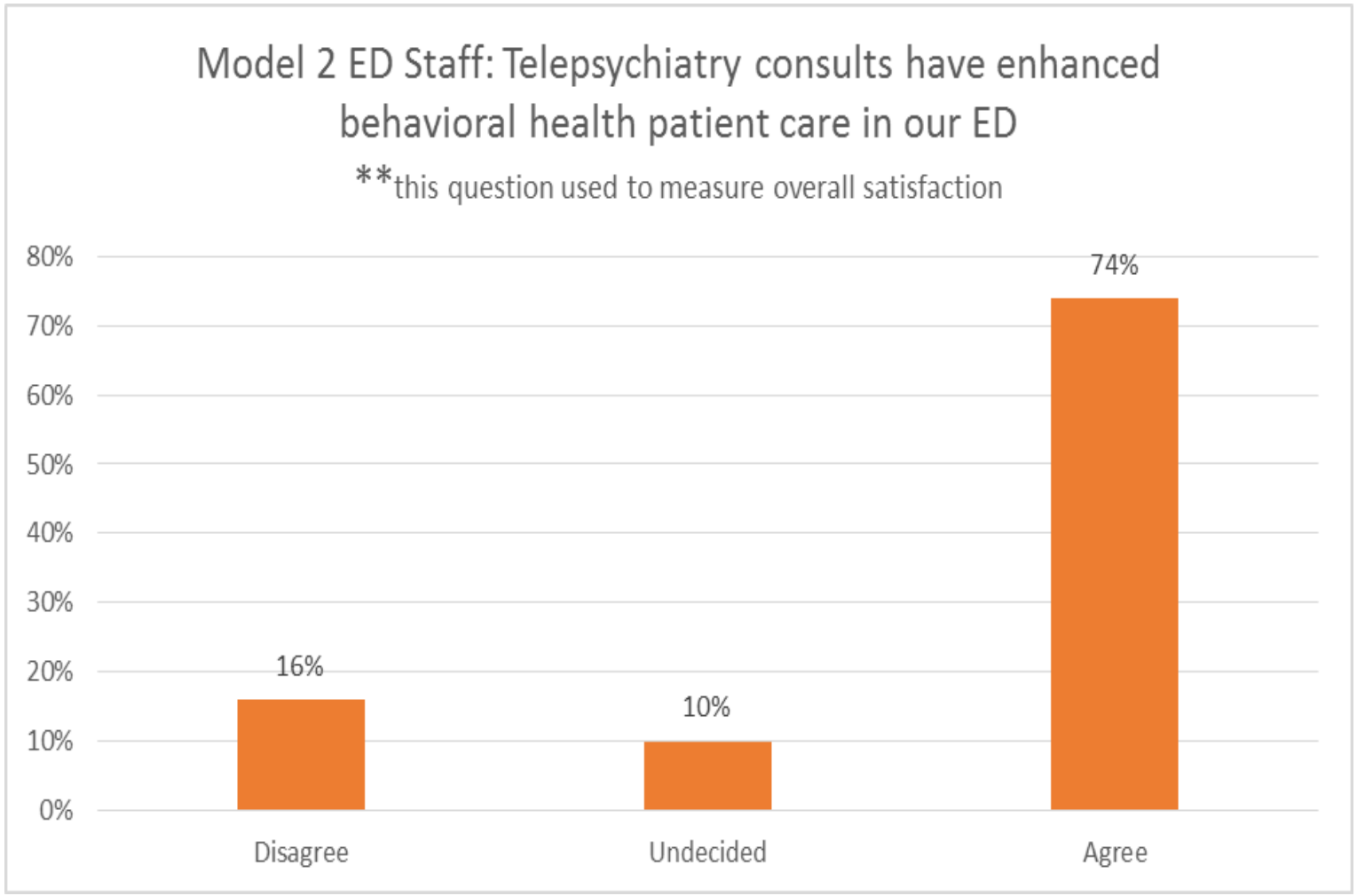
Model 2 Hospital ED Staff Results

74% report that telepsych consults have enhanced behavioral Health patient care in our ED



