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NORTH CAROLINA *Chapter*

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NC Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Provide Evidence-Based Care

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NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

NC Statewide Telepsychiatry Program (NC-STeP): Using Telepsychiatry to Provide Evidence-Based Care

At the conclusion of this session, the participant should be able to:

- State the demonstrated benefits of using telepsychiatry in mental health settings
- Identify the infrastructure needs to implement telepsychiatry services on a statewide level
- Describe how North Carolina Statewide Telepsychiatry Program (NC-STeP) is addressing problems in areas of access to quality (evidence-based) mental health services

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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 year[1].
  - 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 illness[1].
- Four of the ten leading causes of disability are mental illnesses —major depression, bipolar disorder, schizophrenia, and obsessive-compulsive disorder.

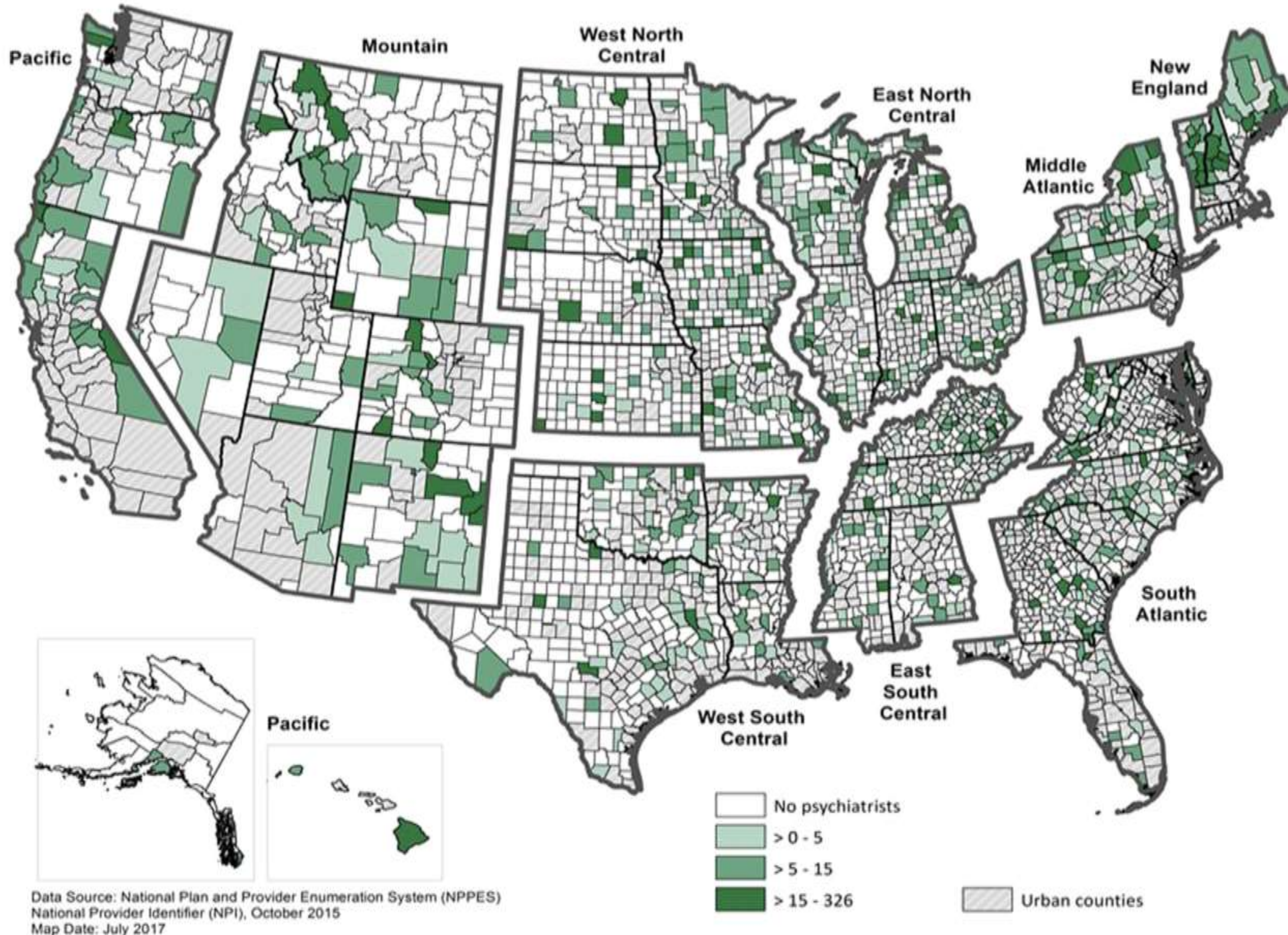
1. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). Archives of General Psychiatry, 2005 Jun;62(6):617-27.
2. https://www.census.gov/quickfacts/fact/table/US/PST045217. ACCESSED September 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

