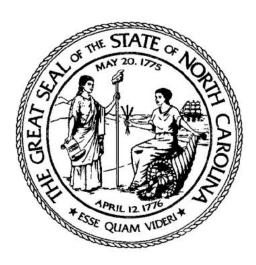
Summary Report on SFY 2018 North Carolina Statewide Telepsychiatry Program (NC-STeP) Funds

General Statute 143B-139.4B



Report to the

Joint Legislative Oversight Committee on Health and Human Services

and

Fiscal Research Division

by the

North Carolina Department of Health and Human Services

November 01, 2018

Executive Summary

Session Law 2013-360, and subsequently General Statute 143B-139.4B, directed the Office of Rural Health (ORH) to partner with East Carolina University on a statewide telepsychiatry program. Since 2013, the North Carolina Statewide Telepsychiatry Program (NC-STeP) has allowed North Carolina health care organizations to participate as referring sites (hospital emergency departments) or consulting sites (psychiatric practices) in providing psychiatric assessments to patients experiencing an acute behavioral health crisis or those held under involuntary commitment (IVC). The East Carolina University Center for Telepsychiatry and e-Behavioral Health (C-TeBH) implements these services into hospitals' emergency departments (EDs), and ORH is responsible for monitoring NC-STeP funds and performance measurements. ORH ensures the program's performance measures align with legislation, in addition to collecting, analyzing, and maintaining all documentation needed for payments, contract creation, and amendments. ORH receives reports from C-TeBH and disseminates relevant information to stakeholders as needed.

As of June 30, 2018, 53 referring sites across the state are connected to the NC-STeP, and an additional 7 are in the process of being connected, for a total of 60 referring sites. Additionally, there were six consulting sites enrolled in the program by the end of SFY 2018. These consulting sites included Carolina Behavioral Care (CBC), Cape Fear Valley Health, Cone Health, Mission Health, Novant Health, and Old Vineyard Behavioral Health Services. As required by contract with ORH, C-TeBH submitted quarterly reports regarding specific performance measurements. As of the most recent report, most legislative performance targets have been met or exceeded.

In accordance with the law, ORH conducted site visits to referring sites supported by state funding, and consulting sites. During these visits, sites reported high staff satisfaction, but there remain issues requiring future attention, including physician credentialing policies, equipment challenges, and internet connectivity.

As outlined in the legislative plan, NC-STeP focused on implementation of referring and consulting sites during its initial years. The recurring funding of \$2,000,000 has been awarded to build and maintain the program infrastructure. In addition to the state funds, The Duke Endowment also awarded a one-time sum of \$1,500,000 for two years to ORH in 2015. The Duke Endowment award was not fully expended during between 2015-2017 and ORH received several carryforward approvals. It is anticipated that this award will formally conclude June 30, 2019. The Duke Endowment award was disbursed and budgeted to bring additional sites to the program and disseminate information regarding best practices. Session Law 2017-57, Section 11A.10. required the Department of Health and Human Services (DHHS) to take a recurring reduction in the amount of \$3.2 million. The provision further required DHHS to not reduce funds if it would impact services. This was a difficult task as reductions in the past have typically been a non-recurring cut making them easier to manage by identifying one-time dollars. DHHS chose to reduce the NC-STeP contract by \$180,000 due to their historical reversions over the past five years. The SFY 2019 contract for NC-STeP totals \$1,820,000.

The C-TeBH program has generated significant cost savings to the State, its partners, and external stakeholders. Although total cost savings are difficult to quantify due to the number of stakeholders, NC-STeP estimates \$21,675,600 in cumulative cost savings to the State. The primary source of cost savings

was generated by reducing the number of involuntary commitments and avoiding unnecessary hospitalization. Of the 12,922 patients held under involuntary commitment and served by the program, 4,014 have been discharged into their own communities to receive treatment using community resources. This has reduced burden and cost for state psychiatric facilities, other hospitals, law enforcement agencies, government payers, private payers, and patients and their families.

In the second year of operation of NC-STeP, the North Carolina Department of Health and Human Services (DHHS) and ORH incorporated a sustainability measurement tool into the contract. Currently, the program, without including grant support from the State and other sources, is operating at a 1.00: 0.45 ratio (cost:revenue). The sustainability ratio of 1.00: 0.45 means that, for every dollar the program spends, it can recover \$0.45. The two main factors driving this are the payor mix, including around 32% uninsured patients served by the program, and the high provider costs.