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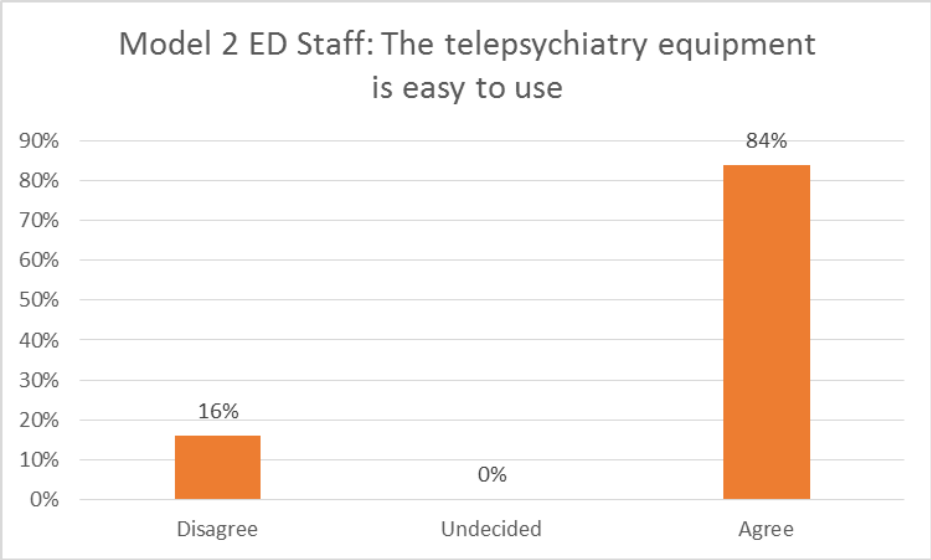
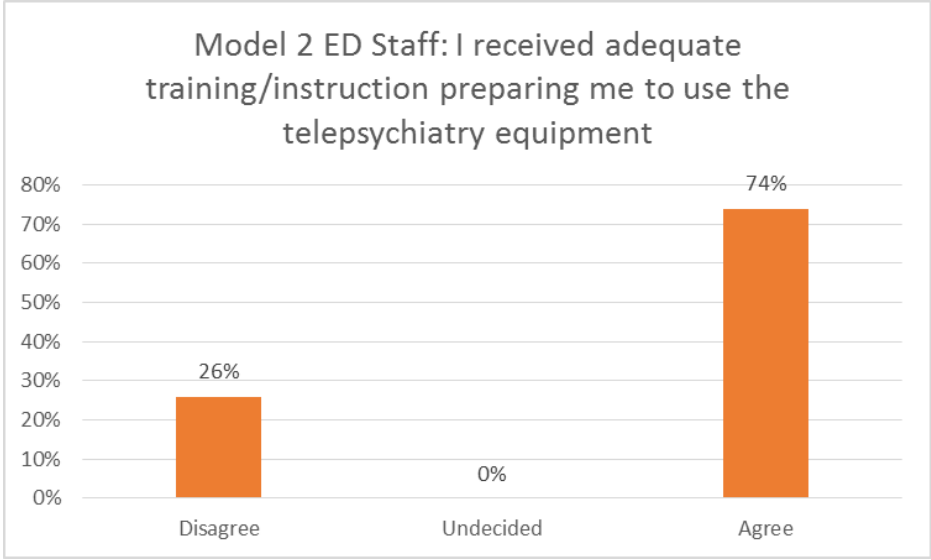
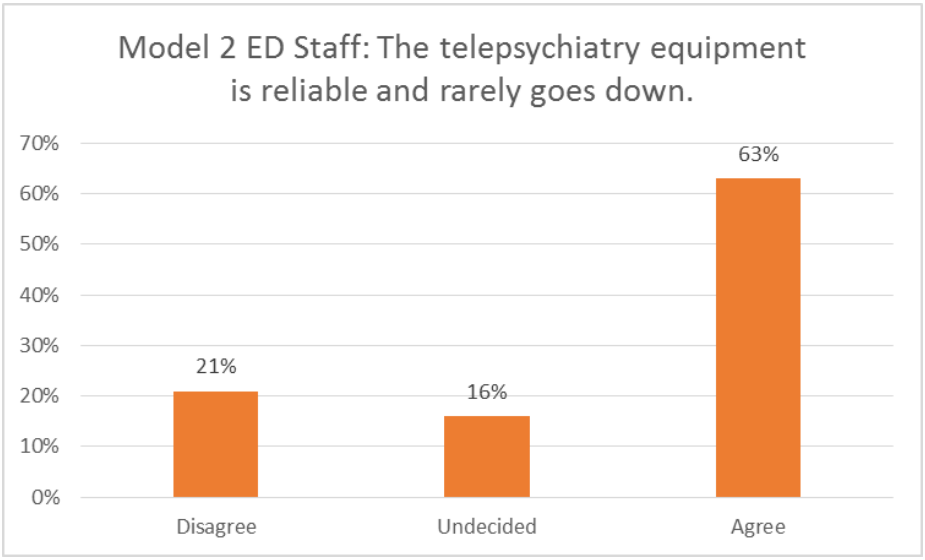
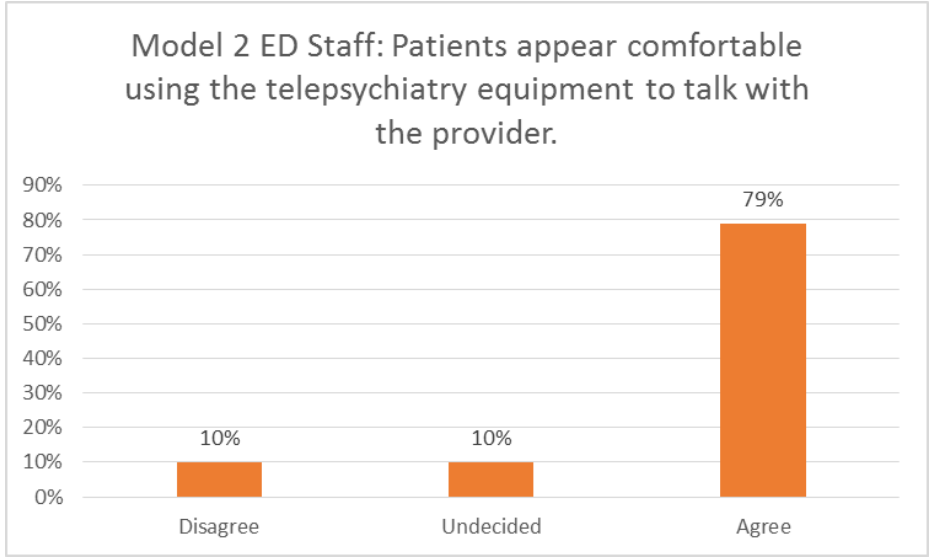
Model 2 Hospital ED Staff Results