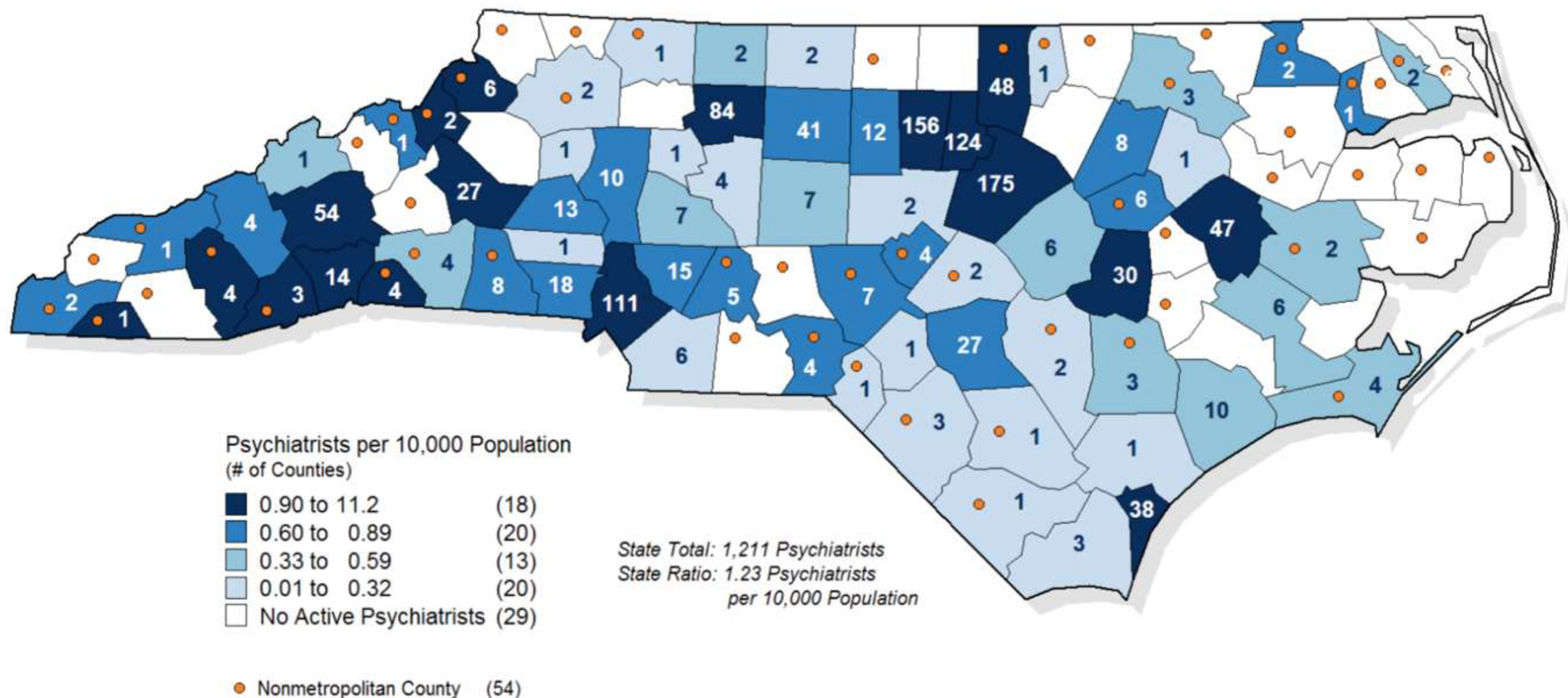
Andrilla et al / Am J Prev Med 2018;54(6S3):S199–S207

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, instate, 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
- 63 counties have less than 1.9 psychiatrists per 10,000
- 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]

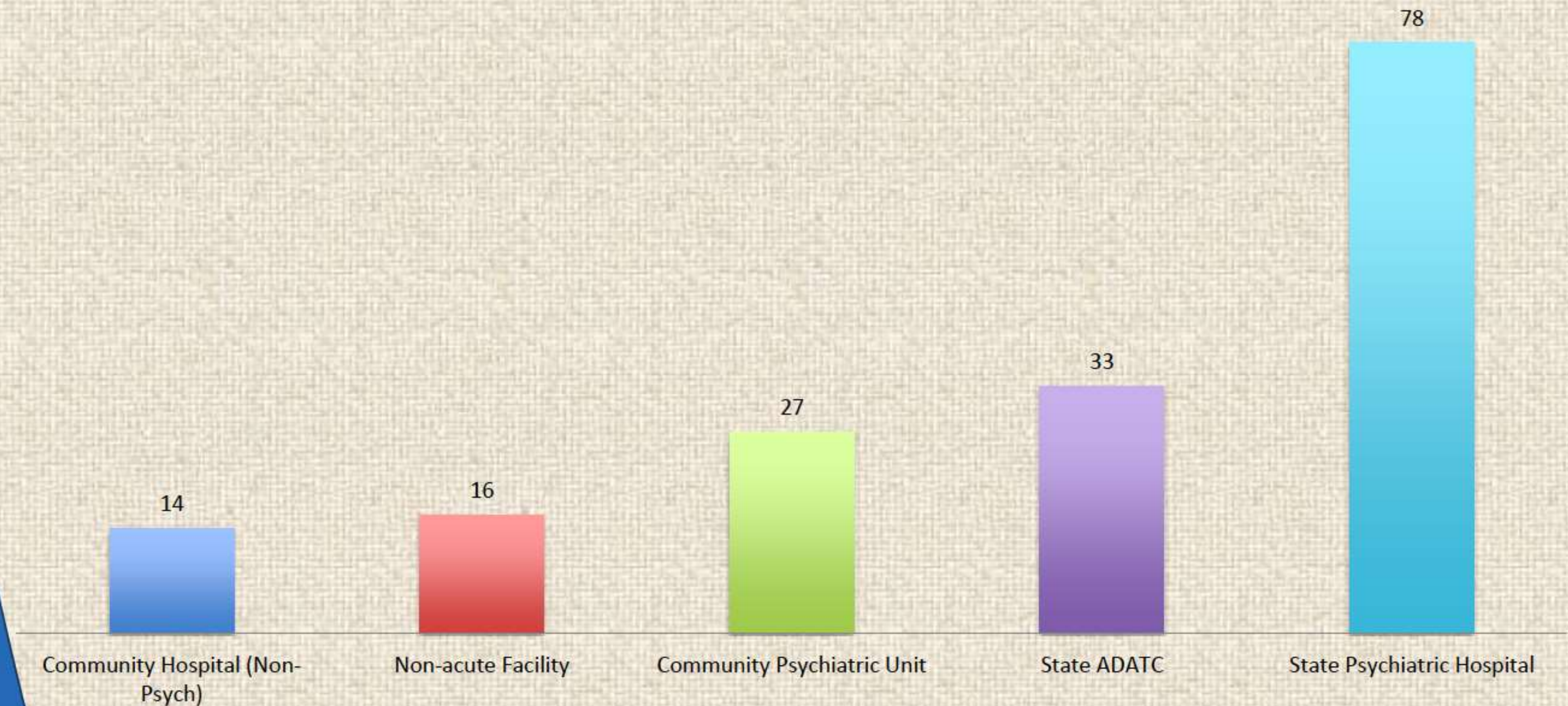
1. NC Hospital Association
2. Study by the Centers for Disease Control

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

- Currently, there are 108 hospitals with either single ED's, or in some cases, multiple site ED's 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?



Source: NCHA ED Tracker. 2012 Data.

NCHA

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.

