Sy Saeed, M. D., 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)
NC-STeP Status as of June 2015

- 71 hospitals in network
  - 56 hospital currently live
  - 2 hospitals ready to go live, waiting on credentialing
  - 13 additional hospitals in process (i.e. contract negotiations, equipment being ordered, etc)
- 3,391 total Telepsychiatry Assessments were conducted under the program during this three month period (including both initial and follow-up assessments).
NC-STeP Status as of June 2015

• 1030 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
  – 258 (25%) of those patients did not have an IVC when they were discharged.

• Of the ED patients who received telepsychiatry services, 40% were discharged to home. 54% were discharged to another facility.
NC-STeP Status as of June 2015

- Five Clinical Providers’ Hubs
  - Cape Fear Valley
  - Coastal Carolina Neuropsychiatry
  - Cone Health
  - Mission
  - Novant
## NC-STeP Status as of June 2015

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>BASELINE VALUES/MEASURES AS REPORTED ON ORIGINAL GRANT APPLICATION</th>
<th>TARGET TO BE REACHED BY 06/30/2015</th>
<th>VALUES/MEASURES REACHED AS OF 6/30/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To maintain the number of full-time equivalent (FTE) positions supported by this contract at 0.70 FTEs</td>
<td>0.70 FTEs</td>
<td>0.70 FTEs</td>
<td>.95 FTE</td>
</tr>
<tr>
<td>2. To increase the number of overturned involuntary commitments by 978, from 172 to 1,150 in order to address unnecessary hospitalization of behavioral health patients</td>
<td>172</td>
<td>1,150 Target met</td>
<td>258 in this quarter Cumulative total since program inception = 1320</td>
</tr>
<tr>
<td>3. To increase the number of participating consultant providers by 21, from 12 to 33</td>
<td>12</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>4. To increase the number of telepsychiatric assessments conducted by 15,618, from 2,382 to 18,000</td>
<td>2,382</td>
<td>18,000</td>
<td>3,391 this quarter Cumulative total since program inception = 14,056</td>
</tr>
<tr>
<td>5. To increase the number of telepsychiatry referring sites by 40, from 19 to 59</td>
<td>19 referring sites</td>
<td>59 referring sites</td>
<td>58 total • 56 site live • 2 equipped – waiting on credentialing • Equipment ordered for 7 additional hospitals, contracts currently in negotiations</td>
</tr>
</tbody>
</table>
## NC-STeP Status as of June 2015

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<th>VALUES/MEASURES REACHED AS OF 6/30/2015</th>
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</thead>
<tbody>
<tr>
<td>6. To increase the reports of involuntary commitments to an enrolled hospital by 4,631, from 369 to 5,000</td>
<td>369</td>
<td>5,000 Target met</td>
<td>1030 this quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cumulative total since program inception = 5403</td>
</tr>
<tr>
<td>7. To reduce the average Length of Stay for all patients with a primary mental health diagnosis across all dispositions by approximately 10 hours, from 33.08 to 23 hours</td>
<td>33.08 hours</td>
<td>23 hours</td>
<td>43.2 mean this quarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Median = 26.1</td>
</tr>
<tr>
<td>8. To establish a minimum score of 85% &quot;satisfied&quot; or &quot;strongly satisfied&quot; satisfaction rate among internal and external customers participating in the statewide telepsychiatry program</td>
<td>Baseline data not established (Surveying not started in Year 1)</td>
<td>85%</td>
<td>See attached detail</td>
</tr>
<tr>
<td>9. To increase the ratio of the overall revenues (billing, subscription fees), exclusive of grant funding, to program costs (exclusive of start-up costs)</td>
<td>0.45:1.00</td>
<td>&gt;1.00:1.00</td>
<td>0.61</td>
</tr>
</tbody>
</table>
Provider Hubs
1. Coastal Carolina Neuropsychiatric Center
2. Mission
3. Cone Health
4. Novant
5. Cape Fear
Percent of Telepsychiatry Patients by Discharge Disposition
April-June 2015

- Home: 40%
- Transfer: 54%
- Against Medical Advice: 4%
- Admit: .8%
- Other: .4%
NC STeP Number of Total Assessments Billed by Month (January 2014 - June 2015)

