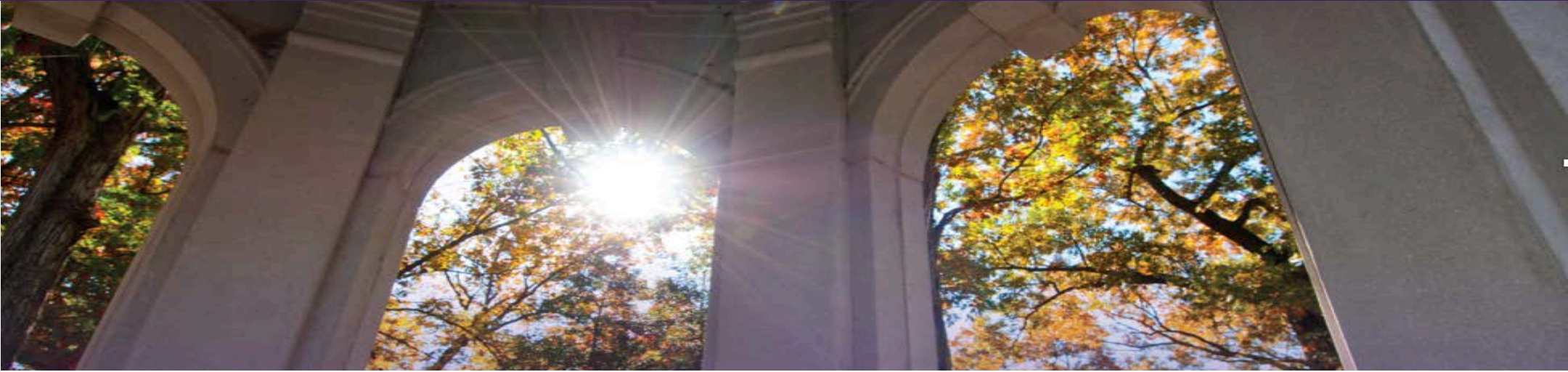


Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care



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North Carolina Statewide Telepsychiatry Program (NC-STeP)



NC-STeP

NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

Using Telepsychiatry and Health Technologies to Provide Evidence-Based Care

- Telepsychiatry has great potential in improving patient access to mental health care in areas where psychiatric services are deficient
- Providers' lack of familiarity with the technology and inadequate training are amongst the current barriers to expanding the use of telepsychiatry
- Training programs must take reasonable steps to ensure learners demonstrate competence with the telepsychiatry practice and express understanding of the potential impact of telepsychiatry services on patients or other healthcare professionals

What should you take home from this webinar?

a glimpse of a comprehensive, practical, and evidence-based approach to patient-centered clinical care delivered in whole or in part by technological devices and applications.

Telehealth/Telepsychiatry

Training Goals for APRN Students:

- (1) Provide experiences in telehealth, with a focus on telepsychiatry in rural communities
- (2) Provide didactic instruction in telehealth and telepsychiatry through two 90 minutes each live webinar sessions that will be offered twice per academic year
 - These seminars will include a discussion of the “nuts and bolts” of delivering telehealth/telepsychiatry services, standardized approaches in telehealth/telepsychiatry care, and discussion of barriers in delivering telehealth/telepsychiatry services.
- (3) Work with Dr. Saeed and his colleagues in creating a model for telehealth/ telepsychiatry services in the rural community clinics that are project clinical practicum sites.
 - This will be accomplished in part through the required community assessment project.

Telehealth/Telepsychiatry Webinar

Objectives

1. Summarize evidence supporting the use of telehealth and telepsychiatry
2. Describe the demonstrated benefits of using telepsychiatry and health technologies in healthcare settings
3. Describe common barriers to use of telepsychiatry and telehealth
4. Identify the infrastructure needs to implement telepsychiatry services for the assessment and treatment of patients with psychiatric disorders
5. Describe basic technological concerns, clinical issues, and workflows for mental health clinicians who seek to learn the models and methods of telepsychiatry and telehealth
6. Describe how NC Statewide Telepsychiatry Program (NC-STeP) is addressing problems in areas of access to evidence-based mental health services

Recommended Text

Telepsychiatry and Health Technologies

A Guide for Mental Health Professionals

Peter Yellowlees, MBBS, M.D.
Jay H. Shore, M.D., M.P.H.

Peter Yellowlees, MBBS, M.D., and Jay H. Shore, M.D., M.P.H.
American Psychiatric Association Publishing, 2018

Defining Telemedicine

there is no one definitive definition of *telemedicine* – a 2007 study found 104 peer-reviewed definitions of the word.*

* Sood SP, et al. Differences in public and private sector adoption of telemedicine: Indian case study for sectoral adoption. *Studies in Health Technology and Informatics*, 2007, 130:257–268.

Defining Telemedicine

“The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the:

- exchange of valid information for diagnosis, treatment and prevention of disease and injuries,
- research and evaluation, and
- for the continuing education of health care providers,

all in the interests of advancing the health of individuals and their communities.”



WHO. *A health telematics policy in support of WHO's Health-For-All strategy for global health development: report of the WHO group consultation on health telematics, 11–16 December, Geneva, 1997.* Geneva, World Health Organization, 1998.

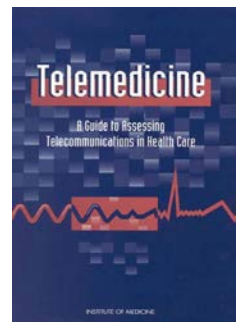
Defining Telemedicine

“the use of electronic information and communications technologies to provide and support health care when distance separates the participants.”



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Institute of Medicine: *Telemedicine: A Guide to Assessing
Telecommunications in Health Care*



Defining Telemedicine

“Telemedicine” is the practice of medicine using electronic communication, information technology or other means between a physician in one location and a patient in another location with or without an intervening health care provider.”

Complete Position Statement. Accessed September 4, 2018.

<https://www.ncmedboard.org/resources-information/professional-resources/laws-rules-position-statements/position-statements/telemedicine>.



These definitions include many communication modalities such as:

- Phone
- Fax
- Email
- Internet
- still imaging
- live interactive 2-way audio-video communication (videoconferencing)

Videoconferencing-

live interactive 2-way audio-video communication is the modality that has become synonymous with telemedicine involving patient care, distant education, and administration.

For purposes of Medicaid, telemedicine seeks to improve a patient's health by permitting two-way, real time interactive communication between the patient, and the physician or practitioner at the distant site.

This electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment.

This definition is modeled on Medicare's definition of telehealth services (42 CFR 410.78).