NC-STeP has accomplished much during its implementation and operation; however, there have been challenges that have delayed rollout to all sites.

During the 2017 legislative session, as part of Senate Bill 616, the North Carolina General Assembly expanded the scope of the program by authorizing the provision of telepsychiatry services into community-based settings, in addition to the initial service setting of emergency rooms. The C-TeBH is working with ORH to expend the balance of funds provided by The Duke Endowment to develop early pilot community-based sites. This will exhaust the one-time 2015 award by The Duke Endowment. C-TeBH is authorized by legislation to utilize future appropriations in emergency rooms and communitybased settings. Both C-TeBH and ORH express appreciation for the innovative, critical support provided by the North Carolina General Assembly and The Duke Endowment. Without these funds, the NC-STeP Program could not have been a reality.

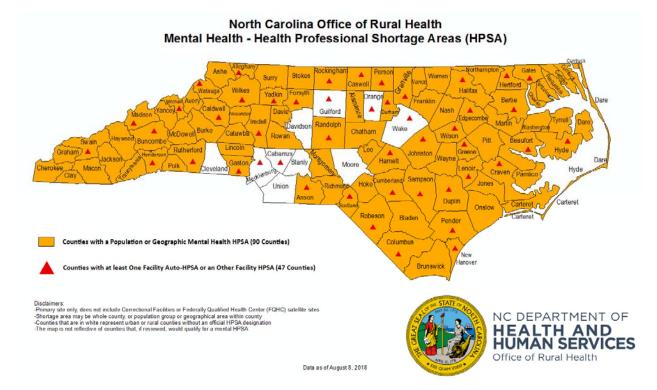
Table of Contents

Executive Summary
Background
Figure 1: Map of Mental Health Professional Shortage Areas5
Program Implementation
Figure 2: Map of NC-STeP Enrolled Sites7
Performance Measures
Table 1: NC-STeP Performance Measurements 8
Site Visit Results
Financial Report11
Table 2: NC-STeP SFY 2017 and 2018 State Budget Detail
Next Steps
Program Developments for SFY 201913
Program Developments for SFY 202014
Long-Term Sustainability
Appendix A: List of Enrolled Hospitals and Go-Live Status15
Appendix B: List of Enrolled Consulting Sites and Go-Live Status
Appendix C: NC-STeP Advisory Workgroup Member Organizations

Background

Overwhelmingly, rural North Carolina communities have a shortage of behavioral health providers. Areas can become designated Health Professional Shortage Areas (HPSAs) due to very low ratios between the number of providers and an area's population. Figure 1 is a map displaying the areas that are currently designated HPSAs specifically for behavioral health professionals in North Carolina. Currently, 45 of 100 counties have at least one facility-based Mental Health HPSA. In addition, 90 counties have a Mental Health HPSA based on population or geographic data.

Figure 1: Map of Mental Health Professional Shortage Areas



These behavioral health professional shortages are acutely felt by the communities and contributes to increased visits to emergency department (ED) settings. When a person in the community is petitioned for involuntary commitment, a magistrate may order that the person be taken for an evaluation. Many times, the individuals are taken to an ED for this evaluation. However, many ED physicians do not have training or experience with psychiatric evaluations and many of these EDs do not have access to psychiatrists or other qualified mental health professionals. As a result, in 2009 the North Carolina General Assembly (NCGA) passed two key pieces of legislation. One was to make permanent a program allowing other mental health professionals to conduct evaluations in the ED. The other was to allow these evaluations to be done by a physician or eligible psychologist via telemedicine. In addition to being in the ED for the initial evaluation, many times individuals remain in the ED awaiting transfer to an inpatient psychiatric hospital. The average length of stay (LOS) in an ED for an involuntary patient awaiting transfer to

another hospital can be between 48 and 72 hours.¹ A prolonged LOS can lead to other negative consequences, including increased wait times for other patients, diversion of ED staff resources, and poor patient outcomes for those needing mental health treatment.