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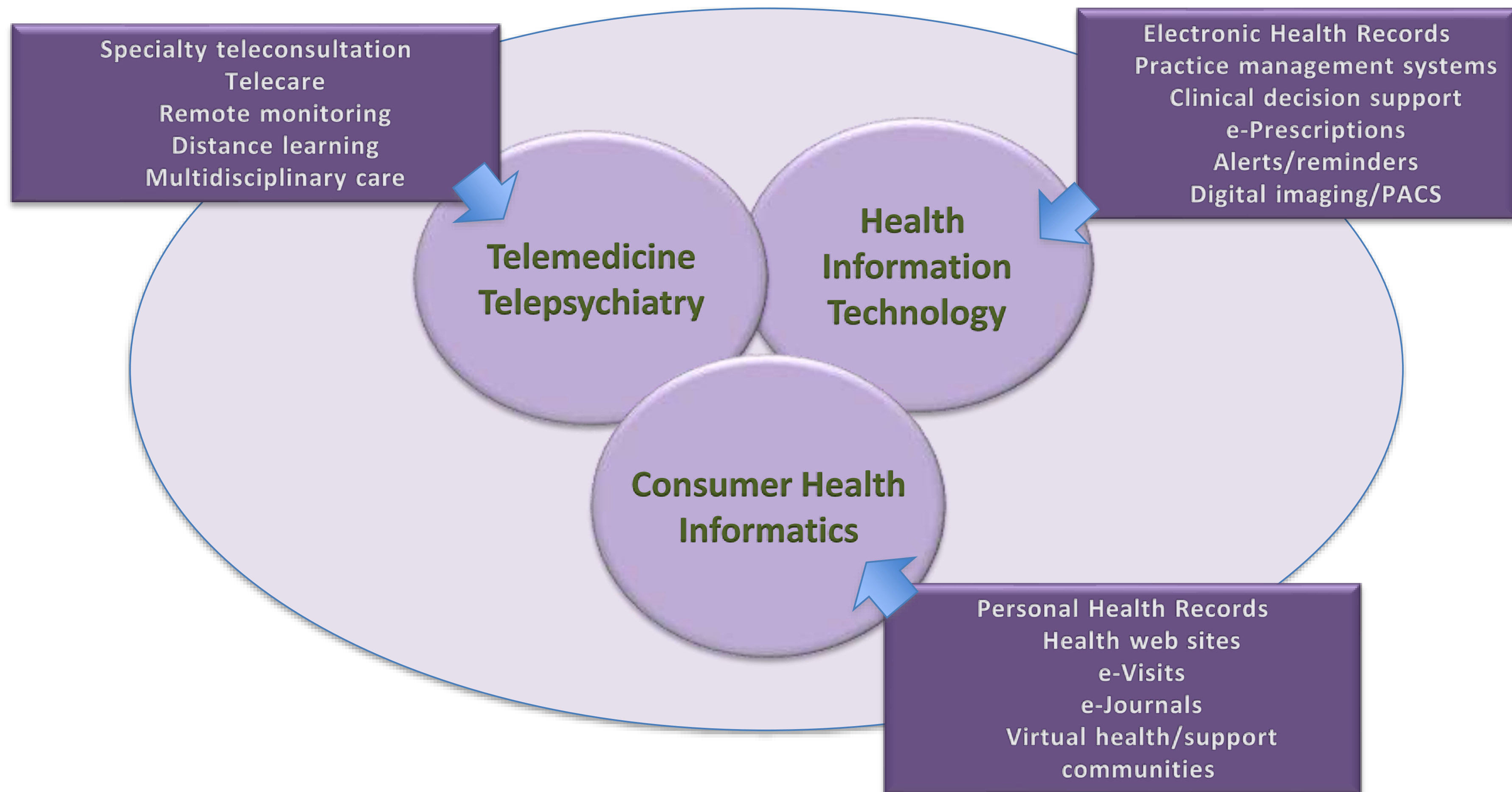
Connected Health (Saeed and Anand, 2015)



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NC-STeP

Potential Barriers to the Implementation of Telepsychiatry Services in Mental Health Settings

- Inherent personal or organizational resistance to change
- Reimbursement
- Licensure
- Credentialing
- Privacy considerations unique to telehealth
- Legal (regulatory, liability, prescribing, etc.)
- Costs associated with infrastructure

NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

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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

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.

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STATEWIDE TELEPSYCHIATRY PROGRAM

Quality Management and Outcomes Monitoring

- All participating clinical providers:
  - Participate in a Peer review process
  - Meet quality and outcome standards

Telepsychiatry Portal

- Support all the Health IT 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

Workflow for the Portal

ED physician requests a tele-psychiatry consult

ED staff transfers patient data from hospital EHR to the Portal via Direct Message and C-CDA

ED nurse logs into the Portal, confirms patient data, and submits to psychiatric provider work queue in the Portal

Provider reviews patient data, conducts tele-psychiatry consult, and documents the results in the Portal, which sends the results to the hospital EHR

ED physician reviews tele-psychiatry consult results and determines best course of action

ED nurse discharges patient and closes the encounter

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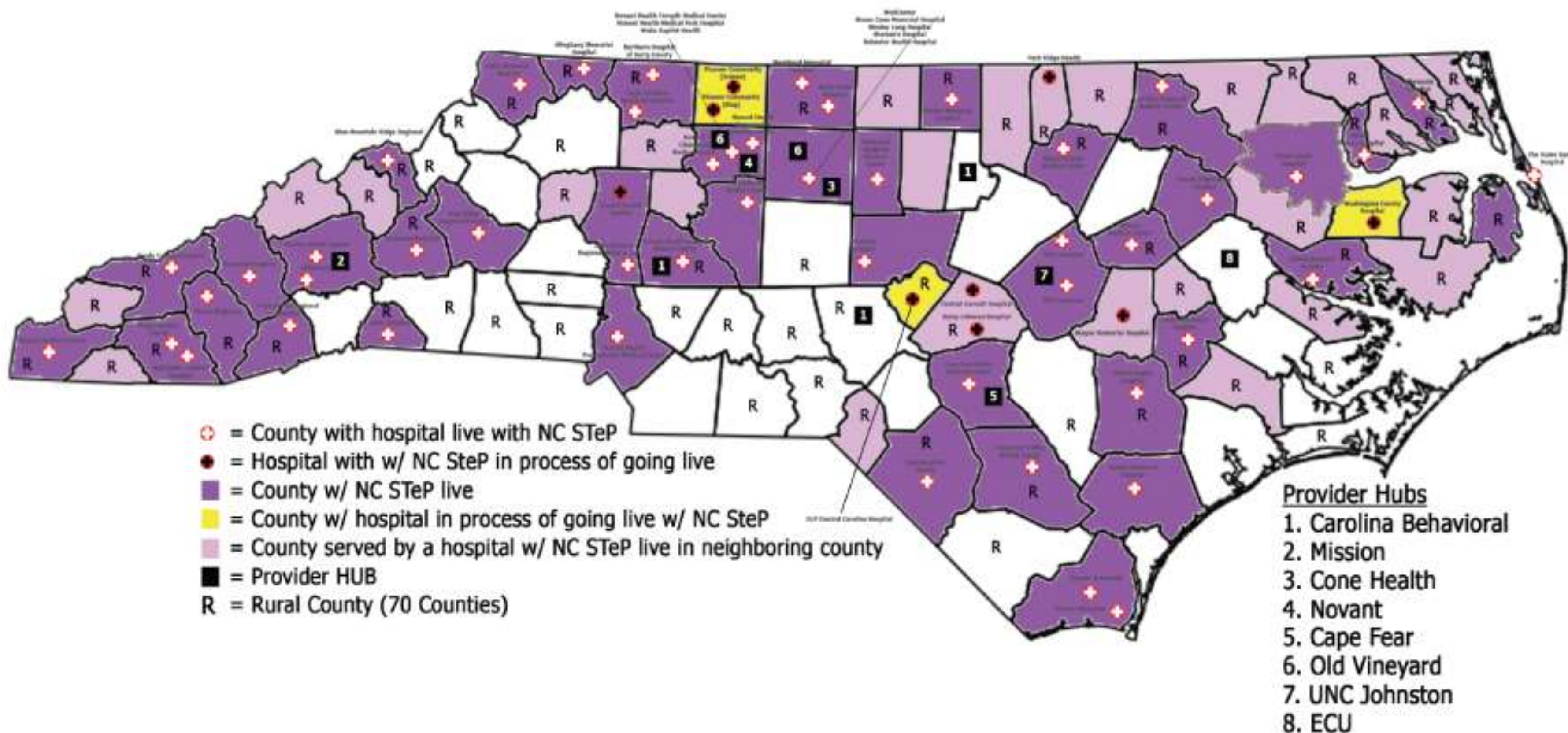
NC-STeP

