Quarterly Progress Update

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

Director
North Carolina Statewide Telepsychiatry Program (NC-STeP)
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

Join from a video system or application
Dial 737072306@ecu.webex.com
You can also dial 173.243.2.68 and enter your meeting number

Join by phone
1-240-454-0879 USA Toll
1-240-454-0879 USA Toll
Members of the NC-STeP Advisory Council

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

Ex Officio Members
1. 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
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
• 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.
• 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.
<table>
<thead>
<tr>
<th></th>
<th>Since project inception in November 2013</th>
<th>During Calendar Year 2014</th>
<th>During Calendar Year 2015</th>
<th>During Calendar Year 2016</th>
<th>During Calendar Year 2017</th>
<th>During Calendar Year 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Patient Encounters</td>
<td>26,476</td>
<td>5,144</td>
<td>7,128</td>
<td>1,896</td>
<td>3,970</td>
<td>6,100</td>
</tr>
<tr>
<td>Model 1 Hospital Patient Encounters</td>
<td>17,267</td>
<td>4,578</td>
<td>5,849</td>
<td>706</td>
<td>2,043</td>
<td>2,650</td>
</tr>
<tr>
<td>Model 2 Hospital Patient Encounters</td>
<td>9,209</td>
<td>566</td>
<td>1,279</td>
<td>1,190</td>
<td>1,927</td>
<td>3,450</td>
</tr>
<tr>
<td>Total Number of Assessments</td>
<td>36,959</td>
<td>8,130</td>
<td>13,573</td>
<td>1,942</td>
<td>4,347</td>
<td>6,674</td>
</tr>
</tbody>
</table>

*Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)
<table>
<thead>
<tr>
<th></th>
<th>Since project inception in November 2013</th>
<th>During Calendar Year 2019</th>
<th>Quarter Jan- Mar 2019</th>
<th>Quarter Apr- Jun 2019</th>
<th>Quarter Jul- Sep 2019</th>
<th>Quarter Oct- Dec 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Patient Encounters</strong></td>
<td>26,476</td>
<td>1,296</td>
<td>1,296</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 1 Hospital Patient Encounters</strong></td>
<td>17,267</td>
<td>499</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 2 Hospital Patient Encounters</strong></td>
<td>9,209</td>
<td>797</td>
<td>797</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Number of Assessments</strong> (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)</td>
<td>36,959</td>
<td>1,419</td>
<td>1,419</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NC-STeP Benchmarks

<table>
<thead>
<tr>
<th>Goals</th>
<th>Values Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value Reached as of most recent previous quarter (12/31/2018)</td>
</tr>
<tr>
<td>Cumulative Target to be reached by (06/30/2019)</td>
<td></td>
</tr>
<tr>
<td>Number of IVCs</td>
<td>2,817</td>
</tr>
<tr>
<td>Number of IVCs Overturned</td>
<td>1,197</td>
</tr>
<tr>
<td>Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.)</td>
<td>5,086</td>
</tr>
</tbody>
</table>
## NC-STeP Status as of March 31, 2019

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The number of full-time equivalent (FTE) positions supported by these contracts</td>
<td>2.3 FTEs</td>
<td>3.65 FTEs</td>
<td>2.75 FTEs</td>
</tr>
<tr>
<td>2. The number of overturned involuntary commitments (inpatient admission prevented)</td>
<td>835</td>
<td>1,197</td>
<td>268 in this quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YTD Total 922</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cumulative total since program inception 4,942</td>
</tr>
<tr>
<td>3. The number of participating consultant providers</td>
<td>47</td>
<td>48</td>
<td>54</td>
</tr>
</tbody>
</table>
# NC-STeP Status as of March 31, 2019

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. The number of telepsychiatry assessments conducted.</td>
<td>3,533</td>
<td>5,086</td>
<td>1,419 in this quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YTD Total 5,252</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cumulative total since program inception 36,959</td>
</tr>
<tr>
<td>5. The number of telepsychiatry referring sites</td>
<td>53</td>
<td>54</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>53 Live</td>
</tr>
<tr>
<td>6. The reports of involuntary commitments to enrolled hospitals</td>
<td>1,996</td>
<td>2,817</td>
<td>631 in this quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YTD Total 2,143</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cumulative total since program inception 15,074</td>
</tr>
</tbody>
</table>
## NC-STeP Status as of March 31, 2019