To help address this issue, many EDs in the United States have begun to utilize telepsychiatry, which is a modality that enables a behavioral health professional to provide a consultation to a patient from a remote location using live, interactive, videoconferencing in real-time. In recent years, emerging technologies in video communication and high-speed internet connectivity have created an environment that has enabled telepsychiatry networks to expand. In the summer of 2013, the North Carolina General Assembly (NCGA) decided to replicate the success of previous telepsychiatry initiatives in the state and elsewhere. In Session Law 2013-360, Section 12A.2B, the North Carolina General Assembly directed the N.C. Department of Health and Human Services (DHHS) Office of Rural Heath (ORH) to implement a statewide telepsychiatry program to be administered by East Carolina University Center for Telepsychiatry and e-Behavioral Health (ECU Center for Telepsychiatry). The plan was developed in collaboration with a workgroup of key stakeholders and modeled after the Albemarle Hospital Foundation Telepsychiatry Project, which was made possible with a grant from The Duke Endowment in 2010 (grant was awarded for the implementation of telepsychiatry services into the EDs of Vidant Health and other hospitals, which experienced a decreased average LOS, a greater than 80% patient satisfaction rating, and a 33.6% rate in overturned involuntary commitments²). The initial aim of the North Carolina Statewide Telepsychiatry Program was to allow North Carolina hospitals to participate as referring sites or consulting sites in providing psychiatric assessments to patients experiencing an acute behavioral health or substance abuse crisis. This is accomplished through a contractual agreement between East Carolina University Center for Telepsychiatry and e-Behavioral Health (C-TeBH) and ORH. C-TeBH implements these services in hospital emergency rooms and ORH oversees the operations of NC-STeP while monitoring the program's expenditures, hospital enrollment, and performance measures.

Telepsychiatry has proven to be a successful policy initiative for states with rural populations lacking behavioral health resources. Other successful telepsychiatry programs include the South Carolina Department of Mental Health Telepsychiatry Program³ and the University of Virginia Telepsychiatry Program⁴, which both continue to provide telepsychiatry services throughout their respective states.

Program Implementation

The program began October 1, 2013 with the execution of a contract between ORH and C-TeBH. In accordance with Session Law 2013-360, C-TeBH's role was to implement the service into enrolled hospitals and administer the operations of NC-STeP. As of June 30, 2018, there are 53 live referring sites

¹ The DMH Telepsychiatry Program. (2013, July 31). *South Carolina Department of Mental Health*. Retrieved August 11, 2014, from http://www.state.sc.us/dmh/telepsychiatry/

² Davies, S. (2012, August 23). Vidant Health / Duke Endowment Telepsychiatry Project. *North Carolina Institute of Medicine*. Retrieved August 11, 2014, from http://www.nciom.org/wp-content/uploads/2012/06/Bed-Boarding-Davies.pdf

³ The DMH Telepsychiatry Program. (2013, July 31). *South Carolina Department of Mental Health*. Retrieved August 11, 2014, from http://www.state.sc.us/dmh/telepsychiatry/

⁴ Telepsychiatry. (n.d.). School of Medicine at the University of Virginia. Retrieved August 11, 2014, from

http://www.medicine.virginia.edu/clinical/departments/psychiatry/sections/clinical/telepsychiatry/telepsychiatry/sections/clinical/telepsychiatry/telepsychiatry/sections/clinical/telepsychiatry/sections/secti

in the network. There are 7 additional sites that are enrolled in the program but have yet to go-live due to various reasons, which include awaiting equipment, physician credentialing, and staff training.

There were six consulting sites enrolled in the program during SFY 2018. These consulting sites included Carolina Behavioral Care (CBC), Cape Fear Valley Health, Cone Health, Mission Health, Novant Health, and Old Vineyard). A complete list of the live and enrolled hospitals can be found in Appendix A of this document. Figure 2 displays a map of site locations for telepsychiatry referring sites (EDs) and consulting sites (provider hubs).

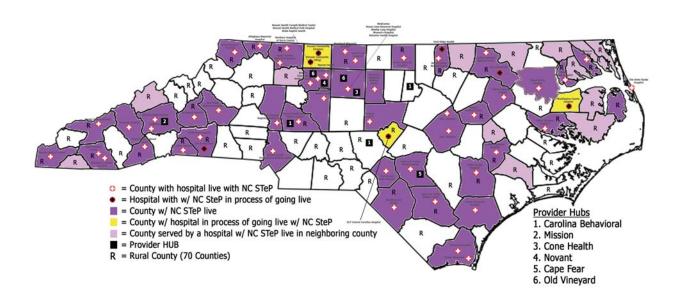


Figure 2: Map of NC-STeP Enrolled Sites

State funding was essential to the creation of the statewide program, and leaders of NC-STeP pursued additional funding from The Duke Endowment to expand the program through an additional contract with ORH. Funds in the amount of \$1.5 million from The Duke Endowment were awarded to ORH to be disbursed from SFY 2015 to 2018. Through use of this award, NC-STeP expanded to provide services to additional referring sites. Funding was also used for ORH overhead to meet the unfunded requirements of S.L. 2013-360 and to share information regarding best practices of telepsychiatry through technical assistance, an informational website, provider training modules, publications, and conference presentations. The contract is under a no-cost extension, with a current end date of June 30, 2019

