Quarterly Progress Update

Sy Atezaz Saeed, MD, MS, FACPsych,
Executive Director
North Carolina Statewide Telepsychiatry Program (NC-STeP)
Professor and Chair Emeritus
Department of Psychiatry and Behavioral Medicine
Brody School of Medicine - East Carolina University
NC- 

NC-STeP Advisory Council Meeting
Wednesday, September 21, 2022
10:30 am – 12:00 pm
Virtual Meeting via Zoom Video Conferencing

Agenda

10:30-10:40 a.m. Welcome and Introductions

10:40-10:45 a.m. Review and Approval of March 11, 2022 Minutes

10:45-11:45 a.m. NC- STeP FY22-Q3 (Jan-Mar) Performance Data

11:45-11:50 a.m. Old Business
- Hospital Subscription Costs

11:50-11:55 a.m. New Business

11:55-12:00 p.m. Announcements

12:00 p.m. Adjourn
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. John Bigger  
   Corporate Director of Behavioral Health, Cape Fear Valley Health
4. Joy Futrell, MBA  
   Chief Executive Officer, Trillium Health Resources
5. Robin Huffman  
   Executive Director, North Carolina Psychiatric Association
6. Keith McCoy, MD  
   Deputy CMO for Behavioral Health and I/DD Community Systems, NC-DHHS
7. Shakeerah McCoy, MSN, RN, PCCN  
   Director, Rural Health Innovation
8. Amy Roberts, MHA  
   Executive Director Telehealth – Mission Health
9. Sy Atezaz Saeed, MD, MS  
   Executive Director, NC-STeP (Chair)
10. Glenn M. Simpson, MBA, MA, NCC  
    Behavioral Health Service Line Administrator, ECU Health
11. Ashley Stoop, MPH  
    Health Director, Albemarle Regional Health Services
12. Marvin Swartz, MD  
    Professor & Head Division of Social & Community Psychiatry, Duke

Ex Officio Members
1. Ryan Baker, NC-STeP/ECU
2. Kalyan Muppavarapu, MD, MPH, 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, Ph.D., DHHS, Division of Mental Health
7. Nick Galvez, DHHS-ORH
8. Katherine Jones, Ph.D., NC-STeP/ECU
9. Maggie Sauer, DHHS-ORH
• 39 hospitals in the network, 38 hospitals were live
• 27 hospitals reporting Telepsychiatry patients in their ED
  – not all live hospitals had telepsychiatry patients
• Total number of assessments for this quarter = 1,486
• Total number of encounters for this quarter = 1,280
• Patient assessments billed for Model 1 hospitals = 1034
The Median Length of Stay was 35.2 hours.
The Average Length of Stay was 62.1 hours:
  - 55.8 hours for those discharged to home
  - 66.1 hours for those transferred to another facility.

Average Consult Elapsed Time (in Queue to Exam Complete) for Model 1 hospitals was 5 hours and 49 minutes.
870 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
   - 366 (42.1%) of those patients did not have an IVC in place when discharged.

Of the ED patients who received telepsychiatry services:
   - 49.5% were discharged to home
   - 44.2% were discharged to another facility
22 Community based sites were live as of June 30, 2022.

There were 1,085 total behavioral health visits.
  – 99 visits with a Psychiatrist.
  – 986 visits with a behavioral health manager.
  – 18 visits with a Maternal and Fetal Medicine Specialist.

*MOTHeRS Project
<table>
<thead>
<tr>
<th></th>
<th>Since project inception in November 2013</th>
<th>Quarter Jul- Sep 2021</th>
<th>Quarter Oct- Dec 2021</th>
<th>Quarter Jan- Mar 2022</th>
<th>Quarter Apr- Jun 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Patient Encounters</strong></td>
<td>41,600</td>
<td>1,179</td>
<td>1,219</td>
<td>1,232</td>
<td>1,280</td>
</tr>
<tr>
<td><strong>Model 1 Hospital Patient Encounters</strong></td>
<td>25,346</td>
<td>705</td>
<td>753</td>
<td>794</td>
<td>828</td>
</tr>
<tr>
<td><strong>Model 2 Hospital Patient Encounters</strong></td>
<td>16,254</td>
<td>474</td>
<td>466</td>
<td>438</td>
<td>452</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>54,295</td>
<td>1,403</td>
<td>1,478</td>
<td>1,514</td>
<td>1,486</td>
</tr>
</tbody>
</table>
Since project inception in November 2013