1.0 Description of the Procedure, Product, or Service

1.1 Definitions

1.1.1 Telemedicine

Telemedicine is the use of two-way real-time interactive audio and video between places of lesser and greater medical capability or expertise to provide and support health care when distance separates participants who are in different geographical locations. A beneficiary is referred by one provider to receive the services of another provider via telemedicine.

1.1.2 Telepsychiatry

Telepsychiatry is the use of two-way real-time interactive audio and video between places of lesser and greater psychiatric expertise to provide and support psychiatric care when distance separates participants who are in different geographical locations. A beneficiary is referred by one provider to receive the services of another provider via telepsychiatry.





Telemedicine Terms

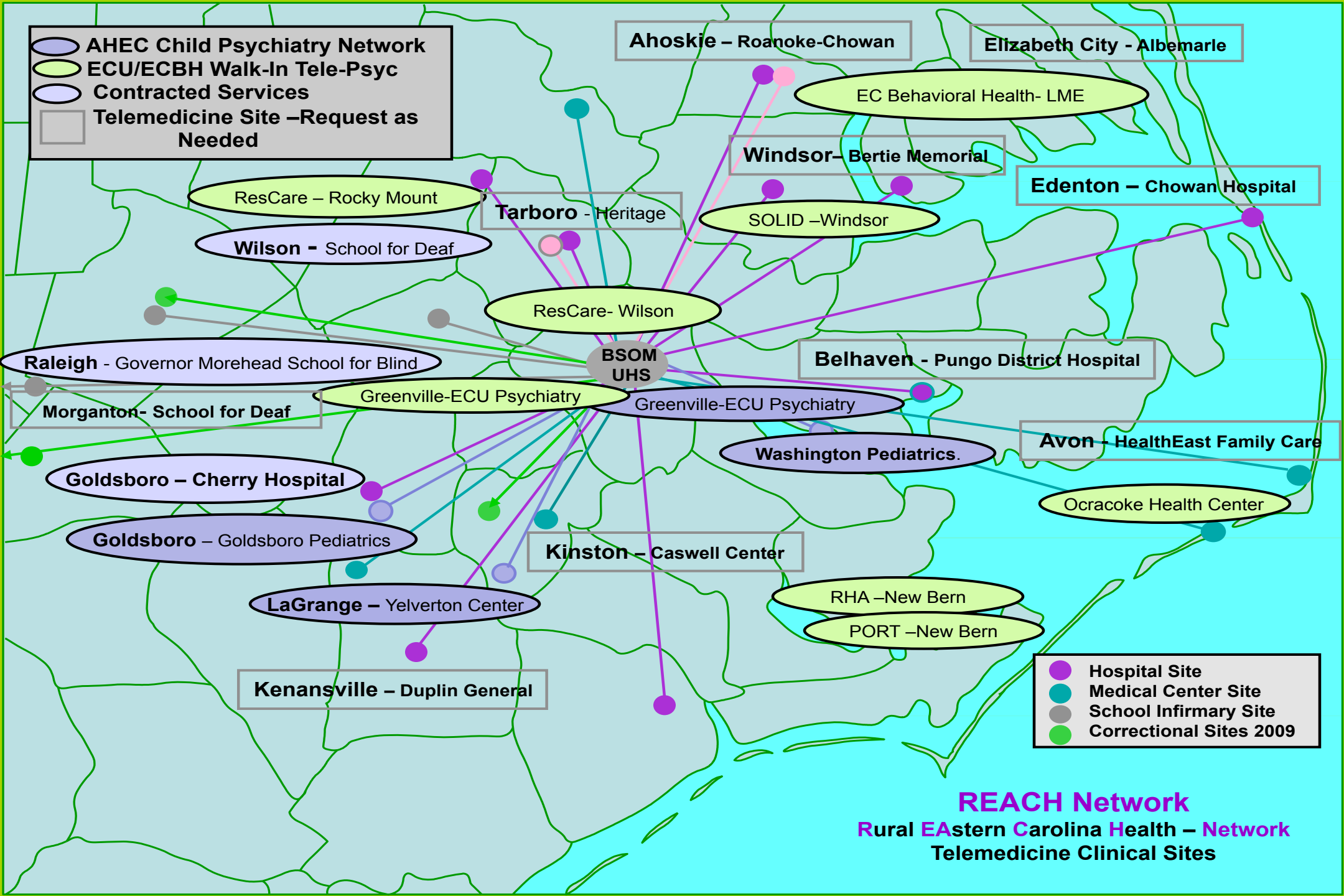
Distant or Hub site: Site at which the physician or other licensed practitioner delivering the service is located at the time the service is provided via telecommunications system.

Originating or Spoke site: Location of the patient at the time the service being furnished via a telecommunications system occurs. Telepresenters may be needed to facilitate the delivery of this service.

Asynchronous or "Store and Forward": Transfer of data from one site to another through the use of a camera or similar device that records (stores) an image that is sent (forwarded) via telecommunication to another site for consultation.

Asynchronous or "store and forward" applications is not considered telemedicine by Medicaid but may be utilized to deliver services.

-  AHEC Child Psychiatry Network
-  ECU/ECBH Walk-In Tele-Psyc
-  Contracted Services
-  Telemedicine Site –Request as Needed



Ahoskie – Roanoke-Chowan

Elizabeth City - Albemarle

Windsor– Bertie Memorial

Edenton – Chowan Hospital

ResCare – Rocky Mount

Tarboro - Heritage

SOLID –Windsor

Wilson - School for Deaf

ResCare- Wilson

BSOM UHS

Belhaven - Pungo District Hospital

Raleigh - Governor Morehead School for Blind

Greenville-ECU Psychiatry

Greenville-ECU Psychiatry

Morganton- School for Deaf

Avon - HealthEast Family Care

Goldsboro – Cherry Hospital

Washington Pediatrics.

Ocracoke Health Center

Goldsboro – Goldsboro Pediatrics





Kinston – Caswell Center

RHA –New Bern

LaGrange – Yelverton Center

PORT –New Bern

Kenansville – Duplin General

-  Hospital Site
-  Medical Center Site
-  School Infirmary Site
-  Correctional Sites 2009

REACH Network
 Rural Eastern Carolina Health – Network
 Telemedicine Clinical Sites

Telehealth, Telemedicine, and Telecare: What's What?



Telemedicine? - Telemedicine can be defined as using telecommunications technologies to support the delivery of all kinds of medical, diagnostic and treatment-related services usually by doctors. For example, this includes conducting diagnostic tests, closely monitoring a patient's progress after treatment or therapy and facilitating access to specialists that are not located in the same place as the patient.