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. The average (mean) Length of Stay for all patients with a primary mental health diagnosis across all dispositions.</td>
<td>56.8 hours</td>
<td>55 hours</td>
<td>QTD = 46.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Median = 25.3</td>
</tr>
<tr>
<td>8. The rate of &quot;satisfied&quot; or &quot;strongly satisfied&quot; among emergency department staff participating in NC-STeP.</td>
<td>73%</td>
<td>73%</td>
<td>77.8%</td>
</tr>
</tbody>
</table>
**NC-STeP Status as of March 31, 2019**

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The rate of &quot;satisfied&quot; or &quot;strongly satisfied&quot; among hospital CEOs/COOs participating in NC-STeP.</td>
<td>85%</td>
<td>85%</td>
<td>100%</td>
</tr>
<tr>
<td>10. The rate of &quot;satisfied&quot; or &quot;strongly satisfied&quot; among consulting (hub) providers participating in NC-STeP.</td>
<td>83%</td>
<td>85%</td>
<td>100%</td>
</tr>
</tbody>
</table>
### EVALUATION CRITERIA

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. The rate of &quot;satisfied&quot; or &quot;strongly satisfied&quot; among emergency department physicians participating in the statewide telepsychiatry program.</td>
<td>60%</td>
<td>68%</td>
<td>71.6%</td>
</tr>
<tr>
<td>12. The ratio of overall revenues (billing, subscription fees), exclusive of grant funding, to program costs (exclusive of start-up costs).</td>
<td>0.21:1.00</td>
<td>&gt;1.00:1.00</td>
<td>0.22:1.00</td>
</tr>
<tr>
<td></td>
<td>YTD Average 0.23:1.00</td>
<td></td>
<td>Cumulative average since program inception 0.34:1.00</td>
</tr>
</tbody>
</table>
**NC-STeP Status as of March 31, 2019**

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON 03/31/2018</th>
<th>TARGET TO BE REACHED BY 06/30/2019</th>
<th>VALUES/MEASURES REACHED AS OF 3/31/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Cumulative return on investment to state psychiatric facilities through overturned involuntary commitments. (inpatient admission prevented)</td>
<td>$4,509,000</td>
<td>$6,463,800</td>
<td>$1,447,200 in this quarter YTD $4,978,800 Cumulative total since program inception $26,686,800</td>
</tr>
</tbody>
</table>
NC-STeP Status as of March 31, 2019

- County with hospital live with NC STeP
- Hospital with w/ NC SteP in process of going live
- County w/ NC STeP live
- County w/ hospital in process of going live w/ NC SteP
- County served by a hospital w/ NC STeP live in neighboring county
- Provider HUB
- R = Rural County (70 Counties)

Provider Hubs
1. Carolina Behavioral
2. Mission
3. Cone Health
4. Novant
5. Cape Fear
6. Old Vineyard
7. UNC Johnston
8. ECU
Number of NC-STeP Patients by Hospital
January - March 2019

* Indicates Model 2 hospitals

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albemarle</td>
<td>45</td>
</tr>
<tr>
<td>Beaufort</td>
<td>7</td>
</tr>
<tr>
<td>Bertie</td>
<td>1</td>
</tr>
<tr>
<td>Chowan</td>
<td>6</td>
</tr>
<tr>
<td>Duplin</td>
<td>40</td>
</tr>
<tr>
<td>Edgecombe</td>
<td>45</td>
</tr>
<tr>
<td>Wilson</td>
<td>15</td>
</tr>
<tr>
<td>Lenior</td>
<td>2</td>
</tr>
<tr>
<td>*Bladen</td>
<td>31</td>
</tr>
<tr>
<td>*McDowell</td>
<td>125</td>
</tr>
<tr>
<td>*Highland Cashiers</td>
<td>2</td>
</tr>
<tr>
<td>*Novant Kernersville</td>
<td>34</td>
</tr>
<tr>
<td>*Novant Rowan</td>
<td>73</td>
</tr>
<tr>
<td>*Blue Ridge</td>
<td>11</td>
</tr>
<tr>
<td>*Transylvania</td>
<td>11</td>
</tr>
<tr>
<td>St. Lukes</td>
<td>73</td>
</tr>
<tr>
<td>*Hugh Chatham</td>
<td>76</td>
</tr>
<tr>
<td>Morehead</td>
<td>65</td>
</tr>
<tr>
<td>*UNC Johnston</td>
<td>14</td>
</tr>
<tr>
<td>*Martha Parham</td>
<td>5</td>
</tr>
<tr>
<td>Murphy</td>
<td>18</td>
</tr>
<tr>
<td>Graham</td>
<td>10</td>
</tr>
<tr>
<td>*Novant Rowan</td>
<td>79</td>
</tr>
<tr>
<td>*Northern of Surry</td>
<td>40</td>
</tr>
<tr>
<td>*Annie Penn</td>
<td>111</td>
</tr>
<tr>
<td>*Novant Rowan</td>
<td>2</td>
</tr>
<tr>
<td>*Forsyth Med Center</td>
<td>5</td>
</tr>
<tr>
<td>*Med Center High Point</td>
<td>17</td>
</tr>
<tr>
<td>*Northern of Surry</td>
<td>81</td>
</tr>
<tr>
<td>*Novant Brunswick</td>
<td>16</td>
</tr>
<tr>
<td>*Novant Brunswick</td>
<td>33</td>
</tr>
</tbody>
</table>
Percent of Use by Hospital Jan-Mar 2019
(based on number of patient encounters)