<table>
<thead>
<tr>
<th>Total Patient Encounters</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>
<th>During Calendar Year 2019</th>
<th>During Calendar Year 2020</th>
<th>During Calendar Year 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>41,600</td>
<td>5,144</td>
<td>7,128</td>
<td>1,896</td>
<td>3,971</td>
<td>6,104</td>
<td>4,835</td>
<td>4,305</td>
<td>4,763</td>
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<tr>
<td>Model 1 Hospital Patient Encounters</td>
<td>25,346</td>
<td>4,578</td>
<td>5,849</td>
<td>706</td>
<td>2,044</td>
<td>2,654</td>
<td>1,902</td>
<td>2,152</td>
</tr>
<tr>
<td>Model 2 Hospital Patient Encounters</td>
<td>16,254</td>
<td>566</td>
<td>1,279</td>
<td>1,190</td>
<td>1,927</td>
<td>3,450</td>
<td>2,933</td>
<td>2,153</td>
</tr>
<tr>
<td>Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)</td>
<td>54,295</td>
<td>8,130</td>
<td>13,573</td>
<td>1,942</td>
<td>4,348</td>
<td>6,680</td>
<td>5,287</td>
<td>4,820</td>
</tr>
</tbody>
</table>
## NC-STeP Benchmarks

<table>
<thead>
<tr>
<th>Goals</th>
<th>Values Reached</th>
<th>Year-to-Date Total with % of the Yearly Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cumulative Target to be reached by (06/30/2022)</strong></td>
<td><strong>Value Reached as of most recent previous quarter (03/31/2022)</strong></td>
<td><strong>Value Reached as of this reporting quarter (06/30/2022)</strong></td>
</tr>
<tr>
<td>Number of IVCs</td>
<td>2,557</td>
<td>828</td>
</tr>
<tr>
<td>Number of IVCs Overturned</td>
<td>1,023</td>
<td>377</td>
</tr>
<tr>
<td>Total Number of Assessments</td>
<td>4,261</td>
<td>1,514</td>
</tr>
</tbody>
</table>

(Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.)
Number of NC-STeP Patients by Hospital
April - June 2022

- Albemarle: 100
- Beaufort: 20
- Bertie: 3
- Chowan: 34
- Duplin: 44
- Edgecombe: 46
- Outer Banks: 10
- Lenoir: 166
- McDowell: 10
- Highland Cashiers: 55
- Blue Ridge: 94
- Transylvania: 87
- St. Lukes: 67
- McDowell: 5
- Angel: 95
- Chatham: 1
- Maria Parham: 40
- Franklin: 18
- Erlanger: 18
- Bladen: 7
- Northern of Surry: 28
- Lake Norman: 1
- Halifox: 32
- Pender: 32
- Central Harnett: 69
- UNC Rockingham: 4
Percent of Use by Hospital Apr-Jun 2022
(based on number of encounters)

- UNC Rockingham: 6%
- Outer Banks: 4%
- Lenoir: 4%
- Iredell: 3%
- Hugh Chatham: 5%
- Halifax: 2%
- Erlanger: 8%
- Duplin: 3%
- Central Harnett: 3%
- Betsy Johnson: 11%
- Albemarle: 8%
- *Transylvania: 8%
- *McDowell: 14%
- *Angel: 7%
- *Bladen: 3%
- *Blue Ridge: 4%
- All Others Combined: 8%
Percent of Use by Hospital for Model 1 Hospitals
Apr-Jun 2022
(based on number of encounters)
Number of Patients by Provider (Model 1)