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Total Assessments Billed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-14</td>
<td>427</td>
</tr>
<tr>
<td>Feb-14</td>
<td>438</td>
</tr>
<tr>
<td>Mar-14</td>
<td>643</td>
</tr>
<tr>
<td>Apr-14</td>
<td>678</td>
</tr>
<tr>
<td>May-14</td>
<td>692</td>
</tr>
<tr>
<td>Jun-14</td>
<td>603</td>
</tr>
<tr>
<td>Jul-14</td>
<td>647</td>
</tr>
<tr>
<td>Aug-14</td>
<td>664</td>
</tr>
<tr>
<td>Sep-14</td>
<td>795</td>
</tr>
<tr>
<td>Oct-14</td>
<td>664</td>
</tr>
<tr>
<td>Nov-14</td>
<td>616</td>
</tr>
<tr>
<td>Dec-14</td>
<td>681</td>
</tr>
<tr>
<td>Jan-15</td>
<td>697</td>
</tr>
<tr>
<td>Feb-15</td>
<td>610</td>
</tr>
<tr>
<td>Mar-15</td>
<td>965</td>
</tr>
<tr>
<td>Apr-15</td>
<td>1117</td>
</tr>
<tr>
<td>May-15</td>
<td>1119</td>
</tr>
<tr>
<td>Jun-15</td>
<td>1155</td>
</tr>
</tbody>
</table>
Median Length of Stay for April 2015 – June 2015 = 26.1 Hours

57% percent of patients Had a LOS of 30 hours or less
59% percent of patients had a LOS of 30 hours or less.

NC STeP January - March 2015
Number of Patients by LOS Category (in hours)

Median Length of Stay for Jan 2015 – March 2015 = 24.7 Hours
Median Length of Stay for Jan 2014 – Dec 2014 = 23.6 Hours

62% percent of patients Had a LOS of 30 hours or less

NC STeP January - December 2014
Number of Patients by LOS Category (in hours)

Number of patients with a LOS in this category

Median Length of Stay for Jan 2014 – Dec 2014 = 23.6 Hours
Median Length of Stay in Hours

<table>
<thead>
<tr>
<th>Period</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-Dec 2013</td>
<td>10.9</td>
</tr>
<tr>
<td>Jan-March 2014</td>
<td>24</td>
</tr>
<tr>
<td>April-June 2014</td>
<td>25.5</td>
</tr>
<tr>
<td>July-Sept 2014</td>
<td>27.9</td>
</tr>
<tr>
<td>Oct-Dec 2014</td>
<td>18.9</td>
</tr>
<tr>
<td>12 MONTH PERIOD Jan-Dec 2014</td>
<td>23.6</td>
</tr>
<tr>
<td>Jan-March 2015</td>
<td>24.7</td>
</tr>
<tr>
<td>April-June 2015</td>
<td>26.1</td>
</tr>
</tbody>
</table>
Average Length of Stay for Hospitals Participating in NC STeP

Jan-Mar 2014: 33.08
Apr-Jun 2014: 37.8
July-Sept 2014: 45.03
Oct-Dec 2014: 30.3
12 Month Period Jan-Dec 2014: 40.8
Jan-Mar 2015: 41.9
Apr-Jun 2015: 43.2

Average Length of Stay in Hours
Average Length of Stay for Patients Discharged to Home or Transfer

- Avg LOS for patients discharged HOME (hours)
- Avg LOS for patients discharged TRANSFER (hours)

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>HOME</td>
<td>18.25</td>
<td>33.08</td>
<td>31.2</td>
<td>38.8</td>
<td>37.1</td>
<td>45.3</td>
<td>42.1</td>
</tr>
<tr>
<td>TRANSFER</td>
<td>33.6</td>
<td>44.3</td>
<td>45.3</td>
<td>39.61</td>
<td>22.8</td>
<td>65.8</td>
<td>43.4</td>
</tr>
</tbody>
</table>
Average Length of Stay for ED Telepsych Patients in Hours by Hospital - for April - June 2015

- Average Length of Stay:
  - Albemarle: 43.2
  - Beaufort: 30.5
  - Carteret: 50.1
  - Carolina East: 50.5
  - Chowan: 42.4
  - Duplin: 56.2
  - Edgecombe: 50.8
  - Lexington: 36.8
  - Martin: 29.3
  - Outer Banks: 36.3
  - Randolph: 51.7
  - Wayne: 43
  - Wilson **no data**: 0
  - Nash: 42.8
  - Bladen: 14
  - Washington **no data**: 4.2
  - Wesley Long Cone: 81
  - Annie Penn: 51.5
  - Med Center High Point: 43
  - Moses Cone: 43
  - Novant Kernersville: 1
  - Blue Ridge: 31
  - Transylvania: 25.9
  - St. Lukes: 76.1
  - Davie: 31.9
  - Angel: 46.4
  - Columbus: 47.8
  - Sampson: 62.8
  - Lake Norman: 76.1