NC-STeP Status as of September 30, 2019

- 57 hospitals in the network. 53 live.
- 39,533 total psychiatry assessments since program inception
- 5,420 IVCs overturned
  - Cumulative return on investment = $29,268,000 (savings from preventing unnecessary hospitalizations)
- Eight Clinical Provider Hubs with 53 consultant providers
- Administrative costs below industry standard
- Over 32% of the patients served had no insurance coverage

NC-STeP Status as of January 1, 2020



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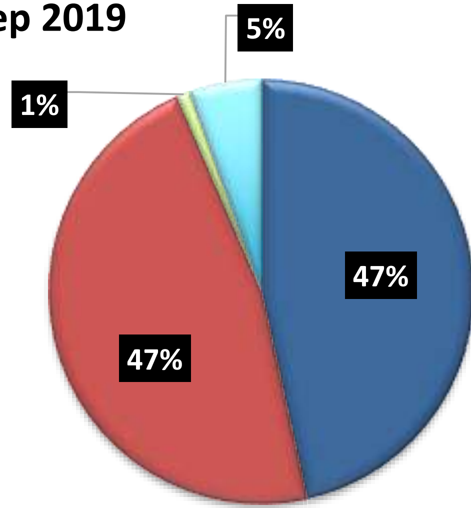
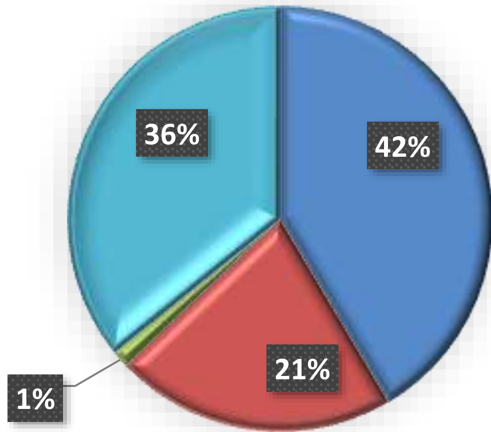
NC-STeP

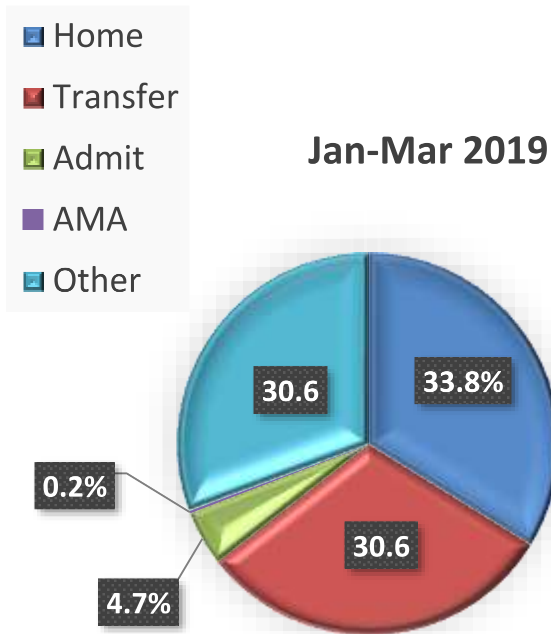
Percent of Patients by Discharge Disposition

Jul-Sep 2019



Apr-Jun 2019





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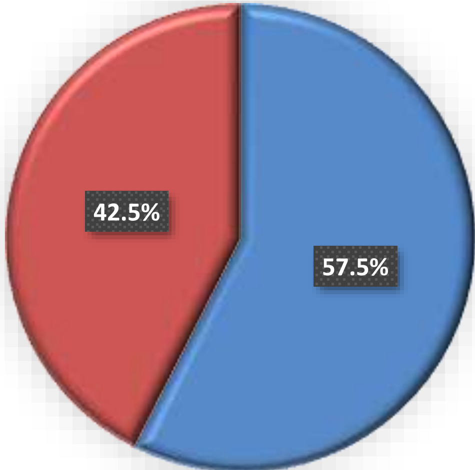
NC-STeP

IVCs –
By Release Status

- IVCs - percent not released
- IVCs - percent released

Jan-Mar 2019



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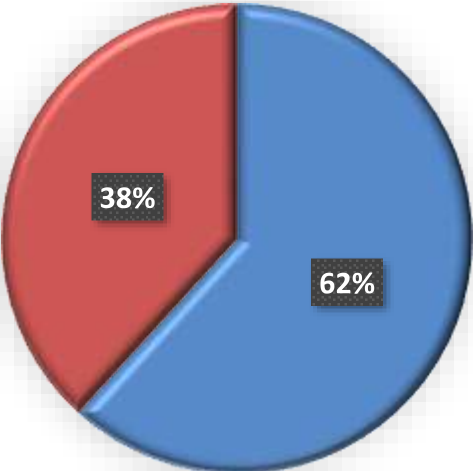