Apr-Jun 2022

CBC: 555
ECU: 273

Jan-Mar 2022

CBC: 537
ECU: 233

Oct-Dec 2021

CBC: 513
ECU: 214
Number of Patients by Model

**Apr-Jun 2022**
- Model 1: 828
- Model 2: 452

**Jan-Mar 2022**
- Model 1: 770
- Model 2: 438

**Oct-Dec 2021**
- Model 1: 727
- Model 2: 466
44% percent of patients had a LOS of 30 hours or less

Median Length of Stay for Apr-Jun 2022 = 35.2 hours

26 patients had a LOS longer than 300 hours
Median Length of Stay by Quarter
(in hours)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Median Length of Stay (in hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-Sep 2019</td>
<td>27.2</td>
</tr>
<tr>
<td>Oct-Dec 2019</td>
<td>25.4</td>
</tr>
<tr>
<td>Jan-Mar 2020</td>
<td>25.6</td>
</tr>
<tr>
<td>Apr-Jun 2020</td>
<td>24.2</td>
</tr>
<tr>
<td>Jul-Sep 2020</td>
<td>27.3</td>
</tr>
<tr>
<td>Oct-Dec 2020</td>
<td>25.3</td>
</tr>
<tr>
<td>Jan-Mar 2021</td>
<td>27.5</td>
</tr>
<tr>
<td>Apr-Jun 2021</td>
<td>28.5</td>
</tr>
<tr>
<td>Jul-Sep 2021</td>
<td>30.4</td>
</tr>
<tr>
<td>Oct-Dec 2021</td>
<td>31.6</td>
</tr>
<tr>
<td>Jan-Mar 2022</td>
<td>42.5</td>
</tr>
<tr>
<td>Apr-Jun 2022</td>
<td>35.2</td>
</tr>
</tbody>
</table>
Average Length of Stay by Quarter
(in hours)

- Jul-Sep 2019: 46.7
- Oct-Dec 2019: 42.7
- Jan-Mar 2020: 56.5
- Apr-Jun 2020: 49.3
- Jul-Sep 2020: 53.9
- Oct-Dec 2020: 50.5
- Jan-Mar 2021*: 63.4
- Apr-Jun 2021*: 57
- Jul-Sep 2021*: 72.5
- Oct-Dec 2021*: 72.6
- Jan-Mar 2022*: 81.8
- Apr-Jun 2022: 62.1

*Note: The asterisk indicates data from the NC-STEP Statewide Telepsychiatry Program.
Average Length of Stay for NC-STeP Patients by Hospital
April - June 2022
(in hours)
**Average Length of Stay by Provider**

**Jan-Mar 2022 (in hours)**

- **Mission** (412 patients): 39.8 hours
- **Cape Fear** (26 patients): 28.5 hours
- **CBC** (537 patients): 93.5 hours
- **ECU** (233 patients): 97.5 hours

**Apr-Jun 2022 (in hours)**

- **Mission** (412): 32.5 hours
- **Cape Fear** (40 patients): 31.3 hours
- **CBC** (555 patients): 77.3 hours
- **ECU** (273 patients): 80.5 hours
Average LOS by Model

**Apr-Jun 2022 (in hours)**
- Model 1: 78.3 hours
- Model 2: 32.4 hours

**Jan-Mar 2022 (in hours)**
- Model 1: 94.7 hours
- Model 2: 39.1 hours
Average Length of Stay by Quarter for Patients Discharged to Home or Transfer
(in hours)

Avg LOS for patients discharged HOME
Avg LOS for patients discharged TRANSFER

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Avg LOS for Patients Discharged Home</th>
<th>Avg LOS for Patients Discharged Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-Sep 2019</td>
<td>45.3</td>
<td>50.3</td>
</tr>
<tr>
<td>Oct-Dec 2019</td>
<td>40.9</td>
<td>48.8</td>
</tr>
<tr>
<td>Jan-Mar 2020</td>
<td>53.2</td>
<td>51.6</td>
</tr>
<tr>
<td>Apr-Jun 2020</td>
<td>47.4</td>
<td>56.8</td>
</tr>
<tr>
<td>Jul-Sep 2020</td>
<td>61.5</td>
<td>62.4</td>
</tr>
<tr>
<td>Oct-Dec 2020</td>
<td>56.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Jan-Mar 2021</td>
<td>61.5</td>
<td>69.9</td>
</tr>
<tr>
<td>Apr-Jun 2021</td>
<td>58.4</td>
<td>78.8</td>
</tr>
<tr>
<td>Jul-Sep 2021</td>
<td>64.2</td>
<td>70.5</td>
</tr>
<tr>
<td>Oct-Dec 2021</td>
<td>78.8</td>
<td>68.8</td>
</tr>
<tr>
<td>Jan-Mar 2022</td>
<td>80.4</td>
<td>80.4</td>
</tr>
<tr>
<td>Apr-Jun 2022</td>
<td>55.8</td>
<td>66.1</td>
</tr>
</tbody>
</table>
Consult Elapsed Time: April – June 2022