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East Carolina University
Center for Telepsychiatry

NC-STEM
IVCs - by Release Status
April - June 2015

- 75% percent released
- 25% percent not released
IVCs - By Release Status January - December 2014

- 76% - IVCs - percent not released
- 24% - IVCs - percent released
NC STeP: Number of IVCs for Participating Hospitals by Quarter and for Year 2014

[Bar chart showing the number of IVCs and the number of IVCs turned over for different quarters and periods in 2014 and 2015.]
NC-STeP CHARGE MIX
PROJECT TO DATE
10/1/13 - 6/30/15
(based on initial status)

- Self-pay, 31.14%
- Blue Shield, 5.69%
- Commercial, 14.13%
- Medicaid, 7.31%
- Medicare, 20.80%
- Other, 20.94%
NC-STeP CHARGE MIX
QTD 2015 - Quarter 4
(based on initial status)

- Self-pay, 28.95%
- Blue Shield, 6.80%
- Commercial, 19.58%
- Medicare, 16.97%
- Medicaid, 2.09%
- Other, 25.61%
Satisfaction surveys were conducted in June 2015 with 4 groups:

- Emergency Department Physicians
- Hospital Emergency Department Staff
- Hospital CEOs/COOs
- Provider (HUB) Physicians

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

The following number of individuals from each group responded:

- Emergency Department Physicians (19 responded)
- Hospital Emergency Department Staff (34 responded)
- Hospital CEOs/COOs (1 responded – too small to present results)
- Provider (HUB) Physicians (6 responded)

For each group, one summary question is selected for an overall “satisfaction” rate. These are then averaged for a total rate.
Hospital ED Physicians results:

- Telepsych consults are easy to obtain: 79%
- Consultants respond quickly to the telepsych requests: 53%
- Evaluations are complete and thorough: 79%
- Consult disposition recommendations are helpful: 68%
- Consults have improved the quality of care for mental health/substance abuse patients in the ED: 79%

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

*This question used to measure overall satisfaction*
Hospital ED Physicians Satisfaction Results

ED Doc: Telepsychiatry consults are easy to obtain

ED DOC: Telepsychiatry evaluations are complete and thorough

ED Doc: Telepsychiatry equipment is reliable and seldom down

ER DOC: Consultants respond quickly to telepsychiatry requests
Hospital Staff Satisfaction Results

- Program has improved patient care in our ED: 71%
- Patients appear comfortable: 74%
- Patients were cooperative: 85%
- Fax system of requesting a consult is easy to use: 52%

ED Staff: Telepsychiatry consults have improved patient care in our ED

**This question used to measure overall satisfaction**

- Disagree: 15%
- Undecided: 15%
- Agree: 71%
Hospital Staff Satisfaction Results

**ED Staff: The telepsychiatry equipment is easy to use**
- Agree: 74%
- Undecided: 18%
- Disagree: 9%

**ED Staff: I received adequate training/instruction preparing me to use the system**
- Agree: 55%
- Undecided: 15%
- Disagree: 30%

**ED Staff: The system works well without static, delays in transmission, or limits of picture or audio**
- Agree: 61%
- Undecided: 12%
- Disagree: 27%

**ED Staff: Assisting in telepsychiatry consults is an efficient use of my time**
- Agree: 69%
- Undecided: 22%
- Disagree: 9%
Provider Psychiatrist results:

Psychiatrist: Providing telepsych services is an effective and efficient way of assessing and treating patients with mental health/substance abuse issues

- Disagree: 17%
- Undecided: 17%
- Agree: 83%

Psychiatrist: Telepsychiatry equipment is easy to use and safely arranged

- Disagree: 17%
- Undecided: 17%
- Agree: 83%

Psychiatrist: I am satisfied with providing psychiatric consults via telepsychiatry

*This question used to measure overall satisfaction

- Disagree: 17%
- Undecided: 17%
- Agree: 67%
Overall Satisfaction: Determined by a weighted average of the satisfaction measures for the user groups. The weighted average for April-June 2015 was 73% satisfied.

- Provider Psychiatrists = 67%.
- ED Physicians = 79%.
- ED staff = 71%.

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

**This question used to measure overall satisfaction

ED Staff: Telepsychiatry consults have improved patient care in our ED

**This question used to measure overall satisfaction

Psychiatrist: I am satisfied with providing psychiatric consults via telepsychiatry

*This question used to measure overall satisfaction