Telehealth? - Telehealth is similar to telemedicine but includes a wider variety of *remote healthcare services beyond the doctor-patient relationship*. It often involves services provided by nurses, pharmacists or social workers, for example, who help with patient health education, social support and medication adherence, and troubleshooting health issues for patients and their caregivers.



Telecare? - Telecare generally refers to technology that allows consumers to stay safe and independent in their own homes. For example, telecare may include consumer-oriented health and fitness apps, sensors and tools that connect consumers with family members or other caregivers, exercise tracking tools, digital medication reminder systems or early warning and detection technologies.

Telehealth applications include:

Live (synchronous) videoconferencing:

a two-way audiovisual link between a patient and a care provider

Store-and-forward (asynchronous) videoconferencing:

transmission of a recorded health history to a health practitioner, usually a specialist.

Remote patient monitoring (RPM):

the use of connected electronic tools to record personal health and medical data in one location for review by a provider in another location, usually at a different time.

Mobile health (mHealth):

health care and public health information provided through mobile devices. The information may include general educational information, targeted texts, and notifications about disease outbreaks.



Live video (synchronous)

Live, 2-way interaction between a person (patient, caregiver, or clinician) and a clinician using audiovisual telecommunications technology. These video conferences used to be exclusively clinician-to-clinician telemedicine encounters. But many companies, such as Teladoc and LiveHealth Online, connect patients directly to clinicians every day.



Store-and-forward (SFT)

Transmitting videos and digital images through a secure, electronic communications system. As compared to a “real-time” visit, this service provides access to data after it’s been collected. Generally, clinicians record or capture diagnostic information (like X-rays, CT scans, EEG printouts) at the patient’s care site. Then they send them to a specialist in another location. Because of the time delay between the image’s transmission and when it’s interpreted, SFT is often referred to as “asynchronous.”



Remote patient monitoring (RPM)

Personal health and medical data collection from a patient in one location, which is then transmitted to a clinician in a different location. RPM helps clinicians and patients manage chronic illness. It uses devices, such as Holter monitors, to transmit information, including vital statistics — like heart rate, blood pressure, and blood oxygen levels.



Mobile health (mHealth)

Smartphone apps designed to foster health and well-being. These apps offer a wide range of health-related help. A small sample includes apps that send targeted text messages to encourage healthy behaviors, alerts about disease outbreaks, and reminders that help patients adhere to specific care regimens. Increasingly, smartphones may use cameras, microphones, or other sensors and transducers to capture vital signs and venture into RPM.

Telehealth/Telepsychiatry Webinar

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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. There are two types of study design: head-to-head comparison or non-inferiority (i.e., as good as).
- 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.
 - Studies that provide the same treatment across the two modalities (telepsychiatry versus face-to-face) and measure clinical outcomes. 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.

Evidence Supporting the Use of Telepsychiatry

- Telepsychiatry has a robust evidence base and leads to high patient and provider satisfaction ratings, and outcomes equivalent to in-person care.
- Telepsychiatry is especially effective with respect to the treatment of PTSD, depression, and ADHD, in team-based environments
- With some patient groups, telepsychiatry may be more effective than in-person care.

1. Hilty DM, Ferrer DC, Parish MB, et al. The Effectiveness of telemental health: A 2013 review. *Telemed J E Health* 2013;(19):444-454.
2. Myers K, vander Stoep A, Zhou C, et al. Effectiveness of a telehealth service delivery model for treating attention-deficit hyperactivity disorder: results of a community-based randomized controlled trial. *J Amer Asso Child Adolesc Psychiatry* 2015;54(4):263-74.
3. Hilty DM, Yellowlees PM, Parish MB, et al. Telepsychiatry: Effective, evidence-based and at a tipping point in healthcare delivery. *Psych Clin N Amer* 2015;38(3):559-592.

Evidence Supporting the Use of Telepsychiatry

- Preliminary studies in geriatric patients and across cultures are positive.
 - Telepsychiatry may actually facilitate cultural, ethnic and language matching between patients and providers.
- The experience other mental health clinicians using telemedicine is consistent with, and further substantiates the diagnostic, therapeutic and outcome evidence base.
- Care models that have good evidence include direct care, consultation to primary care and collaborative care.

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

- There are a few populations in which telepsychiatry may be preferable to in-person care, e.g.:
 - autism spectrum,
 - severe anxiety disorders
 - geriatric patients with physical limitations
 - those with significant geographical obstacles

The Evidence Base in Telepsychiatry. Available at:

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

Accessed January 7, 2020.

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Rationale for Use of Telepsychiatry

- Access to care
- Enhanced efficiency of care provision
- Shorten time to treatment
- Enhance professional communication
- Education/Training Applications
- Cost savings

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

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.

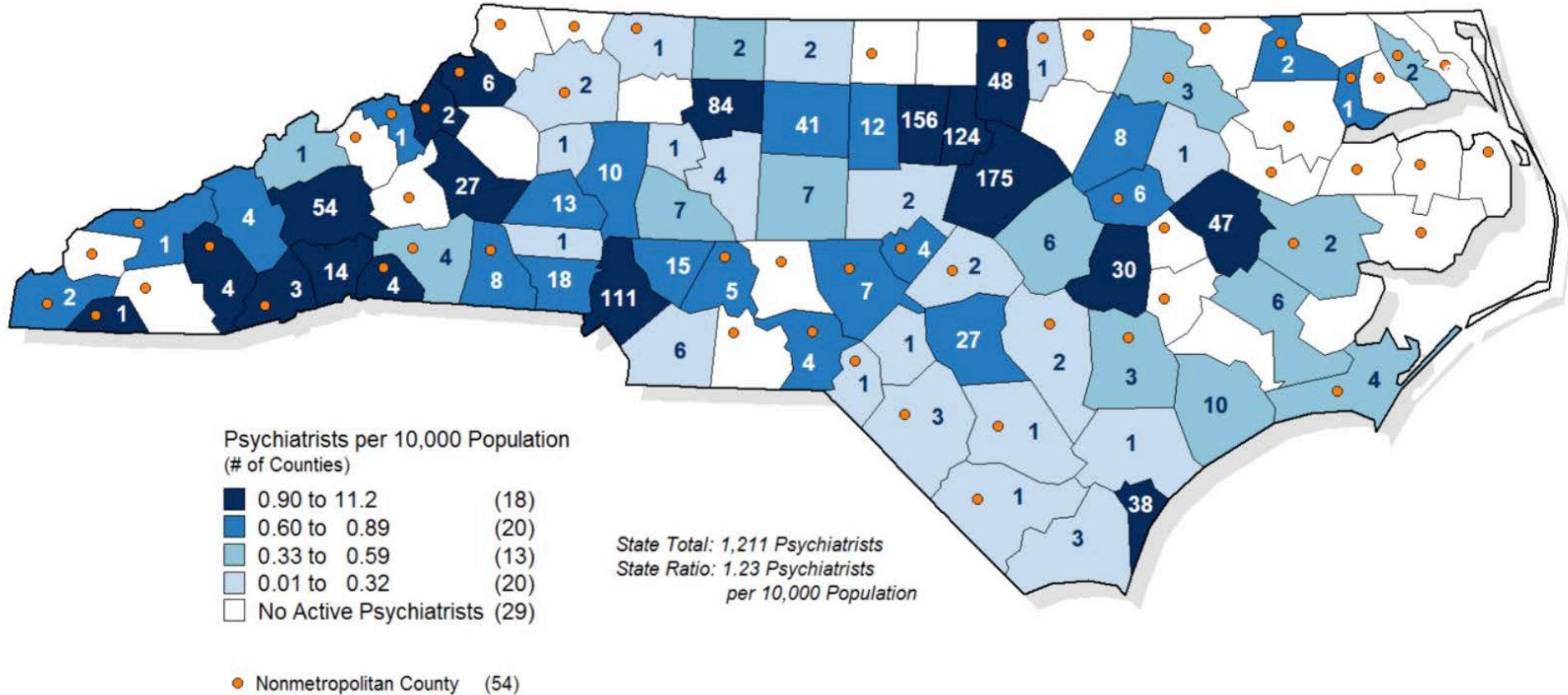
BHPs per 100,000 Population and Percent of Counties Without a Provider, by U.S. Census Division