CBC and ECU
Average Consult Exam Elapsed Time
In Que to Exam Complete
FY22-Q4 April-June 2022
(5 hours 49 min)

Exam Elapsed Time, 1:44:49
In Que Wait Time, 4:04:12

Comparison CBC and ECU
Average Consult Elapsed Time
In Queue to Exam Complete
FY22-Q4 April - June 2022

CBC
ECU

Graph showing exam elapsed time and in queue wait time comparisons between CBC and ECU.
Key Processes and Elapsed Times Averages
CBC and ECU: April – June 2022

<table>
<thead>
<tr>
<th>Process Time</th>
<th>Elapsed Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Time from Queue to Intake Start: 0:20:25</td>
<td>4:04:12</td>
</tr>
<tr>
<td>Avg. Intake Duration: 0:20:25</td>
<td>4:24:37</td>
</tr>
<tr>
<td>Avg. Time from Intake End to Exam Start: 0:48:10</td>
<td>5:12:47</td>
</tr>
<tr>
<td>Avg. Exam Duration: 0:36:14</td>
<td>5:32:11</td>
</tr>
<tr>
<td>Total Duration from Queue to Consulted: 0:49:01</td>
<td>5:49:01</td>
</tr>
</tbody>
</table>
Percent of Patients by Discharge Disposition

Apr-Jun 2022
- Home: 44%
- Transfer: 5%
- Admit: 1%
- Other: 5%

Jan-Mar 2022
- Home: 43%
- Transfer: 6%
- Admit: 1%
- Other: 6%
IVCs – By Release Status

Apr-Jun 2022

- 42% IVCs - percent not released
- 58% IVCs - percent released

Jan-Mar 2022

- 46% IVCs - percent not released
- 54% IVCs - percent released
Number of IVCs and IVC Turnovers by Model

**Apr-Jun 2022**

- Model 1 (51.8% Turnover) - 356 IVCs, 183 IVC Turnovers
- Model 2 (5.5% Turnover) - 10 IVCs, 10 IVC Turnovers

**Jan-Mar 2022**

- Model 1 (54.5% Turnover) - 356 IVCs, 153 IVC Turnovers
- Model 2 (7.2% Turnover) - 11 IVCs, 11 IVC Turnovers
Satisfaction Surveys

- Satisfaction surveys are done twice a year.
- Satisfaction surveys were not done during this last quarter.
- Most recent surveys were conducted in March of 2022
  - 41 individuals responded to the survey (N = 41).
- The overall satisfaction rate was 76%.
NC-STeP Charge Mix
QTD FY2022 - Quarter 4

Self-Pay, 36%
Medicaid, 35%
Blue Shield, 13%
Commercial, 1%
LME/IPRS, 0%
Medicare, 12%
LME/MCO’s, 2%
Other, <1%
NC-STeP Charge Mix - Project to Date
Service Dates: October 1, 2013 – June 30, 2022