ORH secured funding from the Health Resources and Services Administration (HRSA) to support the State's critical access hospitals. With funding from The Duke Endowment concluding, ORH proactively sought and received approval to use a share of its HRSA funds (totaling approximately \$82,800 for salary, fringe and benefits) to support a portion of an ORH staff position's time to oversee NC-STeP, since the majority of critical access hospitals benefit from these services.

Performance Measures

As required by contract with ORH, C-TeBH submitted quarterly reports regarding specific performance measurements. Most performance measurements were defined in S.L. 2013-360, Section 12A.2B and are displayed in Table 1 with their respective targets and outcomes. DHHS also incorporated additional measures pertaining to user satisfaction and sustainability. The program has met or exceeded several of the performance targets specified at the execution of the contract for SFY 2018.

NC-STeP has accomplished much during its implementation and operation; however, there have been challenges that have delayed rollout to all sites. In December 2015, the largest telepsychiatry hub, Coastal Carolina Neuropsychiatric Center, decided to discontinue its participation in the program. Leaders of NC-STeP immediately began recruiting additional hubs to fill the capacity, but all hospitals affected by the lapse in service had to be reconnected with a new hub. This process is still ongoing and a primary reason why NC-STeP has not met some of its performance targets. The program has experienced ongoing implementation challenges with the transition of consulting sites. Transition of consulting sites triggers the need for re-training and new credentialing.

Some of the performance measures are designed for measuring program's impact, but are not in the direct control of program administrators. One of these performance measures pertains to LOS times. Average LOS times are often skewed due to outlying patients with complex medical and behavioral needs. Since LOS for these patients is dependent upon available community and state resources, it is unlikely that the program will achieve greater improvement on this measure, as explained in the Site Visit Results section of this document. To help clarify the impact of the outliers, median LOS time was also calculated and provided. Additionally, the program now reports the average "elapsed time" for the consultations performed which is a measure of time it took for a consultation to be completed from the point of patient referral to the program to the completion of the consultation.

Evaluation Criteria	Baseline Values on 03/31/2017	DHHS Target to be reached by 06/30/2018	Actual Result by 06/30/2018
The number of full-time equivalent (FTE) positions supported by these contracts	2.10 FTEs	2.3 FTEs	1.9 FTEs
The number of overturned involuntary commitments	396	1,034	1,198
The number of participating consultant providers	30	47	47
The number of telepsychiatry assessments conducted	2,024	5,743	4,992 Cumulative since program inception: 31,693

Table 1: NC-STeP Performance Measurements

Evaluation Criteria	Baseline Values on 03/31/2017	DHHS Target to be reached by 06/30/2018	Actual Result by 06/30/2018
The number of telepsychiatry referring sites	43 referring sites	59 referring sites	60 referring sites 53 Live
The reports of involuntary commitments to enrolled hospitals	999	2,584	2,791 Cumulative since program inception: 12,922
The average (mean) Length of Stay for all patients with a primary mental health diagnosis across all dispositions ^{††}	53.2 hours	53 hours	51.7 hours (Median – 25.7 hours)
The rate of "satisfied" or "strongly satisfied" among emergency department staff participating in NCSTeP	55.4%	85%	73% satisfied
The rate of "satisfied" or "strongly satisfied" among hospital CEOs/COOs participating in the statewide telepsychiatry program	0%	85%	100% satisfied
To rate of "satisfied" or "strongly satisfied" among consulting (hub) providers participating in the statewide telepsychiatry program	72%	85%	83% satisfied
The rate of "satisfied" or "strongly satisfied" among emergency department physicians participating in the statewide telepsychiatry program	80%	85%	60% satisfied
The ratio of program costs (exclusive of start-up costs) to overall revenues (billing, subscription fees), exclusive of grant funding	1.00: 0.16	1.00: >1.00	1.00: 0.45 YTD Average 1.00: 0.42 Cumulative Average since program inception 1.00: 0.50

†† Length of stay begins when the patient is admitted to the ED and ends when the patient is discharged from the ED

Site Visit Results

In accordance with S.L. 2013-360, Section 12A.2B, ORH conducted site visits to all state-supported referring sites in which telepsychiatry has been implemented, as well as to all consulting sites serving the program during SFY 2017. Most ED staff interviewed during the hospital visits were satisfied with the service and the support they have received from the program. Structured questions revealed the majority felt they had received adequate training, were comfortable with the technology, and felt they could perform their jobs better through having telepsychiatry available.