- McDowell: 11%
- Novant Thomasville: 10%
- Moses Cone: 9%
- Novant Brunswick: 6%
- Northern of Surry: 6%
- Hugh Chatham: 6%
- Transylvania: 6%
- Angel: 6%
- Murphy: 5%
- Albemarle: 4%
- Outer Banks: 4%
- Duplin: 3%
- Morehead: 3%
- Maria Parham: 3%
- Annie Penn: 3%
- Blue Ridge: 3%
- Maria Parham Franklin: 3%
- Novant Kernersville: 2%
- all others combined: 9%
Note: Several hospitals with a count of 5 or fewer were not included on this chart. Those hospitals are: Swain, Person, Wesley Long Cone, Alamance, Novant Forsyth, Bladen, Bertie
Number of Patients by Provider (Model 1)

April - June 2018

CBC: 437
OV: 232

July - September 2018

CBC: 411
OV: 287

October - December 2018

CBC: 447
OV: 159

January - March 2019

CBC: 297
OV: 202
Number of Patients by Model

**April - June 2018**
- Model 1: 669
- Model 2: 609

**Oct-Dec 2018**
- Model 1: 606
- Model 2: 1006

**July-Sep 2018**
- Model 1: 716
- Model 2: 1234

**Jan-Mar 2019**
- Model 1: 499
- Model 2: 797
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
60.3% percent of patients had a LOS of 30 hours or less

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

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

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

50.2% percent of patients had a LOS of 30 hours or less
Median Length of Stay by Quarter
(in hours)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-Mar</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-Jun</td>
<td></td>
<td>38.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul-Sep</td>
<td></td>
<td></td>
<td>37.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-Dec</td>
<td></td>
<td></td>
<td></td>
<td>32.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-Mar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-Jun</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul-Sep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-Dec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-Mar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-Jun</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul-Sep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24.6</td>
<td></td>
</tr>
<tr>
<td>Oct-Dec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24.6</td>
</tr>
<tr>
<td>Jan-Mar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Median Length of Stay by Year
(in hours)

- 2014: 23.6 hours
- 2015: 26.7 hours
- 2016: 32.4 hours
- 2017: 29.2 hours
- 2018: 25.5 hours
Average Length of Stay by Quarter for Hospitals Participating in NC-STeP
(in hours)

Average Length of Stay by Year
(in hours)

[Charts showing average length of stay by quarter and by year for hospitals participating in NC-STeP]
Average Length of Stay by Provider Jan-Mar 2019
(in hours)

- Novant (318 patients): 27.4 hours
- Cone Health (153 patients): 42.7 hours
- Mission (326 patients): 35.8 hours
- Old Vineyard (202 patients): 59.8 hours
- CBC (297 patients): 72.4 hours
Average LOS by Model (in hours)

Oct-Dec 2018

Model 1: 60.5 hours
Model 2: 33.3 hours

Jan-Mar 2019

Model 1: 67.3 hours
Model 2: 33.8 hours
Note: Swain was not included on this chart. It had one patient, with a LOS of 252 hours.
Carolina Behavioral Care & Old Vineyard Health Services

Key Processes and Elapsed Times Averages

January - December 2018

<table>
<thead>
<tr>
<th>Process</th>
<th>Average Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Time from Queue to Intake Start</td>
<td>1:45:21</td>
</tr>
<tr>
<td>Avg. Intake Duration</td>
<td>1:02:19</td>
</tr>
<tr>
<td>Avg. Time from Intake End to Psych Exam Start</td>
<td>0:56:35</td>
</tr>
<tr>
<td>Avg. Consult Duration</td>
<td>0:18:49</td>
</tr>
<tr>
<td>Total Duration from Queue to Consulted</td>
<td>3:59:41</td>
</tr>
</tbody>
</table>
Percent of Patients by Discharge Disposition
Jan-Mar 2019