- Self-Pay, 33%
- Medicare, 17%
- LME/MCO's, 24%
- Medicaid, 5%
- Other, 5%
- LME/IPRS, 3%
- Commercial, 6%
- Blue Shield, 7%
<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>VALUES/MEASURES REACHED AS OF 6/30/2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The number of full-time equivalent (FTE) providers supporting the program</td>
<td>1.6 FTEs</td>
</tr>
<tr>
<td>2. The number of community-based sites contracted</td>
<td>22</td>
</tr>
<tr>
<td>3. Number of patient visits with medical (psychiatric) doctor</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>PTD= 1,326</td>
</tr>
<tr>
<td>4. The number return visits</td>
<td>822</td>
</tr>
<tr>
<td></td>
<td>PTD= 10,125</td>
</tr>
<tr>
<td>5. The number of patient visits with a mid-level provider</td>
<td>986</td>
</tr>
<tr>
<td></td>
<td>PTD= 11,374</td>
</tr>
<tr>
<td>6. The number of new patient visits</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>PTD= 2,625</td>
</tr>
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</table>
### NC-STeP Community Patient Visits

<table>
<thead>
<tr>
<th>Patient Visits</th>
<th>Since project inception in October 2018</th>
<th>During Calendar Year 2018</th>
<th>During Calendar Year 2019</th>
<th>During Calendar Year 2020</th>
<th>During Calendar Year 2021</th>
<th>During Quarter Jan- Mar 2022</th>
<th>During Quarter Apr- Jun 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Medical Doctor</td>
<td>1,326</td>
<td>8</td>
<td>536</td>
<td>265</td>
<td>316</td>
<td>103</td>
<td>98</td>
</tr>
<tr>
<td>With Mid-Level Provider</td>
<td>11,374</td>
<td>7</td>
<td>2,006</td>
<td>3,217</td>
<td>4,122</td>
<td>1,036</td>
<td>986</td>
</tr>
<tr>
<td><strong>Total Patient Visits</strong></td>
<td><strong>12,789</strong></td>
<td><strong>15</strong></td>
<td><strong>2,633</strong></td>
<td><strong>3,477</strong></td>
<td><strong>4,440</strong></td>
<td><strong>1,139</strong></td>
<td><strong>1,085</strong></td>
</tr>
</tbody>
</table>

*There was 1 visit that didn’t say whether it was with MD or LCSW, and it is in the total but not in the breakouts.*
NC-STeP Appointment by Site
Appointments, Visits Kept, Rescheduled, Cancelled, No Show
April - June 2022

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Apts</th>
<th>Apts Kept</th>
<th>Apts Rescheduled</th>
<th>Apts Cancelled</th>
<th>Apts No Show</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaufort</td>
<td>117</td>
<td>66</td>
<td>14</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>Benson</td>
<td>45</td>
<td>37</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Bertie</td>
<td>71</td>
<td>52</td>
<td>9</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Camden</td>
<td>244</td>
<td>144</td>
<td>35</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Carteret</td>
<td>162</td>
<td>120</td>
<td>15</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Cherokee</td>
<td>50</td>
<td>38</td>
<td>8</td>
<td>24</td>
<td>4</td>
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<tr>
<td>Chow County</td>
<td>180</td>
<td>105</td>
<td>19</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Craven</td>
<td>98</td>
<td>63</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Currituck</td>
<td>82</td>
<td>65</td>
<td>13</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Duplin</td>
<td>20</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Eranger-Clay</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Gates</td>
<td>27</td>
<td>20</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hertford</td>
<td>88</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Hyde</td>
<td>0</td>
<td>248</td>
<td>3</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>Kinston</td>
<td>422</td>
<td>3</td>
<td>139</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>MTW</td>
<td>3</td>
<td>20</td>
<td>13</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Pasquo-tank</td>
<td>62</td>
<td>3</td>
<td>12</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Perquimans</td>
<td>66</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Vidant Edenton</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Vidant Kenville</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Legend:
- Total Apts
- Apts Kept
- Apts Rescheduled
- Apts Cancelled
- Apts No Show

ECU
NC-STeP
NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM
39 hospitals in the network. 38 live.
54,295 total psychiatry assessments since program inception
8,768 IVCs overturned
- Cumulative return on investment = $47,293,20
  (savings from preventing unnecessary hospitalizations)
Four Clinical Provider Hubs with 52 consultant providers
Over 32% of the patients served had no insurance coverage
NC-STeP Status as of June 30, 2022

- 22 community-based sites.
- 12,789 total patient visits since program inception in October 2018.
  - 1,326 total patient visits with a psychiatrist
  - 11,374 total patient visits with a mid-level provider
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