However, the results of these site visits have also identified issues that require future attention. The primary issues discussed during the site visits are summarized below:

<u>Physician Credentialing</u> - Each physician at a consulting site must be credentialed by the referring site to provide services to that site. The physician credentialing process usually takes between 3-6 months for each facility, which delays program implementation. This administrative burden is especially present in rural hospitals or small hospitals, which often do not have the resources to dedicate staff for credentialing.

<u>Length of Stay</u> – Within the first year of program going live, NC-STeP reduced the ED length of stay (LOS) significantly when compared to the NC Hospital Association (NCHA) data on file.⁵ However, the LOS has not dropped that significantly since then. There are many factors which affect patient LOS, some of which are beyond the ED and NC-STeP's control. Despite use of telepsychiatry, a patient's LOS can vary and still remain above average depending upon discharge disposition. Patients with complex medical needs, in addition to behavioral needs, can expect to remain in the ED longer. A patient not under involuntary commitment may be sent home; however, patients who remain under the involuntary commitment process must await placement in an appropriate facility. This process often takes up to 48 hours and can be even longer if the patient is an adolescent.

<u>Availability of Service</u> - Several sites informed ORH that they wished these services were provided 24 hours a day. Currently, consulting sites offer telepsychiatry services from 8 AM to 6 PM. Depending on the site, this could include weekends. There are insufficient funding and resources to provide 24-hour support, thus patients who arrive in the ED during the evening will be required to spend the night, thereby increasing average LOS.

<u>Telepsychiatry Carts</u> - The telepsychiatry carts are designed to be mobile, but the carts are reportedly cumbersome for many staff to maneuver. Some sites requested that tablet or laptop computers be adopted in the future so that equipment may be more easily brought to the patient's location.

<u>Connectivity</u> - Several sites are currently using the telepsychiatry cart's wireless capability to connect to the internet. However, due to the thickness of building materials used in hospital construction and the lack

⁵ North Carolina Hospital Association (NCHA) ED Tracker. 2012 Data. Avialable at

https://www.ncleg.net/documentsites/committees/JLOCHHS/JLOCHHS%20Subcommittees%20by%20Interim/2013-14%20JLOC-HHS%20Subcommittees/Mental%20Health%20Subcommittee%20Folder/2-24-

^{14%20}MH%20Subcom%20Meeting/IVe-Nelson%20140224_NCHA_MHLOC_ED%20Crisis.pdf. Accessed August 16, 2018

of high-powered wireless technology in some areas, staff members have trouble connecting to the local wireless network. Other sites connect the telepsychiatry cart to the internet via a cable and wall jack, but this is only possible if wall jacks are available in the patient's room. In addition, some sites have reported difficulty connecting to the consulting provider's machine. These connectivity issues have decreased user satisfaction.

All these issues have been present since the start of the program and have affected the speed of program implementation and user satisfaction. ORH has been in discussion with NC-STeP and its Advisory Workgroup to resolve these issues, but many of them are outside of the scope and control of the program.

Financial Report

The North Carolina General Assembly has appropriated a recurring annual sum of \$2,000,000 for this initiative. The initial use of these funds included: 1) entering into a contract with C-TeBH, 2) purchasing the necessary equipment for hospitals and consulting sites participating in the program, 3) building administrative and clinical infrastructure for the program, 4) establishing policies and procedures for the clinical operations and training, 5) designing and implementing a functional web portal, and 6) supporting under- and uninsured patients. The current primary emphasis is to bring additional sites online over the next year, with the Web Portal implemented at each site.

In addition to state funds, The Duke Endowment also awarded a sum of \$1,500,000 to ORH. This award was intended to bring additional sites to the program and disseminate information regarding best practices. The Duke Endowment funding has been disbursed over the past few years and will be exhausted during the 2018-2019 fiscal year. ORH previously secured ongoing funding from the Health Resources and Services Administration to support the state's critical access hospitals. A share of these federal funds (which total approximately \$82,800 for salary, fringe and benefits) are used to support for a portion of an ORH staff position's time to oversee NC-STeP, since the majority of critical access hospitals benefit from these services.