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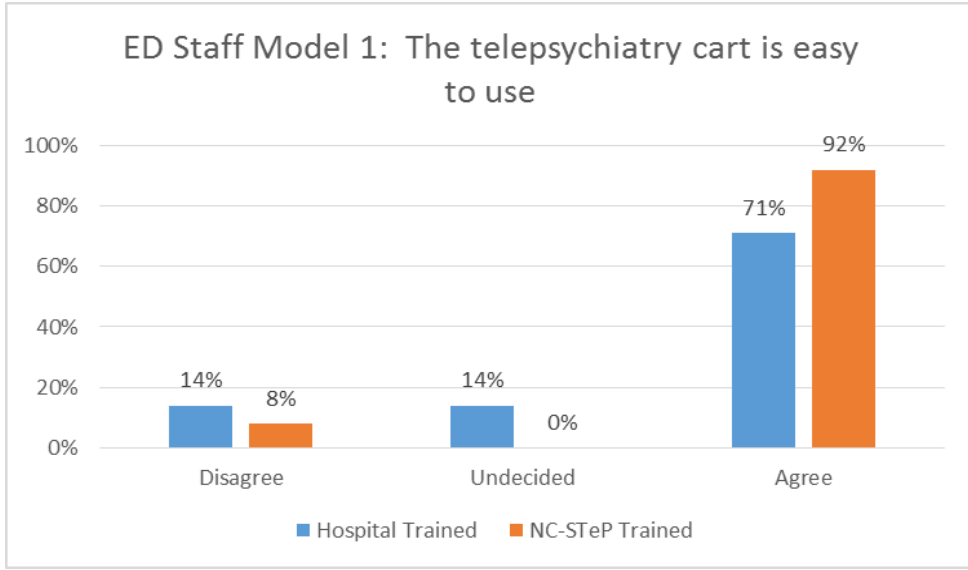
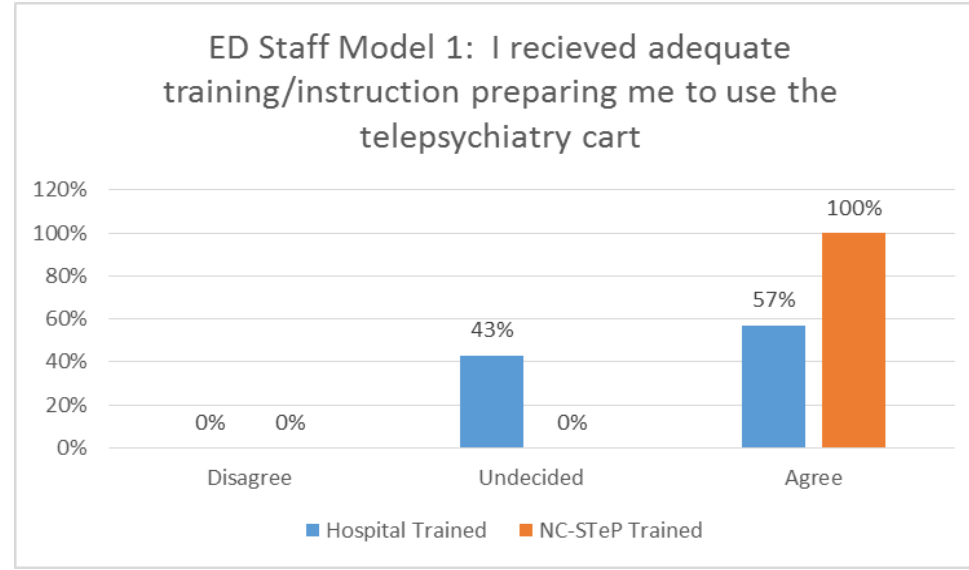
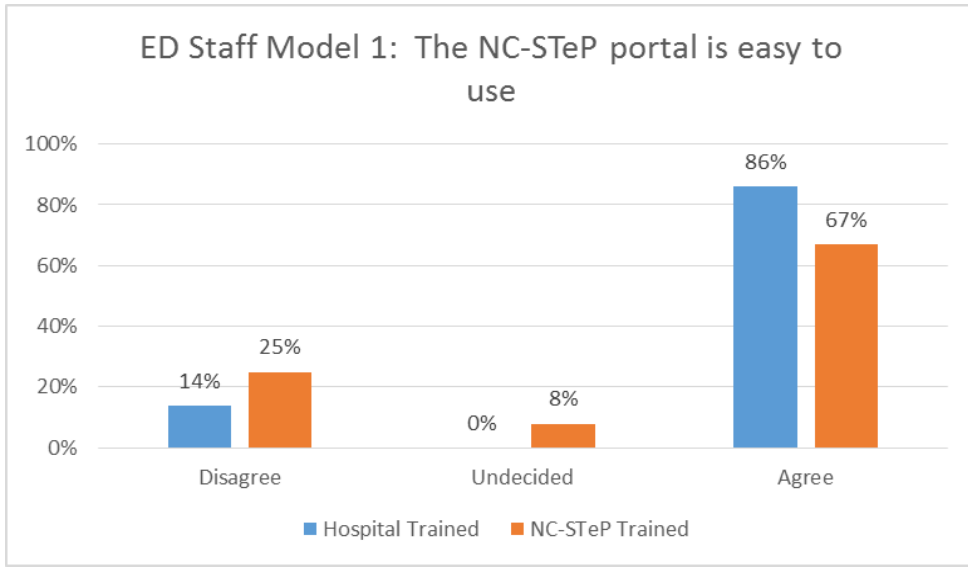
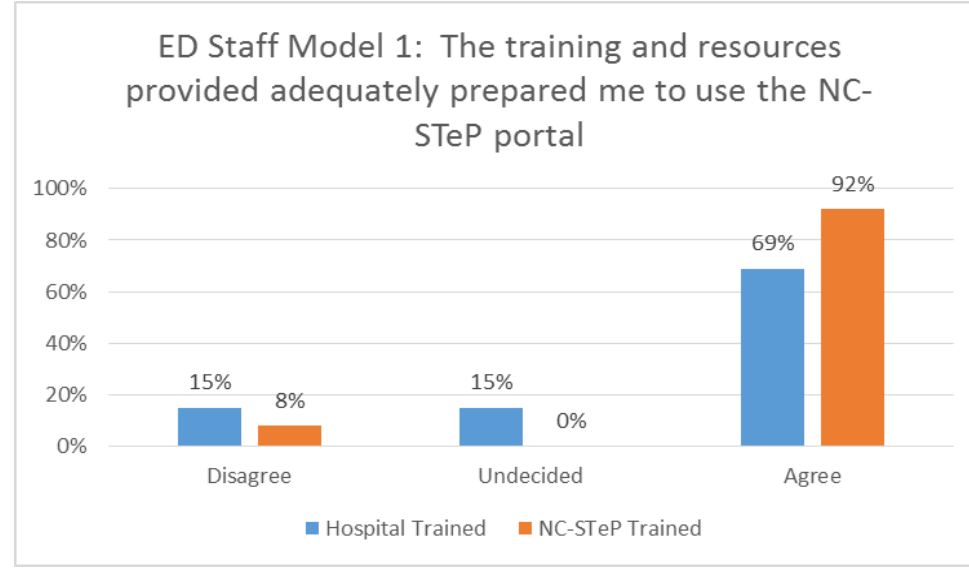
Model 1 ED staff results, by source of training:

