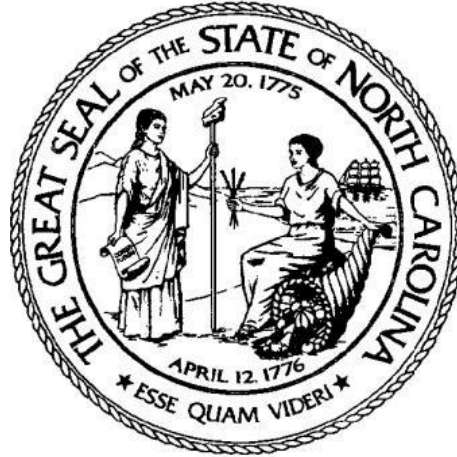# Summary Report on SFY 2025 North Carolina Statewide Telepsychiatry Program (NC-STeP) Funds

General Statute 143B-139.4B

Report to the Joint Legislative Oversight Committee
on Health and Human Services
and

Fiscal Research Division
by

North Carolina Department of
Health and Human Services

December 17, 2025

Executive Summary

In North Carolina, 97 of 100 counties are classified as Mental Health Professional Shortage Areas. This number has increased since the last legislative report, indicating that the number of counties that have insufficient mental health professionals in proportion to the population needs continues to grow. Access to mental health services continues to be a statewide challenge and the use of telehealth services, such as the North Carolina Statewide Telepsychiatry Program, allows rural and underserved communities to access these necessary healthcare providers.

The North Carolina Telepsychiatry Program (NC-STeP) was originally developed in response to the climbing numbers of individuals showing up to hospital emergency departments in mental health crisis. In 2012, the number of people showing up in North Carolina emergency departments was twice the national average. Session Law 2013-360, Senate Bill 616, and subsequently General Statute 143B-139.4B, directed the Department of Health and Human Services'(DHHS) Office of Rural Health (ORH) to partner with East Carolina University (ECU) on a statewide telepsychiatry program. Since 2013, NC-STeP has engaged North Carolina's health care organizations to participate as referring sites in providing psychiatric assessments to patients presenting in hospital emergency departments (EDs), and since 2018, additionally at outpatient community-based clinics. ORH is responsible for monitoring NC-STeP funds and performance measures. ORH ensures that 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 regarding NC-STeP from ECU's Center for Telepsychiatry and e-Behavioral Health (CTeBH) and shares relevant information with rural healthcare partners and safety net providers.

As outlined in the legislative plan, the NC-STeP program focused on the implementation of referring and consulting sites in NC hospitals. The initial funding in 2013 of $2,000,000 was awarded for building and maintaining the program. In addition to state appropriations, in 2015, The Duke Endowment awarded a one-time sum of $1,500,000 for two years to ORH to increase program sites and disseminate information regarding best practices. The Duke Endowment award was not fully expended between 2015-2017, and ORH received approval to expand the scope to allow for expending remaining funding to establish new community-based sites. The Duke Endowment award formally concluded on June 30, 2019.

NC ORH also partnered with the North Carolina Department of Information Technology to secure additional one-time funding of $200,000 that was granted to NC- STeP to assist solely with purchasing equipment necessary for expanding community-based telepsychiatry, with this funding concluding in December 2020.

In 2017, the NC-STeP budget was impacted by Session Law 2017-57, Section 11A10. NC DHHS reduced the NC-STeP appropriations by $180,000 due to historical reversions over the previous five years. NC-STeP objected to this cut and presented their concerns to the North Carolina General Assembly. The contract for NC-STeP has totaled $1,820,000 per fiscal year since the reduction.

During SFY 2021, the Federal American Rescue Plan Act (ARPA), provided relief to address the continued impact of COVID-19 on the economy, public health, state and local governments, individuals, and businesses. A component of ARPA was the State Fiscal Recovery Funds (SFRF) to help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery. The NC General Assembly appropriated SFRF in the 2021 Appropriations Act and broadly identified projects for DHHS SFRF funds. NC-STeP had an additional $1,500,000 to assist with the program and COVID-19 related burdens to the healthcare system. Currently, as of this report date, NC-STeP has spent $1,209,692.28 of the SFRF funding with all remaining funds to be spent by or before December 31, 2026, deadline.

The NC-STeP program has generated significant cost savings to the state, its partners, and external stakeholders. The quantifiable, reported cost savings to date are attributable to the recorded number of involuntary commitment (IVC) reversals, but additional cost savings exist, even if challenging to measure. Of the 33,234 patients held under involuntary commitment and served by the program, 11,802 have been discharged for further treatment using community resources. NC-STeP estimates as of June 2025, $63,730,800 in cumulative cost savings to hospitals from preventing unnecessary psychiatric hospitalization since 2013. NC-STeP has also published the methodology and results from a study on this subject in academic peer-reviewed journals (Appendix E) This approach has reduced the burden for patients and families and reduced costs to state psychiatric facilities, other hospitals, law enforcement agencies, government, and private payers.

Session Law 2018-44 allowed the expansion of NC-STeP into community settings. By providing these services in the community, these savings are more complicated to calculate because of the wide variety of anomalies. Community-based services provide cost savings by reducing recidivism, reducing the number of patients using EDs for seeking mental health services, improving patients adherence to chronic disease treatment, enhancing efficiency of care provision, shortening time to treatment, improving coordination of care across mental health systems, enhancing ED throughput, reducing law enforcement transportation costs due to fewer patients under IVC, and enhancing community capacity to treat patients in the community.

As of June 30, 2025, 28 referring hospital sites across the state were connected to NC-STeP. The NC-STeP Program Director, Dr. Sy Saeed, expects continued growth from community-based settings. Community based sites have increased from 22 to 24 sites since last year's legislative report.

As required by contract with ORH, ECU's CTeBH submits quarterly reports regarding specific performance measures. These reports are publicly available on the ECU website https://ncstep.ecu.edu/reports/. The ORH Rural Hospital program completed site visits in the form of a phone call, virtual call, and onsite hospitals visits. Most ED managers and staff interviewed were satisfied with the service and the support they have received from the NC-STeP program and the most recent NC-STeP Satisfaction Survey (March 2025) resulted in an overall satisfaction rating of 81%. The results of these site visits also identified some areas that require further attention, such as streamlining patient intake processes, improved times, and other opportunities to improve communication for providers and patients.

Emergency room data, pandemics, natural disasters and provider shortages have all shown the importance of telehealth and how the NC-STeP program is primed to assist those with mental health needs who may have limited access to services, including those that live in rural areas or communities recovering from natural disasters. As Dr. Saeed stated in an interview, "Tele-mental health services are perfectly suited to this pandemic situation, giving people in remote locations access to important services without increasing risk of infection."[1] Although stated in SFY 2021, this continues to hold true for SFY 2025 as our state continues to grapple with rising behavioral health challenges from our youngest to oldest North Carolinians.

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[1] Saeed SA. (2020) Post Pandemic Care: ECU to Address Post-Pandemic Mental Health. 2020 July 1. https://news.ecu.edu/2020/07/01/post-pandemic-care/

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Background and Current Health Professional Shortage Area Designations

Given the significant gaps in community behavioral healthcare system, many patients seek healthcare in hospital EDs, which have become the default providers of behavioral healthcare in North Carolina. Current research data shows that in 2021, there were 139.8 million ED visits in the United States, with 12.3% of these visits being related to mental health.[2] While ED's vary widely in their capacity to deliver psychiatric care, this rise in number of people going to EDs for mental health reasons continues to be a challenge for ED physicians. To help address this issue, many EDs in the United States use telepsychiatry. Psychiatric emergencies can be resolved in a hospital ED with proper evaluation, treatment and follow up care. Some ED physicians may lack experience or training to treat psychiatric emergencies to release patients from their IVC status leading to unnecessary hospitalizations. ED- based telepsychiatry programs, such as the one offered by NC-STeP, have helped NC address patients waiting for inpatient psychiatric care. It may decrease hospitalization and reduce costs, as demonstrated by a 2020 study published by NC-STeP.[3]

Telepsychiatry is a modality that enables a behavioral health professional to provide a patient assessment 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 2009, the North Carolina General Assembly passed two key pieces of legislation. One was to make a permanent program that allows 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, individuals often 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 ranged from 48 to 72 hours.[4]

A prolonged LOS can also 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. While the North Carolina Statewide Telepsychiatry Program (NC-STeP) has consistently reported over the last several years that 40% or more of these patients in the ED have a LOS of 30 hours and less, including many with a LOS of 10 or less hours, the program has also identified that every quarter there are as many as 20-30 patients with a LOS that is longer than 300 hours. It should be noted that NC-STeP did reduce the LOS by over 50% in the first 18 months of going live and, since then, has maintained a lower ED length of stay.

In the summer of 2013, the NCGA decided to replicate the success of previous telepsychiatry initiatives. Session Law 2013-360, Section 12A.2B, directed the NC Department of Health and Human Services (DHHS) Office of Rural Health (ORH) to implement a statewide telepsychiatry program to be administered by East Carolina University Center for Telepsychiatry and e- Behavioral Health (CTeBH). The plan was developed in collaboration with a work group of key stakeholders led by ECU's Dr. Sy Saeed. The workgroup was informed by the best evidence from the literature and modeled after successful telepsychiatry programs, including the Albemarle Hospital Foundation Telepsychiatry Project, which was made possible by a 2010 Duke Endowment grant. This grant was awarded to implement telepsychiatry services into the EDs of Vidant Health, now ECU Health, and other rural hospitals. This led hospitals to experience a decreased average length of stay, a greater than 80% patient satisfaction rating, and 33.6% rate in overturned involuntary commitments.[5]

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[2] Santo, Peters, DeFrances. (2021) NCHS Data Brief, brief no 426. Hyattsville, MD, National Center for Health Statistics.

[3] Kothadia RJ, Jones K, Saeed SA, Torres MJ, (2020). The Impact of NC-Statewide Telepsychiatry Program (NC-STeP) on Patients' Dispositions from Emergency Departments. Psychiatric Services. Vol. 71, Number 12, December 2020

The initial aim of NC-STeP was to allow North Carolina hospitals to participate as referring sites or consulting sites in providing psychiatric assessments to patients experiencing acute behavioral health or substance abuse crises. NC-STeP accomplishes this through a contractual agreement between East Carolina University Center for Telepsychiatry and e-Behavioral Health (CTeBH) and ORH. ECU CTeBH implements these services in hospital emergency departments and community settings. NC ORH oversees the operations while monitoring the program's expenditures, hospital enrollment, and contract performance measures.

Telepsychiatry has proven to be a successful resource for states with rural populations lacking mental health resources. Other successful telepsychiatry programs include the South Carolina Department of Mental Health Telepsychiatry Program[6] and the University of Virginia Telepsychiatry Program,[7] which both continue to provide telepsychiatry services throughout their respective states.

Overwhelmingly, rural North Carolina communities have a shortage of mental health providers. Areas can become designated as Health Professional Shortage Areas (HPSAs) due to low ratios of psychiatry providers and/or the population. Figure 1 shows a map of the areas currently designated as HPSAs for mental health in North Carolina. As the map shows, 47 of 100 counties have at least one facility-based Mental Health HPSA. In addition, 97 counties qualify as Mental Health HPSAs based on their population or geographic data.

Figure 1: Map of Mental Health Professional Shortage Areas
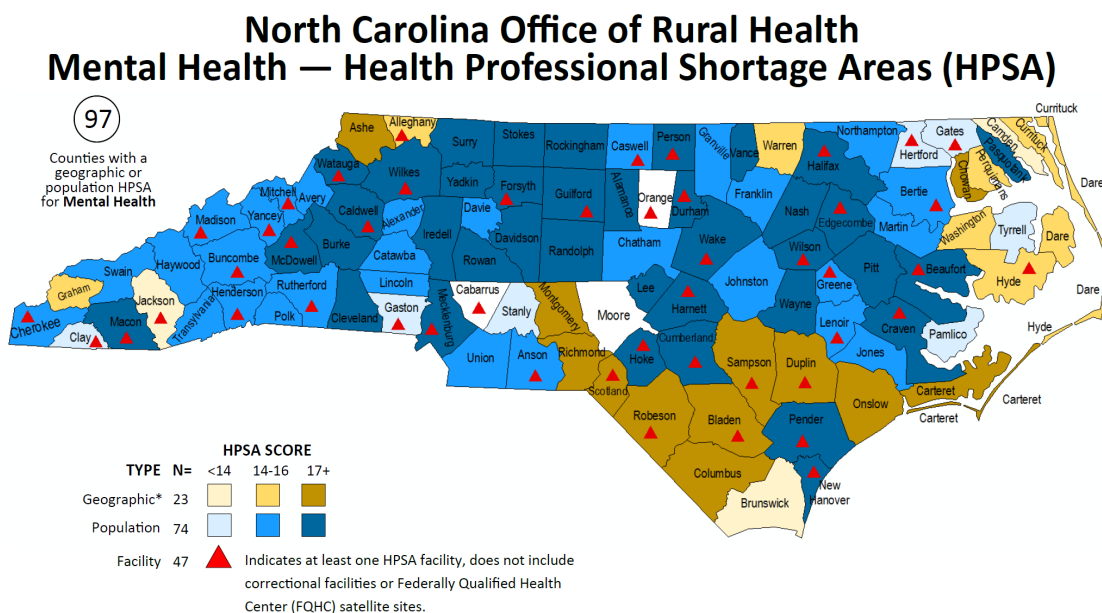
North Carolina Office of Rural Health
Mental Health — Health Professional Shortage Areas (HPSA)

Data as of March 5, 2025

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[4] The DMH Telepsychiatry Program. (2013, July 31). *South Carolina Department of Mental Health*. Retrieved August 11, 2014, from https://scdmh.net/dmhtelepsychiatry/

[5] 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.

[6] The DMH Telepsychiatry Program. (2013, July 31). *South Carolina Department of Mental Health*. Retrieved August 11, 2014, from https://scdmh.net/dmhtelepsychiatry/.

[7] Telepsychiatry. (n.d.). *School of Medicine at the University of Virginia*. Retrieved August 11, 2014

Program Implementation

The NC-STeP program began October 1, 2013, with the execution of a contract between ORH and East Carolina University's CTeBH. In accordance with Session Law 2013-360, and subsequently General Statute 143B-139.4B, ECU CTeBH's role was to implement the service into enrolled hospitals and administer the operations of NC-STeP. As of June 30, 2025, there were 28 hospital referring sites live in the network. Session Law 2018-44 authorized funding to support community-based sites (clinics) working with NC-STeP psychiatric consultants.

There was no additional funding provided when the scope of NC-STeP was expanded by the legislature in 2018 [Session Law 2013-360 recodified as G.S. 143B-139.4B(a)(1b) by Session Laws 2018-44, s. 15.1 effective July 1, 2018] to provide services in community-based clinics. Since the original recurring funding in 2013, there has been no increase in recurring legislative funding for NC-STeP, instead, as mentioned in the Executive Summary, the original $2 million in recurring funding was reduced in 2017 to $1.82 million when DHHS chose to reduce the NC-STeP contract by $180,000 due to budget cuts. The SFY contract for NC-STeP remains at $1,820,000 per fiscal year and NC-STeP has not received any increase in its recurring budget since its initial funding in 2013. However, as mentioned in the Executive Summary, in addition to their recurring appropriation, NC-STeP has received non-recurring appropriations to make up for increasing costs associated with running this program.

A large part of the NC-STeP program, outside providing psychiatric consultations, is learning and dissemination. As a result, NC-STeP's success will also be defined by graduating more hospitals to Model 2 status in coming years. Model 2 hospitals are those that no longer need support from NC-STeP as they now utilize their own psychiatrists for providing consultations in their EDs. These hospitals initially joined NC-STeP to develop or enhance expertise in telepsychiatry and to receive technical assistance from the program, in addition to one-time funding for equipment. At a point when these hospitals are comfortable sustaining telepsychiatry operations independently, they can choose to terminate the contract with NC-STeP. NC- STeP considers such terminations or "graduations" to be success stories.

In addition to learning and dissemination throughout the state of North Carolina, many other states have contacted ORH and NC-STeP to learn about the program. Due to the innovations and state funding that assists this program to grow over its thirteen-year life span, there continues to be significant interest and inquiry about the program's operations and success.

As of June 30, 2025, NC-STeP has completed 67,543 total psychiatry consultations (assessments) since program inception, including overturning 11,802 IVCs that provided cumulative return on investment of $63,730,800 (savings from preventing unnecessary hospitalizations).

Consulting Sites and Community Sites

The current consulting sites include Carolina Behavioral Care (CBC), Cape Fear Valley Health, and ECU. The list of live and enrolled hospitals can be found in Appendix A of this document. Figure 2 displays the most recent map of site locations for telepsychiatry referring sites (EDs) and consulting sites (provider hubs).

Figure 2: Map of NC-STeP Enrolled Sites as of June 2025
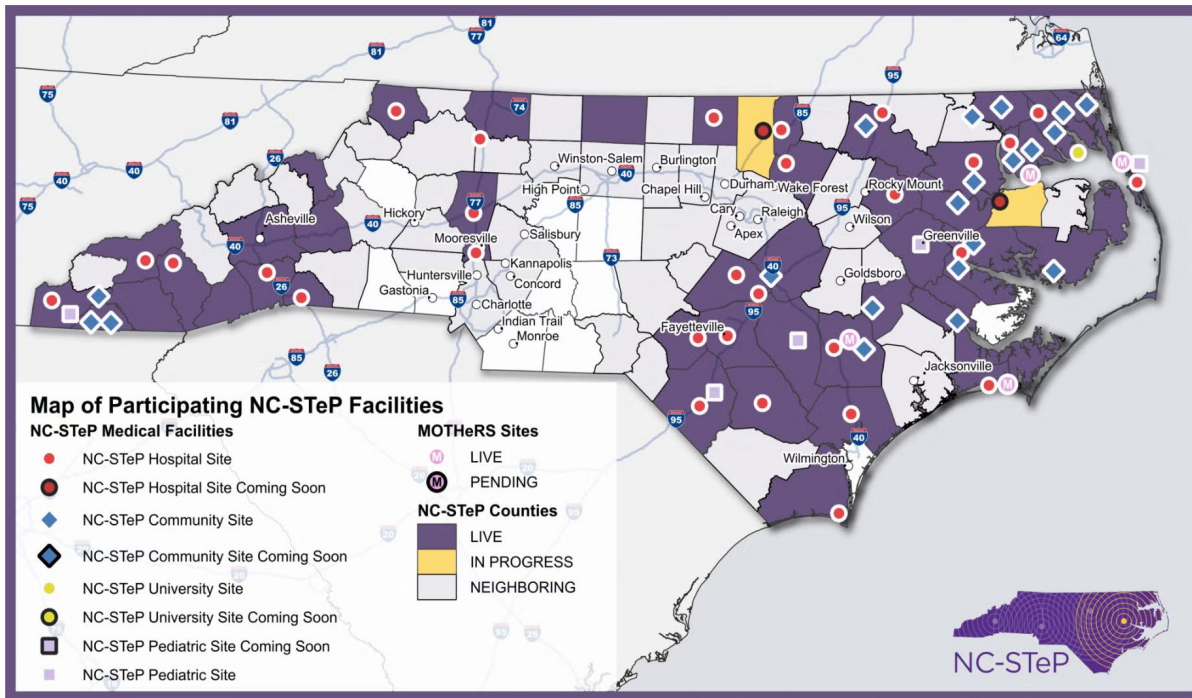
The community-based sites for SFY 2024 include the following:

- Albemarle Regional Health Services (9 sites) locations in Camden, Chowan, Currituck, Pasquotank, Perquimans, Bertie, Hertford, Hyde and Gates counties
- Erlanger Health – Hayesville, NC
- Erlanger Health – Andrews, NC
- Elizabeth City State University Student Health Center – Elizabeth City, NC
- ECU Health Specialty Clinic – Kinston, NC
- ECU Health Women's Clinic – Kenansville, NC
- ECU Women's Clinic – Edenton, NC
- ECU Health Family Practice – Roanoke Rapids, NC
- Martin County Health Department – Plymouth, NC
- Craven County Health Department – New Bern, NC
- Duplin County Health Department – Kenansville, NC
- Beaufort County Health Department – Washington, NC
- ECU Health Family Medicine – Chocowinity, NC
- Carteret OB-GYN Associates – Morehead City, NC
- Benson Health – Benson, NC
- Erlanger Health- Murphy, NC

Performance Measures

As required by contract with DHHS, ECU's CTeBH submits quarterly reports regarding specific performance measures. Most performance measures were defined in SL 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.

Some performance measures are designed for measuring the program's impact but are not in the direct control of program administrators. One of these performance measures pertains to length of service (LOS) times.

Average LOS times are often skewed due to outlier patients with complex medical and behavioral needs. To mitigate the impact of these outliers, the 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 the time it took for a consultation to be completed. This measure begins with the point of patient referral to the program and concludes at the completion of the consultation. The elapsed time is a measure of the time it takes for NC-STeP to start and finish a consult once a referral is received from an emergency physician. The total elapsed median time currently is four hours and 11 minutes. This metric is considered a success with the widespread staff shortages throughout the health care system.

Table 2: Performance Measures

EVALUATION CRITERIA	BASELINE AS OF 6/30/2024	YEAR TO DATE TARGET TO BE REACHED BY 6/30/2025	REPORTED MEASURES AS OF 06/30/2025
The number of full-time equivalent (FTE) positions supported by these contracts	4.30 FTEs	4.30 FTEs	4.90 FTEs
The number of overturned involuntary commitments (inpatient admission prevented)	903	1,133	Year to Date = 840 Since 2013 = 11,802
The number of participating consultant providers	23	24	25
The number of telepsychiatry assessments conducted	4,092	3,400	Year to Date = 4,080 Since 2013 = 67,543
The number of telepsychiatry referring sites	28	29	28
The reports of involuntary commitments to enrolled hospitals	2,649	2,229	Year to Date = 2,688 Since 2013 = 33,234
The average (mean) Length of Stay for all patients with a primary mental health diagnosis across all dispositions††	61.2 hours	72.25 hours	Year to Date Average = 53.5 Year to Date Median = 30.4
Cumulative return on investment to state psychiatric facilities through overturned IVCs (inpatient admissions averted)	$4,876,200	$5,929,200	Year to Date = $4,536,000 Since 2013 = $63,730,800

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

* Satisfaction surveys are completed twice a year. The most recent survey was completed in March 2024 that reported an overall satisfaction level of 83%.

**HCA Health has graduated from the NC-STeP Program. HCA has 32 providers and seven sites. HCA will no longer submit their data to NC-STeP Program

The community-based sites differ from hospital performances measures. For the program and the state to make data-driven conclusions, such as savings and impact, the following evaluation criteria have been developed to monitor these clinics.

Table 3: Community Sites Performance Measures

EVALUATION CRITERIA	VALUES/MEASURES REACHED AS OF 06/30/2025
Number of full-time equivalent (FTE) positions supported by the contract	1.10 FTEs
Number of community-based sites contracted	24
Number of patient visits with medical (psychiatric) doctor	Year to Date = 128 Since 2013 = 3,126
Number of return visits	Year to Date= 2,052 Since 2013 = 29,500
Number of patient visits with a mid-level provider	Year to Date = 2,390 Since 2013 = 33,956
Number of new patient visits	Year to Date = 466 Since 2013 = 7,638

Figure 4: Community Sites Total Visits

NC-STeP Community Program Total Visits by Quarter Since Program Inception

**NC-STeP Community Program Total Visits by Site
Since Program Inception in 2018, as of June 30, 2025**
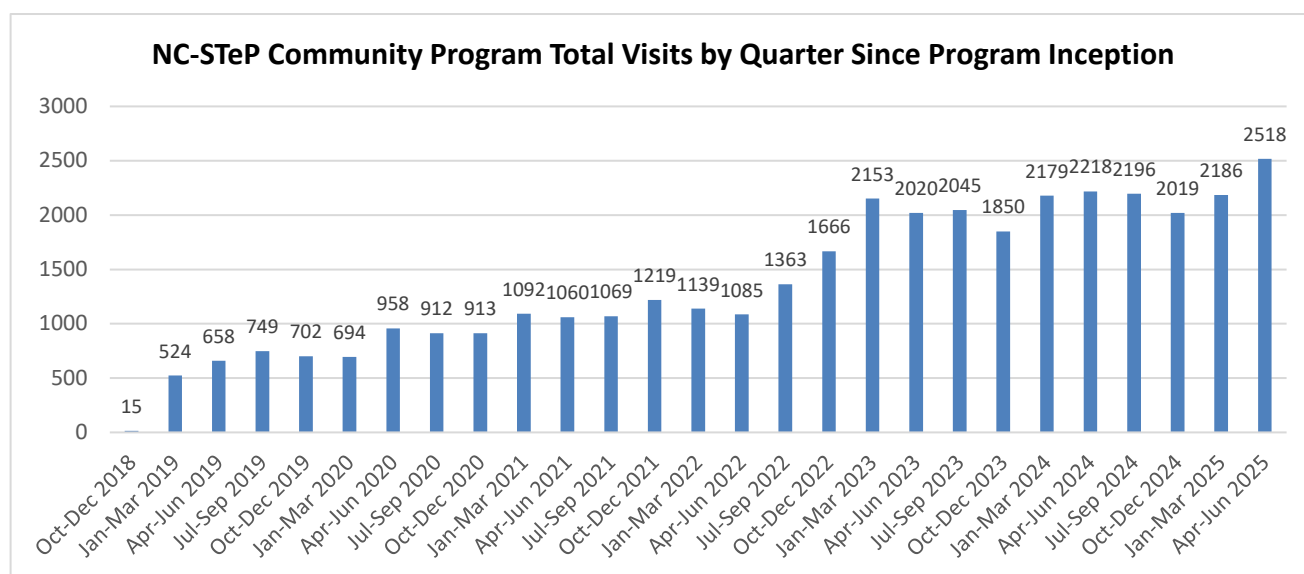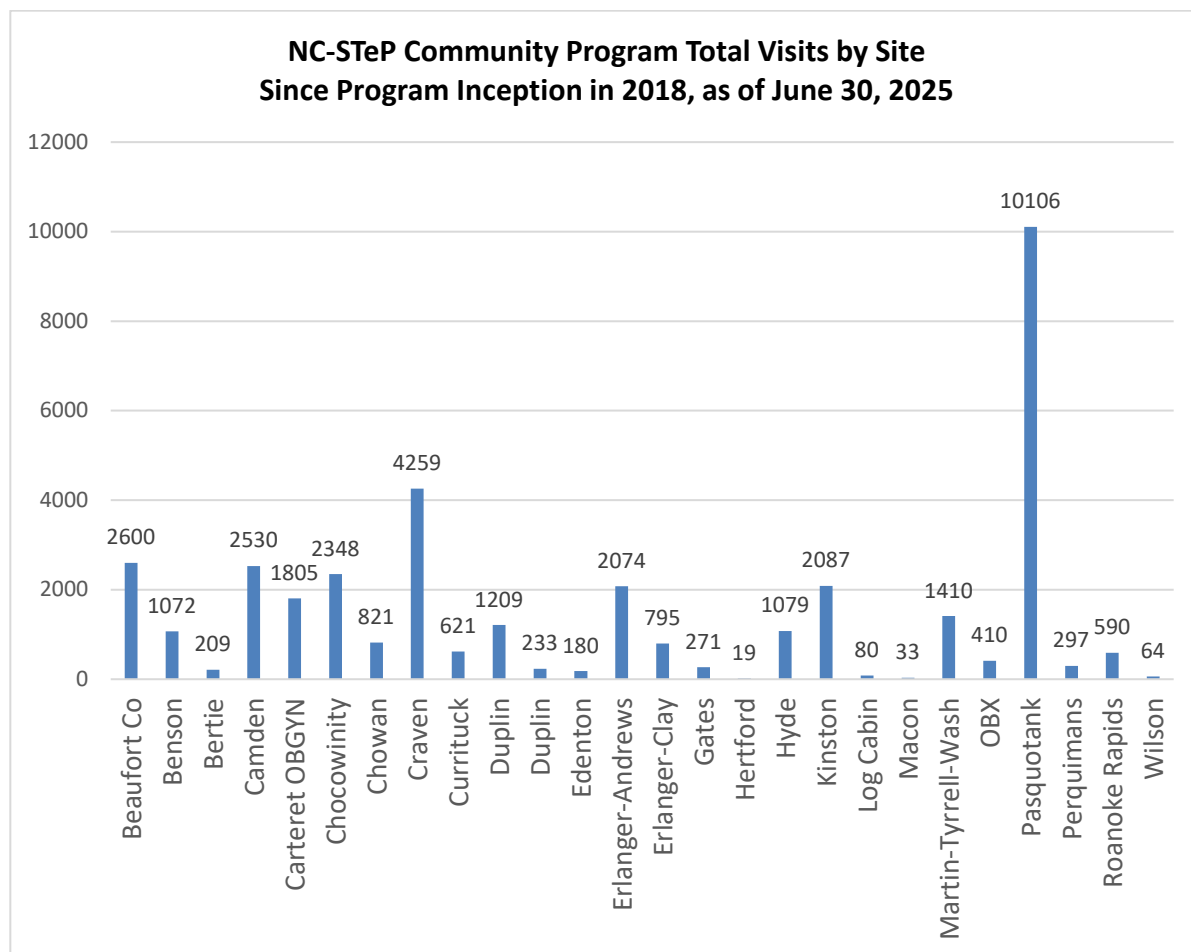
Site Visit Results

ORH continues to follow a hybrid model of virtual and in-person site visits for the annual report. Most ED managers and staff interviewed 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 using the technology, and believed they could perform their jobs better with telepsychiatry. The results of these site visits have also identified areas that require further attention. NC-STeP is aware and is actively working to enhance the program. The primary issues discussed during the site visits are summarized below:

- Availability of Service Hours - Several sites informed ORH that they wished NC-STeP services were provided for extended hours, especially over the weekend. Currently, consulting sites offer telepsychiatry services from 8 AM to 6 PM, 7 days a week. When the program originally started it was not offered on the weekends, this has been programmatic growth and sites are thankful for the improvement. NC-STeP states that more funding would be necessary to pay provider time for 24/7 access.

- Web Portal – A new web portal was implemented in the spring of 2024 to improve continuity of care, transfer of information and IT service calls. Although there are some difficulties at times, such as login issues when attempting to access the online web portal, the overall change to a new web portal has helped ease the communication issues between the health care providers and psychiatrists.

- Communication between Providers and NC-STeP Psychiatrists – The hospital/community provider can reach out to NC-STeP psychiatrists for questions about the NC-STeP consulting psychiatrist's recommendations. The NC-STeP consulting psychiatrist provides a call-back number for the referring site. The call availability hours are Monday- Sunday from 8-6pm.
- When providers need assistance from the consulting psychiatrist after 6pm, they must wait until the following day for a response. As stated previously, NC-STeP reports that their current funding does not support 24-hour on-call coverage.

- Community-Based Support Services - Several hospital sites note that having a psychiatric evaluation is helpful to start medications to mitigate or prevent mental health crises. Patients may experience challenges when discharged from the hospital due to lack of access to primary care/outpatient providers or due to lack of insurance coverage.

  ◦ If the patient is released from the hospital without follow-up care in the community, the patient may return to the ED in crisis. The sites voiced recommendations for care such as housing for homelessness, medication access and management of medications may not be available or have long waitlists to access. Hospitals seek options for community-based treatment sites to refer to patients. While this is a growing part of the NC- STeP program, finding enough providers in North Carolina to meet the demand is challenging. Other social healthcare drivers such as employment, education, food insecurity and social inclusion affect one's ability to optimize mental wellness, according to the CDC and the World Health Organization.

  ◦ NC-STeP and ORH's Hospital Program are working to align additional partners, such as NC-PAL, NC-MATTERS, El Futuro, ORH's Telehealth Infrastructure and Virtual Behavioral Health funding, and State Designated Rural Health Center's programs to assist with efficiency and greater access for patients.

- Wait Time - A common concern voiced by ED managers and staff is an increasingly long wait time after all intake processes are completed. Most hospitals admit patients in the late morning, or early afternoon yet sometimes find those patients waiting until the next day to meet with an NC-STeP provider. However, as mentioned earlier, NC-STeP routinely 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. The elapsed time is a measure of the time it takes for NC-STeP to start and finish a consult once a referral is received from an emergency physician. The total elapsed median time currently is 4 hours, and 11 minutes based on quarterly performance reports.

- Guidance for Pediatric Patients - Multiple sites have asked for guidance on pediatric patients who need NC-STeP telepsychiatry services. One hospital reported that roughly 50% of NC-STeP referrals have been for patients under the age of 18 years. NC-STeP ED program does provide psychiatric consultations for all ages. Hospital sites have noted it's more difficult to place pediatric patients in psychiatric hospitals, making hold times in hospitals longer. Providing assistance with patients' placement is out of NC-STePs scope of work defined in the statutes.

Many of 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 Council to resolve these issues, but many of the issues are outside of the scope and control

of the NC-STeP program and some challenges will require additional stakeholder input, funding, and time to implement changes.

Despite some noted areas of improvement, most hospitals reported that without NC-STeP they would not be able to provide appropriate medical and psychological care for their community, especially in response to an increasing number of mental health patients. Many ED directors and staff are very satisfied with NC-STeP's responsiveness and collaboration whenever they report any technical issues or other concerns. One ED director stated that, *"Everything is working very well. So thankful to be part of the program. We are as far west as you can go and two hours from anywhere. Without this program, we'd be holding patients for months and we've done it before. Without this program our community would not be getting the help they deserve. Some of our ED physicians, who also work in Tennessee, are jealous and often ask how they can get something like the NC-STeP program in their State."*

Financial Report

The North Carolina General Assembly originally appropriated a recurring annual sum of $2,000,000 for this initiative. The initial use of funds included: 1) entering into a contract with ECU's CTeBH, 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, 6) providing psychiatric consultations to the hospitals contracted with the program, and 7) supporting under-and-uninsured patients. The current primary emphasis is to bring additional sites online with the web portal implemented at each site, in addition to sustaining the current program footprint that includes, but not limited to, keeping the policies and procedures for the clinical operations current; ongoing onboarding and training for new employees at the clinical sites; and keeping the current web portal up-to-date and efficient.

Session Law 2017-57, Section 11A. 10. required DHHS to take a recurring reduction in the amount of $3.2 million. The provision further required DHHS not to reduce funds if it would impact direct services. This was a difficult task for DHHS, as reductions in the past have typically been non-recurring, making them easier to manage by identifying one-time dollars. DHHS chose to reduce the NC-STeP contract by $180,000 due to historical reversions over the previous 5 years. NC-STeP objected to this cut and presented their concerns to the North Carolina General Assembly. Since then, the recurring yearly funding for NC-STeP has remained at a total of $1,820,000 resulting from 2017 budget reduction. In subsequent state budgets, the program's recurring appropriations remained at $1,820,000.

During SFY 2021, the Federal American Rescue Plan Act (ARPA) provided relief to address the continued impact of COVID-19 on the economy, public health, state and local governments, individuals, and businesses. A component of ARPA is the State Fiscal Recover Funds (SFRF), which provides $5.4 billion to North Carolina to help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery. The NC General Assembly appropriated SFRF in the 2021 Appropriations Act and broadly identified projects for DHHS SFRF funds. NC-STeP was given an additional $1,500,000 to assist with the program and COVID-19 related burdens to the healthcare system. The program has currently expended $1,209,692.68 of the SFRF funding. The remaining funds totaling $290,307.32 must be spent by December 2026.

In addition to State funds, The Duke Endowment also awarded a sum of $1.5 million to ORH to support NC-STeP through funding additional equipment and additional sites. It also enabled the program to identify and disseminate information regarding best practices. This award supported program augmentation for five years, with funds concluding in 2019.

In supporting the augmentation of the NC-STeP program, The Duke Endowment funding supported a portion of a staff position to conduct the legislatively mandated program monitoring and fiscal oversight. When the Duke Endowment funding concluded, ORH secured permission to use a portion of the Health Resources and Services Administration Medicare Rural Hospital Flexibility Program funds to continue to support a portion of an ORH staff position's time to oversee NC-STeP, since many critical access hospitals benefit from these services.

In 2015, DHHS also received an additional $200,000, a one-time transfer from the Institute of Museum and Library Services from the NC Department of Information Technology, to expand telepsychiatry services into community settings. A Memorandum of Agreement (MOA) was made and entered by and between the North Carolina Department of Information Technology (NC-DIT) and ORH to distribute these funds to East Carolina University for Telepsychiatry and e-Behavioral Health to expand NC-STeP. These funds were used to equip new community sites with computers, technology, and related items. The funds also went to support the development and implementation of the community site web portal housed in the existing NC-STeP web-based technology. This new community site web portal allows seamless scheduling and exchange of health information records regardless of the EHR platform used by the community site.

NC-STeP estimates that the program will require $2,000,000 for ongoing implementation and maintenance, not including the costs associated with the new community-based programs. NC-STeP continues implementation while transitioning into ongoing management, evaluation, and program expansion phases. Due to amendment, GS 143B-139.4B in June 2018, NC- STeP expanded its telepsychiatry beyond emergency departments and into community-based settings. The program shows an emphasis on staffing and provider support with the continued growth of the program.

As stated previously, the program has resulted in significant cost savings to the State, its partners, and external stakeholders. ECU's CTeBH reports that the primary method of cost savings from this program is overturning unnecessary involuntary commitments. Of the 33,234 patients held under involuntary commitment and served by the program, 11,802 have been discharged into their communities to receive treatment using community resources. This has reduced the burden on patients and their families and lowered costs for state psychiatric facilities, other hospitals, law agencies, government payers, and private payers. Although total cost savings are difficult to quantify due to the number of stakeholders, NC-STeP has published a study in peer-reviewed literature quantifying savings associated with preventing unnecessary psychiatric hospitalizations.[13] NC-STeP estimates $63,730,800 in cumulative current cost savings to the State of North Carolina.

The expansion into community-based settings will also contribute significantly to state cost savings. Although these cost savings will also be difficult to quantify due to the nature of services, allowing psychiatric consultation within the community will reduce the number of ED visits and stays for mental health concerns. The focus of savings will now be focused up-stream and within the patient's community versus during an emergency crisis, saving the North Carolina health care systems more than can be easily calculated by this program.

During the NC-STeP Advisory Council meetings, rising uncompensated care costs -- or the portion of care delivered to uninsured patients -- has been shared as one of the biggest threats to this program. The program contractor (ECU) is unable to bill for services for over 32% of the patients due to lack of health insurance coverage. In 2023, Medicaid expansion reduced uninsured and self-pay patients by increasing the number of Medicaid-insured patients. In 2026, the impacts from the federal H.R. 1 signed into law on July 4, 2025 on Medicaid and the impending expiration of ACA premium tax credits on December 31, 2025 have potential to increase the number uninsured patients in hospital EDs.
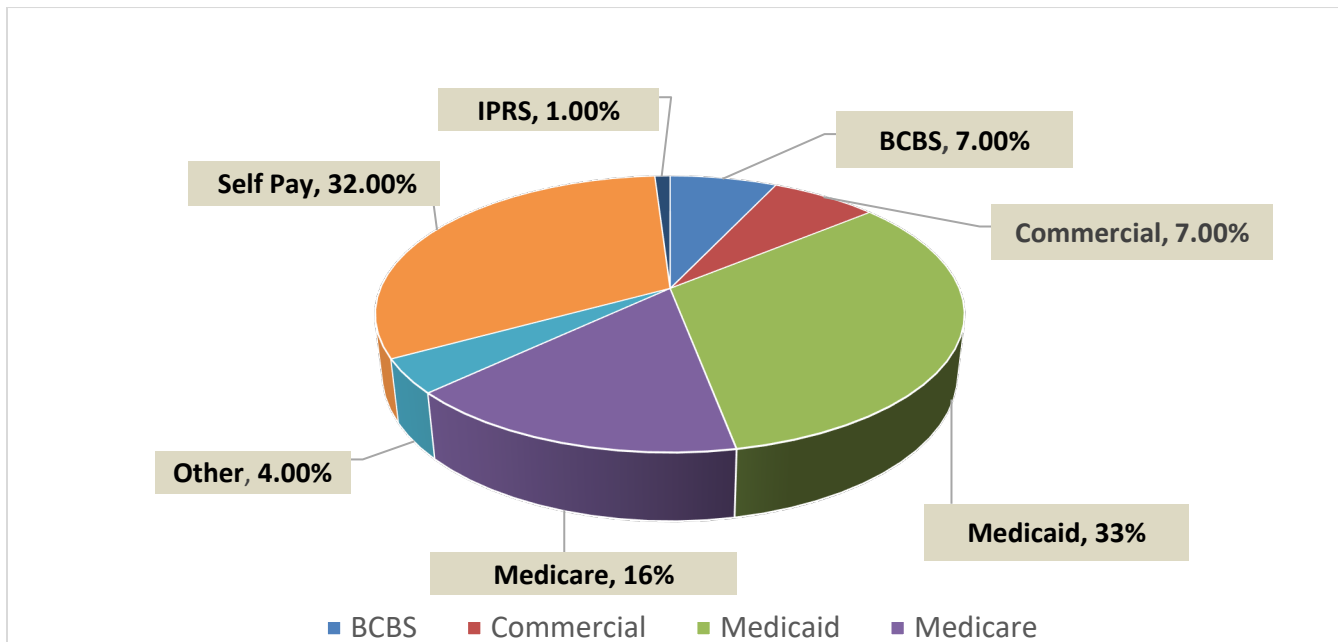
Figure 6: Payer Mix SFY2025 – Quarter 4
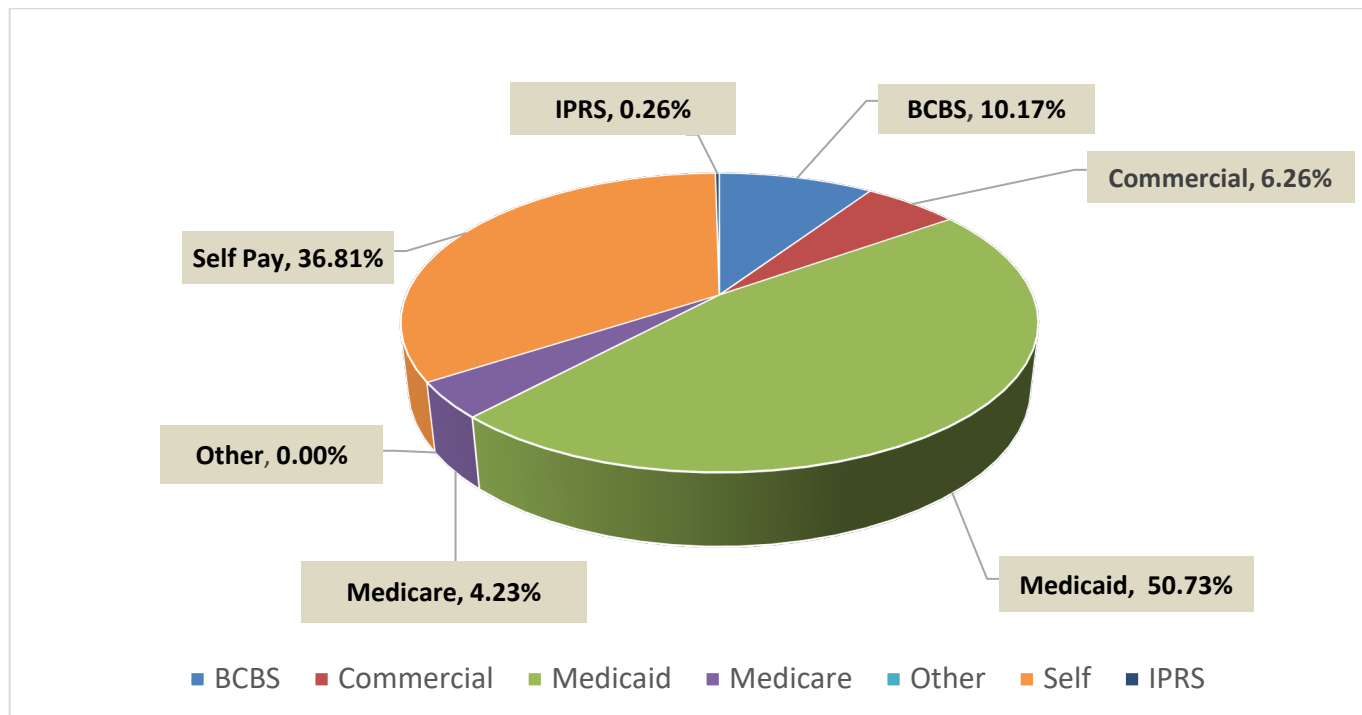
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[13] Saeed SA, Jones K, Muppavarapu K. The Impact of NC Statewide Telepsychiatry Program (NC-STeP) on Cost Savings by Reducing Unnecessary Psychiatric Hospitalizations During a 6½ Year Period. Psychiatry Q. 2022 Jun;93(2):527-536. doi:10.1007/s11126-021-09967-y. Epub 2021 Nov 18. PMID: 3479274.

Program Developments and Long-Term Sustainability

The program has gone live with a major upgrade in its Telepsychiatry Web Portal,[14,15] The web portal enables provider scheduling, billing, and exchange of health information, allowing hospitals and community-based sites to transmit clinical outcomes to CTeBH. However, as is usually the case with technology, the Web Portal needs to be continually updated, with major upgrades needed every 4-5 years. NC-STeP made a major upgrade last year. A major improvement to the portal is the ability for the portal to interface with the numerous electronic medical records of providers submitting referrals. The contract between ORH and ECU's CTeBH will continue to allow expenses for this upgrade, annual hosting, and maintenance costs.

Throughout the next phase of NC-STeP, the program anticipates increased "graduating" more hospital-based programs and increased community-based sites. NC-STeP started in 2013 and onboarded 76 (more than 50% of the 108 North Carolina hospitals) in the first year. Since the original implementation, and after technical assistance and training from NC-STeP, many hospital sites have chosen to develop their own in-house psychiatric services after receiving initial startup support, expertise, and technical assistance from NC-STeP. As described earlier, NC-STeP refers to this graduating a hospital from the program to become self-sustaining. This allows NC-STeP to free up funds for developing new community-based sites. NC-STeP still provides services in 28 hospitals and has graduated over 40 hospitals from the program.

The future growth of the program will come from expanding these community-based sites. The evaluation of these sites is challenging as the program captures individuals before a mental health crisis that requires a hospital-level IVC assessment. If the community sites are preventing an unnecessary hospital based IVC assessment, then cost savings are realized by preventing an IVC from occurring. The focus on upstream policy changes with an emphasis on prevention aligns with other NC DHHS initiatives, to address health before it progresses to high-cost services and time for both individuals and providers.

In conjunction with primary care and a mental health provider at the referring site, NC-STeP will provide psychiatric consultation as well as direct patient care. This approach affords an opportunity for rural partners to maintain patients in the community rather than send them far distances or to the ED for care.

It will be important to identify patients with existing illnesses who present in acute crisis, to diagnose new cases of mental illness in individuals not previously diagnosed, and to provide support for those who do not meet criteria for a mental disorder but will need therapy. Increased screening will be necessary for these three groups to be identified, and services made available. Once patients have been identified, the appropriate psychiatric services and therapies will need to be tailored to specific problems. This includes education on coping mechanisms, stress adaptation, cognitive behavioral therapy, medication therapy and adjustment of medication/dosage (medication management). With the surge in psychiatric disorders, increasing pharmacotherapy will need to be monitored for adverse effects and drug interactions. For therapy-based services, patients will need to be assessed adequately to identify which therapies are indicated and available. For individuals who do not meet criteria for a medical diagnosis, coping strategies, support, and resources should be provided." [16] NC- STeP is well-positioned to help with all these aspects as the state deals with a surge of patients who need services for mental health and substance use disorders.

The expansion to community-based settings could impact long-term sustainability by presenting new opportunities for healthier populations, early treatment, and prevention, as well as new revenue options. With the push to community-based sites and it being difficult to demonstrate cost savings to the state, as it is not as easy as calculating an overturned involuntary commitment, it will be important for the program and state to determine data points acceptable that reflect the upstream program impact.

The program shows a positive return on investment when savings are compared to unnecessary use of hospital ED bed holds and avoided admissions to state psychiatric facilities. The budget deficits for this program are recovered by:

1. Charging hospitals a subscription fee to use the service, which is currently set at $70 for each telepsychiatry assessment (about one third of the cost),
2. Billing public and private payors for each assessment,
3. Increasing state appropriations and
4. Increasing non-state grant funding.

In North Carolina the Health Professional Shortage Areas for mental health represent 97 of 100 counties (Figure 1). The NC- STeP Program, with the assistance from continued legislative support, is on the forefront of creating long lasting impacts on patients in the mental health care continuum. North Carolina legislators started an innovative program that other states wish to duplicate. The individuals that have accessed this program have benefited from the mental healthcare provided. The psychiatry and counseling services in community clinics reach more people earlier to mitigate a crisis and or prevent unnecessary treatment. The NC-STeP program improves the wellness of people and enhances the lives of communities across the State of North Carolina.

14 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.

15 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.

16 O'Neal G, Grant R. New poll: COVID-19 impacting mental well-being: Americans feeling anxious, especially for loved ones; Older Adults are Less Anxious. APA. 2020. https://www.psychiatry.org/

Other Sources of NC-STeP Funding and Expanding Services

In addition to the funding provided by the NC legislature, the NC-STeP Program has successfully applied for and received funding to pilot new programs and initiatives.
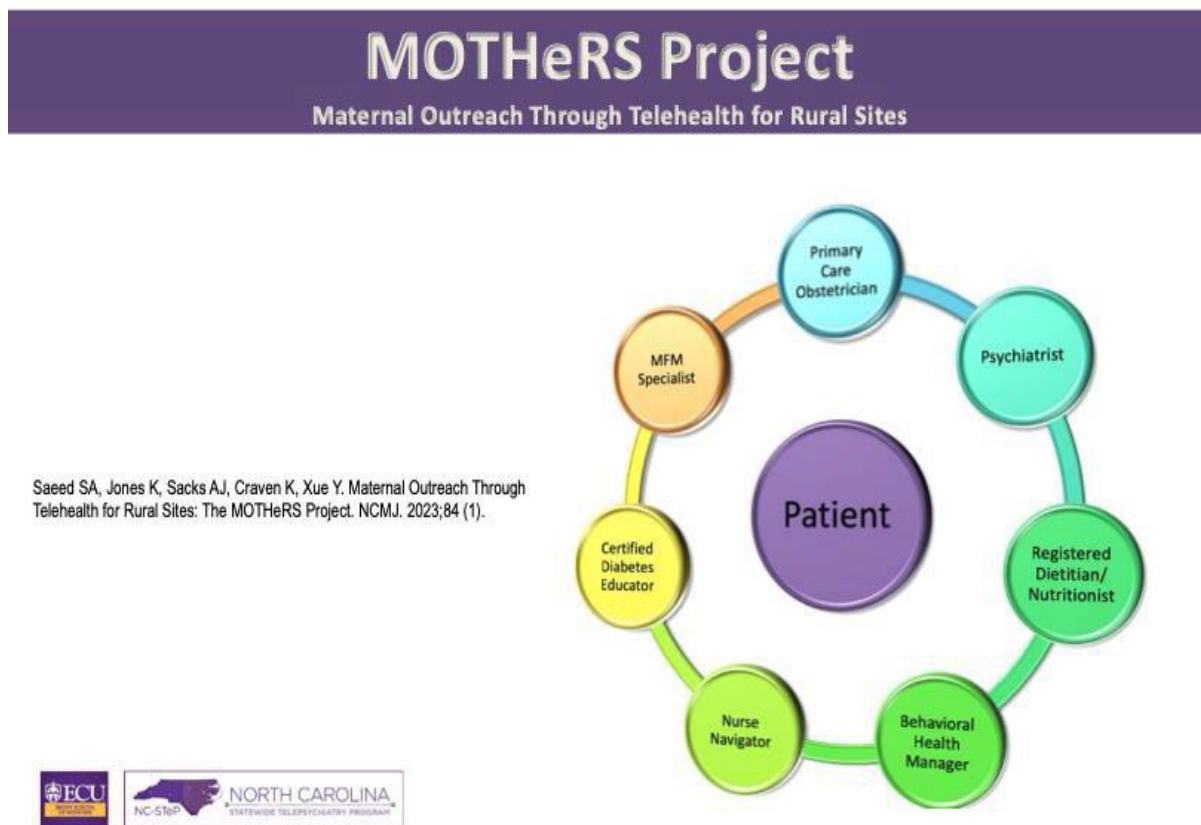
Expansion to New Site: Macon County Health Department

NC-STeP obtained supplemental funding of $60,000 from the Fullerton Foundation Grant to provide services at a new site in the Macon County Health Department. This two-year grant (2019-2021) provided evidence-based, out-patient mental health care to patients in Macon County who then lacked access to this care. This was a demonstration project embedded in a primary care clinic utilizing an integrated care model in which a behavioral health provider (BHP) was embedded in a primary care setting and a psychiatrist provided consultation via telepsychiatry.

MOTHeRS Project

The COVID-19 pandemic intensified health disparities, especially in maternal health among expectant mothers in rural Eastern North Carolina. These mothers faced increased risks due to limited access to prenatal care for high-risk pregnancies, maternal-fetal medicine specialists, heightened mental health issues, and the impact of other non-medical determinants of health. In 2020, NC-STeP received an additional $1,200,000 funding for a new MOTHeRS (Maternal Outreach Using Telehealth at Rural Sites) project from United Healthcare Foundation that allowed for four additional community sites: Carteret OB-Gyn Associates, ECU Health Women's Clinic – Kenansville, ECU Health Women's Clinic – Outer Banks, and ECU Women's Clinic – Edenton. The MOTHeRS Project implemented a multidisciplinary telehealth service integrating maternal fetal medicine specialists, psychiatrists, and other healthcare professionals into rural obstetric clinics, as depicted below:

Figure 3: Maternal Outreach Approach

Saeed SA, Jones K, Sacks AJ, Craven K, Xue Y. Maternal Outreach Through Telehealth for Rural Sites: The MOTHeRS Project. NCMJ. 2023;84 (1).

The approach minimized the need for travel and brought specialized care directly to underserved communities. Implementation of telehealth services reduced travel for high-risk patients by over 400,000 miles and facilitated over 2,700 patient visits, including behavioral health interventions. The project screened over 41,000 high-risk pregnant women for food insecurity and addressed food insecurity by distributing medically tailored food bags to these pregnant women. These results were published in the NC Medical Journal in 2023.

The collaborative co-management models such as the MOTHeRS Project can create a patient-centered team approach to care delivery that results in both improved patient experiences and a positive impact on maternal fetal health. The lessons learned from the project demonstrated that effective telehealth programs require robust coordination, which was managed by nurse navigators. The integration of mental health services into OBGYN clinics proved highly beneficial. Technical challenges and resistance to change at local sites highlighted the need for training and buy-in from all staff levels. The approach also underscored the importance of addressing logistical challenges such as food bag transportation and storage.

The project was successfully completed on March 31, 2023. NC-STeP provided ORH with their final report that covered the period from January 15, 2021, to March 31, 2023. Even after the completion of the project, NC-STeP was able to continue the food insecurity part of the project until December 31, 2023, and funding from the NC Medical Society Foundation started in January 2024. All four sites requested to continue the mental health part of the project and NC-STeP has been able to continue the mental health part of the MOTHeRS Project to-date.

Evidence points toward significantly high maternal deaths of black and other minority women, especially in rural areas. There are significant challenges facing rural women in accessing comprehensive, affordable, high-quality maternal health and mental health care. Given the scale and scope of the issue, programs like the MOTHeRS Project are very much needed and timely. The project emphasized the importance of strengthening care coordination and health care delivery, investing in human service programs, and addressing various workforce issues. Although there are numerous programs that have been developed to improve maternal health outcomes, barriers such as persistent poverty, transportation challenges, lack of affordable quality health insurance, chronic health conditions, and workforce shortages have made it difficult to address a complex issue such as rural maternal health care.

Through its work, the MOTHeRS Project not only provided care to those who needed it at its clinical sites but also generated new knowledge regarding how these barriers can be better addressed to ensure that every woman in rural America has a safe and healthy pregnancy, delivery, and postnatal outcome. The final report also contained an appendix that included selections from the published news, journal articles, patient handouts, and abstracts written about the MOTHeRS project. The United Healthcare Foundation funds cover all costs associated with these sites.

Behavioral Health Care at Elizabeth City State University

In recent years, the mental health and well-being of college students have received a significant amount of attention from educators, researchers, healthcare professionals, and policy makers. Mental health problems are common among college students. It is estimated that 26.2% of Americans ages 18 and older, or about one in four, have a mental disorder in any one year.[9]

[9] Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). Archives of General Psychiatry, 2005 Jun;62(6):617-27

During the 2020–2021 school year, more than 60% of college students met the criteria for at least one mental health problem, according to the Healthy Minds Study, which collects data from 373 campuses nationwide.[10] In another national survey, almost three quarters of students reported moderate or severe psychological distress.[11] In the past decade, mental health symptoms have nearly doubled in college student populations.[12]

Academic pressure, together with stressors typical of starting and attending college, may precipitate the first onset of mental health and substance use problems or an exacerbation of symptoms. While mental health problems are common among college students, the problem is particularly severe for minority college students living in rural areas due to less access to mental health care when compared with their peers in urban areas—giving rise to serious mental health needs. Meanwhile, many cultural and normative barriers, such as stigma, can further reduce their mental health-seeking behavior, which exacerbates access to mental health services.

In 2021, NC-STeP was awarded $1,543,477 by Blue Cross and Blue Shield of North Carolina for a five- year grant for a new project called "A Partnership to Bridge the Behavioral Health Care Gap at Elizabeth City State University (ECSU)." This work is focused on addressing access to behavioral health care challenge for students at ECSU by using the model developed and tested by the North Carolina Statewide Telepsychiatry Program (NC-STeP).

The most recent quarterly report includes student screening and service data from inception to June 30, 2025:

	TOTAL
Number of Patients Seen By Practitioner:	2,520
Number of Patients Referred To See LCSW/Counselor:	188
Number of Patients Referred To See Psychiatrist:	110
Number of NC-STeP Scheduled Sessions Held	505
Number of NC-STeP Follow-up by Email	1,120
Number of "On-Call"/Evening Sessions	31
Number of NC-STeP Check-Ins by Phone	892
Number of "Walk-Ins"/Not Scheduled	138
Marketing Efforts Completed/Outreach Opportunities	194

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[10] Lipson, S. K., et al. Trends in college student mental health and help-seeking by race/ethnicity: Findings from the national healthy minds study, 2013–2021, Journal of Affective Disorders, Volume 306, 2022, Pages 138-147.

[11] National College Health Assessment, American College Health Association, 2021.

[12] Duffy ME et al Trends in mood and anxiety symptoms and suicide-related outcomes among U.S. undergraduates, 2007–2018: evidence from two national surveys. J. Adolescent Health (2019).

NC-Step-Peds

In 2023, NC-STeP received grant funding of $3,272,706 over three years (2023- 26) for an expansion of NC-STeP focused on providing services for youth. Referred to as NC-STeP-Peds, this project is called "Caring for the Mental Health and Wellbeing of Children: Using Telepsychiatry to Enhance Access to Care and Promote Well-Being." The project is designed to provide mental health services for children and adolescents in six selected pediatric/primary care practices in Tier 1 or Tier 2 counties in North Carolina and is funded by the United Health Foundation. The work funded by this new grant is expanding NC-STeP to serve children and adolescents using a collaborative care approach. Using pediatric and primary care clinics as the host sites helps remove the stigma associated with mental health, enhances compliance with appointments, and offers expert consultation support for busy and often overwhelmed pediatric and primary care clinicians. Children and adolescents adapt well to this technology since much of their world is viewed through electronic screens. The new program embeds a licensed behavioral health provider (BPH) into each pediatric or primary care setting. The BPH is linked via telepsychiatry to a board-certified child psychiatrist for case consultation and care planning. Using virtual reality, the program is creating "NC Rural Kids Get Well," a 3-D community on the Roblox platform to serve three main purposes: education, peer support, and surveillance. The program also features an artificial intelligence (AI) driven knowledge management (KM) online portal to enhance collaborations among different sites' healthcare providers; encourage family members' engagement in children's mental health care; discover innovative and customized mental health service approaches for NC rural area children; and disseminate timely and relevant mental health knowledge to health care professionals, family members, and local community partners.

Additionally, the program will utilize these telehealth sites for inter-professional training and will collaborate with university and community partners to develop a continuum of care that can include school systems, existing family therapy clinics, and child advocacy centers. All six clinical sites are currently live. As of June 30, 2025, the program has successfully screened 34,498 children. The program identified that 4,365 children (15.1% of those screened) had PSC-17 scores of 15 or higher. Similarly, 2,797children (18.5% of those screened) had GAD scores of eight or higher. These significant percentages, alongside the large number of screenings, highlight two critical insights:

1. Prevalence of mental health issues among children at these pediatric clinics is significant, indicating a strong need for mental health care at these sites.
2. The ability to screen many children since the program's inception helps increase awareness of mental health issues in children and emphasizes the importance of addressing these needs in the community setting.

Emergency Department Data
(2013-2024)

63,356
Telepsychiatry assessments

20,496
Involuntary Commitments

10,046
Overturned Involuntary Commitments
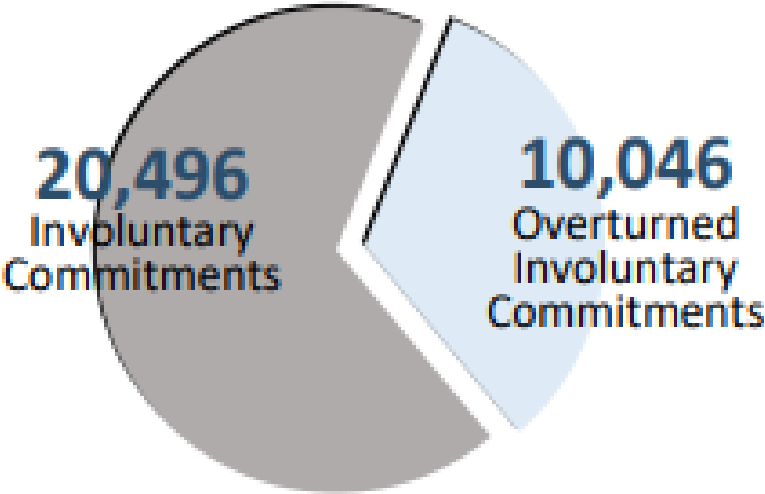
$59.1M
Return on Investment to state psychiatric facilities through overturned IVCs

Appendix B: List of Enrolled Hospitals and Go-Live Status
As of June 30, 2025

County	Hospital	LME/MCO	Status
Ashe	Ashe Memorial Hospital Model 1	Vaya	Live
Henderson	Advent Health of Hendersonville Model 1	Vaya	Live
Polk	Advent Health Polk Model 1	Vaya	Live
Harnett	Betsy Johnson Regional Hospital Model 1	Sandhills	Live
Carteret	Carteret Health Care Model 1	Trillium	Live
Jackson	DLP Harris Hospital Model 1	Vaya	Live
Vance	DLP Maria Parham Model 1	Cardinal	Live
Franklin	DLP Maria Parham Franklin Model 1	Cardinal	Live
Person	DLP Person Model 1	Cardinal	Live
Swain	DLP Swain Model 1	Vaya	Live
Beaufort	ECU Health Beaufort Hospital Model 1	Trillium	Live

County	Hospital	LME/MCO	Status
Bertie	ECU Health Bertie Hospital Model 1	Trillium	Live

County	Hospital	LME/MCO	Status
Chowan	ECU Health Chowan Model 1	Trillium	Live
Duplin	ECU Health Duplin Model 1	Eastpointe	Live
Edgecombe	ECU Health Edgecombe Model 1	Eastpointe	Live
Halifax	ECU Health North Model 1	Cardinal	Live
Dare	ECU Health Outer Banks Model 1	Trillium	Live
Cherokee	Erlanger Western Carolina Model 1	Vaya	Live
Granville	Granville Medical Center Model 1	Vaya	Live
Harnett	Harnett Hospital Model 1	Sandhills	Live
Surry	Hugh Chatham Model 1	Partners	Live

County	Hospital	LME/MCO	Status
Iredell	Iredell Memorial Hospital Model 1	Partners	Live
Brunswick	J. Arthur Dosher Memorial Model 1	Trillium	Live
Iredell	Lake Norman Regional Hospital Model 1	Partners	Live
Pasquotank	Sentara Albemarle Model 1	Trillium	Live
Robeson	Southeastern Hospital Model 1	Eastpointe	Live
Bladen	Cape Fear Valley Bladen Hospital Model 2	Eastpointe	Live
Washington	Washington Regional Medical Center Model 1	Trillium	In-Process
Hoke	Cape Fear Valley Hoke Hospital Model 2	Sandhills	Live

*Model 1 Hospitals are hospitals that do not have access to psychiatric services within their health system and exclusively rely on NC-STeP to provide services to hospital.

*Model 2 Hospitals are hospitals that have access to psychiatric services within their healthcare system and report IVC and assessments to NC-STeP to demonstrate cost savings of having services available for acute care patients.

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

As of June 2024. Sorted by county and site.

County	Consulting Site	Status
Cumberland	Cape Fear Valley Health System	Live
Durham, Moore, Orange	Carolina Behavioral Care	Live
Forsyth	Carolina Behavioral Care	Live
Pitt	East Carolina University	Live

Appendix D: 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 Council meetings during the past year:

North Carolina College of Emergency Physicians
North Carolina Psychiatric Association
Harnett Health System
Albemarle Regional Health Services
Duke University/ Duke Health
East Carolina University
MedAccess Partners
Carteret Healthcare
Murphy Medical Center
NC DHHS Division of Health Benefits
NC DHHS Division of Mental Health Developmental Disability Substance Abuse Services
North Carolina Medical Society
NC DHHS Office of Rural Health
North Carolina Healthcare Association
St. Luke's Hospital
Trillium Health Resources
Vidant Health (now ECU Health)
Cape Fear Valley Health

Appendix E: NC-STeP Publications in Journals

1. Saeed SA. (2024). Transforming Mental Health Care through Data and Technology. In 2024 Health of Women and Children Report. America's Health Rankings 2024, United Health Foundation, pp. 24. Available at https://assets.americashealthrankings.org/app/uploads/ahr_2024hwc_comprehensivereport_final_web.pdf. Accessed September 11, 2025.

2. Xue, Y., Saeed, S.A., Muppavarapu, K.S. et al. Exploring the Impact of Education Strategies on Individuals' Attitude Towards Telemental Health Service: Findings from a Survey Experiment Study. Psychiatr Q (2023). https://doi.org/10.1007/s11126-023-10033-y

3. Saeed SA, Jones K, Sacks AJ, Craven K, Xue Y (Lucky). Maternal Outreach Through Telehealth for Rural Sites: The MOTHeRS Project. North Carolina Medical Journal. 2023;84 (1).

4. Piro L, Luo H, Jones K, Lazorick S, Cummings DM, Saeed SA. (2023). Racial and Ethnic Differences Among Active-Duty Service Members in Use of Mental Health Care and Perceived Mental Health Stigma: Results From the 2018 Health-Related Behaviors Survey. *Preventing* Chronic Disease 2023; 20;220419.

5. Saeed SA, Lauriello J, and Roberts LW (Editors). (2023). Textbook of Psychiatric Administration and Leadership, Third Edition. American Psychiatric Association Publishing, Washington, DC. ISBN 978-1- 61537-337-6

6. Xue, Y., Saeed, S.A., Muppavarapu, K.S. et al. Exploring the Impact of Education Strategies on Individuals' Attitude Towards Telemental Health Service: Findings from a Survey Experiment Study. Psychiatr Q (2023). https://doi.org/10.1007/s11126-023-10033-y

7. Khanchandani AT, Saeed SA. (2023). Using apps in clinical practice: 8 studies. Current Psychiatry 2023; Vol 22, No. 7: pp 37-47

8. Saeed SA, Shore JH, Yellowlees P. Using Technology for Providing Care. (2023). In Saeed SA, Lauriello J, and Roberts LW (Editors). Textbook of Psychiatric Administration and Leadership, Third Edition. American Psychiatric Association Publishing, Washington, DC. ISBN 978-1-61537- 337-6

9. Saeed SA, Kolodner RM, Balog DJ. Health Information Technology. (2023). In Saeed SA, Lauriello J, and Roberts LW (Editors). Textbook of Psychiatric Administration and Leadership, Third Edition. American Psychiatric Association Publishing, Washington, DC. ISBN 978-1-61537- 337-6

10. Xue Y, Saeed SA, Liang H, Jones K, Muppavarapu KS. (2022). Investigating the impact of COVID-19 on telepsychiatry use across sex and race: a study of North Carolina emergency departments. Telemedicine and e-Health. Vol.00, No.00, Month 2022. Online first March 2022. DOI: 10.1089/tmj.2021.0549.

11. Muppavarapu K, Saeed SA, Jones K, Hurd O, Haley V. (2022). Study of impact of telehealth use on clinic "no show" rates at an academic practice. Psychiatric Q. 2022. April 12. Online ahead of print.

12. Xue Y, Saeed SA, Liang H, Jones K, Muppavarapu KS. (2022). Investigating the impact of COVID-19 on telepsychiatry use across sex and race: a study of North Carolina emergency departments. Telemedicine and e-Health. Vol.00, No.00, Month 2022. Online first March 2022. DOI: 10.1089/tmj.2021.0549.

13. Saeed SA, Jones K, Muppavarapu K. The Impact of NC Statewide Telepsychiatry Program (NC- STeP) on Cost Savings by Reducing Unnecessary Psychiatric Hospitalizations During a 6½ Year Period. Psychiatric Q. 2021 Nov 18. Online ahead of print.

14. Saeed SA, Pastis SI, Santos MG (2022). COVID-19 and its Impact on the Brain and Mind- A Conceptual Model and Supporting Evidence. Psychiatric Q. 2022 Mar; 93(1): 271-284.

15. Saeed SA, Gargano SP (2022). Natural disasters and mental health, International Review of Psychiatry, DOI: 10.1080/09540261.2022.2037524. Published online: 15 Feb 2022.

16. Saeed, S.A., Masters, R.M. Disparities in Health Care and the Digital Divide. Current Psychiatry Rep. 23, 61 (2021).

17. Saeed SA, Lluberes N, Buwalda VJA (2021). Applications of Technology. In Sowers WE and Ranz JM (Editors) Seeking Value: Balancing Cost and Quality in Psychiatric Care. Chapter 10, pp 245-273.

18. Saeed SA. (2020) Post Pandemic Care: ECU to Address Post-Pandemic Mental Health. 2020 July 1. Retrieved 8.14.20. from https://news.ecu.edu/2020/07/01/post-pandemic-care/.

19. Esterwood E, Saeed SA. (2020). Past Epidemics, Natural Disasters, COVID19, and Mental Health: Learning from History as we Deal with the Present and Prepare for the Future. Psychiatric Q. 2020 August. DOI 10.1007/s11126-020-09808-4.Online First.

20. Kothadia RJ, Jones K, Saeed SA, Torres MJ, (2020). The Impact of NC-Statewide Telepsychiatry Program (NC-STeP) on Patients' Dispositions from Hospital Emergency Departments. Psychiatric Services. (in Press).

21. Saeed SA (2020). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using telepsychiatry to improve access to evidence-based care. European Psychiatry, Volume 33, Issue S1: Abstracts of the 24th European Congress of Psychiatry, Cambridge University Press: 23 March 2020, pp. S66. DOI: https://doi.org/10.1016/j.eurpsy.2016.01.968.

22. Saeed SA, Hebishi K. (2020). The psychiatric consequences of COVID-19: 8 Studies. Vol. 19, No. 11, pp. 23-35.

23. 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].

24. 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.

25. Saeed SA, Johnson TL, Bagga M, Glass O. (2017). Training Residents in the Use of Telepsychiatry: Review of the Literature and a Proposed Elective. Psychiatric Quarterly. Volume 88. No.2. June. pp. 271- 283.

26. Saeed, S. A. (2016). North Carolina Statewide Telepsychiatry Program: Using Telepsychiatry to Improve Access to Evidence-Based Care. Presented in *Shaping the Future of Healthcare through Innovation and Technology*. 24th European Congress of Psychiatry, Madrid, Spain, March 15, 2016. Program proceedings available at: http://www.epa-congress.org/presentation/abstract-book. *Abstract.*

27. Saeed, S. A. (2015). *Innovations in the Emergency Department-Based Care of the Mentally Ill.* American College of Emergency Physicians Annual Meeting, Boston, Massachusetts, October 25, 2015. *Abstract.*

28. Saeed SA, Anand V. (2015). Use of Telepsychiatry in Psychodynamic Psychiatry. Psychodynamic Psychiatry: Vol.43, No.4, pp.569-583.

29. Saeed SA. (2015). Current Challenges and Opportunities in Psychiatric Administration and Leadership. Psychiatric Quarterly. Volume 86, Issue 3, September: pp 297-300.

30. Saeed SA. (2015). Telebehavioral Health: Clinical Applications, Benefits, Technology Needs, and Setup. *NCMJ:* Vol. 76, Number 1, pp 25-26.

Appendix F: NC-STeP Awards and Recognitions

2025. *American Psychiatric Association's Psychiatric Services Achievement Silver Award* in recognition of significant and innovative contributions to the field of mental health in honor of the MOTHeRS (Maternal Outreach Through Telehealth for Rural Sites) Project.

2025. *Order of the Anchor*. East Carolina University. In recognition of exceptional achievement in securing over $1 million in grant funding during fiscal years 2022 and 2023 and serving as steadfast anchor of research excellence and innovation who shapes the future of academia and industry.

2024. *Innovation Award for Whole Person Care* from North Carolina's i2i Center for Integrative Health. The award was given for my work as the Principal Investigator and Director of the MOTHeRS (Maternal Outreach Using Telehealth for Rural Sites) Project. The award celebrates innovation in services and programs that improve approaches to health care. The i2i Center for Integrative Health convenes health care leaders to solve the most important issues affecting behavioral, intellectual, and developmental disabilities and primary health care in North Carolina.

2024. *Psychiatric Services Achievement Bronze Award* from the American Psychiatric Association. NC-STeP was awarded the prestigious Psychiatric Services Achievement Bronze Award for its significant contributions to the field of mental health. Since 1949, the Psychiatric Services Achievement Awards have recognized innovative programs for people with mental illness or disabilities. The award is given to outstanding programs that provide services to individuals with mental illness or disabilities and have demonstrated innovative services, a focus on quality improvement, effective use of psychiatrists, peer specialists, and other staff, as well as the involvement of consumers and/or families.

2022. *Innovation Award for Technology* from North Carolina's i2i Center for Integrative Health. The award was given for Dr. Saeed's work as the founder and executive director of the North Carolina Statewide Telepsychiatry Program (NC-STeP). The award celebrates innovation in services and programs that improve approaches to health care. The i2i Center for Integrative Health convenes health care leaders to solve the most important issues affecting behavioral, intellectual, and developmental disabilities and primary health care in North Carolina.

2022. *The Steve Jordan Award* from the National Alliance for Mental Illness in recognition of Dr. Saeed's work as an innovator and advocate for the development of effective services and supports for all those affected by mental illness.

NC-STeP was the 2020 **Breaking Barriers Through Telehealth Award** winner from the Mid-Atlantic Telehealth Resource Center (MATRC).

NC-STeP was highlighted in the June 2020 issue of Current Psychiatry, a peer-reviewed professional journal, as a model program.

Dr. Saeed received the 2019 **Oliver Max Gardner Award**, highest UNC System honor, for his innovative work in the field of telepsychiatry.

September 2019 issue of the Healthcare Innovations journal referred to NC-STeP as a model for Statewide coverage.

NC-STeP has been invited to present at several national and international venues including:
- The American Psychiatric Association's Annual Meeting, May 2025, Los Angeles, CA.
- HIMSS 2025 Global Conference. March 3-6, 2025, Las Vegas, Nevada
- Annual Telehealth Summit of South Carolina. October 28-30, 2024, Hilton Head Island, South Carolina.
- Annual Meeting of the Pennsylvania Health Information Management Association (PHIMA), May 20 - 21, 2024, Gettysburg, Pennsylvania.

- American Psychiatric Association's Annual Meeting, May 2024, New York City, New York.

- Keynote presentation at the Annual Meeting of the Pennsylvania Health Information Management Association (PHIMA), May 20 - 21, 2024, Gettysburg, Pennsylvania.

- Benjamin Rush Society Annual Meeting, March 20 - 22, 2024, Santa Barbara, California.

- HIMSS Global Health Conference, March 11- 15, 2024, Orlando, Florida.

- American Psychiatric Association Annual Meeting, May 20- 24, 2023, San Francisco, California Annual

- Rural Health Conference. May 10-13, 2022, Albuquerque, New Mexico.

- Mid-Atlantic Telehealth Resource Center (MATRC) 2022 Annual Telehealth Summit. April 24- 26, 2022, Concord, North Carolina.

- American Telemedicine Association's Annual Meeting, San Antonio, Texas, March 4-6, 2023.

- Rural Summit, Raleigh, North Carolina, March 20, 2023.

- American Telemedicine Association Annual Meeting, Boston, May 2022

- NC Commission for Mental Health, Developmental Disabilities, and Substance Abuse Services Advisory Committee, January 2021

- American Psychiatric Association, Washington DC, January 2021

- Vermont Program for Quality in Health Care. August 2021

- United Health Group. Virtual. October 21, 2020

- Temple University School of Medicine. Virtual. October 14, 2020

- Mid Atlantic Telehealth Resource Center (MATRC) 2021 Summit. March 2021

- The 5th National Telehealth Summit, Chicago, July 2020

- HIMSS Global Conference, Orlando, Florida, March 2020

- The 3rd National Telehealth Summit, Miami, May 2019

- Weill Cornell Medicine|New York-Presbyterian, New York, April 2019

- The US News and World Reports, Washington DC, November 2017

- UNC Kenan-Flagler Business School, Chapel Hill, NC, November 2017

- The White House, March 2016

- Avera e-Care, Sioux Falls, South Dakota, September 2017.

- IPS: The Mental Health Services Conference, Washington DC, October 8, 2016

- European Congress of Psychiatry, Madrid, March 2016

- St. Elizabeth Hospital, Washington DC, February 2016

- NC Academy of Family Physicians (NCAFP). Asheville, NC. December 2015.

- Center for Evidence-Based Policy, Oregon Health Sciences Univ., Portland, Oregon. October 2015.

- American College of Emergency Physicians' Annual Meeting. Boston, October 2015.

- North Carolina Institute of Medicine (NCIOM) August 2015.

- State Offices of Rural Health (SORH), July 2015.

Appendix G: NC-STeP Scientific Posters

1. Saeed SA, Jones K, Smith-Martinez LA, Baker R. North Carolina Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Enhance Access to Evidence-Based Care. Poster Presented at the Annual Telehealth Summit of South Carolina. October 28-30, 2024, Hilton Head Island, South Carolina.

2. Yajiong Xue, Sy Saeed, Nicole Stoneback, Craig Geter, Sophie Liang (2024) "Virtual Art Exhibitions: Promoting Emotional Expression, Social Connectedness, and Confidence Restoration in Children Affected by Natural Disasters" Mills & Ensley Minority Health Conference, Friday, October 18, 2024, Poster Presentation, Greenville NC.

3. Xue Y, Saeed SA, Bake R, Liang H, Jones K, Smith-Martinez LA. Creating an Effective Framework for Providing Multidisciplinary Integrated Care in Rural Areas: Insights from a Telehealth Outreach Program for High-Risk Pregnant Women. Poster presented at the Mid-Atlantic Telehealth Resource Center (MATRC) 2024 Annual Telehealth Summit. April 14- 16, 2024, Pocono Manor, Pennsylvania.

4. Xue Y, Saeed SA, Xue L, Edwards P. Addressing Children's Mental Health Care Disparities with a Virtual Community House. Poster presented at the American Medical Informatics Association (AMIA) Informatics Summit, Boston, MA, in March 18- 21, 2024.

5. Khanchandani AT, Saeed SA. Is there an app for that? Selecting apps that are safe and effective. Poster presented at North Carolina Psychiatric Association Annual Meeting, September 26-29, 2023, Asheville, NC.

6. Gargano SP, Saeed SA. Natural Disasters and Mental Health. Presented at the American Psychiatric Association Annual Meeting, May 20- 24, 2023, San Francisco, California

7. Buwalda V; Li L; Rachal J; Saeed SA; Sapra M; Wasser T; Wilkaitis J. Physician Leadership Program. American Psychiatric Association. Available at: https://education.psychiatry.org/diweb/catalog/item?id=6323901. Accessed March 10, 2023

8. Saeed SA, Muppavarapu K, Jones K, Baker R (2022). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Improve Access to Evidence-Based Care. Presented at Annual Rural Health Conference. May 10-13, 2022, Albuquerque, NM.

9. Saeed SA, Muppavarapu K, Baker R, Jones K, Sacks A, Martinez S, Craven K (2022). MOTHeRS: Maternal Outreach Through Telehealth for Rural Sites. Poster presented at the Mid-Atlantic Telehealth Resource Center (MATRC) 2022 Annual Telehealth Summit. April 24- 26, 2022, Concord, North Carolina.

10. Muppavarapu K, Saeed SA (2020). Use of telepsychiatry to Improve mental health access for rural population. Poster presented at the Office of Rural Health Conference, Greenville, NC, 2020

11. Saeed SA (2020). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using telepsychiatry to improve access to evidence-based care. European Psychiatry , Volume 33 , Issue S1: Abstracts of the 24th European Congress of Psychiatry, Cambridge University Press: 23 March 2020, pp. S66. DOI: https://doi.org/10.1016/j.eurpsy.2016.01.968.

12. Muppavarapu K, Saeed SA (2020). Using NC Statewide Telepsychiatry Program to Address Access to Critical Behavioral Health Crises for the Populated Coast. Poster presented at the Hurricon, NSF Conference, Greenville, NC, 2020

13. Saeed SA; Muppavarapu K; Jones K; Baker R. (2020). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Improve Access to Evidence-Based Care: 6-year Update. Poster presented at the Mid-Atlantic Telehealth Resource Center (MATRC) 2020 Annual Telehealth Summit.

14. Radhi Kothadia, Mathew Torres, Katherine Jones, Sy Saeed. The Role of the North Carolina Statewide Telepsychiatry Program (NC-STeP) in Boarding Outcomes for Adult Patients Presenting to North Carolina Emergency Departments with Acute Behavioral Health Crises. Poster presented at North Carolina Psychiatric Association Conference, Myrtle Beach, SC, September 2019.

15. Saeed SA; Davies S; Tacozza G; Jones K; Cooper BP (2015). North Carolina Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Improve Access to Evidence-Based Care. Poster presented at the Mid-Atlantic Telehealth Resource Center (MATRC) 2015 Annual Telehealth Summit, White Sulphur Springs, West Virginia, March 29-31, 2015.

Appendix H: NC-STeP Presentations

1. Saeed SA. (2025). Leadership. Keynote Speaker at the 2025 APA SAMHSA MFP Psychiatric Connections and Mentorship Symposium, September 13, 2025, Washington DC.

2. Saeed SA. (2025). Lessons Learned from the MOTHeRS Project: Maternal Outreach through Telehealth for Rural Sites. Grand Rounds presented at the West Virginia University. August 27, 2025. Virtual.

3. Saeed SA, (2025). The MOTHeRS Project: Maternal Outreach through Telehealth for Rural Sites. Psychiatric Services Achievement Silver Award Lecture. Presented at the American Psychiatric Association Annual Meeting, May 17-21, 2024, Los Angeles, California.

4. Saeed SA, Wade KJ, Stoneback N, Richardson A. (2025) Developing Innovative and Evidence-Based Models to Support Student Mental Health, Well-Being, and Social Connectedness: ECU-ECSU Partnership to Bridge the Behavioral Health Care Gap. 2025 UNC Behavioral Health Convening, Appalachian State University, May 13, 2025, Boone, NC.

5. Saeed SA. (2025). The MOTHeRS Project: Maternal Outreach through Telehealth for Rural Sites. Presented at the HIMSS 2025 Global Conference. March 3-6, 2025, Las Vegas, Nevada.

6. Saeed SA. (2025). Caring for the Mental Health and Wellbeing of Children: Using Telepsychiatry to Enhance Access to Care and Promote Well-Being. Grand Rounds presented at the Department of Pediatrics, Brody School of Medicine, East Carolina University, January 24, 2025, Greenville, North Carolina.

7. Saeed SA. (2024). The MOTHeRS Project: Maternal Outreach through Telehealth for Rural Sites. Presented at the Annual Telehealth Summit of South Carolina. October 28-30, 2024, Hilton Head Island, South Carolina.

8. Saeed SA. (2024). Building and Sustaining a Statewide Telepsychiatry Program: Lessons Learned from the NC Statewide Telepsychiatry Program (NC-STeP). Grand Rounds presented at the Department of Psychiatry and Behavioral Medicine, Brody School of Medicine, East Carolina University. September 19, 2024. Virtual.

9. Saeed SA. (2024). Building and Sustaining a Statewide Telepsychiatry Program: Lessons Learned from the NC Statewide Telepsychiatry Program (NC-STeP). Presented at the NC State Psychiatry Residency Programs Lecture Series. August 21, 2024. Virtual.

10. Baker RB. (2024). Optimizing Success: Developing Key Performance Measures and Metrics for Telepsychiatry. Presented at the EMSC (Emergency Medical Services for Children) EIIC (EMSC Innovation and Improvement Center) Annual Conference, July 22-24, 2024, Cleveland, Ohio.

11. Saeed SA. (2024). Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care: A Decade Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Keynote speaker at the Annual Meeting of the Pennsylvania Health Information Management Association (PHIMA), May 20 - 21, 2024, Gettysburg, Pennsylvania.

12. Saeed SA, Smith-Martinez L. (2024). Building and Sustaining a Statewide Telepsychiatry Program: Lessons Learned from the NC Statewide Telepsychiatry Program (NC-STeP). Psychiatric Services Achievement Bronze Award Lecture. Presented at the American Psychiatric Association Annual Meeting, May 4-8, 2024, New York City, New York.

13. Saeed SA. (2024). Building and Sustaining a Statewide Telepsychiatry Program: Lessons Learned from the NC Statewide Telepsychiatry Program (NC-STeP). Presented at the Benjamin Rush Society Annual Meeting, March 20 - 22, 2024, Santa Barbara, California.

14. Saeed SA. (2024). A Decade-Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Presented at the HIMSS Global Health Conference, March 11- 15, 2024, Orlando, Florida.

15. Saeed SA. (2024). Innovations in Health Technologies: Enhancing Access to Evidence-Based Care. Presented at the Leadership North Carolina (LNC) Health and Human Services Session, February 8, 2024, Greenville, North Carolina.

16. Saeed SA. (2023). Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care: A Decade Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Presented at the Avel eCare Annual Forum and Innovation Summit, October 10, 2023, Vail, Colorado.

17. Saeed SA. (2023). Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care: A Decade Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Presented at the North Carolina Health Information Management Association's Annual Meeting, June 25-27, 2023, Raleigh, North Carolina.

18. Saeed SA. (2023). COVID-19 Impact on Mental Health and Wellbeing: The Toll on Health Care Workers, Patients, and Populations. Presented at the 2nd Southeastern Summit for Behavioral Health, May 12, 2023, Wrightsville Beach, North Carolina.

19. Saeed SA., Smith-Martinez L, Jones K, Kothadia RJ, Xue L (2023). Research Findings from a Decade Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Presented at the American Psychiatric Association's Annual Meeting, San Francisco, California, May 4-6, 2023.

20. Saeed SA. (2023). Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care. Presented as part of the symposium: Merkel R, Saeed SA, Fadley N, Widener A. Multidisciplinary Partnering in an Effort to Address Mental Health and Substance Use Concerns in Central Appalachia." Presented at the American Psychiatric Association Annual Meeting, May 20- 24, 2023, San Francisco, California.

21. Graham J, Saeed SA, Shock L. (2023). Healthcare Beyond Your Zip Code: Increasing Access to Telehealth Solutions in Rural Areas. Presented at the Rural Summit, Raleigh, North Carolina, March 20, 2023.

22. Saeed SA. (2023). Building and Sustaining a Statewide Telepsychiatry Network: A Decade Long Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP). Presented at the American Telemedicine Association's Annual Meeting, San Antonio, Texas, March 4-6, 2023.

23. Xue L (2023) Virtual Reality and Mental Health. The next generation internet: The role of metaverses, AR, VR, MR, and digital twins research workshop in Philadelphia, April 27-28, 2023.

24. Galvez N, Baker, R (2023) Telepsychiatry in North Carolina Hospitals and Communities. Presented at North Carolina Community Health Center Association Primary Care Conference, Durham, NC, June 7- 9, 2023.

25. Saeed SA. (2022). Using Telepsychiatry and Health Technologies to Enhance Access to Evidence-Based Care. Research Seminar, University of Memphis, Memphis, Tennessee, October 14, 2022.

26. Brian E, Henderson E, Posey A, Saeed SA. (2022). Virtual Crisis Care Strategies: Expanding ED Access to Behavioral Health Specialists through Telehealth. Presented at the American Telemedicine Association's Annual Meeting, Boston, MA, May 1-3, 2022.

27. Carr MJ, Muppavarapu K, Saeed SA. 2022. HRSA Telehealth Learning Series: A Session on Innovative Rural Health Programs. February 28, 2022. Virtual.

28. Saeed SA. 2021. Using Telepsychiatry to Enhance Access to Evidence-Based Care. Presented at the Duke University Web-Based Grand Rounds. November 17, 2021. Virtual.

29. Saeed SA. 2021. Using the North Carolina Statewide Telepsychiatry Program (NC-STeP) to Ensure Access, Quality, and Availability of Psychiatric Services During and After the Covid-19 Pandemic. Presented at the North Carolina Rural Health Centers/ North Carolina Office of Rural Health. September 14, 2021. Virtual.

30. Saeed SA. 2021. *Building a Statewide Telepsychiatry Network: The North Carolina Statewide Telepsychiatry Program (NC-STeP). A Presentation & Discussion with Sy Saeed, MD. Presented for the Vermont Program for Quality in Health Care. August 31, 2021. Available at:* https://vimeo.com/601925302. *Accessed March 4, 2022.*

31. Saeed SA. 2021. Covid-19 and its Impact on the Brain and Mind: The Toll on Health Care Workers, Patients, and the General Public. Presented the keynote address at the EAHEC Adult Mental Health Conference. April 29, 2021. Virtual.

32. Albero K, Hubbard D, Saeed SA, Wiggins W. 2021 <u>Statewide Telebehavioral Health Network Development</u>. Presented at the Mid Atlantic Telehealth Resource Center (MATRC) 2021 Summit. March 30, 2021. Virtual.

33. Saeed SA. 2021. <u>An Update on the North Carolina Statewide Telepsychiatry Program.</u> Presented to NC Senate Appropriations Committee on Health and Human Services, March 18, 2021. Virtual.

34. Saeed SA. 2021. <u>Leadership</u>. Presented as part of the Physician Leadership Program. American Psychiatric Association. January 13, 2021. Virtual. Available at https://education.psychiatry.org/diweb/catalog/item?id=6323901.

35. Saeed SA 2021. Using Telepsychiatry to Enhance Access to Evidence-Based Care. Presented at the North Carolina Commission for Mental Health, Developmental Disabilities, and Substance Abuse Services Advisory Committee Meeting. January 28, 2021.

36. Saeed, S.A. 2020. <u>Using Telepsychiatry to Reduce Emergency Departments' Length of Stay and Enhancing Value: 5- Years' Experience of the North Carolina Statewide Telepsychiatry Program (NC- STeP)</u>. Presented at the 2020 HIMSS Global Conference. Virtual. Originally scheduled for Orlando, Florida.

37. Saeed, S.A. 2020. <u>Using Telehealth Across the Behavioral Health Continuum of Care: 6- Years' Experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP)</u>. Presented at the 5th National Telehealth Summit. Virtual. July 17, 2020. Originally Scheduled for Chicago.

38. Saeed, S.A. 2020. <u>Using Telepsychiatry to Enhance Access to Evidence-Based Care</u>. Psychiatry Grand Rounds, Temple University School of Medicine. Virtual. October 14, 2020. Originally scheduled for Philadelphia.

39. Saeed, S.A. 2020. <u>Partnering to Make an Impact – Roundtable Discussions on Patient-Physician Relationship</u>. United Health Group. Virtual. October 21, 2020.

40. Saeed, S.A. (2020). <u>Using Telehealth to Bridge Social Distancing During the COVID-19 Pandemic</u>. Statewide live webinar organized by Eastern AHEC, April 28 and May 20, 2020.

41. Saeed, S.A. (2020). <u>Ensuring Access, Quality, and Availability of Psychiatric Services During and After the Pandemic</u>. Presented at the NC General Assembly House Select Committee, Health Care Working Group, April 14, 2020, via videoconference.

42. Saeed, S.A. (2020). <u>North Carolina Statewide Telepsychiatry Program: Using Telepsychiatry to Provide Evidence-Based Care</u>. HIMSS Global Conference, Orlando, Florida., March 2020

43. Saeed, S.A. (2020). <u>Building a Statewide Telepsychiatry Network: NC-STeP Experience</u>. Presented at the 2nd annual ECU/UNC NC Teledentistry Symposium, Durham, NC, March 6, 2020.

44. Saeed, S.A. (2020). <u>Using Telepsychiatry and Health Technologies to Provide Evidence- Based Care</u>. 2 Part Webinar provided for APRN RURAL Scholar HHRSA Grant, February 4 and 11, 2020.

45. Saeed, S.A. (2020). <u>North Carolina Statewide Telepsychiatry Program: Using Telepsychiatry to Provide Evidence-Based Care</u>. NC HIMSS Winter meeting, Greensboro, NC, January 30, 2020.

46. Saeed, S.A. (2019). <u>Using Telepsychiatry to Reduce Emergency Departments' Length of Stay</u>. Presented at the NCHICA 25th Annual Conference, Winston-Salem, NC, September 16, 2019.

47. Saeed, S.A. (2019). Presenting at the Duke EMBA HSM Seminar Team: <u>Discussions on Telepsychiatry with Healthcare Leaders</u>. Duke University, the Fuqua School of Business, Durham, September 10, 2019.

48. Saeed, S.A. (2019). <u>Using Telepsychiatry to Reduce Emergency Departments' Length of Stay and Enhancing Value: 5- Years' Experience of the North Carolina Statewide Telepsychiatry Program (NC- STeP)</u>. Presented at the 3rd National Telehealth Summit, Miami, May 2019.

49. Saeed, S.A. (2019). <u>Using Telepsychiatry to Provide Evidence-Based Mental Health Care</u>. Presented Weill Cornell Medicine | New York-Presbyterian, New York, April 2019

50. Saeed, S.A. (2019). <u>Using Telehealth to Enhance Access to Evidence-Based Care</u>. Keynote address at the NC Rural Health Leadership Alliance's Regional Telehealth Summit. Wilmington,

NC. January 18, 2019.

51. Saeed, S.A. (2018). <u>Telepsychiatry: A New Way of Delivering Behavioral Health Services</u>. North Carolina Medical Society, Webinar, October 16, 2018.

52. Saeed, SA, and Buwalda VJ (2018). <u>The Bridge Between Administrative Psychiatry and Research on Outcome Measurement and New Technology</u>. Presented at the American Psychiatric Association Annual Meeting, May 7, 2018, New York, NY.

53. Sapra, M, Wasser, T, Saeed, SA, Goldberg, L, Herman, B, Jayaram, G. <u>Diverse Career Pathways to Leadership in Psychiatry</u>. Presented at the American Psychiatric Association Annual Meeting, May 8, 2018, New York, NY.

54. Saeed, S.A. (2018). <u>Using Telepsychiatry to Provide Evidence-Based Psychiatric Care: An Update on the North Carolina Statewide Telepsychiatry Program</u>. Presented Grand Rounds, Wake Forest University School of Medicine, Winston-Salem, NC, February 28, 2018.

55. Saeed, S.A. (2017). <u>Provider shortage and the North Carolina Statewide Telepsychiatry Program</u>. Presented at the UNC Kenan-Flagler Business School 7th Annual Healthcare Conference, Chapel Hill NC, Nov 2017.

56. Breland-Noble, AM; Saeed, SA: Briggs, R; Gorman, KC. <u>Behavioral Health: The Next Frontier in Pediatric Care</u>. The US News and World Reports' the Healthcare of Tomorrow summit, Washington DC, November 2, 2017.

57. Saeed, S.A. (2017). <u>Replicating North Carolina Statewide Telepsychiatry Program</u>. Presented at the Avera e-Care, September 12, 2017, Sioux Falls, SD.

58. Saeed, S.A. (2017). <u>Expanding North Carolina Statewide Telepsychiatry Program into Community- Based Settings</u>. Presented at the NC Association of Local Health Directors, August 16, 2017, Raleigh, NC.

59. Saeed, S.A. (2017). <u>North Carolina Statewide Telepsychiatry Program</u>. Presented at the NC Bar Association's Health Law Section's Annual Meeting, April 2017, Raleigh, NC.

60. Saeed, SA. (2016). <u>Establishing and Sustaining a Statewide Program: NC-STeP Experience</u>. Presented at IPS: The Mental Health Services Conference October 8, 2016, Washington D.C.

61. Saeed S.A. (2016). <u>Role of Leadership in Narrowing the Gap Between Science and Practice: Improving Treatment Outcomes at the Systems' Level</u>. Presented at IPS: The Mental Health Services Conference October 6, 2016, Washington D.C.

62. Saeed, S.A. (2016). <u>Statewide Telepsychiatry Program</u>. Presented at the North Carolina Digital Government Summit. August 31, 2016, Raleigh, North Carolina.

63. Saeed, S.A. (2016). <u>Enhancing Access and Quality of Psychiatric Care to Patients Presenting in Emergency Departments Across the State: NC-STeP Experience</u>. Presented Grand Rounds at Central Regional Hospital. June 16, 2016, Butner, North Carolina.

64. Saeed, S.A. (2016). <u>Enhancing Access and Quality of Psychiatric Care to Patients Presenting in Emergency Departments Across the State: NC-STeP Experience</u>. Presented Grand Rounds at Duke University, June 16, 2016, Durham, North Carolina.

65. Saeed, S.A. (2016). <u>Current Challenges and Opportunities in Psychiatric Administration and Leadership</u>. Presented at the American Psychiatric Association Annual Meeting, May 16, 2016, Atlanta, Georgia.

66. Schwarting, K.; Saeed, S.A.; Mutrux, R.E. <u>Successes and Lessons Learned from State-Funded Telehealth Initiatives</u>. Presented at the MATRC 2016 Telehealth Summit, Cambridge, Maryland. April 11, 2016.

67. Saeed, S.A. <u>Spotlight on Innovation: NC-STeP</u>. Invited presentation at the <u>White House Rural Council Convening on Telehealth</u>, Washington DC. March 30, 2016.

68. Saeed, S.A. <u>Shaping the Future of Healthcare through Innovation and Technology</u>. Presented at the 24th European Congress of Psychiatry, Madrid, Spain. Via Videoconferencing. March 15, 2016.

Appendix I: NC-STeP Grant Fundings

1. 2023-26. Caring for the Mental Health and Wellbeing of Children: Using Telepsychiatry to Enhance Access to Care and Promote Well-Being. The United Health Foundation. PI: Saeed, Funding:
$3,272,706

2. 2021- 26. A Partnership to Bridge the Behavioral Health Care Gap at Elizabeth City State University (ECSU). To address the access to behavioral health care challenge for students at ECSU by using NC- STeP model. Funded by the BlueCross BlueShield of NC. PI: Saeed, Funding: $1,543,477.

3. 2019- 23. Advanced Practice Registered Nurse Academic-Clinical Practice Collaborative. To support the education of the advance practice registered nurse (APRN) primary care workforce throughout Eastern North Carolina (ENC) by building academic-practice partnerships. Funded by the Health Resources & Services Administration (HRSA). PI: Reis, Co-I: Saeed. Funding: $2,798,904.

4. 2020- 22. Maternal Outreach Through Telehealth for Rural Sites (MOTHeRS) Project. This project encompasses patient, nurse navigator, diabetes educator, behavioral health manager, primary obstetrician, maternal fetal medicine (MFM) specialist, and psychiatrist, to provide support and the insights of specialty physicians to identified rural obstetric practices seeing high risk pregnant women. Funded by the United Health Foundation. PI: Saeed. Funding: $1.2M

5. 2018- 21. NC-PACT (North Carolina Psychiatric Access through Community Telepsychiatry) a community-based behavioral health project that provides evidence-based, out-patient mental health care to patients who currently lack access to this care. Funded by the Fullerton Foundation. PI: Saeed. Funding: $120,000.

6. 2014-16. North Carolina Statewide Telepsychiatry Program (NC-STeP). To implement this program in an additional 16 hospital EDs. ECU Center for Telepsychiatry was the home for this statewide program that connected 76 hospital emergency departments across the state of North Carolina to provide psychiatric assessments and consultations to patients presenting at these EDs. Funded by the Duke Endowment to supplement the $4.0 million support from state appropriations (above). PI: Saeed, Funding: $1.5M.

7. 2006- 2016. Enhancing the Quality, Access, and Availability of Psychiatric Services in Eastern North Carolina. Multi-year grant, awarded by Eastern Area Health Education Center (EAHEC), that addresses the psychiatrist shortage as well as the training needs in the community-based settings, envisioning a mental health care system for eastern North Carolina that is recovery oriented, consumer centered, and evidence-based. The proposal also promotes the use of technology in general and telepsychiatry in particular. PI: Saeed, Funding: $129,410.

8. 2004- 2022. To place general psychiatry resident physicians and post graduate child psychiatry fellows in various stages of their training at several community training sites. Funded by Eastern Area Health Education Center (EAHEC). PI: Saeed, Funding: $106,300/year.