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

Psychiatrists per 10,000 Population

North Carolina, 2013



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.

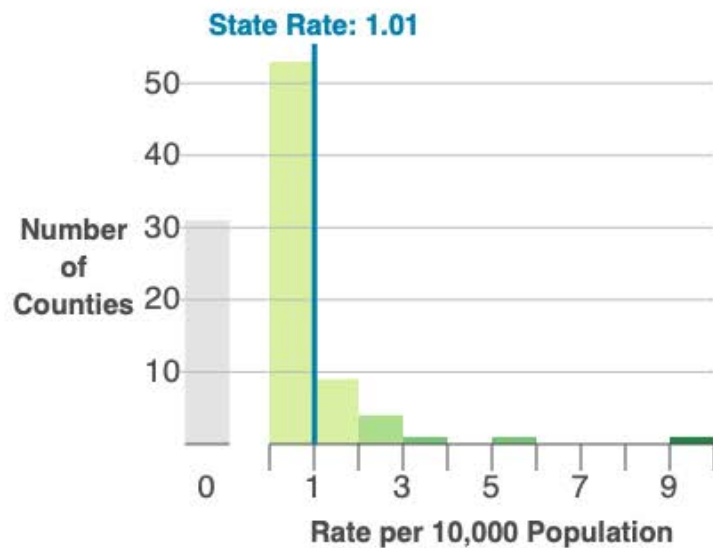
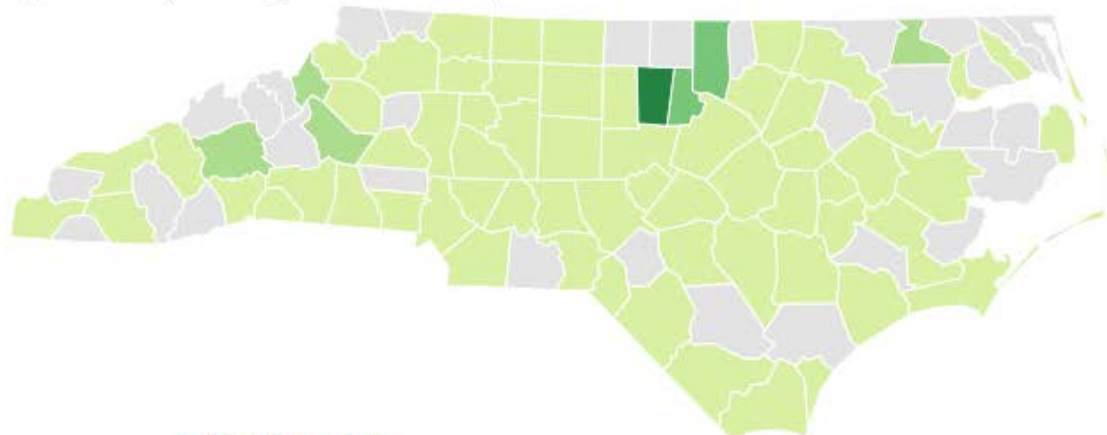
Note: Data are based on primary practice location and include active, in-state, nonfederal, non-resident-in-training MDs and DOs licensed in NC as of October 31, 2013 who indicate that their primary area of practice is psychiatry, child psychiatry, psychoanalysis, psychosomatic medicine, addiction/chemical 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.

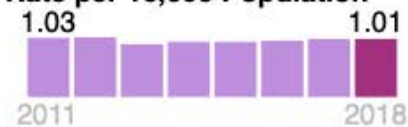


Physicians with a Primary Area of Practice of Psychiatry, General per 10,000 Population by County, North Carolina, 2018