- Home: 33.8%
- Transfer: 30.6%
- Admit: 30.6%
- AMA: 4.7%
- Other: 0.2%
Percent of Patients by Discharge Disposition

Oct-Dec 2018
- Home: 39%
- Transfer: 36.2%
- Admit: 16.9%
- AMA: 7.5%
- Other: 0.2%

Apr-Jun 2018
- Home: 42.4%
- Transfer: 38%
- Admit: 6.3%
- AMA: 13%
- Other: 0.4%

Jul-Sep 2018
- Home: 41.5%
- Transfer: 37.7%
- Admit: 11.8%
- AMA: 8.4%
- Other: 0.07%
IVCs - By Release Status

April - June 2018

- IVCs - percent not released: 43.5%
- IVCs - percent released: 56.5%

January - March 2018

- IVCs - percent not released: 45.5%
- IVCs - percent released: 54.5%
Number of IVCs and IVC Turnovers by Model
Jan-Mar 2019

Model 1 (48.6% Turnover)
- IVCs: 403
- IVC Turnovers: 196

Model 2 (31.6% Turnover)
- IVCs: 228
- IVC Turnovers: 72
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.
• 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%.
67% report that NC-STeP consults have improved the quality of care for mental health/substance abuse patients in our ED

Model 1 ED Doc: NC-STeP consults have improved the quality of care for mental health and substance abuse patients in our ED

**this question used to measure overall satisfaction**
Model 1 Hospital ED Physicians Results

Model 1 ED Doc: NC SteP consultations are easy to obtain
- Disagree: 0%
- Undecided: 33%
- Agree: 67%

Model 1 ED Doc: NC SteP consultants respond quickly to telepsychiatry requests.
- Disagree: 33%
- Undecided: 33%
- Agree: 33%

Model 1 ED Doc: NC SteP consultations are complete and thorough.
- Disagree: 33%
- Undecided: 0%
- Agree: 67%

Model 1 ED Doc: NC SteP disposition recommendations are helpful.
- Disagree: 33%
- Undecided: 0%
- Agree: 67%

Model 1 ED Doc: NC SteP documentation is straightforward.
- Disagree: 33%
- Undecided: 0%
- Agree: 67%

Model 1 ED Doc: NC SteP consultations have made me more comfortable assessing and treating patients with mental health/substance abuse issues.
- Disagree: 33%
- Undecided: 0%
- Agree: 67%
80% agreed with the statement that telepsychiatry consults have enhanced behavioral health patient care in our ED, 11% disagreed, and 9% were undecided.
Model 1 Hospital ED Staff Results

Model 1 ED Staff: The telepsychiatry cart is easy to use
- 9% Disagree
- 6% Undecided
- 86% Agree

Model 1 ED Staff: I received adequate training/instruction preparing me to use the telepsychiatry cart
- 0% Disagree
- 20% Undecided
- 80% Agree

Model 1 ED Staff: The telepsychiatry cart is reliable and seldom goes down.
- 11% Disagree
- 6% Undecided
- 83% Agree

Model 1 ED Staff: Patients appear comfortable interacting with the psychiatric providers via the telepsychiatry cart.
- 6% Disagree
- 20% Undecided
- 74% Agree
Model 1 Hospital ED Staff Results

Model 1 ED Staff: The NC-STeP portal is easy to use.

- Disagree: 14%
- Undecided: 3%
- Agree: 83%

Model 1 ED Staff: The training and resources provided adequately prepared me to use the NC-STeP portal.

- Disagree: 9%
- Undecided: 6%
- Agree: 85%

Model 1 ED Staff: The NC-STeP portal is reliable and unscheduled downtime is rare.

- Disagree: 9%
- Undecided: 9%
- Agree: 83%

Model 1 ED Staff: The level of technical expertise provided by NC-STeP support is adequate.

- Disagree: 9%
- Undecided: 3%
- Agree: 89%
100% agreed, “I am satisfied with providing psychiatric consults via telepsychiatry”
Model 1 Provider Psychiatrist Results

Model 1 Psychiatrist: Telepsychiatry is an effective and efficient way of assessing and treating behavioral health patients

- Disagree: 0%
- Undecided: 0%
- Agree: 100%

Model 1 Psychiatrist: I believe the quality of psychiatric care I provide via telepsychiatry is comparable to the quality of care I deliver face to face

- Disagree: 17%
- Undecided: 33%
- Agree: 50%

Model 1 Psychiatrist: Telepsychiatry increases my productivity and/or efficiency.