Total n=35, trained by NC-STeP n=12, trained by hospital personnel n=14









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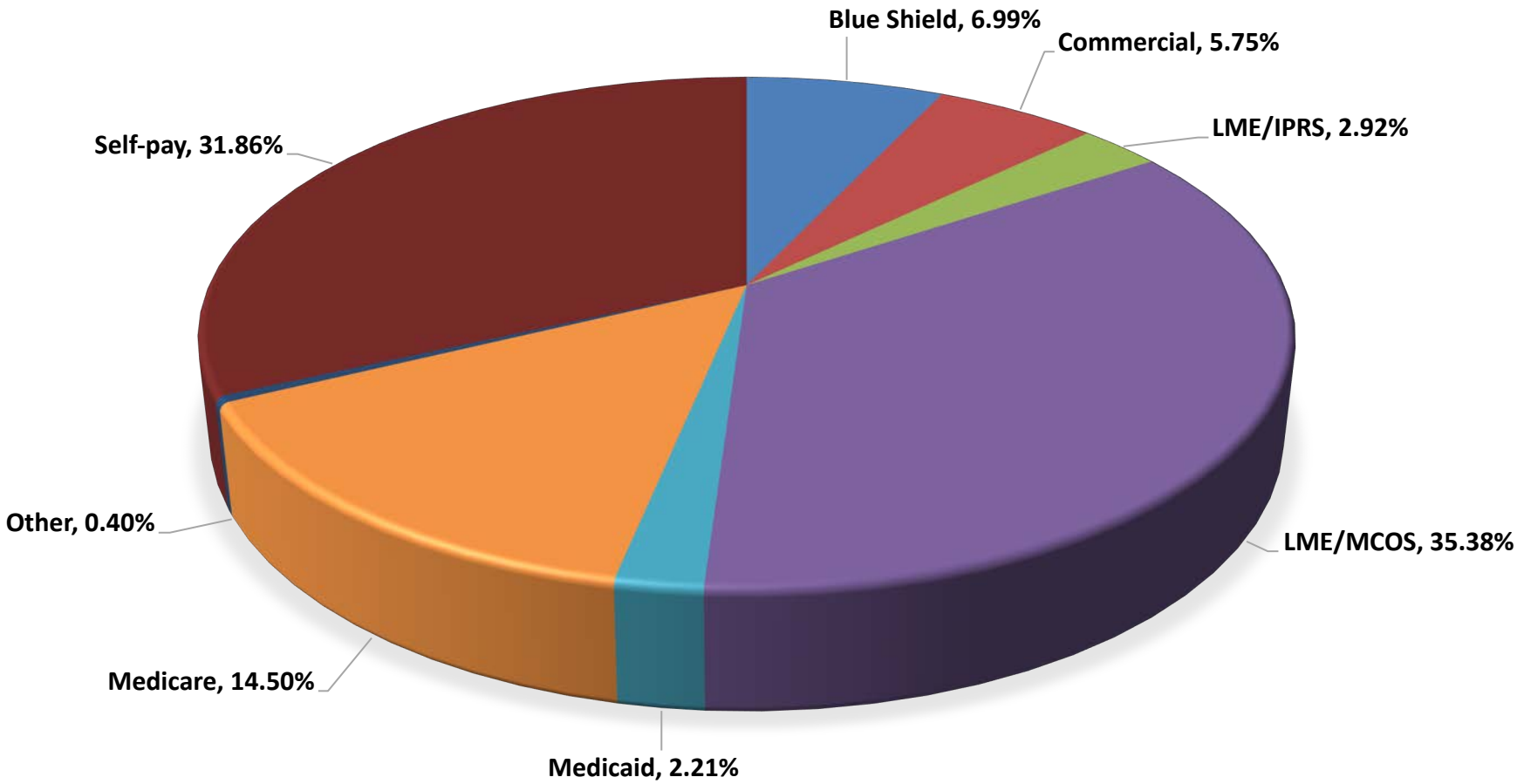
NC-STeP Charge Mix