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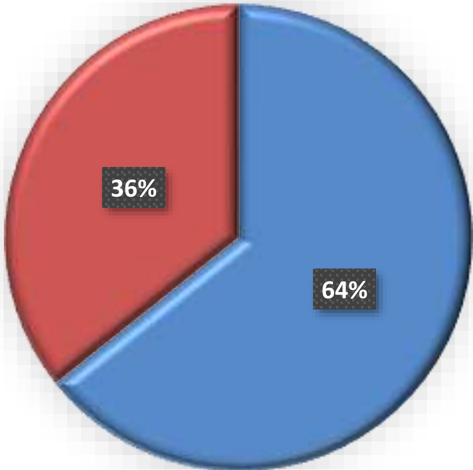
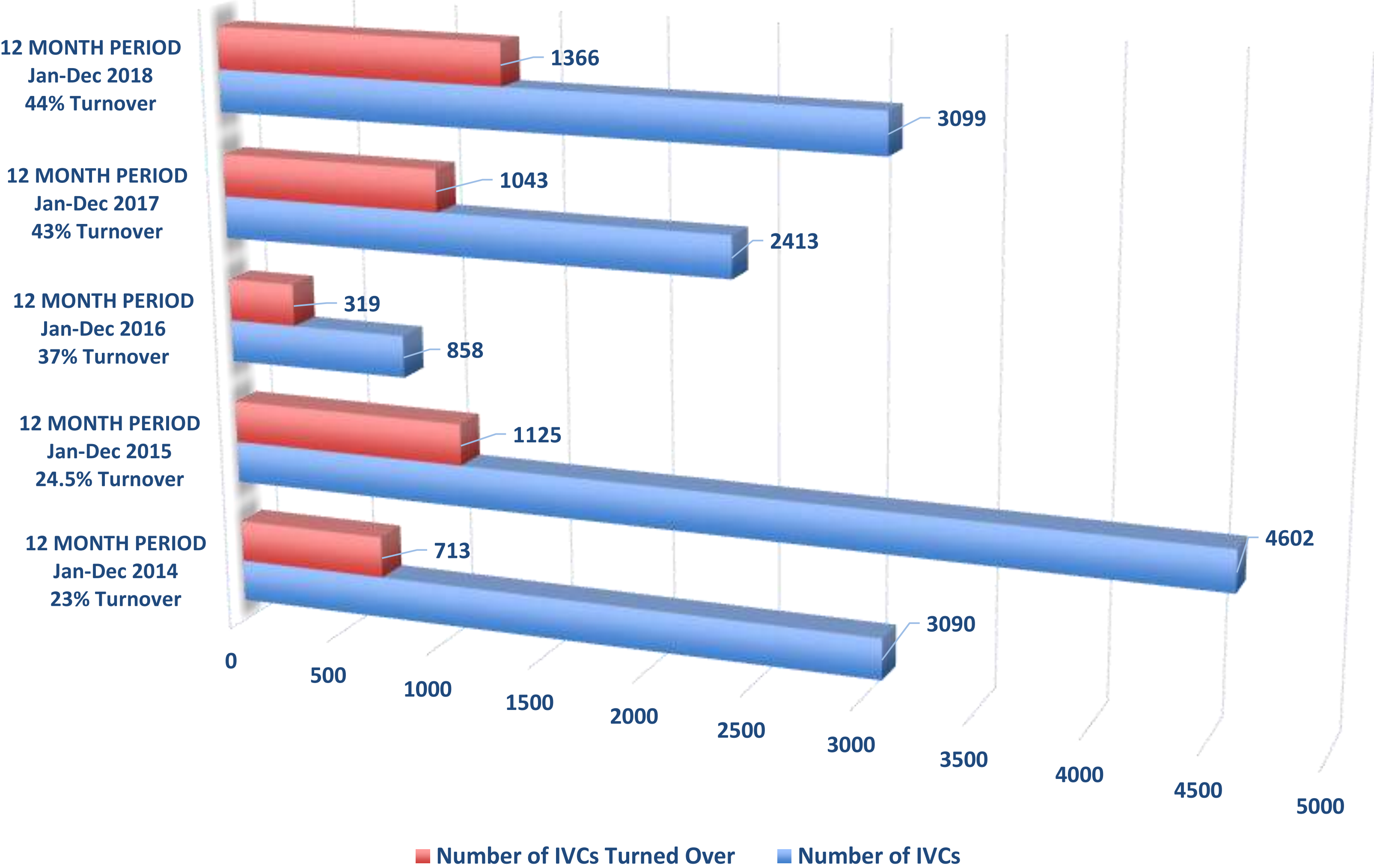