- Disagree: 17%
- Undecided: 17%
- Agree: 67%

Model 1 Psychiatrist: The telepsychiatry desktop unit is straightforward to use

- Disagree: 20%
- Undecided: 0%
- Agree: 80%

4/29/2019
Model 1 Provider Psychiatrist Results

- Model 1 Psychiatrist: The telepsychiatry desktop unit is reliable and seldom down
  - Agree: 83%
  - Disagree: 17%
  - Undecided: 0%

- Model 1 Psychiatrist: The NC-STEPT portal is straightforward to use.
  - Agree: 100%
  - Disagree: 0%
  - Undecided: 0%

- Model 1 Psychiatrist: I received adequate training and resources preparing me to use the portal system
  - Agree: 100%
  - Disagree: 0%
  - Undecided: 0%

- Model 1 Psychiatrist: The NC-STEPT portal works well without excessive delays or downtime
  - Agree: 83%
  - Disagree: 17%
  - Undecided: 0%
Model 1 Psychiatric Intake Specialist Results

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

Intake Specialist: I am satisfied with providing psychiatric consults via telepsychiatry

**this question used to measure overall satisfaction

- 0% Disagree
- 0% Undecided
- 100% Agree
Model 1 Psychiatric Intake Specialist Results

Intake Specialist: Telepsychiatry is an effective and efficient way of assessing and treating behavioral health patients

- 100% Agree

Intake Specialist: I believe the quality of psychiatric care I provide via telepsychiatry is comparable to the quality of care I deliver face to face

- 33% Disagree
- 33% Undecided
- 33% Agree

Intake Specialist: Telepsychiatry increases my productivity and/or efficiency.

- 100% Agree

Intake Specialist: The telepsychiatry desktop unit is straightforward to use

- 100% Agree
Model 1 Psychiatric Intake Specialist Results

Intake Specialist: The telepsychiatry desktop unit is reliable and seldom down

- Disagree: 0%
- Undecided: 33%
- Agree: 67%

Intake Specialist: The NC-STeP portal is straightforward to use

- Disagree: 0%
- Undecided: 0%
- Agree: 100%

Intake Specialist: I received adequate training and resources preparing me to use the portal

- Disagree: 0%
- Undecided: 0%
- Agree: 100%

Intake Specialist: The NC-STeP portal works well without excessive delays or downtime

- Disagree: 0%
- Undecided: 0%
- Agree: 100%
100% agree that, “the overall quality of care for psychiatric patients in our ED has improved”
Model 1 CEO/COO/CNO/ED Manager Results

Model 1 Hospital CEO: The LOS for psychiatric patients in our ED has reduced

Model 1 Hospital CEO: Overall, ED staff satisfaction has improved

Model 1 Hospital CEO: Overall, ED throughput has improved

Model 1 Hospital CEO: Our hospital’s use of NC-SteP consultants has been cost effective
Model 1 CEO/COO/CNO/ED Manager Results

Model 1 Hospital CEO: Medical staff’s understanding of mental health issues and treatment options in our ED has improved

- 100% Agree

Model 1 Hospital CEO: There has been an improvement in discharge planning and referrals for psychiatric patients in our ED

- 80% Agree

Model 1 Hospital CEO: I would pursue additional uses of telemedicine technology for other medical specialty areas

- 100% Agree

Model 1 Hospital CEO: I would recommend NC-SteP to other hospitals

- 100% Agree
75% report that telepsych consults have improved the quality of care for mental health/substance abuse patients in the ED

**Model 2 ED Doc: Telepsych consults have improved the quality of care for mental health and substance abuse patients in our ED**

**this question used to measure overall satisfaction**
Model 2 Hospital ED Physicians Results

Model 2 ED Doc: Telepsychiatry consults are easy to obtain

- **Disagree:** 0%
- **Undecided:** 0%
- **Agree:** 100%

Model 2 ED Doc: The telepsychiatry equipment is easy to use.

- **Disagree:** 0%
- **Undecided:** 0%
- **Agree:** 100%

Model 2 ED Doc: The telepsychiatry equipment is reliable and seldom down.