NC-STeP estimates that the program will require an annual \$2,000,000 for ongoing implementation and maintenance, not including the costs associated with the new community-based telepsychiatry pilot programs beyond the current four proposed sites for the current fiscal year.

Session Law 2017-57, Section 11A.10. required the Department of Health and Human Services (DHHS) to take a recurring reduction in the amount of \$3.2 million. The provision further required DHHS to not reduce funds if it would impact services. This was a difficult task as reductions in the past have typically been a non-recurring cut - making them easier to manage by identifying one-time dollars. DHHS chose to reduce the NC-STeP contract by \$180,000 due to their historical reversions over the past five years. The SFY 2019 contract for NC-STeP totals \$1,820,000.

<u>Budget Carryover</u> - Of the \$1.5 million awarded in funding from The Duke Endowment, \$276,553 was not expended by June 30, 2018. In response to this, a carryover request was submitted and approved so that the remaining funds can be used during SFY 2019. This amount includes funds for C-TeBH, administrative costs to ORH, and initial funding and support for the new community-based setting telepsychiatry pilot programs at four sites. ORH has executed a no-cost extension to its contract with C-TeBH to reflect these changes.

<u>Budget Detail</u> - NC-STeP continues implementation, while transitioning into an on-going management, evaluation and program expansion phase. With the amendment to GS 143B-139.4B in June 2018, NC-STeP will now be expanding its telepsychiatry beyond emergency departments and into community-based settings. The budget for Year 6 of the program reflects this change. Table 2 summarizes the budget detail of state-appropriated funds for SFY 2018 (Year 5) compared to SFY 2019 (Year 6) which reflects the \$180,000 reduction in response to department-wide DHHS reductions required by Session Law 2017-57, Section 11A. 10.

Category	Narrative	Budgeted Year 5 SFY 2018 7/1/2017 – 6/30/2018	Accrued Year 5 SFY 2019 7/1/2017 – 6/30/2018	Budgeted Year 6 July 1, 2018 – June 20 2019
Capital Equipment	Telepsychiatry Equipment	\$189,850	\$30,257	\$14,523
Operating Expenses	Provider Support, Indirect Cost, Travel, etc.	\$1,199,932	\$888,372	\$1,078,391
Staffing	Employee Salaries/Wages	\$158,718	\$208,764	\$463,432
Telepsychiatry Web Portal	NC-STeP Web Portal / Health Information Exchange	\$451,500	\$254,019	\$263,654
Total		\$2,000,000	\$1,381,412	\$1,820,000

Table 2: NC-STeP SFY 2017 and 2018 State Budget Detail

The program has resulted in significant cost savings to the State, its partners, and external stakeholders. The primary method of cost savings C-TeBH reports from this program is reducing unnecessary involuntary commitments and avoiding unnecessary hospitalizations. Of the 12,922 patients held under involuntary commitment and served by the program, 4,014 have been discharged into their own communities to receive treatment using community resources. This has reduced burden and cost for state psychiatric facilities, other hospitals, law enforcement agencies, government payers, private payers, and patients and their families. Although total cost savings are difficult to quantify due to the number of stakeholders, NC-STeP estimates \$21,675,600 in cumulative cost savings to the State.

Next Steps

Overall, NC-STeP has had a successful first five years, but there is still much to be accomplished. S.L. 2013-360 and The Duke Endowment (final year) created tasks listed below for NC-STeP, and there are additional opportunities for expansion of telehealth initiatives in North Carolina.

Program Developments for SFY 2019

NC-STeP is currently in a phase of implementation as more referring sites go-live. During this phase, there will be operational spending related to providers' costs, increasing videoconferencing capabilities, credentialing providers, administrative overhead, maintaining a web portal, supporting regional provider hubs, and exchanging data.