QTD 2019 - Quarter 3



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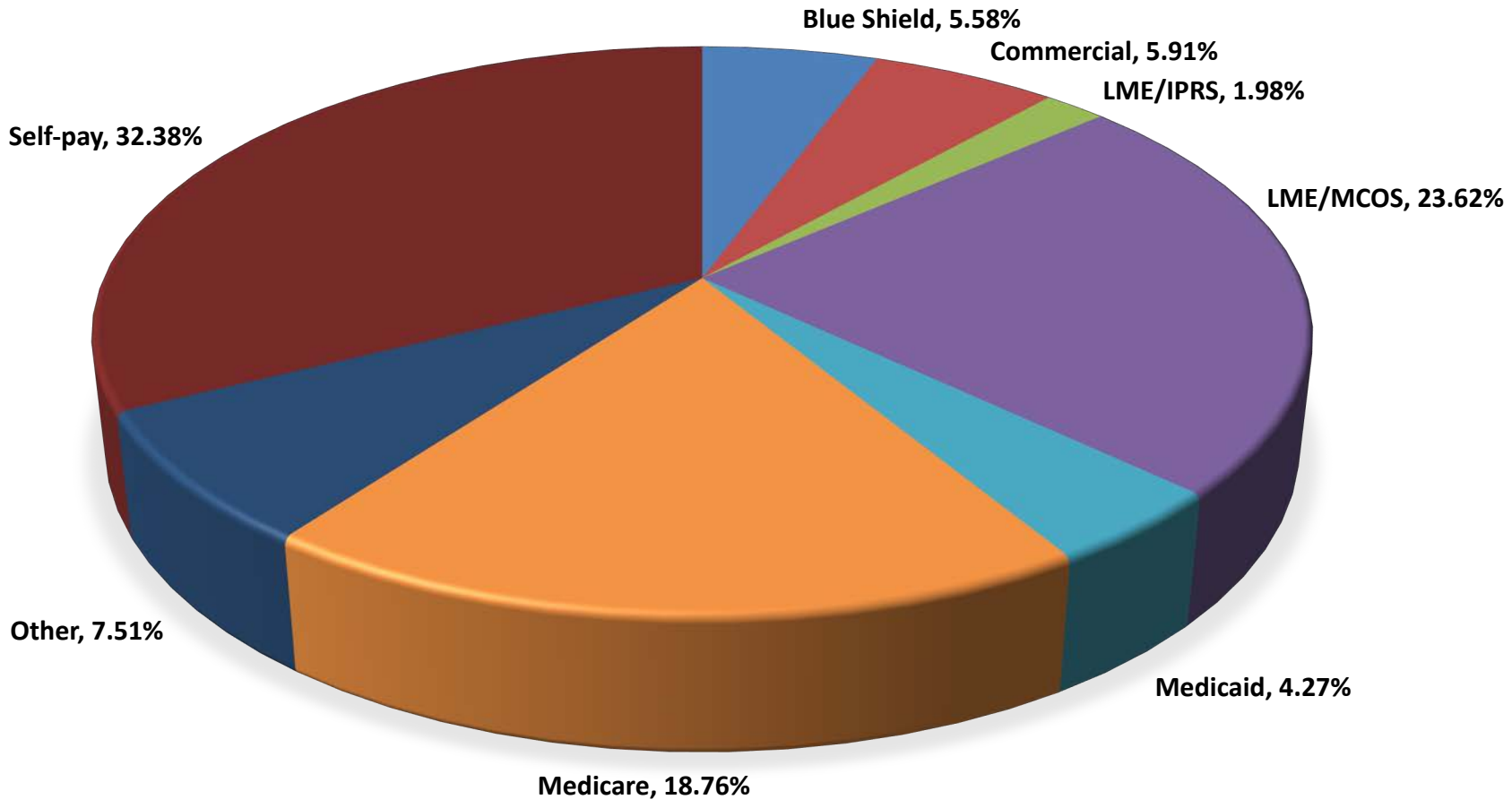
NC-STeP Charge Mix – Project to Date