- **Disagree:** 0%
- **Undecided:** 25%
- **Agree:** 75%

Model 2 ED Doc: NC-STeP consults have made me more comfortable assessing and treating patients with mental health/substance abuse issues.

- **Disagree:** 25%
- **Undecided:** 25%
- **Agree:** 50%
74% report that telepsych consults have enhanced behavioral Health patient care in our ED

Model 2 ED Staff: Telepsychiatry consults have enhanced behavioral health patient care in our ED

**this question used to measure overall satisfaction**
Model 2 Hospital ED Staff Results

Model 2 ED Staff: The telepsychiatry equipment is easy to use
- Agree: 84%
- Disagree: 16%
- Undecided: 0%

Model 2 ED Staff: I received adequate training/instruction preparing me to use the telepsychiatry equipment
- Agree: 74%
- Disagree: 26%
- Undecided: 0%

Model 2 ED Staff: The telepsychiatry equipment is reliable and rarely goes down.
- Agree: 63%
- Disagree: 21%
- Undecided: 16%

Model 2 ED Staff: Patients appear comfortable using the telepsychiatry equipment to talk with the provider.
- Agree: 79%
- Disagree: 10%
- Undecided: 10%
Model 1 ED staff results, by source of training:
Total n=35, trained by NC-STeP n=12, trained by hospital personnel n=14

ED Staff Model 1: The telepsychiatry cart is easy to use
- Agree: 92% NC-STeP, 71% Hospital, 8% Undecided, 14% Disagree

ED Staff Model 1: I received adequate training/instruction preparing me to use the telepsychiatry cart
- Agree: 100% NC-STeP, 57% Hospital, 43% Undecided, 0% Disagree

ED Staff Model 1: The NC-STeP portal is easy to use
- Agree: 92% NC-STeP, 67% Hospital, 8% Undecided, 14% Disagree

ED Staff Model 1: The training and resources provided adequately prepared me to use the NC-STeP portal
- Agree: 69% NC-STeP, 69% Hospital, 15% Undecided, 15% Disagree

4/29/2019
NC-STeP Charge Mix
QTD 2019 - Quarter 3

- Self-pay, 31.86%
- Medicare, 14.50%
- Medicaid, 2.21%
- Other, 0.40%
- Blue Shield, 6.99%
- Commercial, 5.75%
- LME/IPRS, 2.92%
- LME/MCOS, 35.38%
NC-STeP Charge Mix – Project to Date
October 1, 2013 – March 31, 2019

- Blue Shield, 5.58%
- Commercial, 5.91%
- LME/IPRS, 1.98%
- LME/MCOS, 23.62%
- Medicaid, 4.27%
- Medicare, 18.76%
- Other, 7.51%
- Self-pay, 32.38%
NC-STeP Community Appointments by Site

Appointments, Visits Kept, Rescheduled, Cancelled, No Show

January - March 2019

[Bar chart showing data for each site: Camden, Gates, Pasquotank, Hyde, Martin. Each site has bars for total appointments, visits kept, rescheduled, cancelled, and no show.]
NC-STeP Community Visits by Site
by provider type
January - March 2019

Camden: 38 Psychiatrist Visits, 120 Mid-Level Visits, 25 Visits where provider not listed
Gates: 1 Psychiatrist Visits, 19 Mid-Level Visits, 9 Visits where provider not listed
Pasquotank: 44 Psychiatrist Visits, 204 Mid-Level Visits, 8 Visits where provider not listed
Hyde: 11 Psychiatrist Visits, 39 Mid-Level Visits, 0 Visits where provider not listed
Martin: 2 Psychiatrist Visits, 2 Mid-Level Visits, 2 Visits where provider not listed
NC-STeP Community Visits by Site
New and Follow-up
January - March 2019

<table>
<thead>
<tr>
<th>Site</th>
<th>New Visits</th>
<th>Follow-Up Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camden</td>
<td>56</td>
<td>127</td>
</tr>
<tr>
<td>Gates</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Pasquotank</td>
<td>21</td>
<td>235</td>
</tr>
<tr>
<td>Hyde</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td>Martin</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>
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
Sy Atezaz Saeed, M.D., M.S., FACPsych
Professor and Chairman
Department of Psychiatry and Behavioral Medicine
Brody School of Medicine | East Carolina University

Director
North Carolina Statewide Telepsychiatry Program (NC-STeP)
Phone: 252.744.2660 | e-mail: saeeds@ecu.edu
Website: http://www.ecu.edu/psychiatry
Mail: 600 Moye Boulevard, Suite 4E-100,
Greenville, NC 27834