Number of IVCs and IVCs Turned Over by Year



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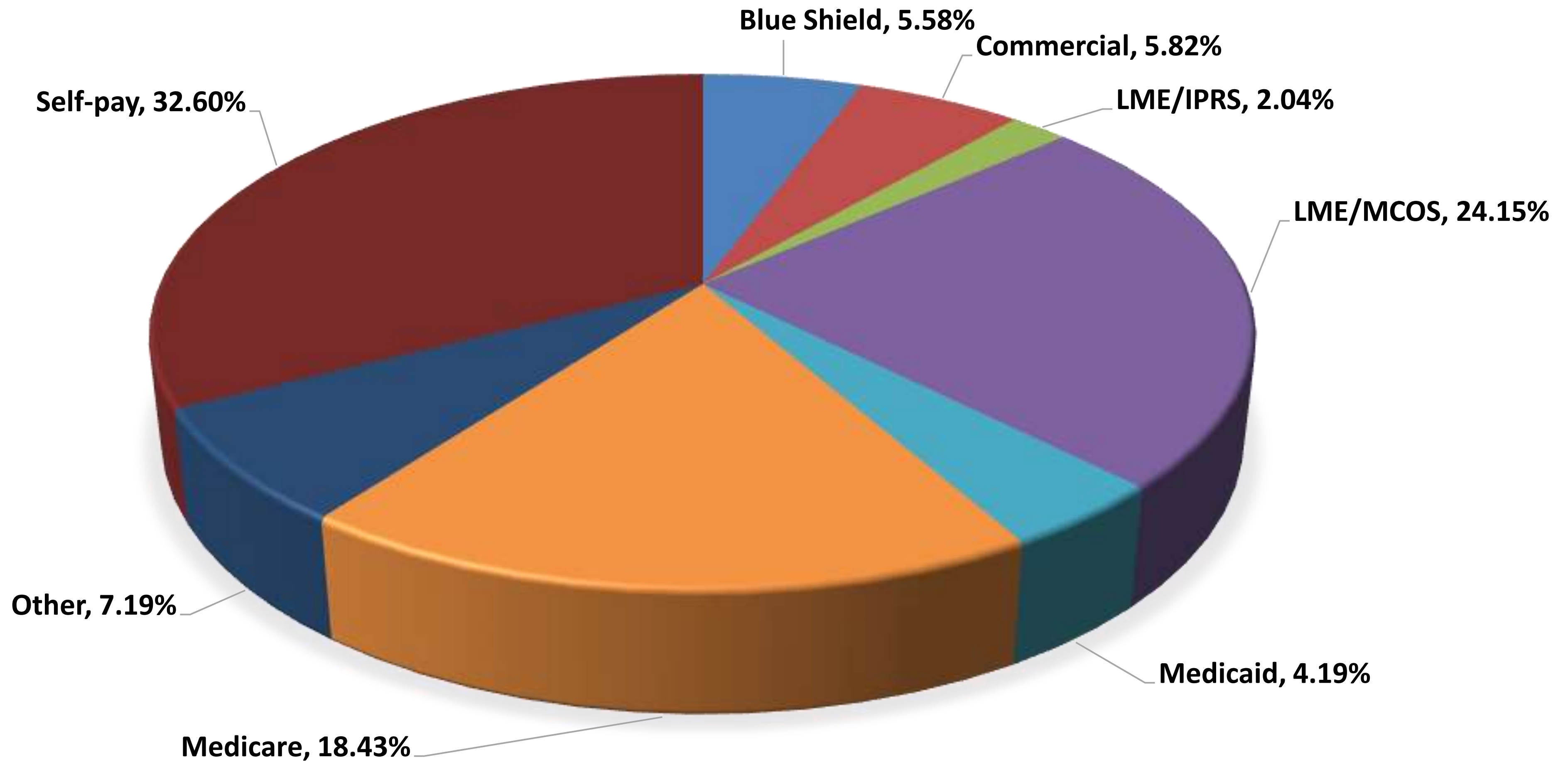
NC-STeP

NC-STeP Charge Mix – Project to Date

Service Dates: October 1, 2013 – September 30, 2019



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NC-STeP

Who are the beneficiaries?

(Who should pay for it?)

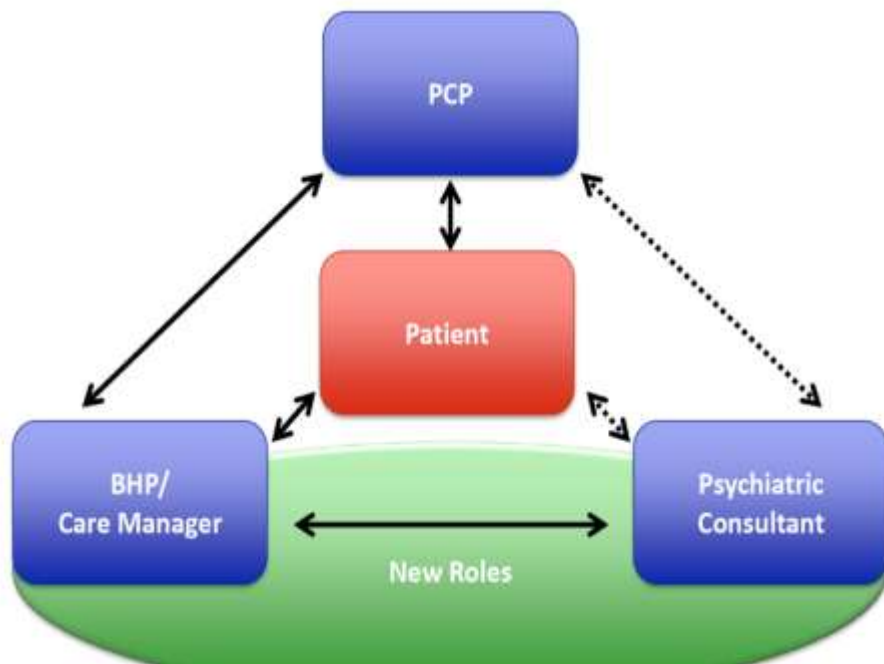
Entity	Cost Savings
Patients and Families	Evidence-based care closer to home. Reduced distress/disability, functional improvement, quality of life, gainful employment, etc.
Communities	Better "citizenship", reduced homelessness, crime reduction, more self reliance, etc.
NC-Medicaid, MCOs, and other Third-Party 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.