October 1, 2013 – March 31, 2019



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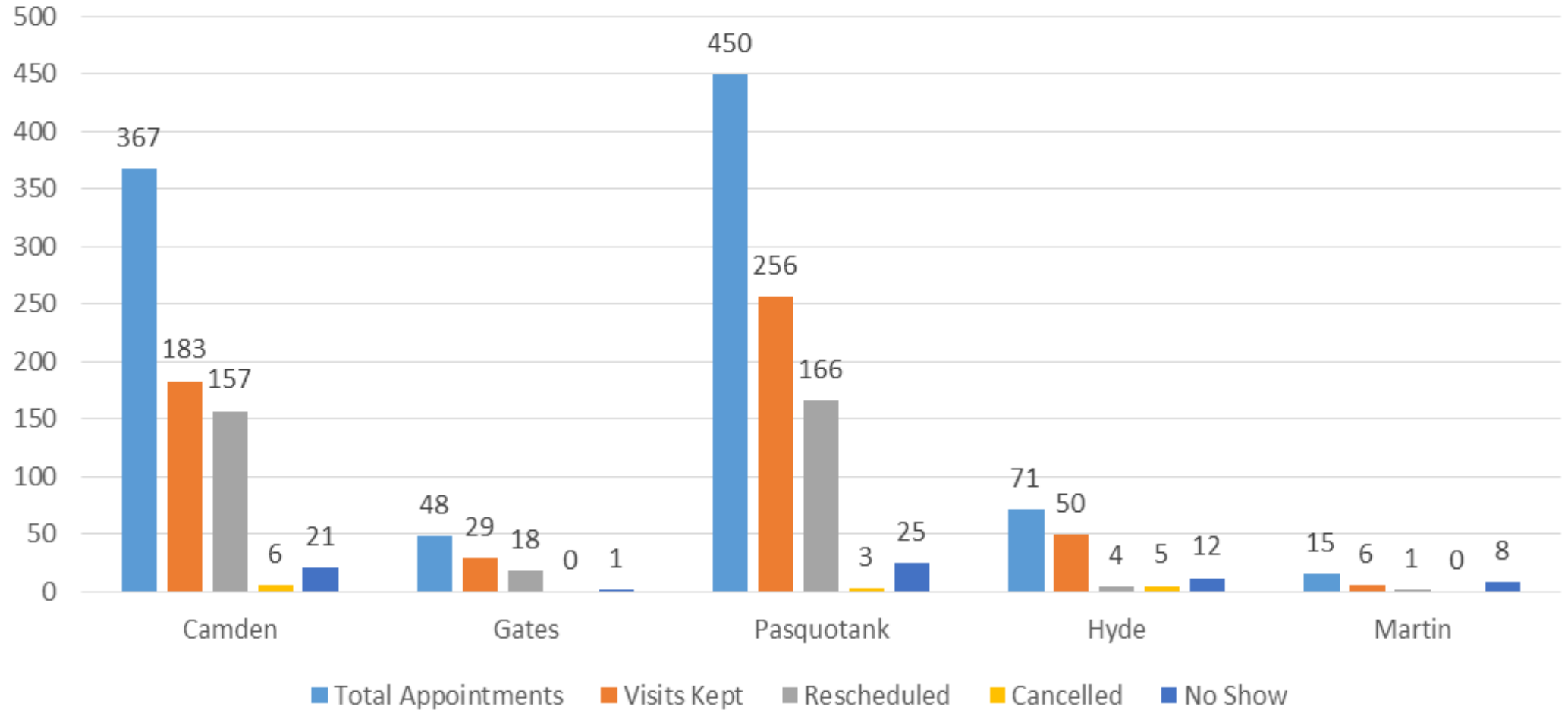
NC-STeP Community Appointments by Site