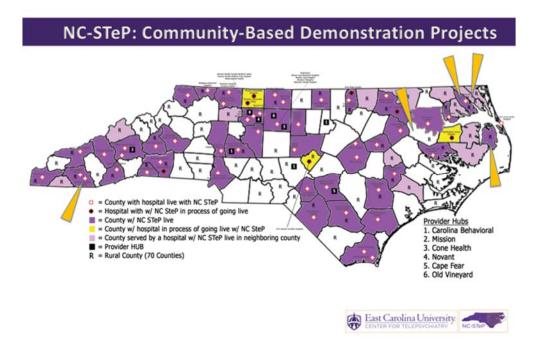
In SFY 2019, NC-STeP is scheduled to reduce the implementation activities and enter an ongoing program management and evaluation phase. There will be ongoing maintenance for the Telepsychiatry Web Portal and for the existing telepsychiatry equipment. Physician credentialing will continue as staff turnover demands, as will training.

The Telepsychiatry Web Portal has been developed^{6 7} and C-TeBH is implementing it to all sites as part of the golive process. The Web Portal enables provider scheduling, billing, and exchange of health information, allowing hospitals to transmit clinical outcomes to C-TeBH. The contract between ORH and C-TeBH will continue to allow expenses for annual hosting and maintenance costs.

The expansion of NC-STeP to a community-based setting represents a new telespsychiatry delivery model for NC-STeP. C-TeBH has identified four pilot project sites, along with appropriate performance measures. The pilot sites are located in Pasquotank, Camden, Martin, Hyde, and Macon counties, all located within local health departments, from which patients can seek outside services if needed. A map of the community-based sites is included below.

⁶ Saeed SA. (2018). Successfully Navigating Multiple Electronic Health Records When Using Telepsychiatry: The NC-STeP Experience. Psychiatric Services. 2018 May 15:appips 201700406. doi: 10.1176/appi.ps.201700406. [Epub ahead of print].

⁷ Saeed SA (2018). Tower of Babel Problem in Telehealth: Addressing the Health Information Exchange Needs of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Psychiatric Quarterly. 2018 Jun;89 (2):489-495.



Program Developments for SFY 2020

With the program scope expanding to community-based settings, monitoring and evaluation of services in this new environment will be an important addition. During implementation, the program will be asked to identify obstacles and necessary adjustments to maximize success. Further, it will identify the most effective method of measuring impact on providers, patients and community. Finally, the program will evaluate the viability of addressing substance abuse intervention needs through the delivery of telepsychiatry.

The program will look toward long-term viability and stability and will explore the possibility of creating a more permanent hub at ECU.

Long-Term Sustainability

C-TeBH reports difficulty as the number of individuals served who have no insurance coverage has ranged from 30% to 42%. Currently, the program, including grant support from the State and other sources, is operating at a 1.00: 0.45 ratio (cost:revenue), which is far below the desired objective of 1.00: >1.00 ratio.

The sustainability ratio of 1.00: 0.45 means that, for every dollar the program spends, it is able to recover \$0.45. These costs are recovered in three ways: 1) charging hospitals a subscription fee for using the service, which is currently set at \$42.25 for each telepsychiatry assessment conducted, 2) billing public and private payers for each assessment, and 3) State funding.

The program remains in the implementation stage and is working with pricing models that require adjustments to establish a fair and equitable cost. Further, the program is expanding to community-based settings which could impact long-term sustainability by presenting new opportunities for healthier populations, early treatment and prevention, and new revenue options.

Appendix A: List of Enrolled Hospitals and Go-Live Status As of June 30, 2017. Sorted by county, then by hospital.

County	Hospital	Provider	Status
Alleghany	Alleghany Memorial Hospital	Old Vineyard	Enrolled
Ashe	Novant Ashe Memorial Hospital	Old Vineyard	Live
Beaufort	Vidant Beaufort Hospital	Carolina Behavioral Care	Live
Bertie	Vidant Bertie Hospital	Carolina Behavioral Care	Live
Bladen	Cape Fear Valley- Bladen County Hospital	Cape Fear	Live
Brunswick	Dosher Memorial Hospital	Old Vineyard	Live
Buncombe	Mission Hospital	Mission	Live
Chatham	Chatham Hospital	Old Vineyard	Live
Cherokee	Murphy Medical Center	Old Vineyard	Live
Chowan	Vidant Chowan Hospital	Carolina Behavioral Care	Live
Cumberland	Cape Fear Valley Medical Center	Cape Fear	Live
Dare	Outer Banks Hospital	Carolina Behavioral Care	Live
Davidson	Novant Thomasville Hospital	Novant	Live
Duplin	Vidant Duplin Hospital	Carolina Behavioral Care	Live
Edgecombe	Vidant Edgecombe Hospital	Carolina Behavioral Care	Live
Forsyth	Novant Clemmons Hospital	Novant	Live
Forsyth	Novant Forsyth Medical Center	Novant	Live
Forsyth	Novant Kernersville Hospital	Novant	Live