Opportunities

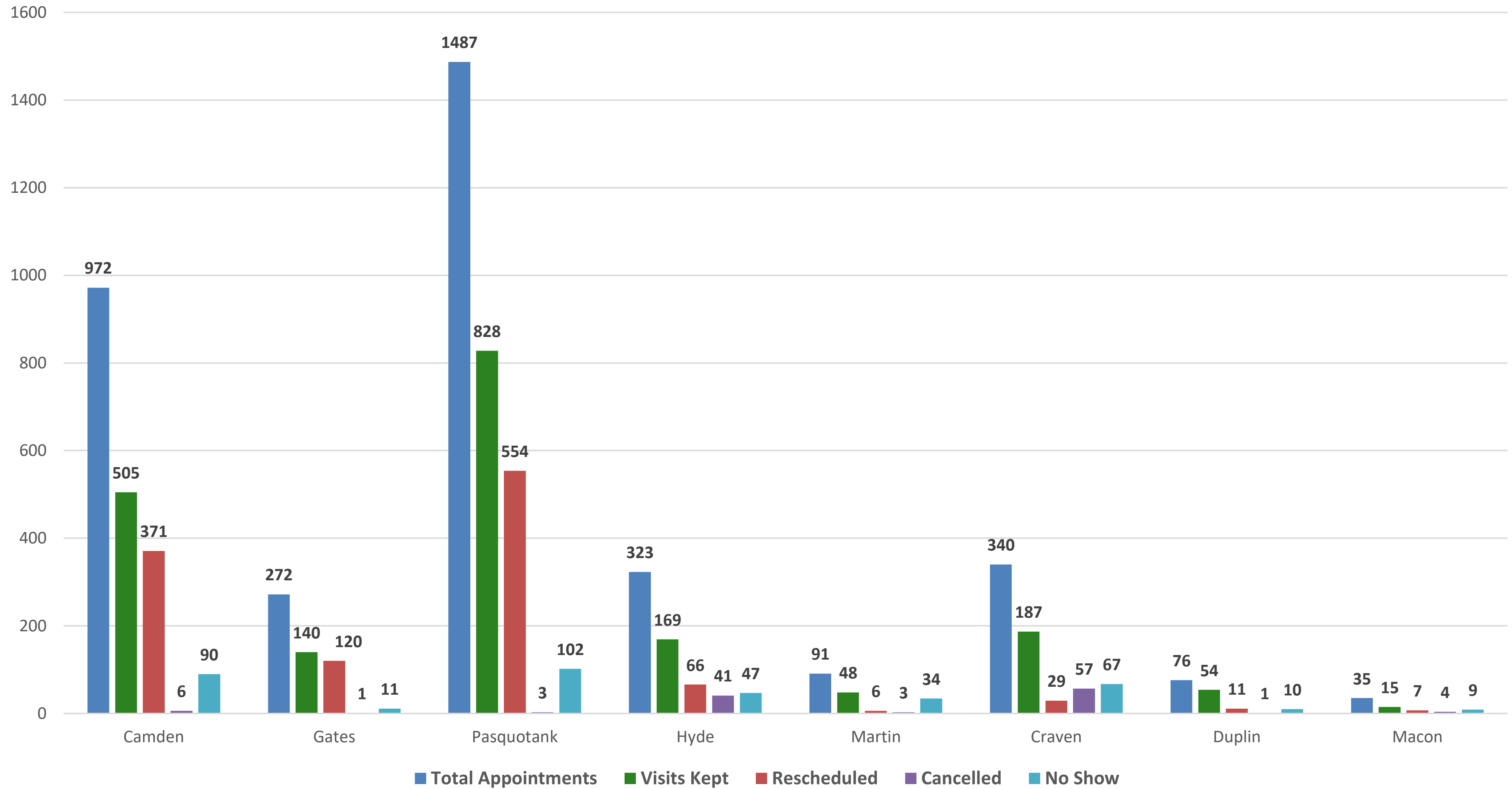
- Creating collaborative linkages and developing innovative models of mental health care:
  - EDs and Hospitals
  - Communities-based mental health providers
  - Primary Care Providers
  - Public Health Clinics
  - Others
- NC-STeP web portal, accessible by participating providers, as a central point for coordinated care.

Next Steps: Community-Based Demonstration Projects

Patient-Centered Collaboration



- Provide evidence-based, out-patient mental health care to patients who currently lack access to this care.
- Embedded in a currently operational primary care clinic, providing a multi-disciplinary approach.
- 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 is upon the total health care needs of the patient.


NC-STeP Community Appointments by Site
Program to Date Through September 2019
1600
1400
1200
1000
800
600
400
200
0
972
505
371
6
90
272
140
120
1
11
1487
828
554
3
102
323
169
66
41
47
91
48
6
3
34
340
187
29
57
67
76
54
11
1
10
35
15
7
4
9
Camden
Gates
Pasquotank
Hyde
Martin
Craven
Duplin
Macon
Total Appointments
Visits Kept
Rescheduled
Cancelled
No Show
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NC-STeP

Recent Recognition of NC-STeP

Invited Presentations:

- 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
- NC Psychiatric Association Annual Meeting & Scientific Session. Winston-Salem. October 2015
- North Carolina Institute of Medicine (NCIOM) August 2015
- State Offices of Rural Health (SORH), July 2015

NC-STeP Published Papers

1. 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].
2. 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.
3. 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.
4. Saeed SA, Anand V. (2015). Use of Telepsychiatry in Psychodynamic Psychiatry. Psychodynamic Psychiatry: Vol.43, No.4, pp.569-583.
5. Saeed SA. (2015). Current Challenges and Opportunities in Psychiatric Administration and Leadership. Psychiatric Quarterly. Volume 86, Issue 3, September: pp 297-300.
6. Saeed SA. (2015). Telebehavioral Health: Clinical Applications, Benefits, Technology Needs, and Setup. *NCMJ:* Vol. 76, Number 1, pp 25-26.

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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.
- Numerous applications have already been defined.
- Many documented benefits to the EDs and hospitals.

ECU

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.

ECU

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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CAPTURE YOUR HORIZON

NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

NORTH CAROLINA *Chapter*

John Graham, Ph.D.

Consortium Development director and board chair
NC Telehealth Network Association

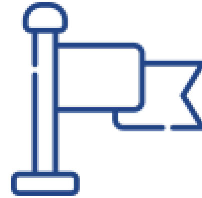
NORTH CAROLINA TELEHEALTH NETWORK ASSOCIATION

11/25/2019

INTRODUCTIONS

NORTH CAROLINA TELEHEALTH NETWORK ASSOCIATION (NCTNA)

NCTNA



Our Mission

Assure that North Carolina public and non-profit healthcare providers have access to high-quality, reliable and affordable broadband services.

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NORTH CAROLINA TELEHEALTH NETWORK ASSOCIATION (NCTNA)

NCTNA

History

1. The Beginning
2. Rural Healthcare Pilot
3. Healthcare Connect Fund

Role

1. Healthcare Connect Consortium
2. Statewide, High-Quality Broadband Provider

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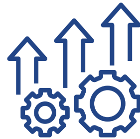
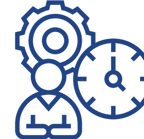
WE SUPPORT DEMANDING HEALTHCARE BROADBAND REQUIREMENTS

Network reliability



Consistent throughput/ performance



"Always On" customer support (NOC)

Streamlining broadband procurement, implementation

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NCTN IMPACT: SUPPORT PAID BY ELIGIBILITY CATEGORY 4/1/15 THROUGH 9/30/19

Eligibility Category	Total Cost Invoiced	USF Paid
Community health center	$596,781	$371,289
Community mental health center	$2,256,952	$1,427,476
Local health department/agency	$3,491,363	$2,187,830
Non-profit hospital	$14,723,569	$8,879,242
Off-site Admin Office	$804,540	$505,406
Off-site Data Center	$553,486	$321,054
Rural health clinic	$752,314	$475,045

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NCTN IMPACT: NORTH CAROLINA TELEHEALTH NETWORK SITES

Legend

- MCNC Fiber Network
- County Boundaries
- MCNC POP Communities
- Non-profit Hospital
- Mental Health Center
- Urban Clinic
- Local Public Health
- Rural Health Clinic
- Community Health Center (FQHC)
- Off-site Data Center
- Off-site Admin Office