Appointments, Visits Kept, Rescheduled, Cancelled, No Show

January - March 2019



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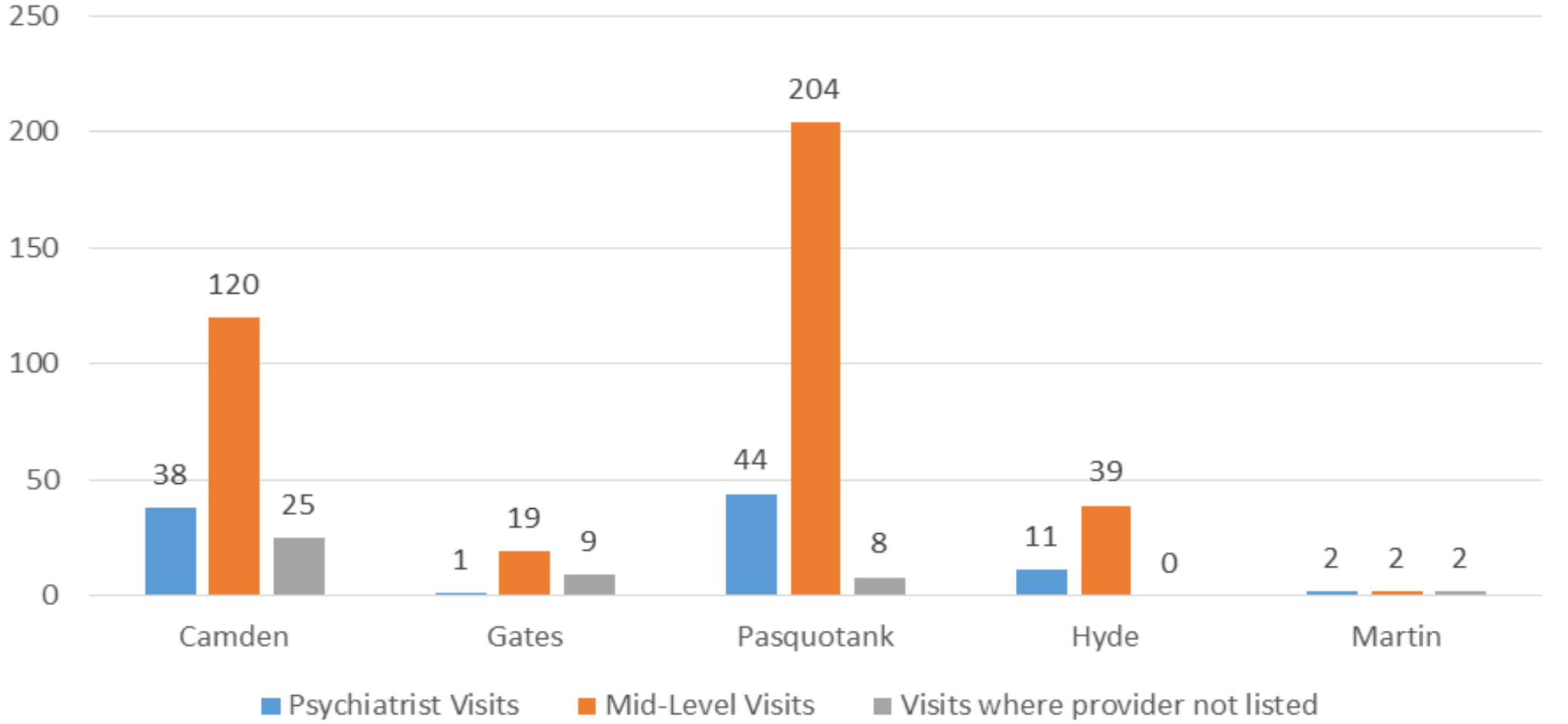
NC-STeP Community Visits by Site