County	Hospital	Provider	Status
Guilford	Cone Health - Behavioral Health	Cone Health	Live
Guilford	Cone Health - MedCenter High Point	Cone Health	Live
Guilford	Cone Health - Moses Cone	Cone Health	Live
Guilford	Cone Health - Wesley Long	Cone Health	Live
Guilford	Cone Health - Women's Hospital	Cone Health	Live
Halifax	Halifax Regional Medical Center	Carolina Behavioral Care	Enrolled
Halifax	Our Community Hospital	Old Vineyard	Enrolled
Harnett	Betsy Johnson Regional	TBA	Enrolled
Harnett	Harnett Hospital	TBA	Enrolled
Haywood	Duke Life Point Haywood	TBA	Enrolled
Hoke	Cape Fear Valley Health Pavilion Hoke	Cape Fear	Live
Hoke	First Health Hoke	TBA	Enrolled
Iredell	Lake Norman Regional Medical Center	Carolina Behavioral Care	Enrolled
Jackson	Harris Regional Medical Center	Carolina Behavioral Care	Live
Johnston	UNC Johnston Clayton	UNC Johnston Health	Live
Johnston	UNC Johnston Smithfield	UNC Johnston Health	Live
Lenoir	Lenoir Memorial Hospital	Carolina Behavioral Care	Live
Macon	Angel Medical Center	Mission	Live
Macon	Highlands-Cashiers Hospital	Mission	Live
McDowell	McDowell Hospital	Mission	Live
Mitchell	Blue Ridge Regional Hospital	Mission	Live

County	Hospital	Provider	Status
Montgomery	First Health Montgomery	TBA	Enrolled
Moore	First Health Moore	TBA	Enrolled
Orange	UNC Hillsborough	Old Vineyard	Enrolled
Pasquotank	Sentara Albemarle Medical Center	Old Vineyard	Live
Pender	Pender Memorial Hospital	Old Vineyard	Enrolled
Person	Person Memorial Hospital	Carolina Behavioral Care	Enrolled
Polk	St Luke's Hospital	Old Vineyard	Live
Richmond	First Health Richmond	TBA	Enrolled
Robeson	Southeastern Hospital	Old Vineyard	Enrolled
Rockingham	Cone Health - Annie Penn Hospital	Cone Health	Live
Rockingham	Morehead Memorial Hospital	Old Vineyard	Live
Rowan	Novant Rowan Hospital	Novant	Live
Rutherford	Rutherford	TBA	Enrolled
Surry	Hugh Chatham Memorial Hospital, Inc.	Novant	Live
Surry	Northern Hospital of Surry County	Old Vineyard	Live
Swain	Swain County Hospital	Carolina Behavioral Care	Live
Transylvania	Transylvania Regional Hospital	Mission	Live
Vance	Maria Parham Medical Center	Carolina Behavioral Care	Live
Wilson	Wilson Medical Center	Carolina Behavioral Care	Live

Appendix B: List of Enrolled Consulting Sites and Go-Live Status

County	Consulting Site	Status
Buncombe	Mission Health System	Live
Cumberland	Cape Fear Valley Health System	Live
Durham, Moore, Orange	Carolina Behavioral Care	Live
Forsyth	Novant Health System	Live
Forsyth	Old Vineyard	Live
Guilford	Cone Health System	Live
Guilford	Old Vineyard Behavioral Health Services	Live
Johnston	UNC Johnston Health	Live

As of June 30, 2017. Sorted by county and site.

Appendix C: NC-STeP Advisory Workgroup Member Organizations

ORH and NC-STeP expresses gratitude to the following organizations for their commitment and participation in quarterly NC-STeP Advisory Workgroup meetings:

Blue Cross Blue Shield of NC
Carolinas HealthCare System
Cone Health System
Duke University
East Carolina University
MedAccess Partners
Mission Health System
Murphy Medical Center
NC DHHS Division of Medical Assistance
NC DHHS Division of Mental Health,
Developmental Disabilities, and Substance
Abuse Services
NC DHHS Office of Rural Health
North Carolina Hospital Association
Novant Ashe Memorial Hospital
St. Luke's Hospital
Trillium Health Resources
UNC-Chapel Hill
Vidant Health
Wake Forest Baptist Health