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WHAT MAKES NCTNA DIFFERENT

We are who you are

We place a priority on value not profit

We practice flexible, timely decision-making

We are transparent and accountable

We are experts in the HCF process

More than a customer/provider relationship

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NORTH CAROLINA Chapter

Medical Director, Center for Rural Health Innovation
State Medical Director, Eleanor Health - NC

VIRTUAL CARE INNOVATION IN NORTH CAROLINA

Steve North, MD, MPH, FAAFP

Medical Director, Center for Rural Health Innovation

State Medical Director, Eleanor Health - NC

2 MONTH OLD WITH EYE DISCHARGE

MEDICAL VIRTUAL VISITS IN NC

NOVANT AND TYTOCARE

COMPONENTS OF HIGH QUALITY VIRTUAL VISITS

- Providers know limitations of the service
- Strong internal quality control
- Integration with primary care – share records
- Can do a "warm handoff" when a higher level of care is needed

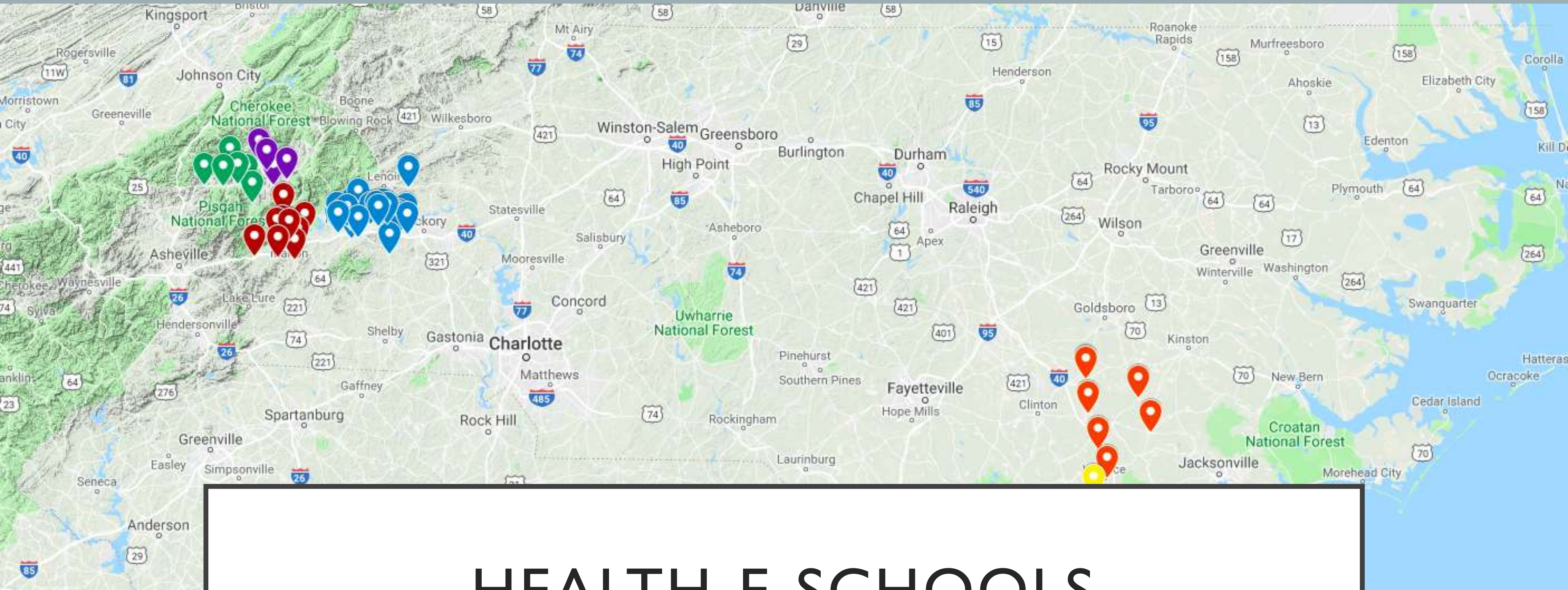
INCREASING ACCESS TO MENTAL HEALTH

- **13,000+** encounters were successfully conducted in 2019. (2018= **6,500**)
- **83** providers seeing patients through telemedicine (38 in 2018)
- No-show rate of **4.89%**
- Saw patients in **85 of the 100** North Carolina counties.
- **48%** of our patient population is located in areas that are suffering from a shortage of mental health providers (access)

MindPath Care Centers

VIRTUAL NURSING HOME AND HOSPITAL COVERAGE

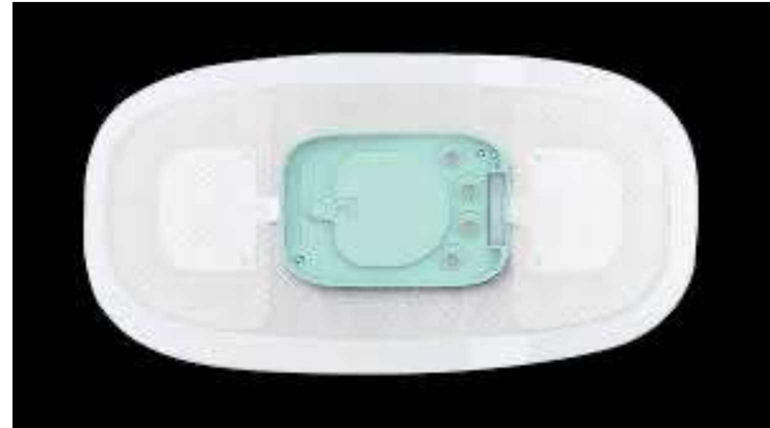
- Founded in 2016 in Mooresville, NC
- 4000 nursing home calls per night
- 8.7% become video visits
- ~92% of patients seen via video stay at the SNF
- 400 SNFs and CAHs in 23 states
- Bidirectional app to allow discrete documentation in the EHR



HEALTH-E-SCHOOLS

VIRTUAL SPEECH LANGUAGE PATHOLOGY

TEXT BASED CARE



DIGITAL THERAPEUTICS

SUBSTANCE USE DISORDER DIGITAL THERAPEUTICS

6

What triggers are affecting this craving?

4

HUNGRY n/a

2

ANGRY n/a

3

LONELY n/a

0

TIRED n/a

3

NC POLICY ISSUES

- HB 721 –
- SB 361 –

DISRUPTIVE
TECHNOLOGIES
& INNOVATIONS
SHAPING THE FUTURE OF HEALTHCARE

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