by provider type

January - March 2019



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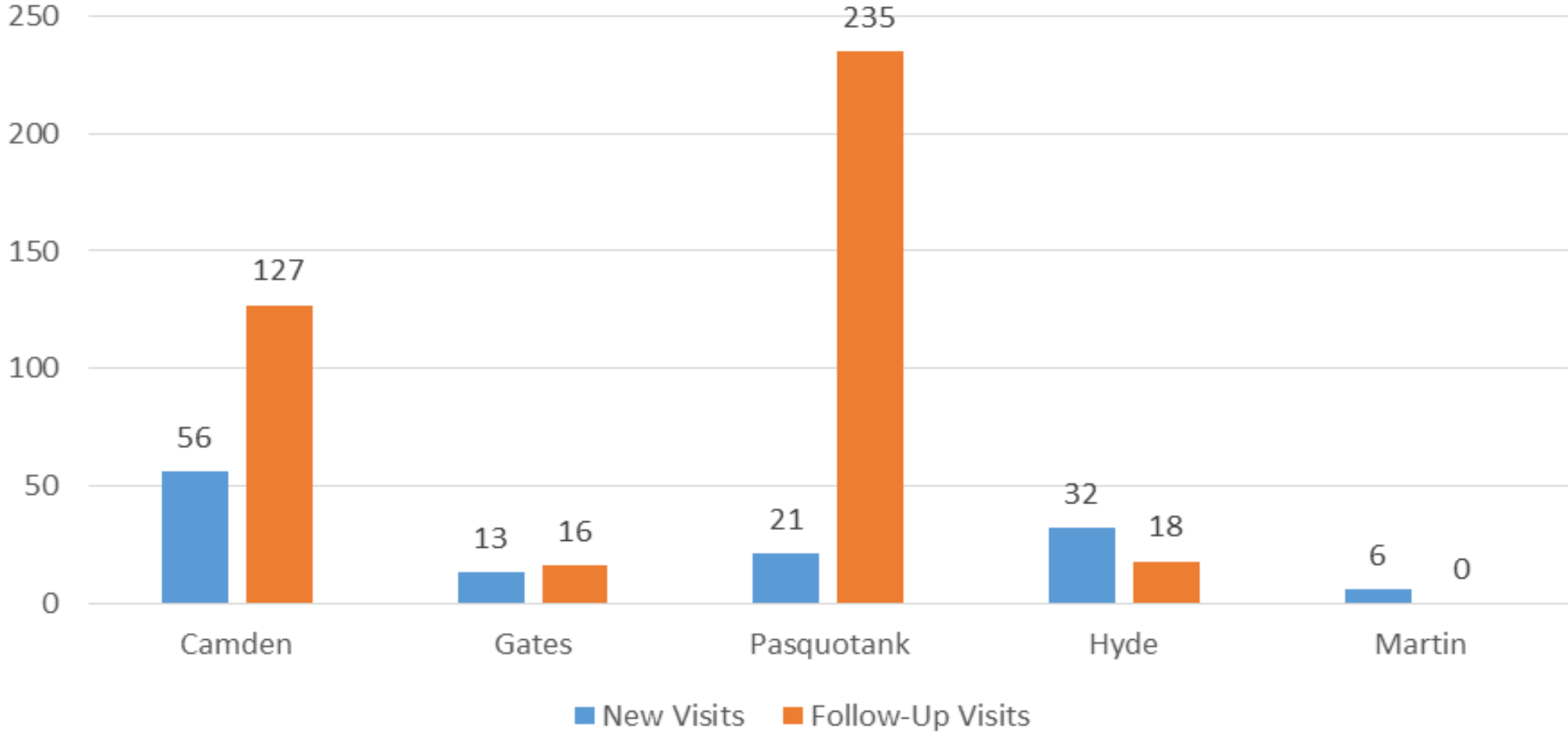
NC-STeP Community Visits by Site

New and Follow-up

January - March 2019



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NC-STeP

NC-STeP Status as of March 31, 2019

- 56 hospitals in the network. 53 live.
- 36,959 total psychiatry assessments since program inception
- 4,942 IVCs overturned
  - Cumulative return on investment = $26,686,800
    (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

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Contact

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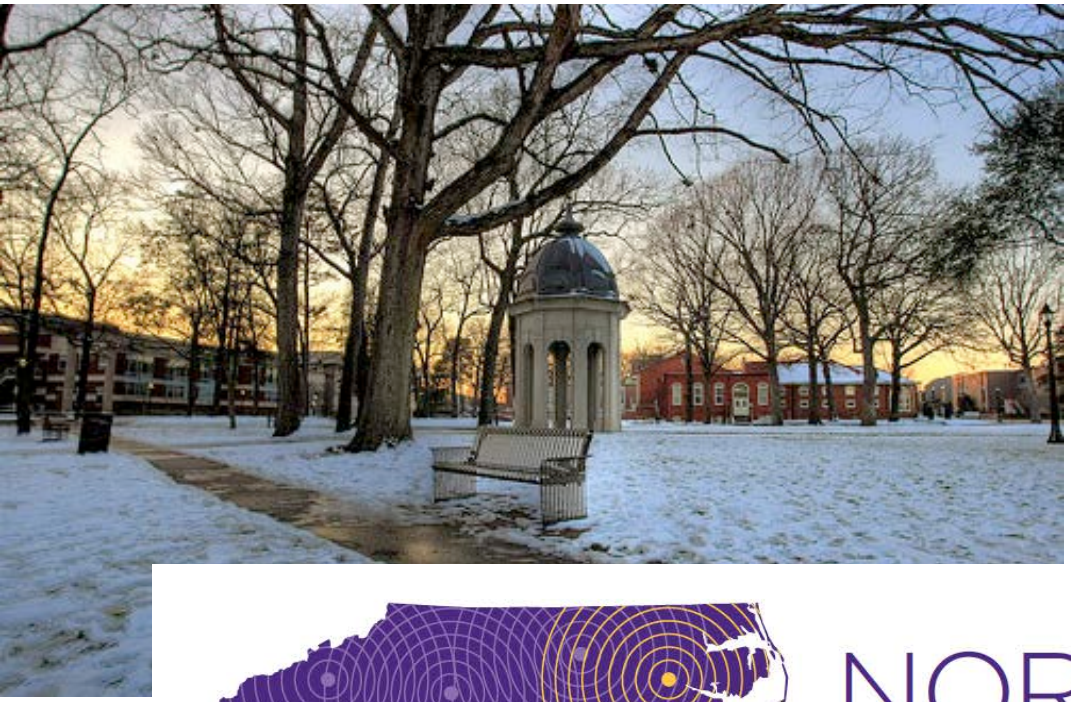
Website: http://www.ecu.edu/psychiatry
Mail: 600 Moye Boulevard, Suite 4E-100,
Greenville, NC 27834

ECU
BRODY SCHOOL OF MEDICINE



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NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM