

Building a Statewide Telepsychiatry Network: The NC- Statewide Telepsychiatry Program

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North Carolina Statewide Telepsychiatry Program (NC-STeP)



NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

Mental disorders are common

- An estimated 26.2% of Americans ages 18 and older (about 1 in 4) Americans have a mental disorder in any one year¹.
 - 66 million adults, when applied to the 2018 U.S. Census residential population estimate.²
- About 6 percent, or 1 in 17 (15.12 million), suffer from a serious mental illness¹.

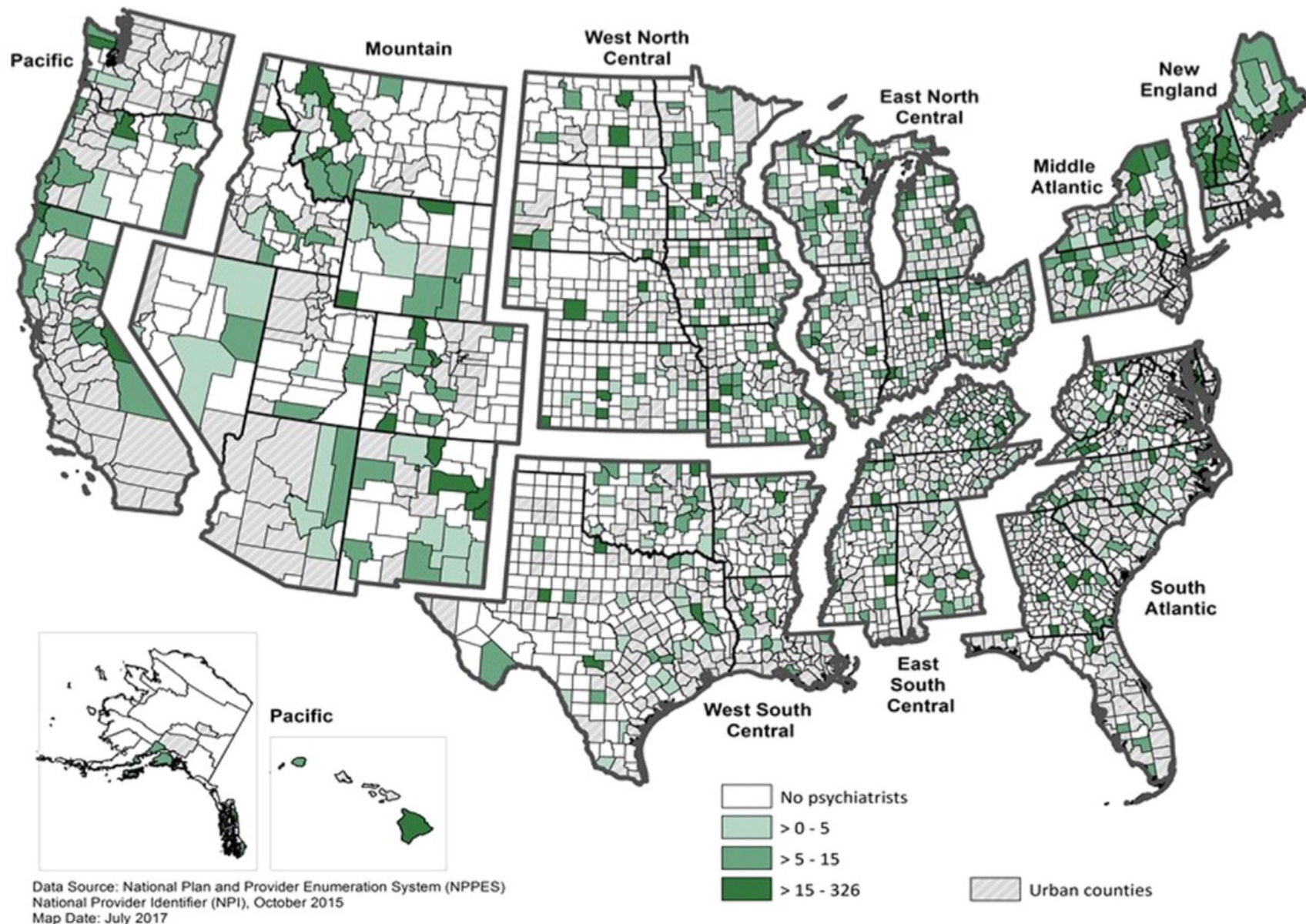
1. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). Archives of General Psychiatry, 2005 Jun;62(6):617-27.

1. <https://www.census.gov/quickfacts/fact/table/US/PST045217>. ACCESSED September 25, 2018.

BHPs per 100,000 Population and Percent of Counties Without a Provider, by U.S. Census Division

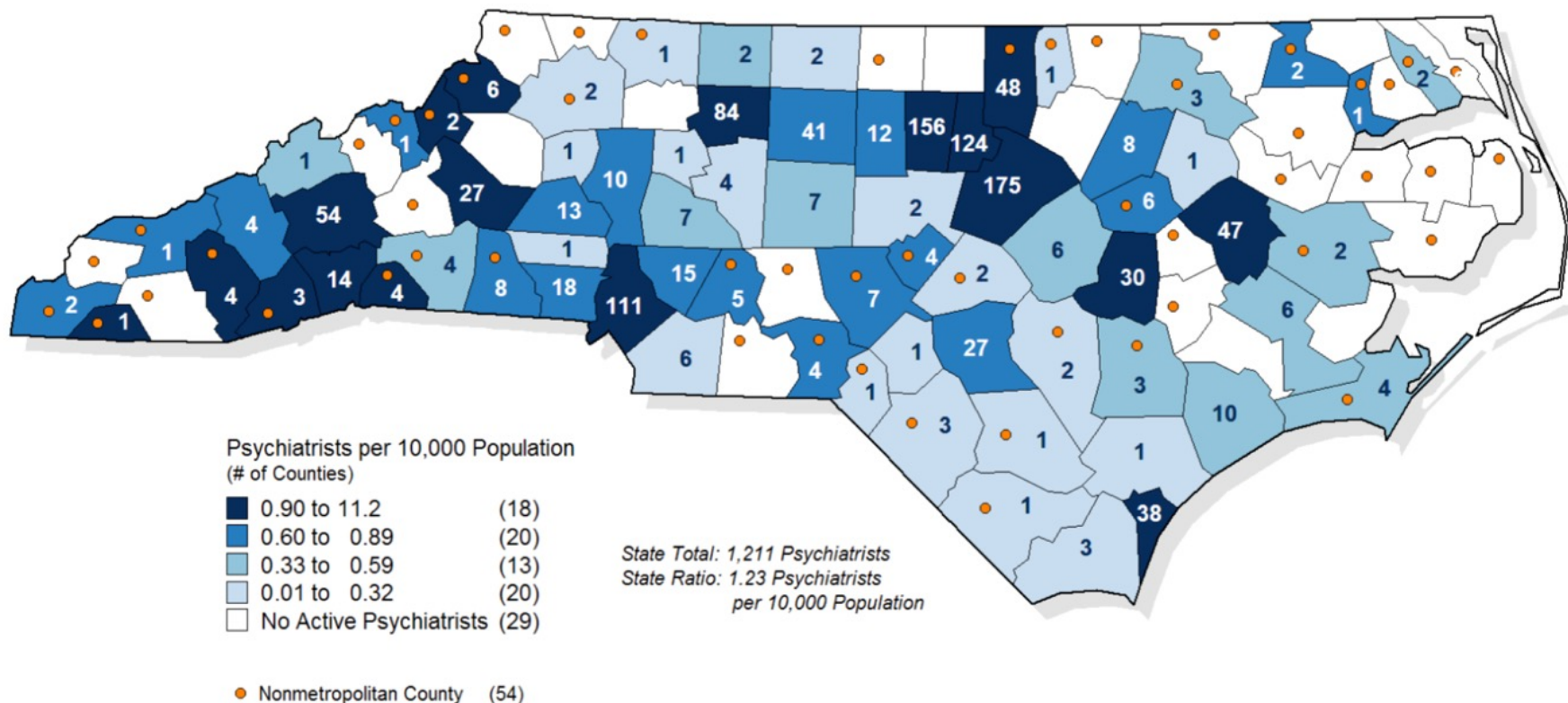
| Census division | Psychiatrists | | Psychologists | | Psychiatric NPs | |
|------------------|------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|
| | Provider/ 100,000 population | % of Counties without provider | Provider/ 100,000 population | % of Counties without provider | Provider/ 100,000 population | % of Counties without provider |
| Overall U.S. | 15.6 | 51 | 30.0 | 37 | 2.1 | 67 |
| Metropolitan | 17.5 | 27 | 33.2 | 19 | 2.2 | 42 |
| Non-metropolitan | 5.8 | 65 | 13.7 | 47 | 1.6 | 81 |
| Micropolitan | 7.5 | 35 | 16.8 | 19 | 2.1 | 60 |
| Non-core | 3.4 | 80 | 9.1 | 61 | 0.9 | 91 |

Andrilla et al / Am J Prev Med 2018;54(6S3):S199–S207



Psychiatrists in rural U.S. counties per 100,000 population by Census Division

Psychiatrists per 10,000 Population North Carolina



Source: North Carolina Health Professions Data System, with data derived from the North Carolina Medical Board, 2013; US Census Bureau and Office of Management and Budget, March 2013.

Note: Data are based on primary practice location and include active, in-state, nonfederal, non-resident-in-training MDs and DOs licensed in NC as of October 31, 2013 who indicate that their primary area of practice is psychiatry, child psychiatry, psychoanalysis, psychosomatic medicine, addiction/chemical dependency, forensic psychiatry or geriatric psychiatry. "Core Based Statistical Area" (CBSA) is the OMB's collective term for Metropolitan and Micropolitan Statistical areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs.

Produced by: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Map labels reflect the number of psychiatrists within the county.

North Carolina Distribution of Psychiatrists and Mental Health Services at the County Level

- 31 out of 100 counties in NC have no psychiatrists
- 13 counties have no active behavioral health provider (BHP)
- According to federal guidelines, 90 counties in North Carolina qualify as Health Professional Shortage Areas

Where can you go if you do not have access to community-based behavioral health care?

- In 2013, NC hospitals had 162,000 behavioral health emergency department visits.¹
- In 2010, patients with mental illness made up about 10 percent of all emergency room visits in North Carolina, and people with mental health disorders were admitted to the hospital at twice the rate of those without.²

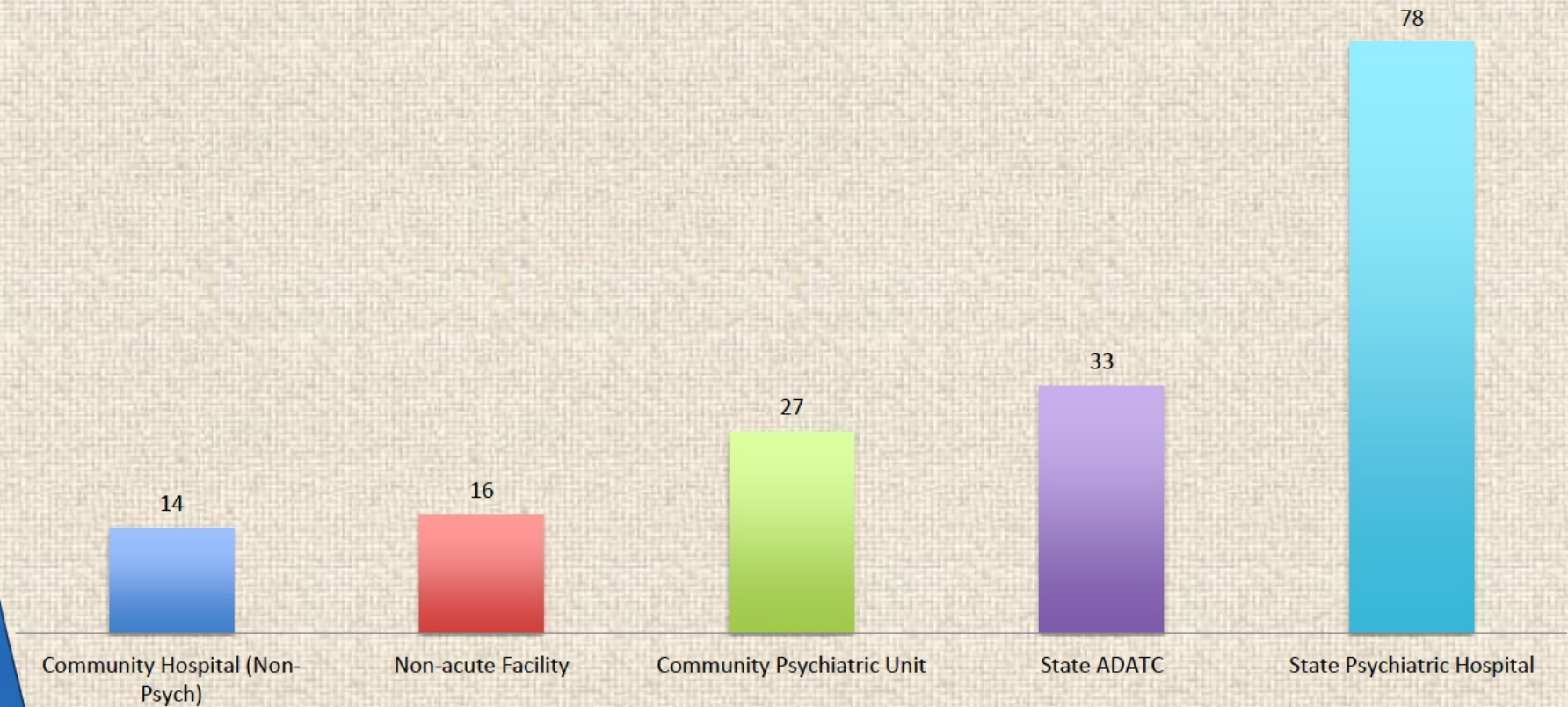
1. NC Hospital Association
2. Study by the Centers for Disease Control

The majority of NC Emergency Departments do not have access to a full-time psychiatrist

- 108 hospitals with either single ED, or in some cases, multiple site EDs across the state with varying degrees of psychiatric coverage.
- The majority of ED's do not have access to a full-time psychiatrist.

How Long Does It Take to Place BH Patients From NC Hospital EDs?

Average ED Length of Stay (ALOS) for Admitted Behavioral Health Patients



Source: NCHA ED Tracker. 2012 Data.

Telepsychiatry can offer help!

Telepsychiatry is defined in the statute as *the delivery of acute mental health or substance abuse care, including diagnosis or treatment, by means of two-way real-time interactive audio and video by a consulting provider at a consultant site to an individual patient at a referring site.*



Demonstrated Benefits of Telepsychiatry

Saeed SA, Diamond J, Bloch RM. (2011)

- ↑ access to mental health services
- ↓ geographic health disparities
- ↑ consumer convenience
- ↓ professional isolation
- ↑ recruiting and retaining MH professionals in underserved
- Improved consumer compliance.
- Improved education of mental health professionals.
- Improved coordination of care across mental health system.
- Reduction of stigma associated with receiving mental health services.

Evidence Supporting the Use of Telepsychiatry

- Telepsychiatry's evidence base is substantial and satisfaction is extremely high among patients, psychiatrists and other professionals.
- Its effectiveness is comparable to in-person care in terms of therapeutic engagement, quality of care, validity/reliability of assessment, and clinical outcomes.
- The evidence base is formidable for children, adolescents and adults regarding assessment (diagnostic, cognitive, other) and treatment (medication, therapy).

The Evidence Base in Telepsychiatry. Available at:

<https://www.psychiatry.org/psychiatrists/practice/telepsychiatry/toolkit/evidence-base>.

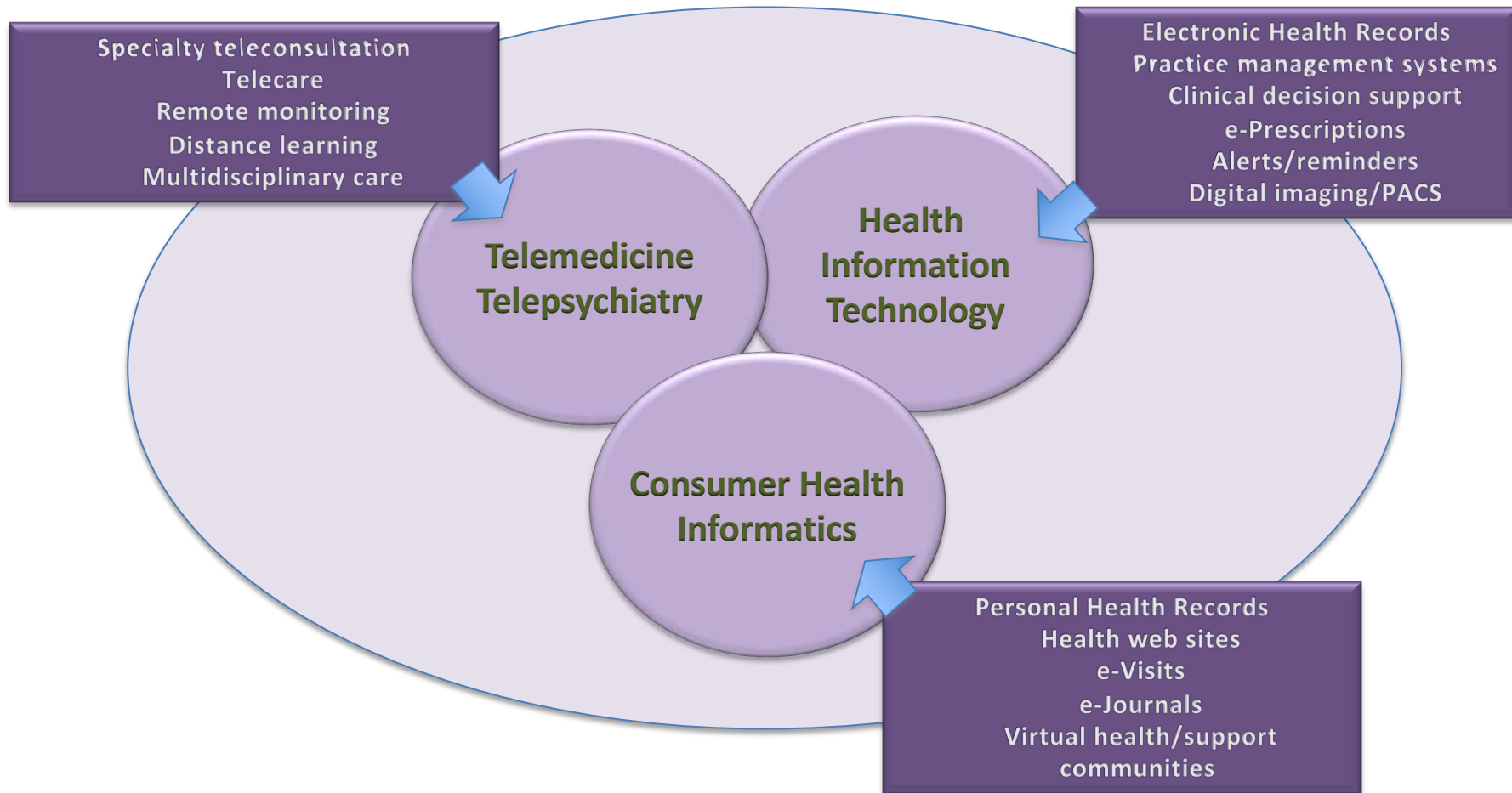
Accessed January 7, 2020.

Evidence Supporting the Use of Telepsychiatry

- Empirical evidence on the use and effectiveness of telepsychiatry services across the lifespan has been reviewed and substantiated by several investigators.^{1,2}
 - Descriptive articles looking at acceptance, satisfaction, feasibility, and cost.
 - Studies comparing telepsychiatry to services provided in-person.
 - Such studies show the outcomes to be generally similar as in treatment provided face-to-face and the acceptance of telepsychiatry to be generally good.

1. Bashshur RL, Shannon GW, Bashshur N' and Yellowlees PM. (2016). The Empirical Evidence for Telemedicine Interventions in Mental Disorders. *Telemed J E Health*. 2016 Feb 1; 22(2): 87–113.
2. Antonacci DJ, Bloch RM, Saeed, SA, Yildirim Y, Talley J. (2008). Empirical evidence on the use and effectiveness of telepsychiatry via videoconferencing: implications for forensic and correctional psychiatry. *Behavioral Sciences and the Law*: 26:253–269.

Connected Health (Saeed and Anand, 2015)





NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM





NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

Developed in response to Session Law 2013-360.

- G.S. 143B-139, 4B
- Recodified as G.S. 143B-139.4B(a)(1b) by Session Laws 2018-44, s. 15.1, effective July 1, 2018



GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013

FILED SENATE
Mar 28, 2013
S.B. 562
PRINCIPAL CLERK

S

D

SENATE DRS35201-MGa-106 (03/15)

Short Title: Establish Statewide Telepsychiatry Program. (Public)

Sponsors: Senator Hise (Primary Sponsor).

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT REQUIRING THE DEPARTMENT OF HEALTH AND HUMAN SERVICES,
3 DIVISION OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES, AND
4 SUBSTANCE ABUSE SERVICES, TO DEVELOP AND ESTABLISH A STATEWIDE
5 TELEPSYCHIATRY PROGRAM.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013

H.B. 580
Apr 4, 2013
HOUSE PRINCIPAL CLERK

H

D

HOUSE DRH10217-MGa-106B* (03/15)

Short Title: Establish Statewide Telepsychiatry Program. (Public)

Sponsors: Representatives Martin, Burr, Avila, and Lambeth (Primary Sponsors).

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT REQUIRING THE DEPARTMENT OF HEALTH AND HUMAN SERVICES,
3 DIVISION OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES, AND
4 SUBSTANCE ABUSE SERVICES, TO DEVELOP AND ESTABLISH A STATEWIDE
5 TELEPSYCHIATRY PROGRAM.



North Carolina Department of Health and Human Services

Pat McCrory
Governor

Aldona Z. Wos, M.D.
Ambassador (Ret.)
Secretary DHHS

August 15, 2013

The Honorable Louis Pate, Co-Chair
Joint Legislative Oversight Committee on
Health and Human Services
Room 1028, Legislative Building
Raleigh, NC 27601

The Honorable Justin Burr, Co-Chair
Joint Legislative Oversight Committee on
Health and Human Services
Room 307A, Legislative Office Building
Raleigh, NC 27603-5925

The Honorable Nelson Dollar, Co-Chair
Joint Legislative Oversight Committee on
Health and Human Services
Room 307B1, Legislative Office Building
Raleigh, NC 27603-5925

Dear Senator Pate and Representatives Burr and Dollar:


Along with this letter, as directed by Section 12A.2B.(a) of Session Law 2013-360, I am submitting to you a plan to implement a Statewide Telepsychiatry Program to be administered by East Carolina University Center for Telepsychiatry and e-Behavioral Health (ECU), pursuant to and subject to the requirements of a contract between the Department of Health and Human Services (DHHS) and ECU.

The objective of this Statewide Telepsychiatry Program is to ensure that individuals experiencing an acute mental health or substance abuse crisis who present to an ED, receive timely specialized psychiatric treatment in coordination with available and appropriate clinically relevant community resources. Telepsychiatry offers opportunities for enhancing access, availability, and quality of mental health and substance abuse care provided to our citizens.

This report includes a timeline with specific steps for program implementation, a plan for oversight and monitoring by DHHS, a budget and associated narrative, and requirements for liability coverage related to participation in the program. As this program will be administered pursuant to a contract which has yet to be negotiated, some changes may occur. We will keep you updated as this process continues.

If you have any questions, please contact Robin Cummings, M.D., Deputy Secretary of Health, at robin.cummings@dhhs.nc.gov.

Sincerely,


Aldona Wos, M.D.

www.ncdhhs.gov
Telephone 919-855-4800 • Fax 919-715-4645
Location: 101 Blair Drive • Adams Building • Raleigh, NC 27603
Mailing Address: 2001 Mail Service Center • Raleigh, NC 27699-2001
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North Carolina Department of Health and Human Services

Pat McCrory
Governor

Aldona Z. Wos, M.D.
Ambassador (Ret.)
Secretary DHHS

August 15, 2013

The Honorable William Brisson, Chair
Appropriations Subcommittee on Health
and Human Services
North Carolina House of Representatives
Room 405, Legislative Office Building
Raleigh, NC 27603

The Honorable Marilyn Avila, Chair
Appropriations Subcommittee on Health
and Human Services
North Carolina House of Representatives
Room 2217, Legislative Building
Raleigh, NC 27601

The Honorable Mark Hollo, Chair
Appropriations Subcommittee on Health
and Human Services
North Carolina House of Representatives
Room 639, Legislative Office Building
Raleigh, NC 27603

Dear Representatives Brisson, Avila, and Hollo:


Along with this letter, as directed by Section 12A.2B.(a) of Session Law 2013-360, I am submitting to you a plan to implement a Statewide Telepsychiatry Program to be administered by East Carolina University Center for Telepsychiatry and e-Behavioral Health (ECU), pursuant to and subject to the requirements of a contract between the Department of Health and Human Services (DHHS) and ECU.

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Statewide Telepsychiatry Program Plan

Section 12A.2B of North Carolina Session Law 2013-360

submitted to

Senate Appropriations Committee on Health and Human Services
 House Appropriations Subcommittee on Health and Human
 Services
 Joint Legislative Oversight Committee on Health and Human
 Services
 Fiscal Research Division

by

N.C. Department of Health and Human Services

August 15, 2013

North Carolina Telepsychiatry Workgroup

| Member | Organization |
|-----------------------|--|
| Steve Clark | Albemarle Hospital |
| Sheila Davies | Albemarle Hospital Foundation |
| Phil Donahue | Albemarle Hospital Foundation |
| Dillon Carter | Campbell University |
| Will Woodell | Cardinal Innovations LME/MCO |
| Katie Kaney | Carolinas Healthcare |
| Chris Rich | Carolinas Healthcare |
| Jennifer Sarafin | Carolinas Healthcare |
| Wayne Sparks | Carolinas Healthcare |
| Dr. Mike Lancaster | Community Care of North Carolina |
| Jerold Greer | Daymark Recovery |
| Billy West | Daymark Recovery |
| Dr. Richard D'Alii | Duke University |
| Dr. Marvin Swartz | Duke University |
| Dr. Mike Kupecki | East Carolina Behavior Health LME/MCO |
| Michelle Brooks | East Carolina University |
| Brian Jowers | East Carolina University |
| Dr. Sy Saeed | East Carolina University |
| Karen Salacki | Eastpointe LME/MCO |
| Bryan Arkwright | Mission Health System |
| Dr. Art Eccleston | NC DHHS, Division of Mental Health |
| Dr. Nena Lekwauwa | NC DHHS, Division of Mental Health |
| Dr. Randall M Best | NC DHHS, Division of Medical Assistance |
| Courtney M. Cantrell | NC DHHS, Division of Medical Assistance |
| Carol Steckel | NC DHHS, Division of Medical Assistance |
| Chris Scarboro | NC Health Information Exchange |
| Mark Bell | NC Hospital Association |
| Jody Fleming | NC Hospital Association |
| Erica Nelson | NC Hospital Association |
| Mike Vicario | NC Hospital Association |
| Irene Watts | NC Hospital Association |
| Dr. Robin Cummings | NC Office of Rural Health and Community Care |
| Roy Gilbert | NC Office of Rural Health and Community Care |
| Jay Kennedy | NC Office of Rural Health and Community Care |
| Jo Haubenreiser | Novant Health |
| Anthony Ward | Sand Hills Center LME/MCH |
| Dennis Barry | Secretary's Office, DHHS |
| Dr. Jack Naftel | UNC Chapel Hill |
| Dr. Donald Rosenstein | UNC Chapel Hill |
| Daniel Van Lier | Vidant Health |
| Steve Scoggin | Wake Forest Baptist Health, CareNet |



North Carolina Gov. Pat McCrory speaks during a press conference on the announcement of a statewide Telepsychiatry Plan at the East Carolina School of Dental Medicine on Friday, August 16, 2013 in Greenville, N.C. *Rhett Butler, AP*

“No matter where you live in North Carolina, you will soon have better access to mental health providers with the expansion of telepsychiatry across our state. Technology will help us connect people with appropriate treatment programs so patients can avoid long waits in the emergency room. North Carolina can be a national leader with this program.”

— Governor Pat McCrory



NC DHHS rolls out details of statewide telepsychiatry plan

Posted on [August 16, 2013](#) – [Caitlin Byrd](#)

Press release

From the office of Gov. Pat McCrory:

Raleigh, N.C. – Governor Pat McCrory and Health and Human Services Secretary Aldona Wos, M.D., joined leaders of East Carolina University in Greenville today to announce the details of a statewide telepsychiatry plan. The plan will improve access to mental health professionals and help an increasing number of North Carolinians.

“No matter where you live in North Carolina, you will soon have better access to mental health providers with the expansion of telepsychiatry across our state,” said Governor McCrory. “Technology will help us connect people with appropriate treatment programs so patients can avoid long waits in the emergency room. North Carolina can be a national leader with this program.”

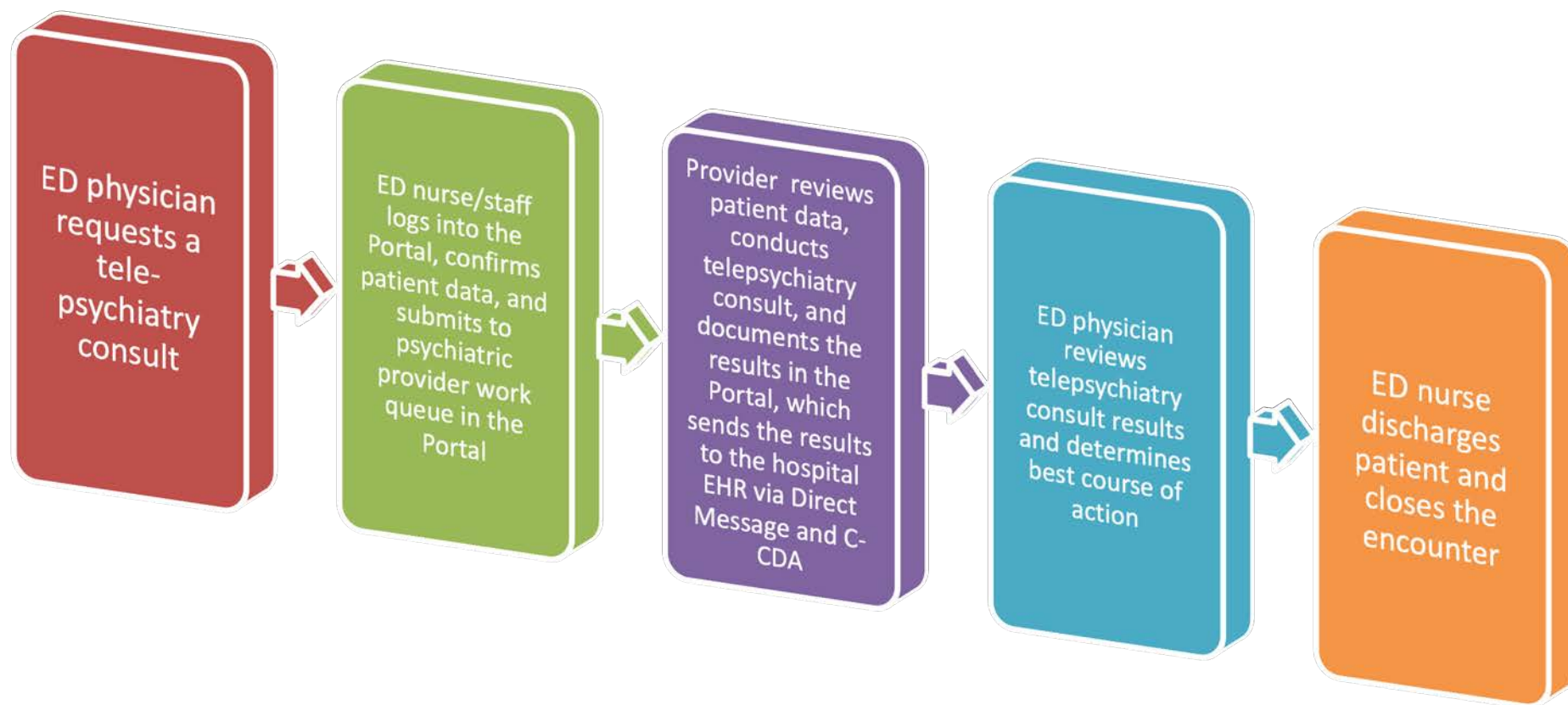


Aldona Wos, Secretary of the N.C. Department of Health and Human Services (standing), and Governor Pat McCrory at ECU in August 2013; Photo courtesy of the Office of the Governor

NC- STeP Vision

If an individual experiencing an acute behavioral health crisis enters an emergency department, s/he will receive timely specialized psychiatric treatment through the statewide network in coordination with available and appropriate clinically relevant community resources.

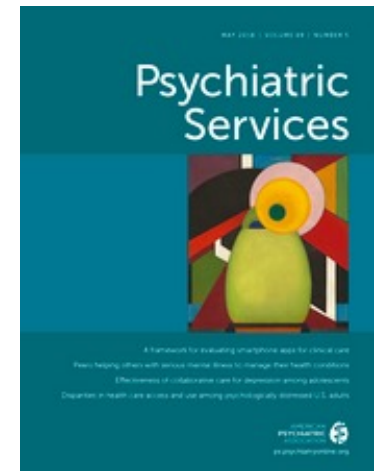
Workflow for the Portal



Telepsychiatry Portal

- Support all the HIT functions required of NC-STeP
- The portal is a group of separate but related technologies that serves as the primary interface through which data is reviewed and created regarding patient encounters, including:
 - Scheduling of patients and providers
 - Exchanging clinical data for patient care
 - Collection of encounter data to support the needs of network managers and billing agents and to support timely referrals

TECHNOLOGY IN MENTAL HEALTH



Successfully Navigating Multiple Electronic Health Records When Using Telepsychiatry: The NC-STeP Experience

Sy Atezaz Saeed, M.D., M.S.

Telepsychiatry is a viable option for providing psychiatric care to those who are currently underserved or who lack access to services, but barriers to its widespread utilization remain. Use of different electronic health record systems (EHRs) by various health care systems is one such barrier. Utilization of different EHRs makes it difficult for providers to review patient data and to document clinical encounters. This column describes a Web

portal developed by the North Carolina Statewide Telepsychiatry Program that connects participating hospital emergency departments and remote psychiatric providers, allowing them to share secure electronic health information regarding patient encounters across different EHRs.

Psychiatric Services 2018; 69:948–951; doi: 10.1176/appi.ps.201700406

Original Paper | Published: 14 December 2017

Tower of Babel Problem in Telehealth: Addressing the Health Information Exchange Needs of the North Carolina Statewide Telepsychiatry Program (NC-STeP)

[Sy Atezaz Saeed](#) 

Psychiatric Quarterly **89**, 489–495(2018) | [Cite this article](#)

427 Accesses | **2** Citations | **1** Altmetric | [Metrics](#)

Abstract Telepsychiatry is a viable option for providing psychiatric care to those who are currently underserved or who lack access to services. While the current technology is adequate for most uses, and continues to advance, there remain barriers to its widespread utilization. One such barrier when working with different healthcare systems is that they utilize different electronic medical record systems (EMRs). This paper describes the experience of the North Carolina Statewide Telepsychiatry Program (NC-STeP) with this problem and how the program successfully resolved it by establishing a web portal that connects participating hospital emergency departments and remote psychiatric providers to share secure electronic health information regarding patient encounters across different EMRs. The Portal also facilitates scheduling, status tracking, and reporting on each patient encounter, as well as delivers the necessary data for the billing to process charges for each consult and to administrators for the operation of the program. The portal effectively bridges the needs of the multiple actors in the telepsychiatry virtual encounter. It provides an efficient experience for the patient and the point-of-care provider, a reliable document exchange for the psychiatric provider, and effective record keeping for the billing and government entities.

Volume 89 • Number 2 • June 2018

Psychiatric
Quarterly

 Springer
1534-6209 (print)
1573-2780 (online)



North Carolina Telepsychiatry Program

2020 Profile (Data from State Fiscal Year 2020 and current as of 6/30/2020)

Program Facts*

\$1.8M

Annual grant State appropriation and carry forward from the General Assembly to NC-SteP

\$200K

Program support in funding from North Carolina Department of Information Technology

54

Participating Consultant providers

47 | **24**
Average | Median
Length of stay of IVC
in hours

53

Total number of Telepsychiatry referring sites

6,091

Total number of involuntary commitments (IVCs) that were overturned since SFY 2013

18,233

Total number of reports of involuntary commitment since SFY 2013

43,025

Assessments provided since SFY 2013

Overview

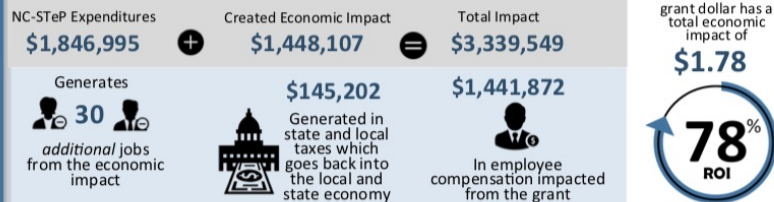
There are 94 counties in NC that are classified as Mental Health Shortage Areas (an increase from 90 in SFY 2019). Though, not designated, there are additional counties that have a very low supply of mental health professional in proportion to the population.

The N.C. Statewide Telepsychiatry Program (NC-SteP) was developed in response to Session Law 2013-360, directing ORH to oversee a statewide telepsychiatry program. The program was instituted so that an individual presenting at a hospital emergency department with an acute behavioral health crisis will receive a timely specialized psychiatric assessment via video conferencing technology. General Statute 143B-139.4B, subsequently, has expanded NC-SteP services to include community-based sites. As of SFY 2020, there are eight community-based sites serving patients' behavioral health needs.

Overall, the program has generated cost savings that are counted from overturned involuntary commitments, which benefitted state psychiatric facilities, hospitals, law enforcement agencies, Medicare, Medicaid, and many other stakeholders. Specific to state psychiatric facilities, the program has achieved estimated cumulative cost savings of \$32,891,400.

Return On Investment and Economic Impact

Source: IMPLAN



*Economic impact is estimated to be much greater because improved health outcomes can lead to fewer missed work days, reduced health care costs, and reduced premature morbidity and mortality. Some expenses such as out of state purchases, overhead, and rollover payments are not captured for ROI and economic impact.

This use of technology can reduce patients' length of stay in the emergency department (which can last for days in some cases) and **overturn unnecessary involuntary commitments (IVCs)**, thereby reducing the burden on staff and reducing costs to the state and federal governments, as well as the private sector.

The expansion into community-based settings will reduce costs by engaging 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 costs savings are realized by preventing an IVC from occurring. This upstream approach works to address health issues before it progresses to high-cost service and time, for both individual and provider.

34%

Involuntary Commitments Overturned



910 patients avoided unnecessary hospitalizations due to overturned IVCs in SFY 2020

<https://www.ncdhhs.gov/media/9353/download>
Accessed August 19, 2021

*Grantee reported measures were impacted by the COVID-19 Pandemic in Quarters 3 and 4



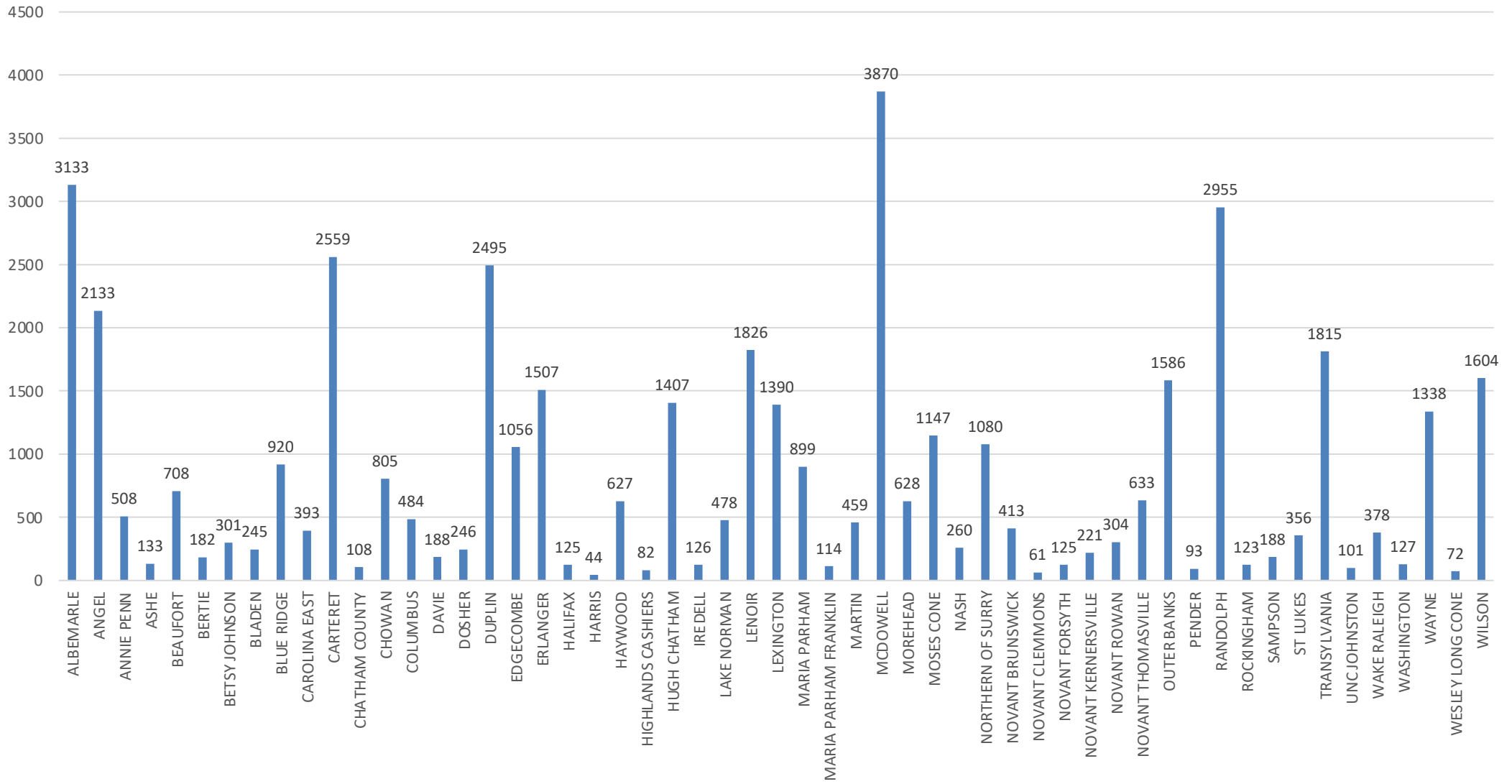
NC-STeP Status as of June 30, 2021

- 41 hospitals in the network. 40 live.
- 48,322 total psychiatry assessments since program inception
- 7,339 IVCs overturned
 - Cumulative return on investment = \$39,630,600
(savings from preventing unnecessary hospitalizations)
- Six Clinical Provider Hubs with 42 consultant providers
- Administrative costs below industry standard
- Over 33% of the patients served had no insurance coverage

NC-STeP Status as of June 30, 2021

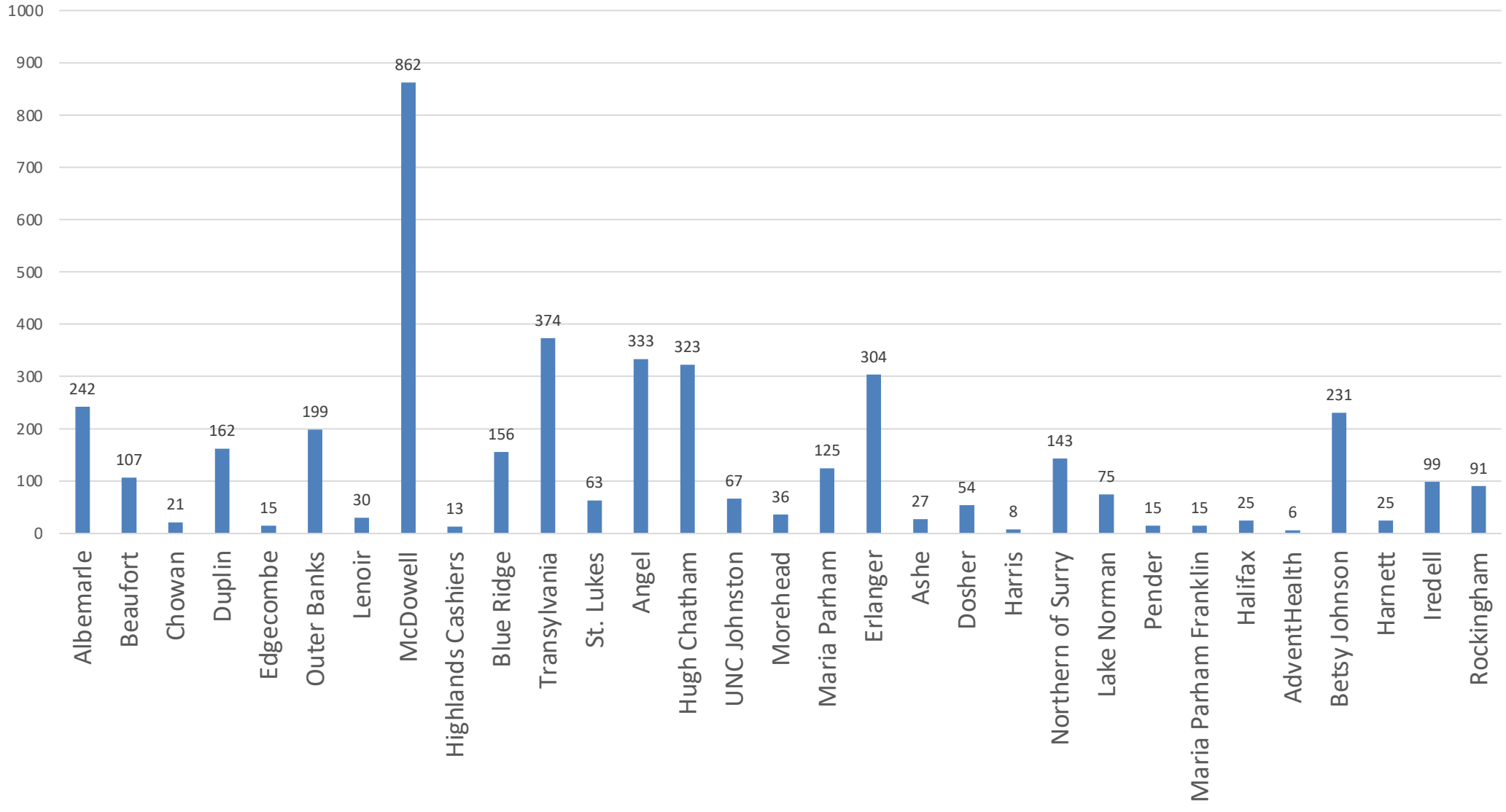
- 16 community-based sites.
- 8,191 total patient visits since program inception in October 2018.
 - 944 total patient visits with a psychiatrist
 - 7,247 total patient visits with a mid-level provider

Number of NC-STeP Assessments by Hospital as of December 31, 2020 (since project inception November 2013)

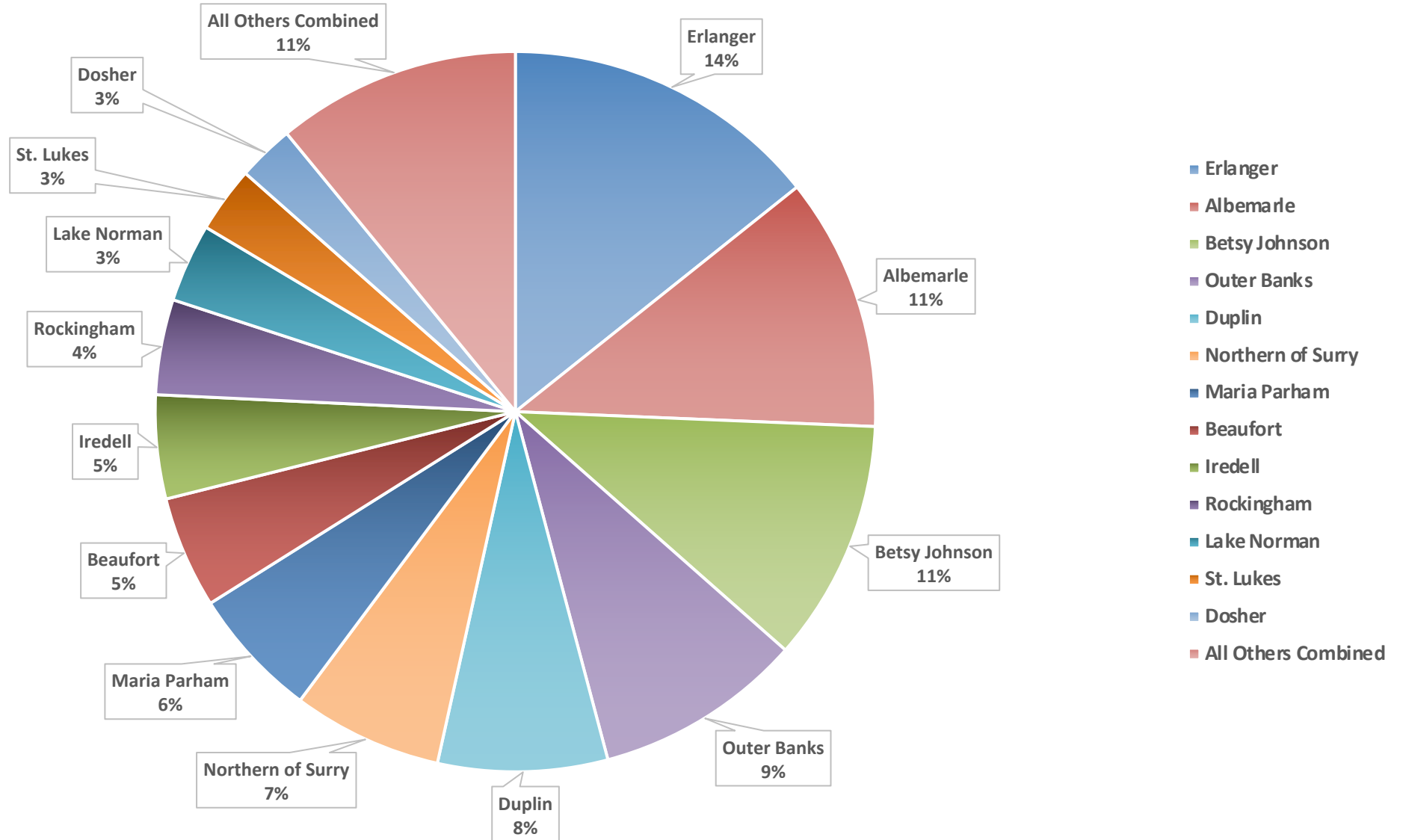


Note: Hospitals with a count of less than 20 are not shown (Harnett, Med Center High Point, Alamance, Advent Health, Our Community, Swain, Person, Forsyth, Yadkin, and Pungo)

Number of NC-STeP Patients by Hospital January - December 2020

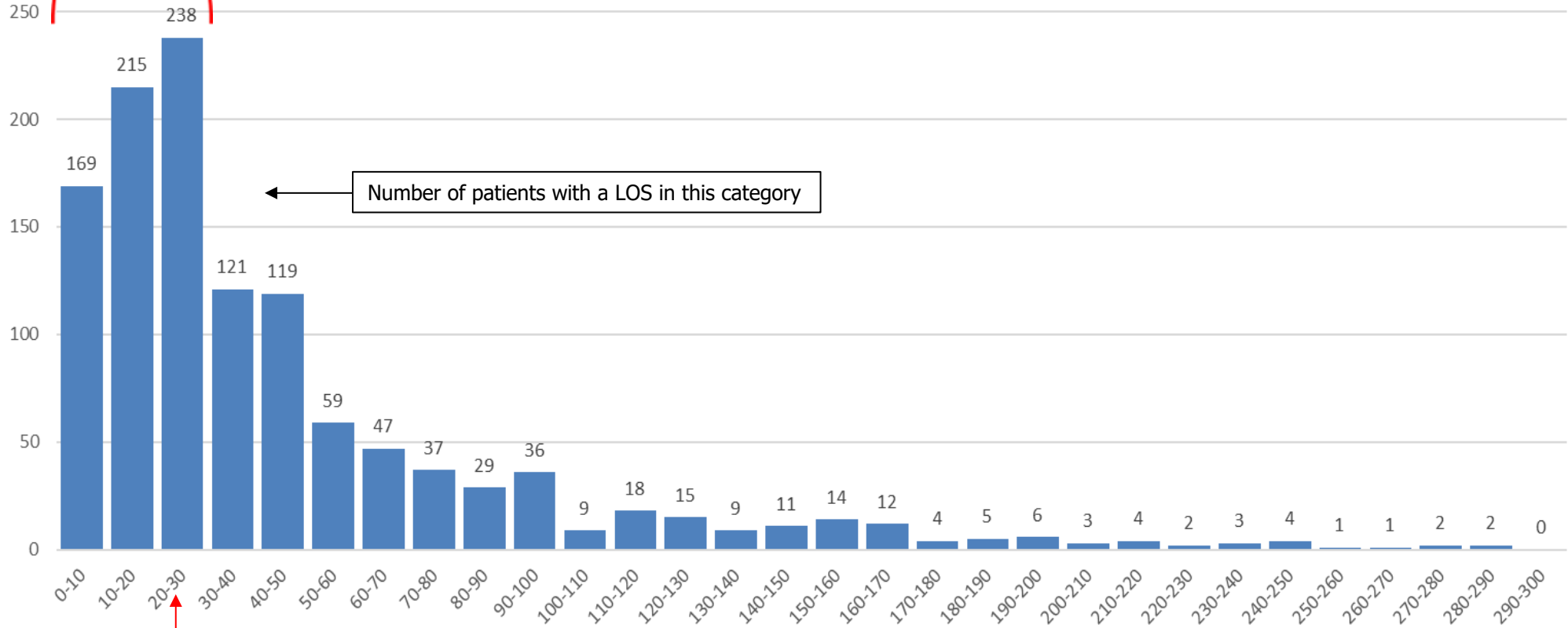


Percent of Use by Model 1 Hospital Jan - Dec 2020 (based on number of patient encounters)



51% percent of patients had a LOS of 30 hours or less

Number of NC-SteP Patients by LOS Category Apr - Jun 2021 in hours

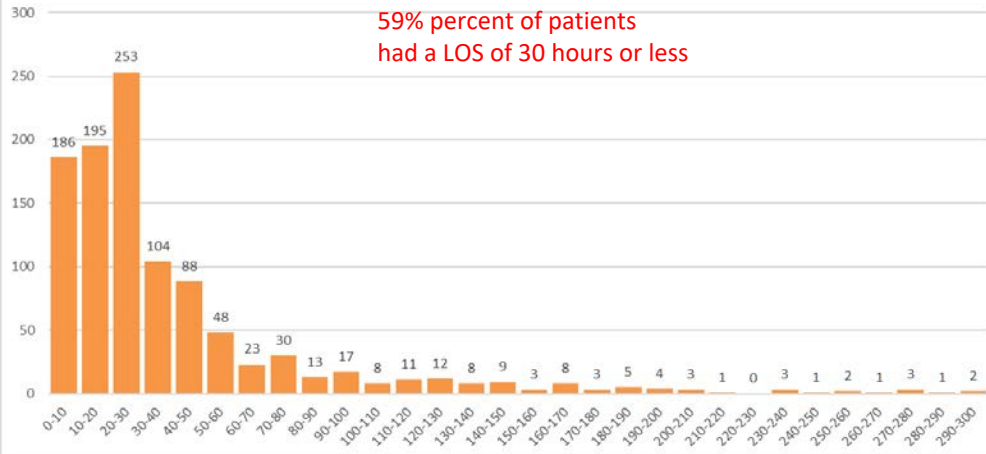


Median Length of Stay for Apr-Jun 2021 = 29 Hours

18 patients had a LOS longer than 300 hours

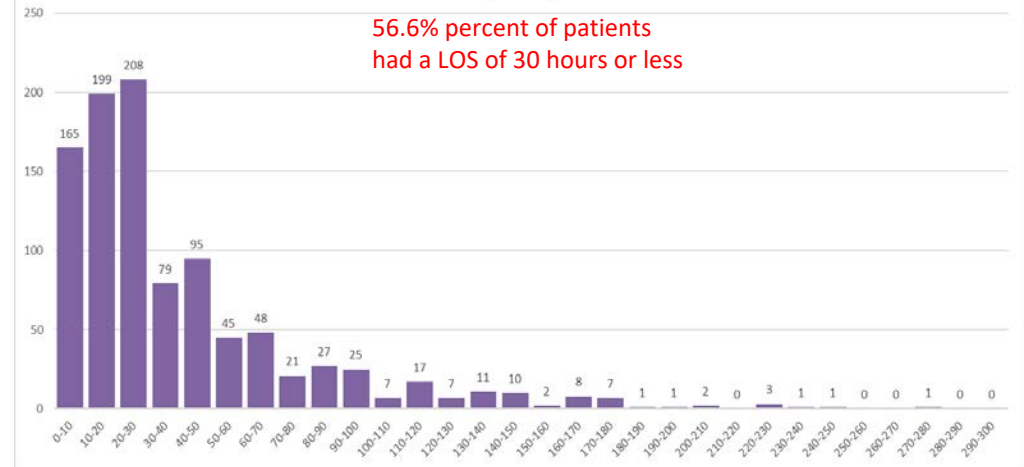
Number of NC-STEP Patients by LOS Category
Oct - Dec 2020
 in hours

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



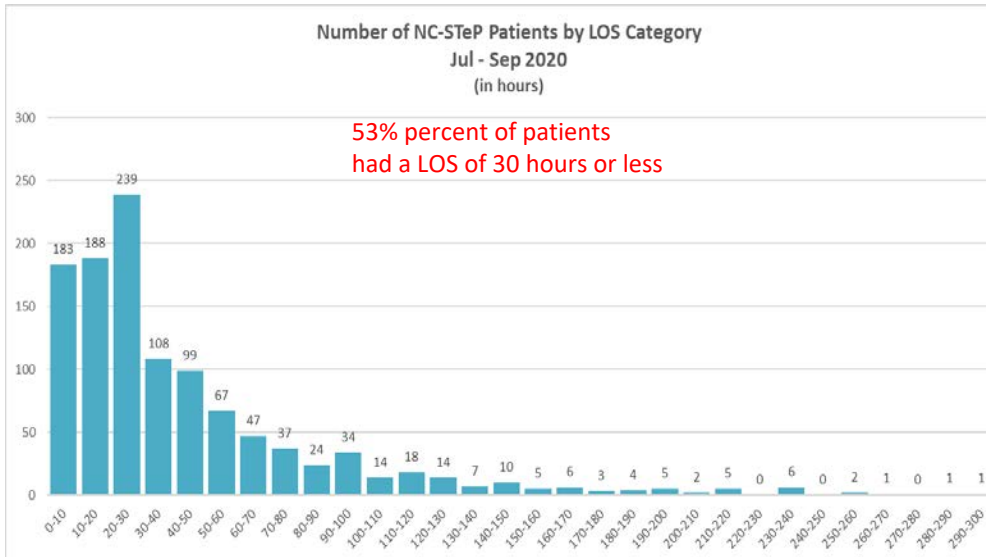
Number of NC-STEP Patients by LOS Category
Jan-Mar 2020
 (in hours)

56.6% percent of patients
 had a LOS of 30 hours or less



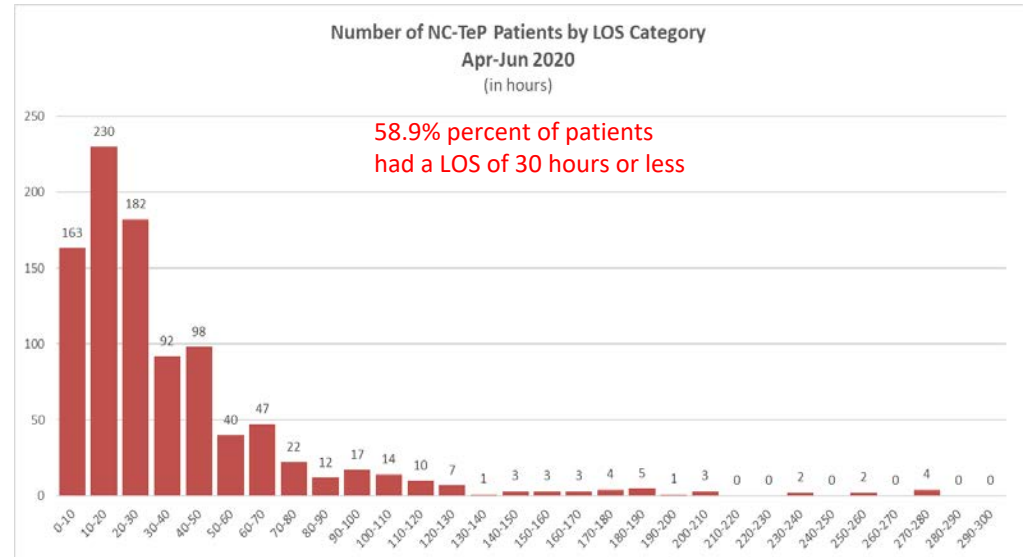
Number of NC-STEP Patients by LOS Category
Jul - Sep 2020
 (in hours)

53% percent of patients
 had a LOS of 30 hours or less



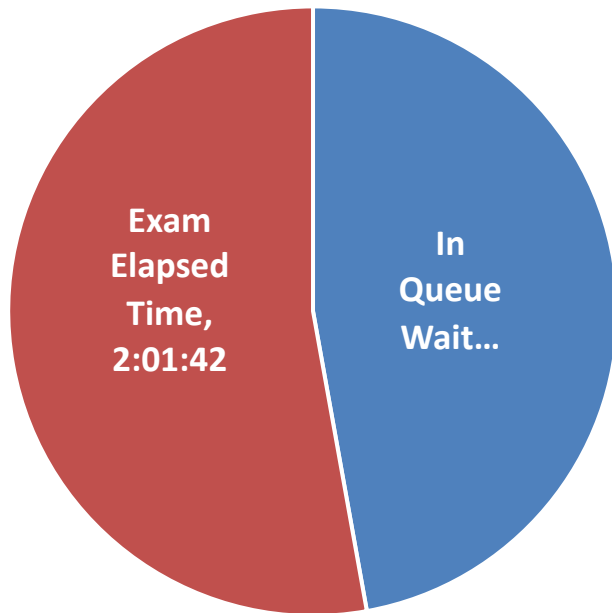
Number of NC-STEP Patients by LOS Category
Apr-Jun 2020
 (in hours)

58.9% percent of patients
 had a LOS of 30 hours or less

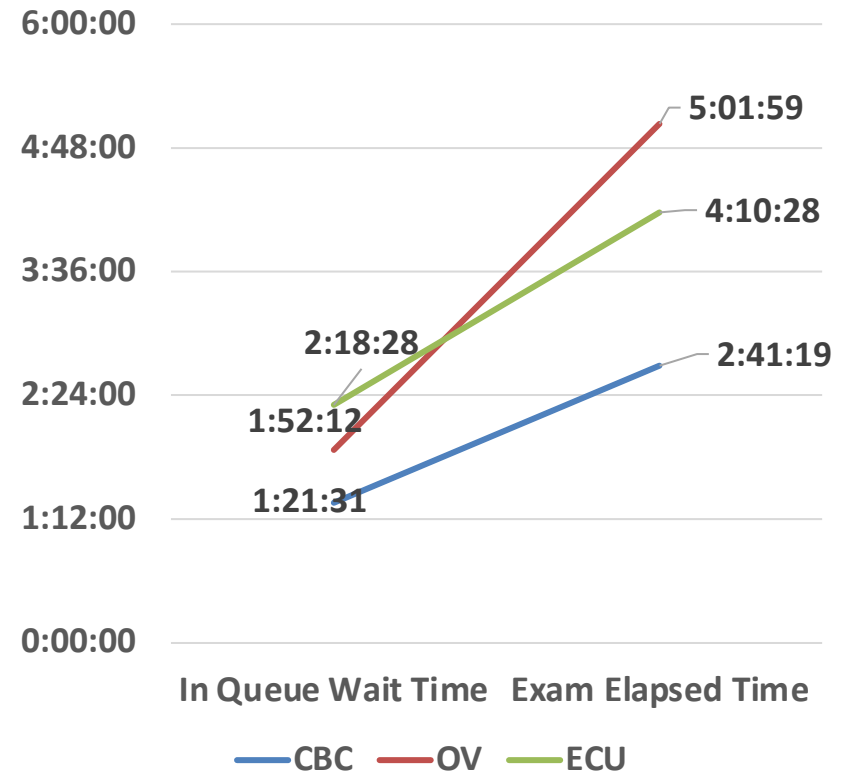


Consult Elapsed Time: January - December 2020

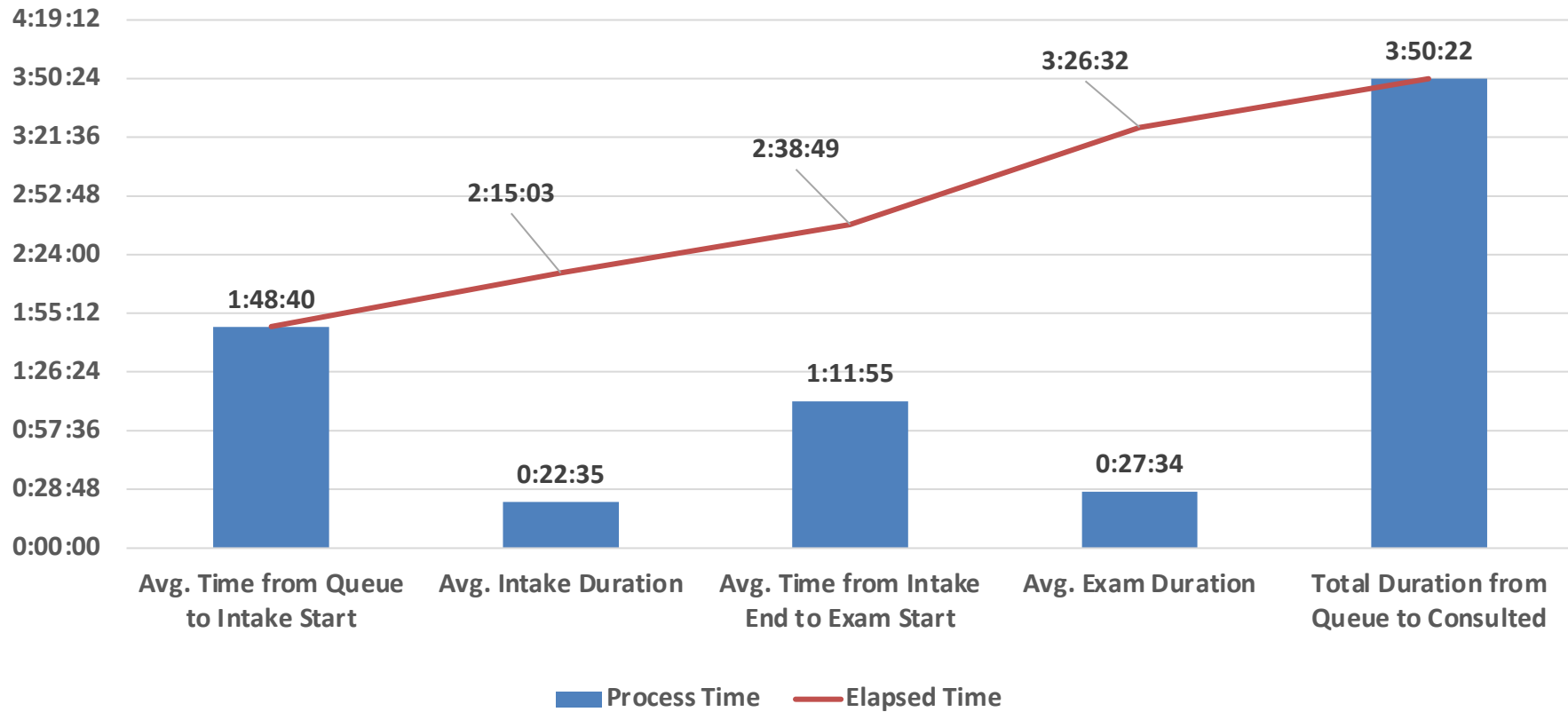
CBC, OV & ECU
Average Consult Elapsed Time
In Queue to Exam Complete
CY2020 (3:50:22)



Comparison CBC, OV & ECU
Average Consult Elapsed Time
CY2020 (hh:mm:ss)

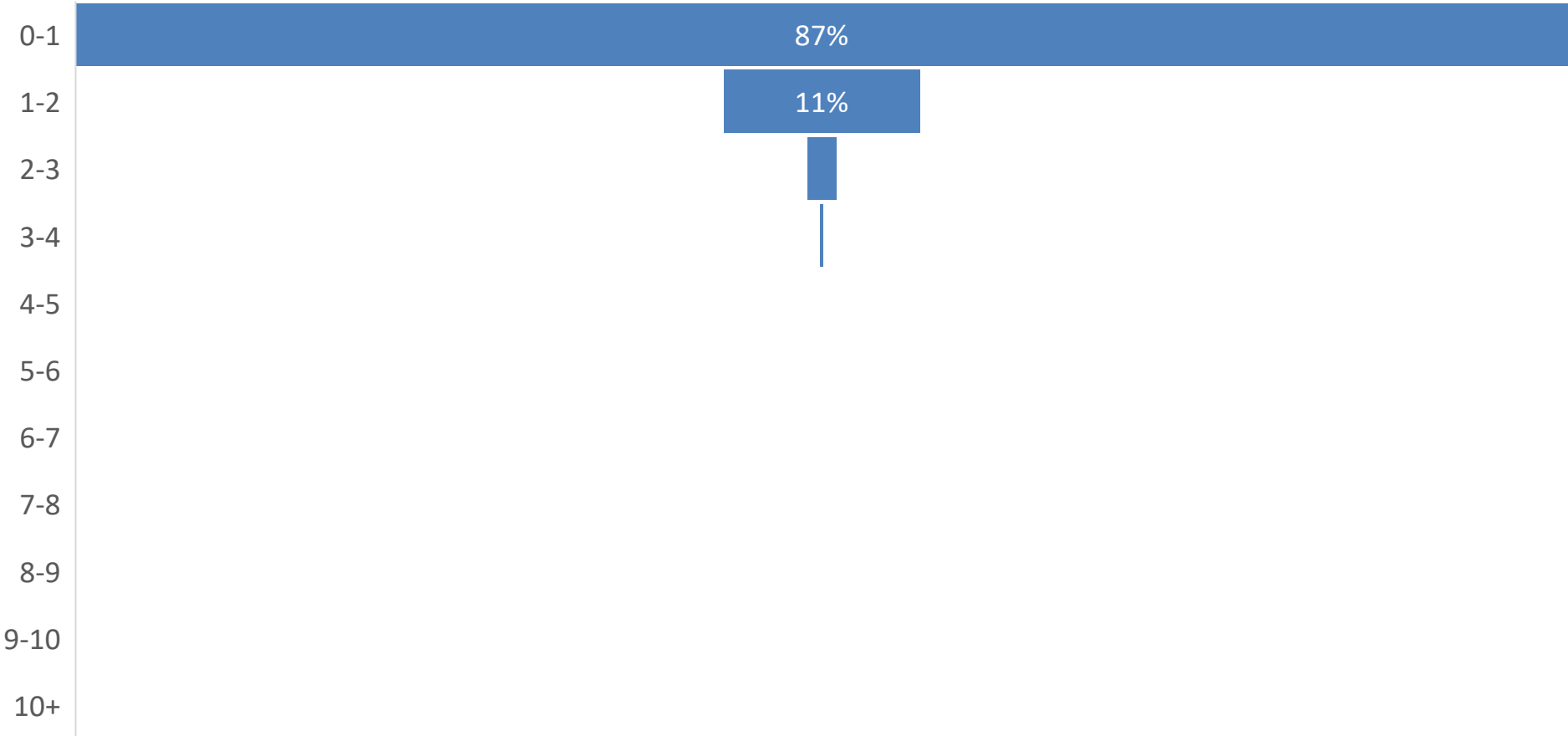


Key Processes and Elapsed Times Averages CBC, OV, ECU: January - December 2020

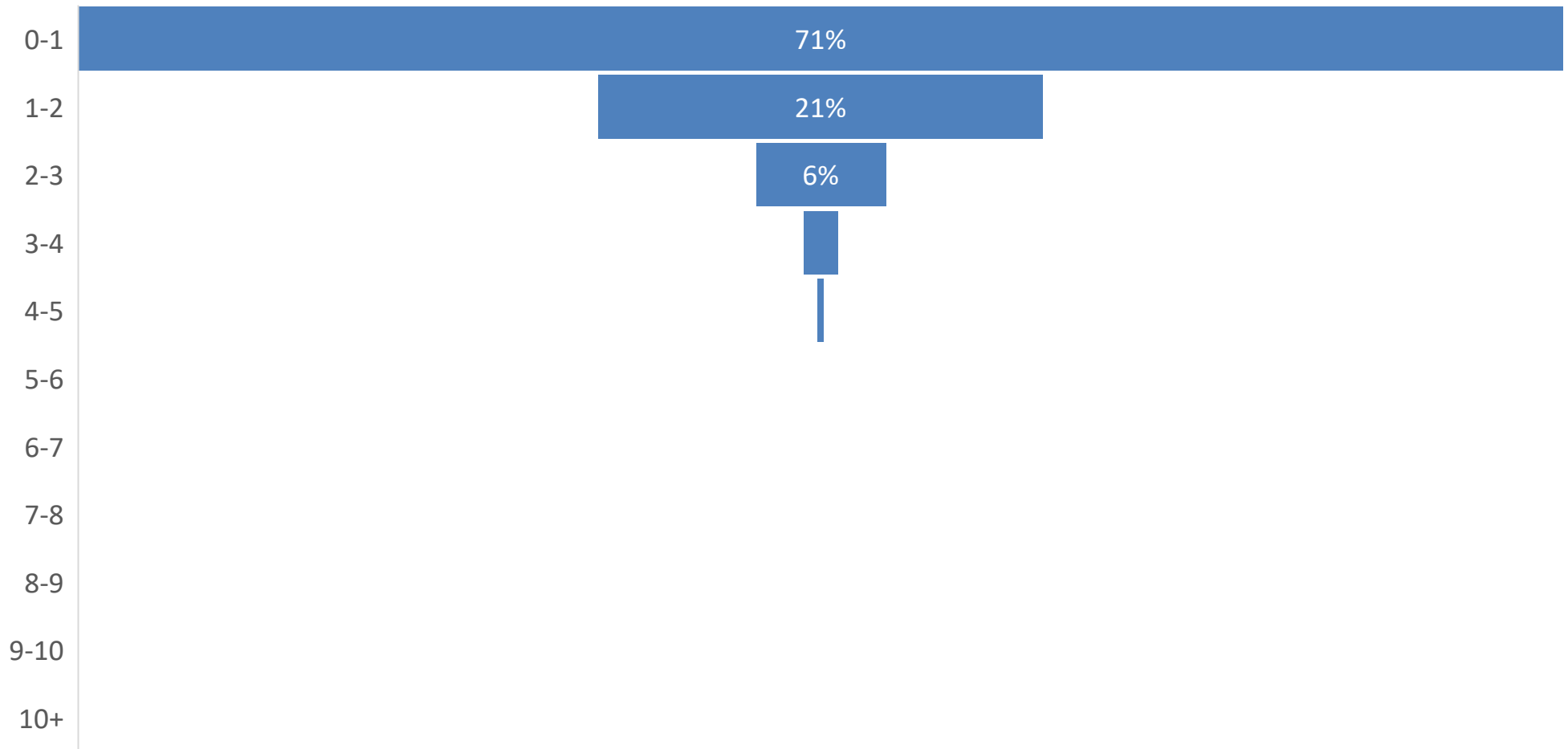


Carolina Behavioral Care Weekday
Intake Complete to Exam Start Duration (in hours)

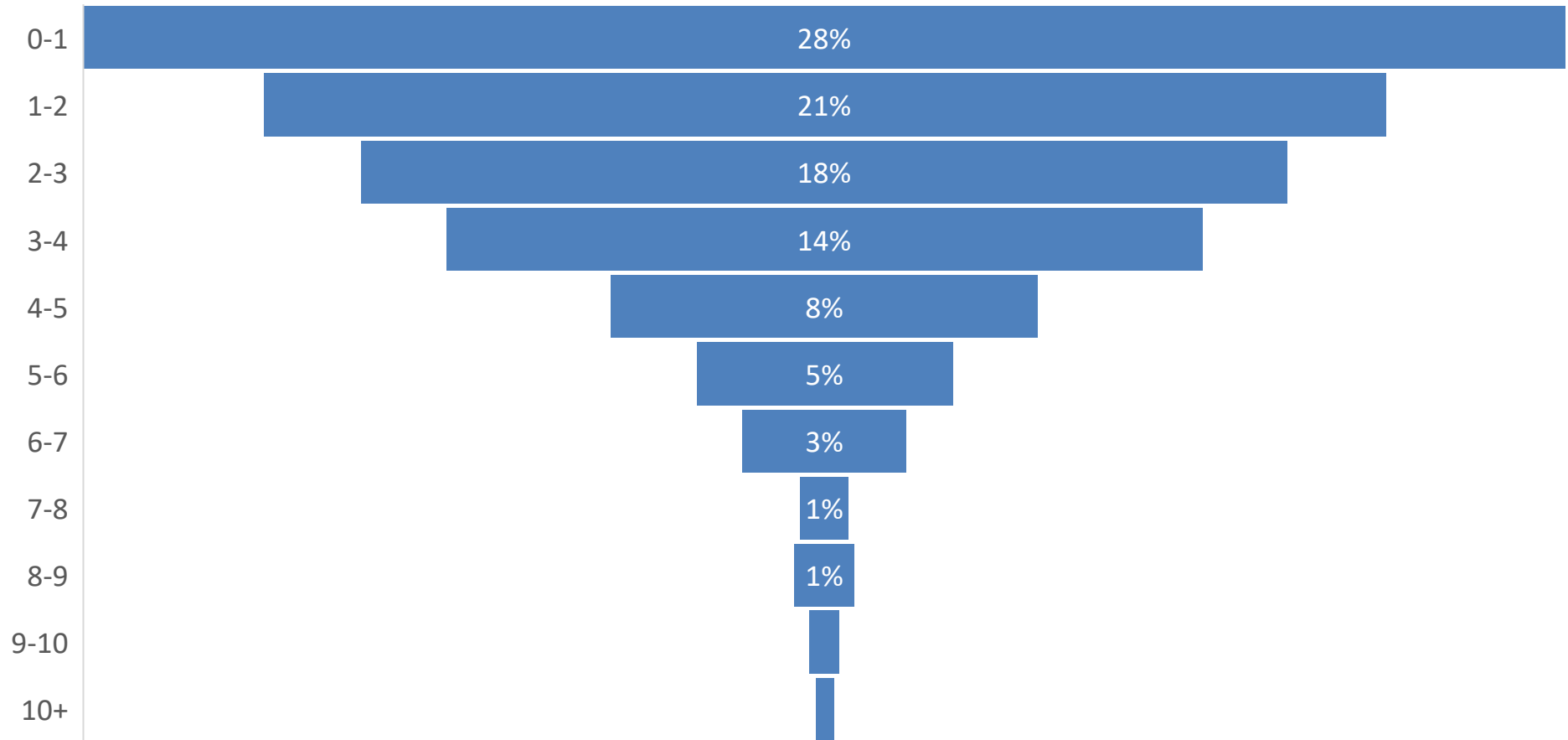
01/01/2020 - 12/31/2020



Weekend (CBC & ECU)
Intake Complete to Exam Start Duration (in hours)
01/01/2020 – 12/31/2020

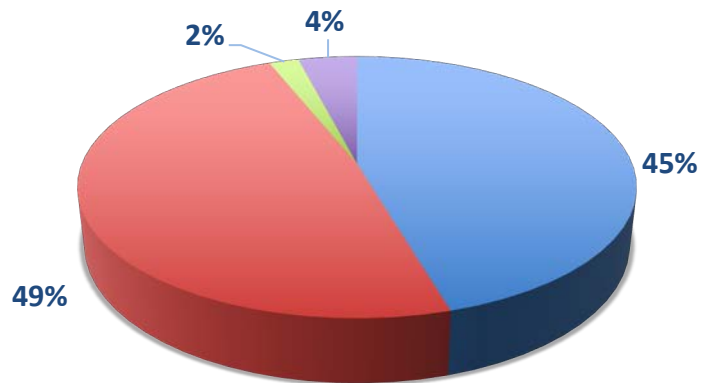


Old Vineyard Behavioral Health Services
Intake Complete to Exam Start Duration (in hours)
01/01/2020 - 12/31/2020



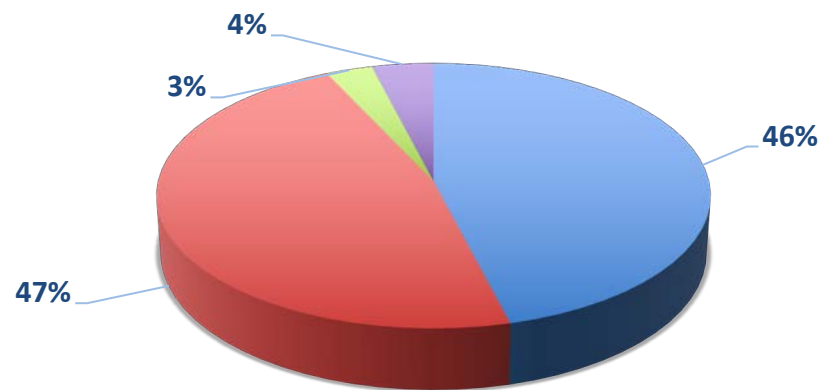
Percent of Patients by Discharge Disposition

Apr-Jun 2021



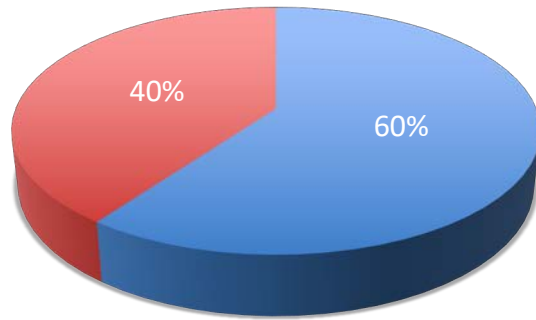
■ Home ■ Transfer ■ Admit ■ Other

Jan-Mar 2021



■ Home ■ Transfer ■ Admit ■ Other

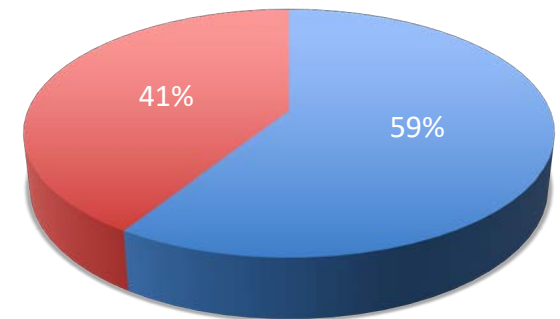
Apr-Jun 2021



IVCs – By Release Status

- IVCs - percent not released
- IVCs - percent released

Jan-Mar 2021



The Impact of the North Carolina Statewide Telepsychiatry Program (NC-STeP) on Patients' Dispositions From Emergency Departments

Radhika Jamanadas Kothadia, M.D., Katherine Jones, Ph.D., Sy Atezaz Saeed, M.D., M.S., Matthew J. Torres, B.S.

Objective: The number of patients seeking treatment in emergency departments (EDs) for mental health reasons is rising, and these patients are often kept in the ED until they can be treated or discharged, leading to overcrowding. Telepsychiatry may alleviate overcrowding by increasing the rate of discharges home.

Methods: ED discharge records for 86,931 patients with psychiatric symptoms were examined to compare patient disposition and length of stay (LOS) between times when the North Carolina Statewide Telepsychiatry Program (NC-STeP) program was available or unavailable.

Results: For patients with a LOS of >2 days (N=3,144) and when NC-STeP was available, 62% (N=1,941) were discharged home, and 29% (N=922) were transferred to a psychiatric facility. When NC-STeP was unavailable (N=2,662), 43% (N=1,139) of these patients were discharged home, and 46%

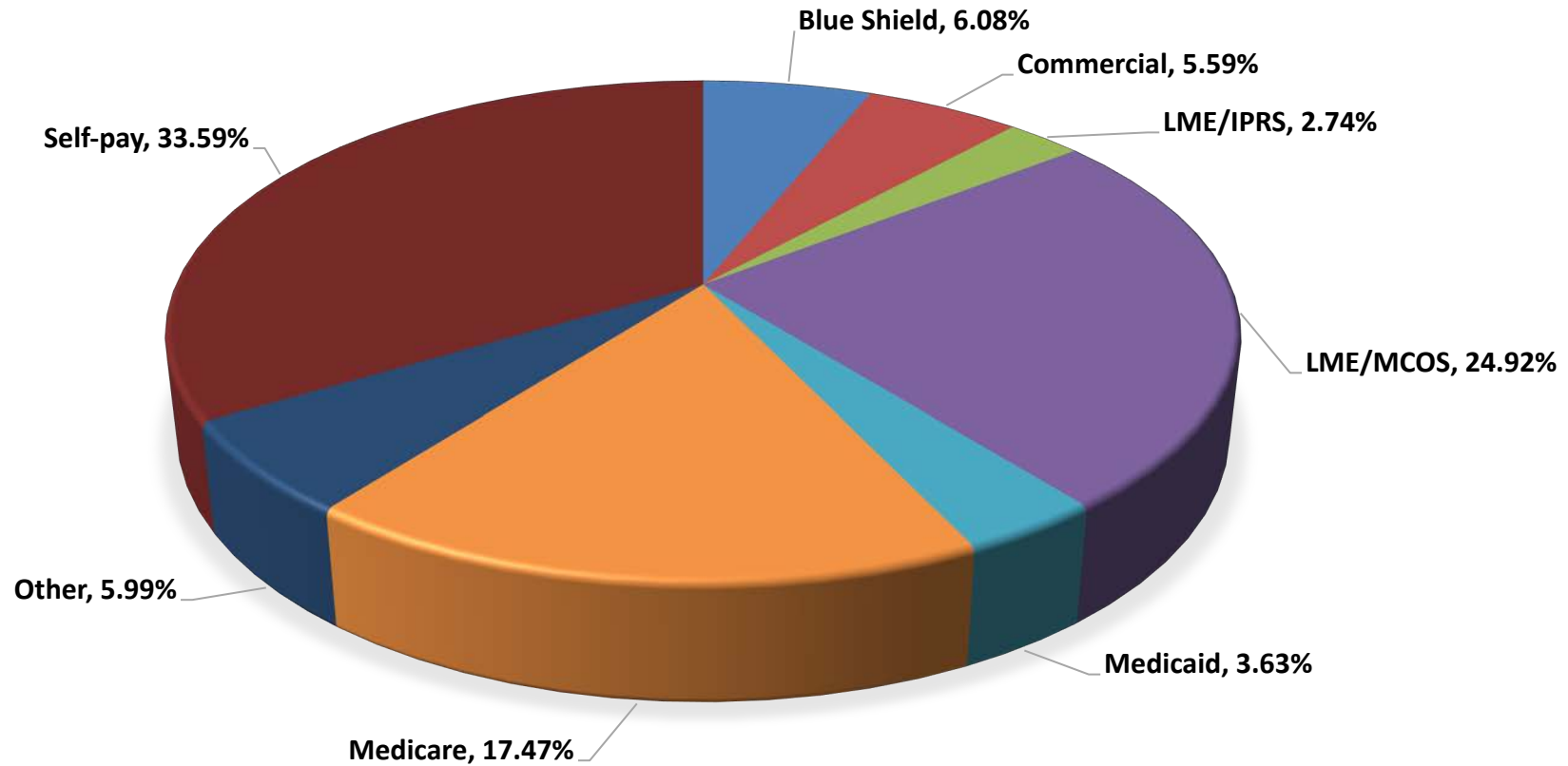
(N=1,230) were transferred to a psychiatric facility. For patients with a LOS of 1–2 days and when NC-STeP was available (N=41,713), 77.0% (N=32,131) were discharged home, and 15.4% (N=6,441) were transferred to a psychiatric facility, compared with 74.2% (N=29,237) discharged home and 13.9% (N=5,495) transferred to a psychiatric facility when NC-STeP was unavailable (N=39,412). The increases in discharges home and decreases in referrals to psychiatric facilities when NC-STeP was available were statistically significant for patients in both groups ($p < 0.001$).

Conclusions: Results suggest that telepsychiatry programs such as NC-STeP increase the number of discharges home and decrease transfers to psychiatric facilities, likely promoting patient satisfaction and improving ED efficiency.

Psychiatric Services 2020; 71:1239–1244; doi: 10.1176/appi.ps.201900431

NC-STeP Charge Mix - Project to Date

Service Dates: October 1, 2013 – June 30, 2021

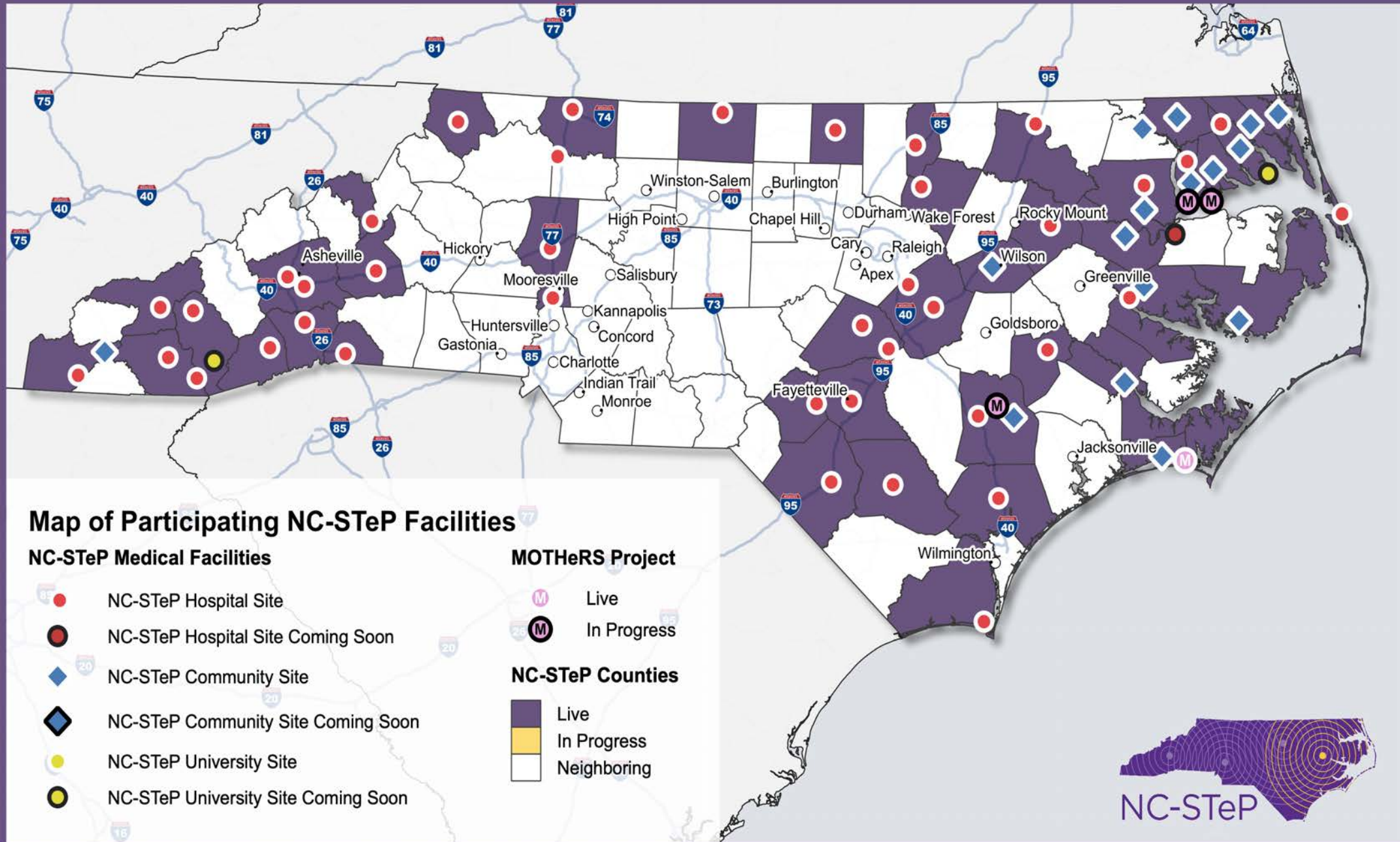


Next Steps:

Community-Based Demonstration Projects

- Provide evidence-based, out-patient mental health care to patients who currently lack access to this care.
- Embedded in primary care clinics providing a multi-disciplinary approach to health maintenance.
- Utilizes an integrated care model in which a behavioral health provider (BHP) or care manager is embedded in a primary care setting. BHP is linked, via telepsychiatry, to a clinical psychiatrist for case consultation and care planning.
- Emphasis on the overall health care needs of the patient.

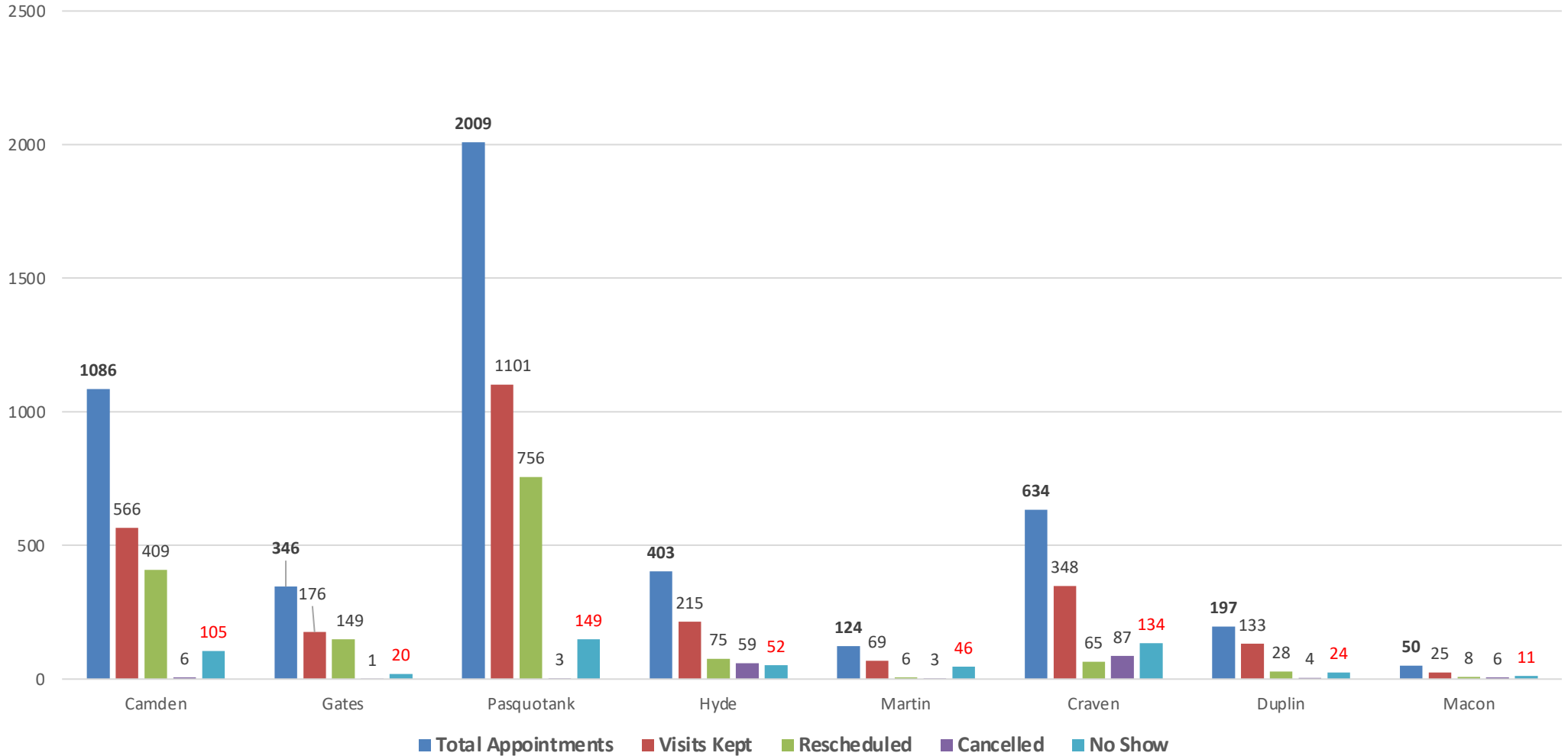
NC-STeP Status as of June 30, 2021



NC-STeP Community Appointments by Site

Appointments, Visits Kept, Rescheduled, Cancelled, No Show

January - December 2019

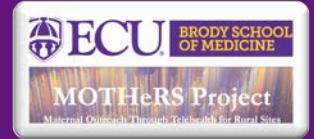


The Challenge

- The Covid-19 pandemic has forced healthcare providers to rethink and quickly reinvent the delivery of care, particularly in rural settings.
- Fear of COVID-19 and the lack of definitive and timely information have caused many patients to be no-shows at clinic appointments, and, as a result, not receive the care they need.
- This has posed an especially critical issue for pregnant women and their newborns in the 29-county area that ECU) serves
- ECU, the safety net provider for 1.4 million people in eastern North Carolina, is the only source for high-risk prenatal care in the region.



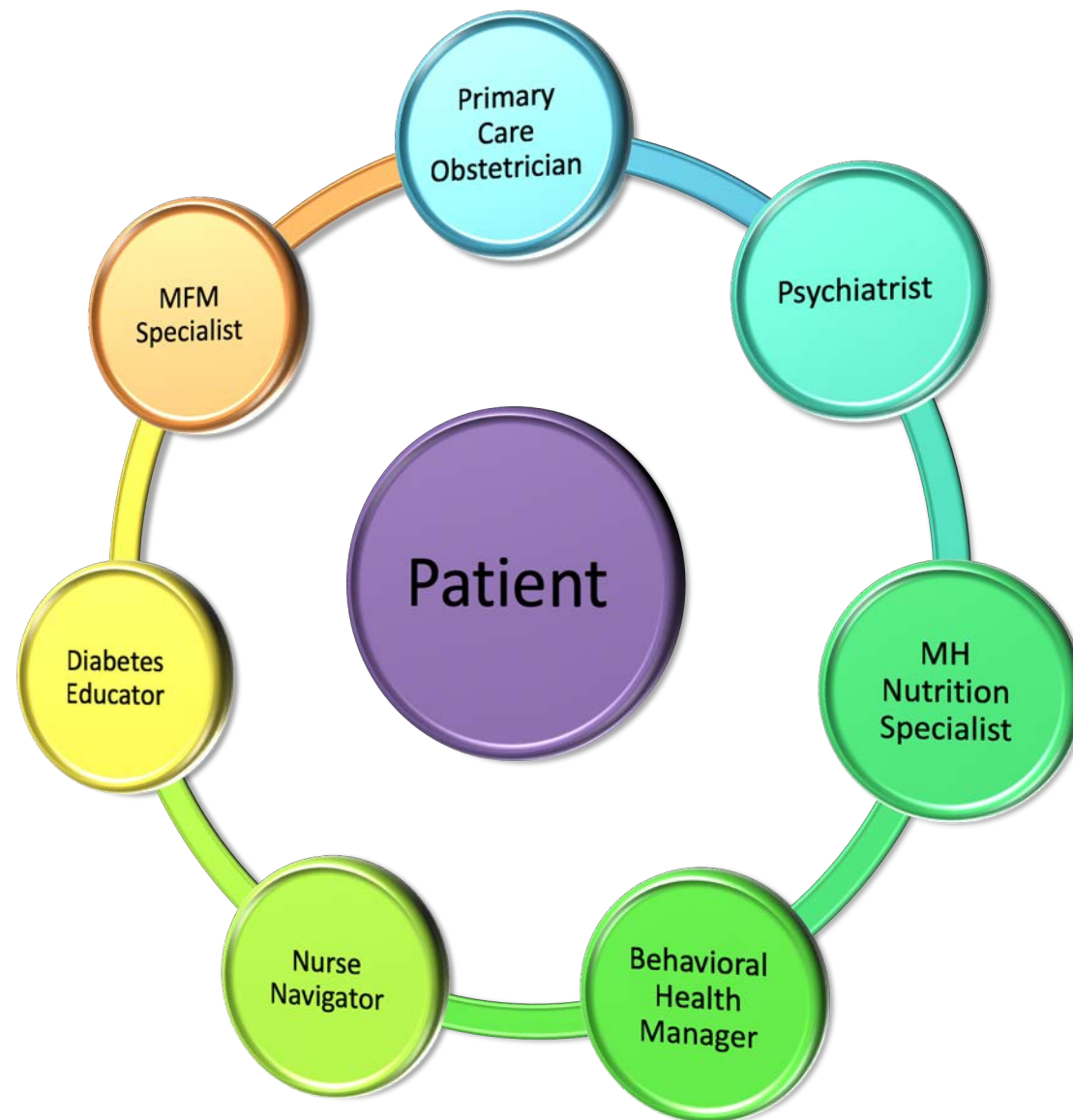
One Solution: Outreach through Telehealth



- We believe that where an expectant or new mother lives should not negatively impact her physical or mental wellbeing or that of her child.
- ECU was funded by the United Healthcare Foundation (UHF) to utilize NC-STeP model—a statewide telepsychiatry program—to bring multidisciplinary care to three community-based primary care obstetric clinics in underserved counties.
- Telehealth consultations bring the experts to these communities, saving patients and families the time and inconvenience of travel.



- Team-Based Care
- Patient-Centered Collaboration
- Primary care provider remains the driver and prescriber
- It's about expanding the limits of care within primary care setting
- Measurement-Based Treatment
- Evidence-Based Care



Who are the beneficiaries?

| Entity | Cost Savings |
|---|---|
| Patients and Families | Evidence-based care closer to home. Reduced distress/disability, functional improvement, quality of life, gainful employment, etc. |
| Communities | Better "citizenship", reduced homelessness, crime reduction, more self reliance, etc. |
| NC-Medicaid, MCOs, and other Third-Party Payors | Projected cost savings from overturned IVC's. Cost savings from reduced recidivism |
| EDs | Reduced length of stay, improved throughput, reduced recidivism, assistance with medication management while in ED, etc. |
| Sheriff Department | Projected cost savings to Sheriff Department from overturned IVCs |
| Hospitals | Costs savings from increased throughput in the ED, reduced costs associated with psych consults, other benefits to EDs (as above), etc. |

Recent Recognition of NC-STeP- Invited Presentations

- 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.

NC-STeP Published Papers and Book Chapters

1. Saeed, S.A., Masters, R.M. Disparities in Health Care and the Digital Divide. *Curr Psychiatry Rep.* 23, 61 (2021).
2. 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.
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*. Online in Advance of print, October 2020.
4. 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>.
5. Saeed SA. (2018). Successfully Navigating Multiple Electronic Health Records When Using Telepsychiatry: The NC-STeP Experience. *Psychiatric Services*. 2018 Sep 1; 69(9):948-951
6. 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.
7. 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.
8. Saeed SA, Anand V. (2015). Use of Telepsychiatry in Psychodynamic Psychiatry. *Psychodynamic Psychiatry*: Vol.43, No.4, pp.569-583.
9. Saeed SA. (2015). Current Challenges and Opportunities in Psychiatric Administration and Leadership. *Psychiatric Quarterly*. Volume 86, Issue 3, September: pp 297-300.
10. Saeed SA. (2015). Telebehavioral Health: Clinical Applications, Benefits, Technology Needs, and Setup. *NCMJ*: Vol. 76, Number 1, pp 25-26.



Congrats to 2020 Breaking Barriers Through Telehealth Award Winners!

Posted on [July 17, 2020 \(July 17, 2020\)](#)



2020 Award goes to the North Carolina Statewide Telepsychiatry Program

The program provides telepsychiatry services to individuals experiencing acute behavioral health crises in hospital emergency departments across North Carolina. Since its inception, the program has realized a return on investment of over \$30 million dollars by preventing unnecessary hospitalizations.

Year after year, pushing point-of-care forward.

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Booth #5158

HOME | POPULATION HEALTH MANAGEMENT | TELEHEALTH

NC-STeP Telepsychiatry Network a Model for Statewide Coverage

Program provides psychiatric assessments, consultations to patients in more than 50 emergency departments

Author — David Raths

Sep 9th, 2019



Why your EHR isn't enough for value-based care success

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UNC System Interim President Bill Roper looks on as Dr. Sy Saeed makes comments upon receiving the System's highest faculty honor. (Photos by Cliff Hollis)

HIGHEST FACULTY HONOR

Saeed receives UNC System's Gardner Award

PUBLISHED MAY 22, 2019 BY SPAINE STEPHENS

FILED UNDER: FACULTY/STAFF, HEALTH SCIENCES, MEDICAL, NEWS, UNIVERSITY NEWS



Dr. Sy Saeed, professor of psychiatry, was recognized as the recipient of the 2019 O. Max Gardner Award, the UNC System's highest faculty honor.

“Health care in all of its forms is so critically important to North Carolina, and Dr. Saeed is an accomplished leader in the field of behavioral medicine,” said UNC System Interim President Bill Roper. “His steadfast commitment to improving mental health practices, to research and to serving the greater good and people of this state exemplify the spirit of the O. Max Gardner Award.”

“The Board of Governors is always proud to recognize those individuals who go above and beyond the call of duty,” UNC Board Chair Harry Smith said. “Dr. Saeed has demonstrated throughout his impressive career a dedication to service and to improving the lives of people throughout this state, nation and planet.”

Conclusions

- Telepsychiatry is a viable and reasonable option for providing psychiatric care to those who are currently underserved or who lack access to services.
- The current technology is adequate for most uses and continues to advance.
- NC-STeP is an established model that is nationally known for its work with the underserved communities.

Conclusions

- Telehealth can also help with the surge in mental health and substance use disorder patients that is occurring in the aftermath of the pandemic.
- The NC-STeP team-based approach to care has developed a scalable model that can be implemented at one site or statewide.
- This model is currently in use at 16 outpatient sites across North Carolina and can be expanded to other sites .



Conclusions

- Overcoming the barriers to implementation will require a combination of consumer, provider, and governmental advocacy.
- The purpose and fit of telecare services in the wider care system should drive its introduction –not the technology.
- Investing in a “connected network” should be the goal.
- It’s about relationships, not technology.

Conclusions

Question about telehealth that remain:

- Will reimbursement be the same?
- What mix of digital health vs. traditional will be the new norm?
- Do provider compensation models need to change?
- Will we need the same amount of brick-and-mortar clinic space?
- How to leverage new capabilities to address referral backlog and home-based care?

ACKNOWLEDGEMENTS

NC Statewide Telepsychiatry Program (NC-STeP) is funded through a blend of state, philanthropic, and federal funds. In addition to the NC General Assembly appropriation of \$2 million per year to fund the program, NC-STeP is partially funded by the Duke Endowment in the amount of \$1.5 million. HRSA is allowing ORH to use a portion of federal Flex funding to cover some unfunded and future ORH costs to administer the NC-STeP program. NC DHHS provides administrative oversight of the funding.



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