Profession Demographics for North Carolina

Rate per 10,000 Population



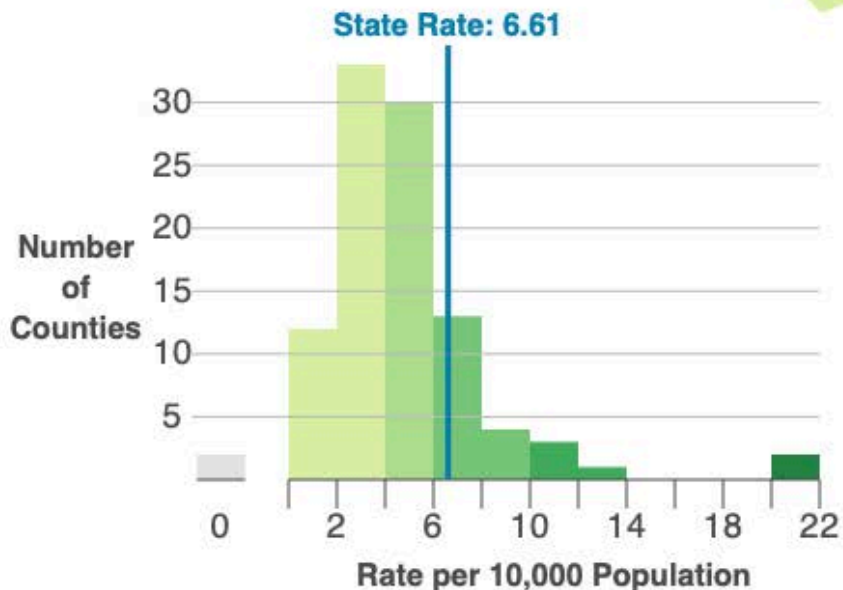
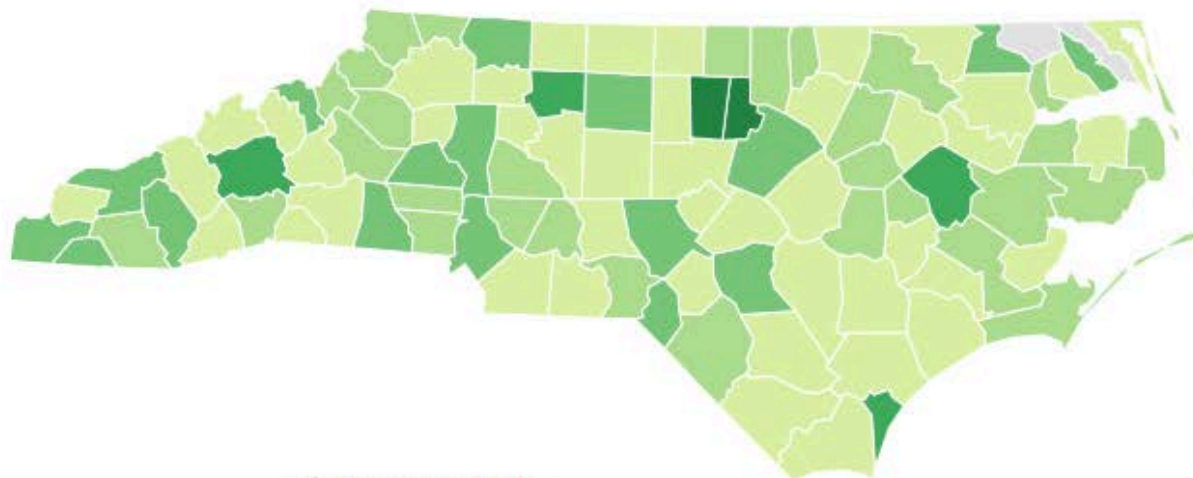
Total



**SHEPS HEALTH
WORKFORCE NC**

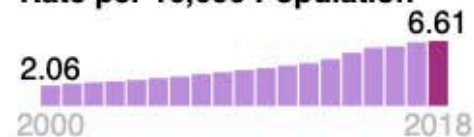
Physicians with a primary area of practice of Psychiatry, General include the following: Forensic Psychiatry, Geriatric Psychiatry, Hypnosis, Internal Medicine - Psychiatry, Psychiatry, Psychiatry - Family Practice, Psychoanalysis, Psychosomatic Medicine. Notes: Data include active, licensed physicians in practice in North Carolina as of October 31 of each year who are not residents-in-training and are not employed by the Federal government. Physician data are derived from the North Carolina Medical Board. County estimates are based on primary practice location. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management via NC LINC and are based on US Census data. Source: North Carolina Health Professions Data System, Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. Created September 18, 2019 at <https://nchealthworkforce.unc.edu/supply/>.

Nurse Practitioners per 10,000 Population by County, North Carolina, 2018



Profession Demographics for North Carolina

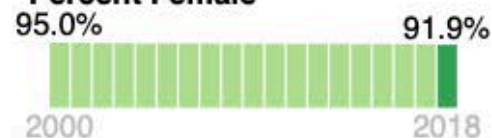
Rate per 10,000 Population



Total



Percent Female



Percent 65 or Older

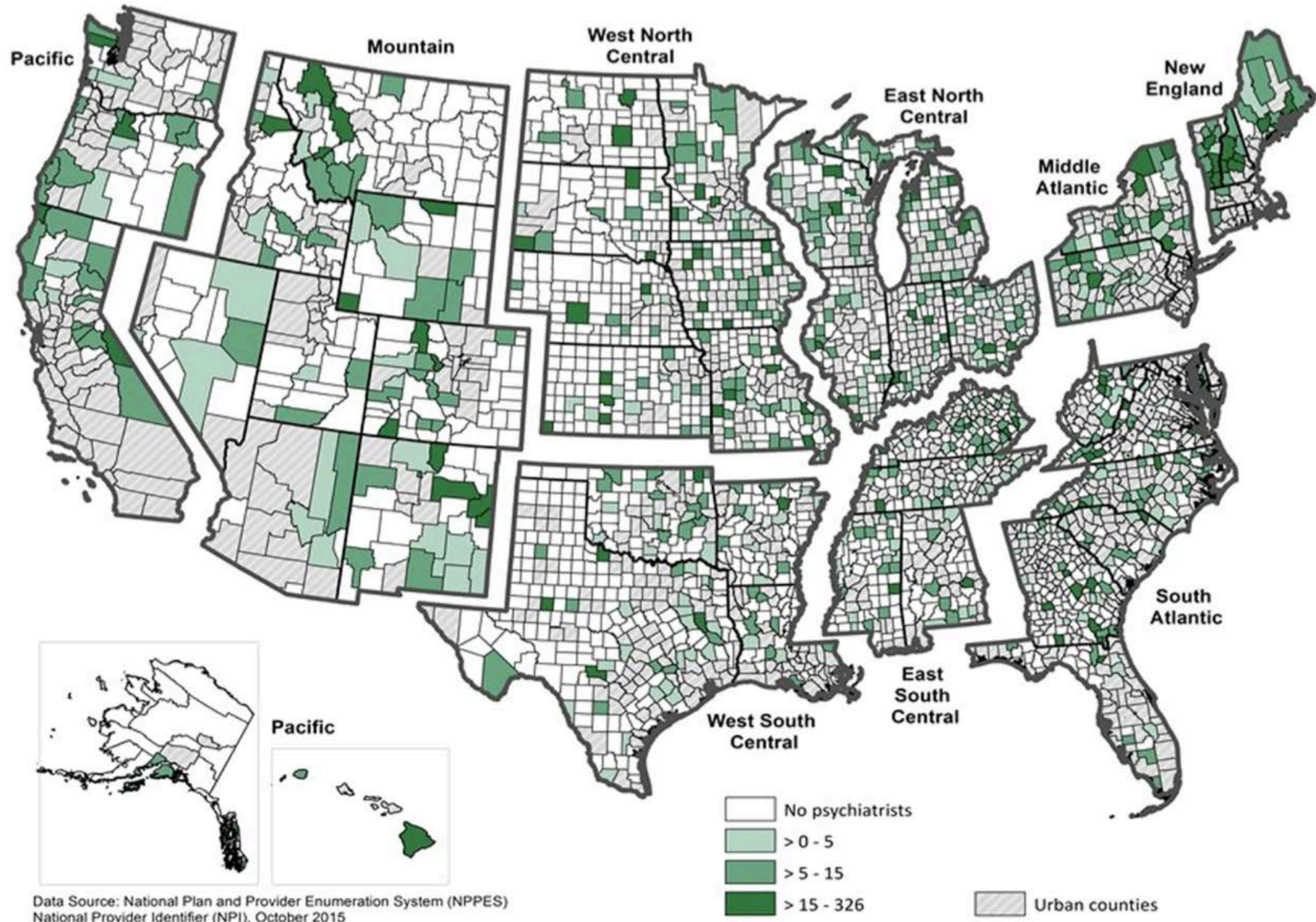


Percent Underrepresented Minority



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



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

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

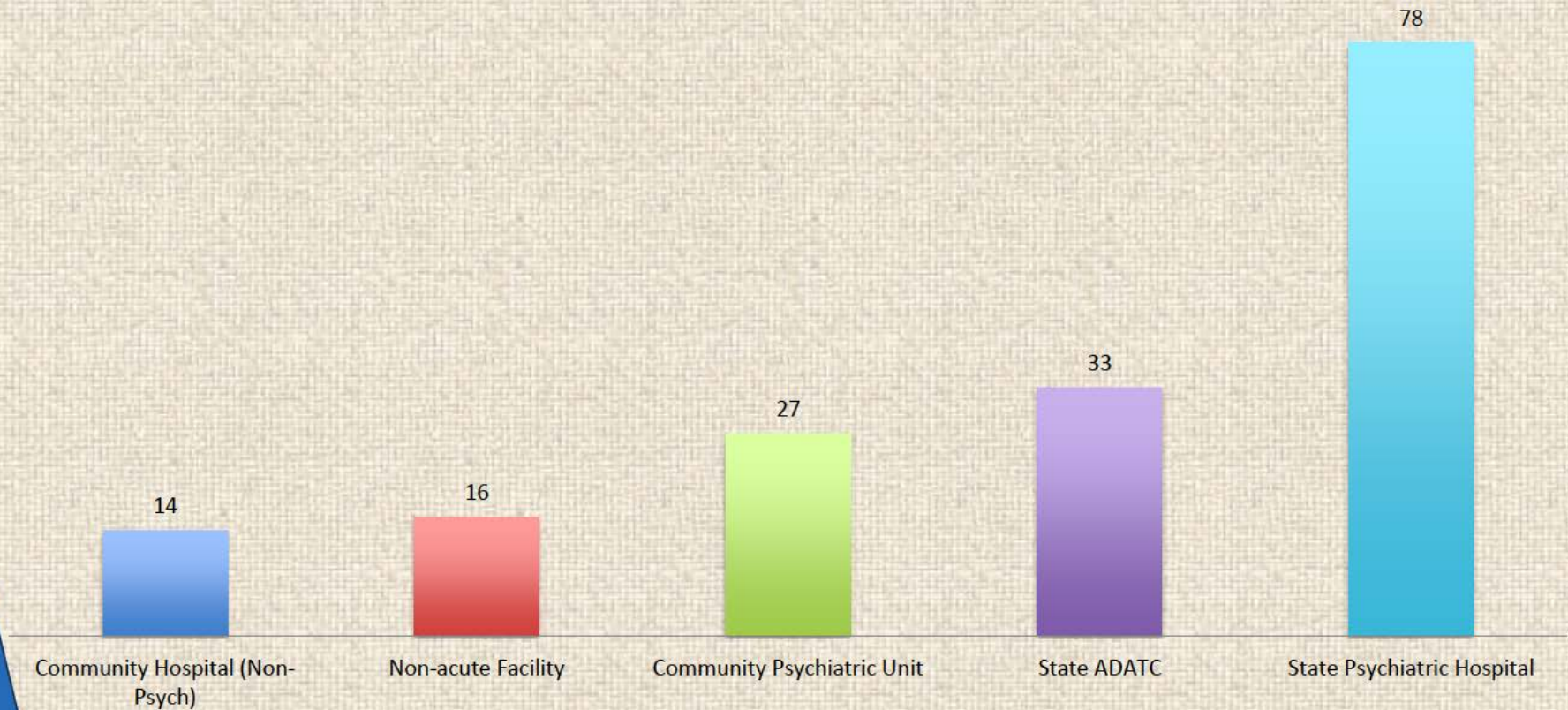
2. Study by the Centers for Disease Control

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

- Currently, there are 108 hospitals with either single ED, 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?

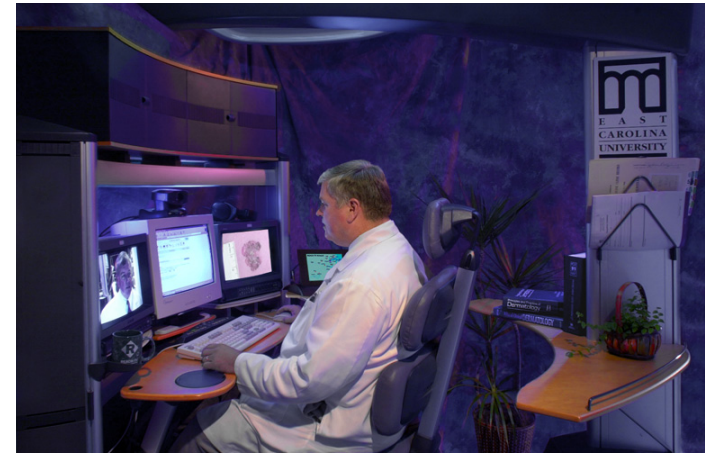
Average ED Length of Stay (ALOS) for Admitted Behavioral Health Patients



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.*



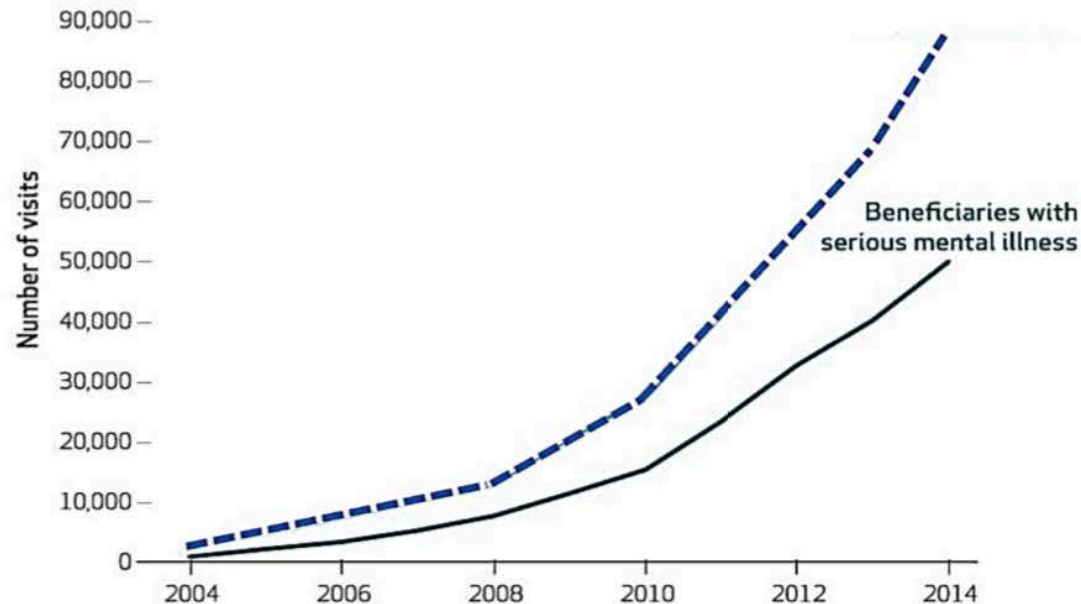
Demonstrated Benefits of Telepsychiatry

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.

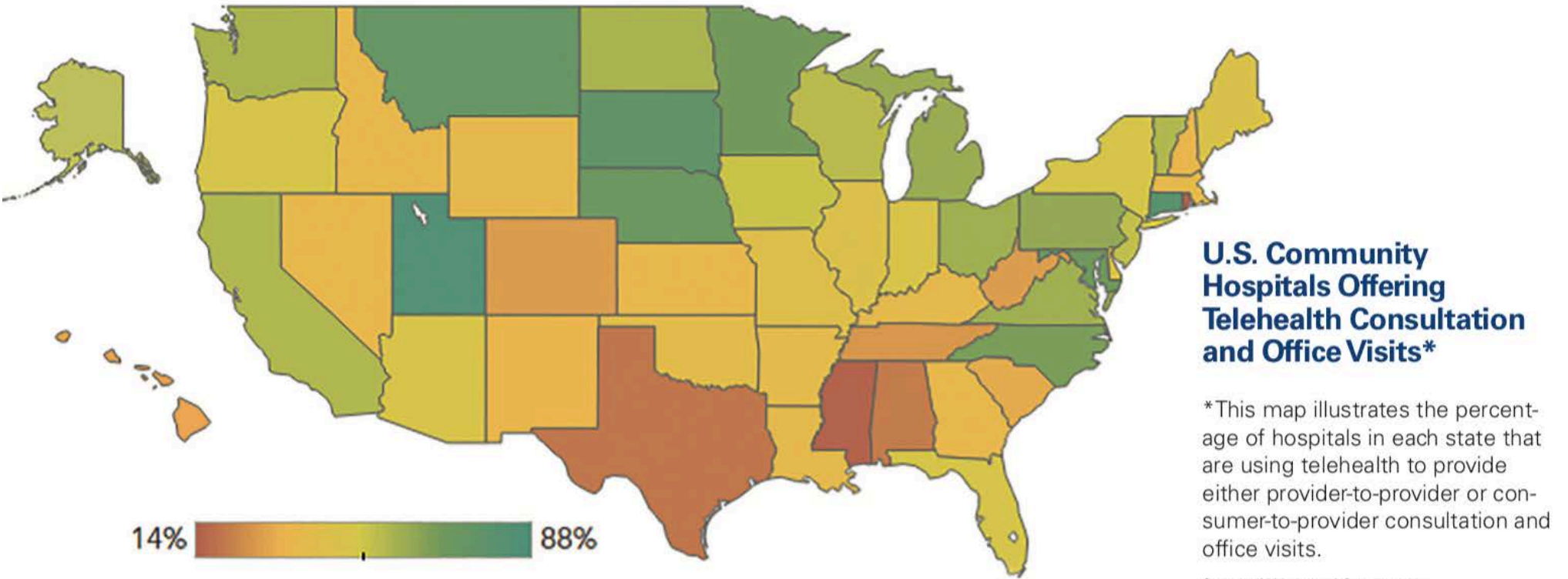
Telehealth is Rapidly Shaping the Future of Medicine

Number of telemental health visits among rural Medicare beneficiaries with mental illness, 2004-14



Source: Mehrotra et al. Rapid growth in mental health telemedicine use among rural Medicare beneficiaries, wide variation among states. *Health Affairs* 2017; 36(5):909-917.

The Growth of Telehealth in U.S. Hospitals and Health Systems



How is Telehealth Used?

- **Clinical:** Direct Patient Care and Consultation, Case Reviews
- **Education and Training:** Providers, Students, and Patients
- **Research:** Community-based Participatory, Outcomes driven
- **Public Health**
- **Administrative:** Strategic planning, Operations
- **Sharing Health Information**
- **Enhanced Disaster Response**

Telepsychiatry and e-Mental Health: Clinical Applications

- Diagnostic, therapeutic, and forensic modalities across the age span.
- Points of delivery may include hospitals and their EDs, clinics, offices, homes, nursing homes, schools and prisons.
- Common applications include pre-hospitalization assessment and post-hospital follow-up care, medication management, psychotherapy, and consultation.

Practice Models for Telepsychiatry

Consultation Model

Consultee-Centered Consultation

Client-Centered Consultation

Direct Care Model

Direct Care Provided by a Psychiatrist

Ongoing Care Coordinated by a Midlevel Professional in Conjunction with a Psychiatrist

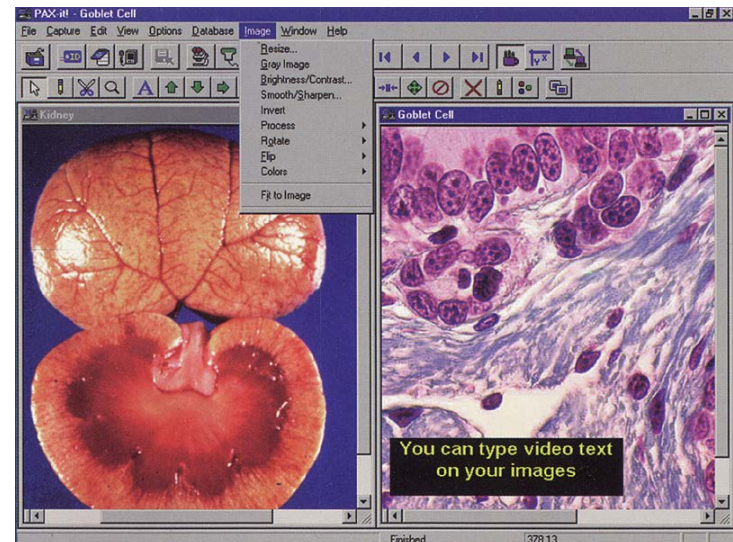
Comprehensive Services Involving a Team of Clinicians

“Store and Forward”

- Capturing an image and **storing** it to then be **forwarded** for review by a medical specialists
- Examples include teleradiology, telepathology and tele-dermatology, tele-ophthalmology (retinal scans)



Teleradiology and Image Transfer



Web-Based Portals

Telepsychiatry Applications: Training and Education

- Learning activity can originate from a variety of possible locations on a global basis.
- Minimize training related travel: Trainers and Trainees.
- Broader access to the training by the myriad of staff.
- Subject matter conveyed consistently from site to site.
- Q&As can be communicated simultaneously to multiple audiences at the different training sites.

Telepsychiatry Applications: Clinical Supervision

- Psychiatry residents
- Physician extenders
- Psychology and SW Interns
- Other learners

Telepsychiatry Applications: Programmatic Consultation

- Directed toward broader organizational change in hopes of improving the care provided.
- Telepsychiatry offers many opportunities to provide consultation to programs that are difficult to access geographically or logistically in a typical workday.
 - Broder (2005) described programmatic consultation in Canada to eleven child and adolescent psychiatric treatment programs.

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

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

Natural impediments include:

- Inherent personal or organizational resistance to change
- Technological illiteracy
- Cost

Potential Barriers:

Reimbursement (1)

- Medicare reimbursement for telemedicine started in 1999.
- To be reimbursed, telemedicine encounters must be interactive (i.e. bi-directional videoconferencing), with both the (consulting) provider and the patient present.
- Generally, reimbursement in mental telehealth is provided for:
 - diagnostic interview
 - individual psychotherapy
 - pharmacologic management

Potential Barriers: Reimbursement (2)

- Most State Medicaid programs, and many third-party payors, provide reimbursement for telehealth services, with similar caveats as Medicare.
- All payment is based on a “fee-for-service” approach that reimburses the consulting physician or other health professional for their time.
- Technology and personnel infrastructure costs are not reimbursed.

Potential Barriers:

Licensure

- Health care services have been defined as delivered in the state where the patient is located:
 - Providers of telemental health services **shall** comply with state licensure laws, which typically entail holding an active professional license issued by the state in which the patient is physically located during a telemental health session.
 - Providers **shall** conduct their own due diligence to determine the type of licensure required, and ensure they are in compliance with state licensing board regulations.
 - If providing care within a federal healthcare system (e.g., Department of Veterans Affairs, Department of Defense, Indian Health Service), providers **shall** follow the specific organization guidelines around licensure, which may allow for a single state licensure across multiple jurisdictions.

Potential Barriers: Privacy, Security, and HIPAA

- Privacy considerations that are unique to telehealth:
 - potential for non-clinical technical and administrative personnel to view telehealth transactions
 - off-camera presence of other clinical personnel (i.e. not seen by patient)
 - increased use of IP videoconferencing over public networks creates the potential for unauthorized access to PHI.
- Technology solutions, such as in-codec encryption and virtual private networks, will need to be implemented.

Potential Barriers: Infrastructure

The cost of telehealth:

- network connections
 - hardware/software.
 - support staff
 - other infrastructure costs
- Costs associated with the development of the infrastructure and maintenance are typically non-reimbursable.
 - Funds from the Federal Communications Commission's Universal Service Fund subsidies can reduce the cost of telepsychiatry network connections.
 - Individual states have also developed various funding streams to support telemedicine.



Potential Barriers:

Legal and Regulatory Ramifications

- The Health Information Technology for Economic and Clinical Health (HITECH) Act, Subtitle D addresses the privacy and security concerns associated with the electronic transmission of health information, in part, through several provisions that strengthen the civil and criminal enforcement of the HIPAA rules.
- Standards of Care
- *Liability*. Some malpractice providers cover telepsychiatry as part of their standard coverage while others may require additional coverage for providing telepsychiatry services.

Potential Barriers:

Prescribing

- The Ryan Haight Online Pharmacy Consumer Protection Act of 2008, requires any practitioner issuing a prescription for a controlled substance to conduct an in-person medical evaluation at least once every 24 months.

Potential Barriers: Credentialing

A provider must be credentialed in the services that he or she provides, which in many cases necessitates credentialing in multiple systems.

- This significantly increases the burden on providers for completing applications, waiting for the review process to complete before services can start, and paying associated dues.

Which of the following definitions of telepsychiatry is most consistent with what Medicaid and other payors will reimburse for?

- A. Live interactive 2-way audio-video communication
- B. Use of electronic information and communications technologies to provide and support health care
- C. Delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies
- D. Exchange of valid information for diagnosis, treatment and prevention of disease and injuries, all in the interests of advancing the health of individuals and their communities
- E. The use of connected electronic tools to record personal health and medical data in one location for review by a provider in another location

Telehealth applications include all of the following, EXCEPT:

- A. Live (synchronous) videoconferencing
- B. Store-and-forward (asynchronous) videoconferencing
- C. Remote patient monitoring (RPM)
- D. Clinical decision support (CDS)
- E. Mobile health (mHealth)

In regard to providing clinical services across the state lines, which of the following is true?

- A. Health care services have been defined as delivered in the state where the patient is located
- B. Health care services have been defined as delivered in the state where the provider is located

Telehealth/Telepsychiatry Webinar

Objectives

1. Summarize evidence supporting the use of telepsychiatry
2. Describe the demonstrated benefits of using telepsychiatry and health technologies in healthcare settings
3. Describe common barriers to use of telepsychiatry
4. Identify the infrastructure needs to implement telepsychiatry services for the assessment and treatment of patients with psychiatric disorders
5. Describe basic technological concerns, clinical issues, and workflows for mental health clinicians who seek to learn the models and methods of telepsychiatry
6. Describe how NC Statewide Telepsychiatry Program (NC-STeP) is addressing problems in areas of access to evidence-based mental health services

Learning to Do Telemental Health

General Considerations

- Practice and self-observe
 - tape yourself doing a session and review it, but be mindful of local and state law regarding videotaping of telemental health sessions
- Individual patient care: patient-centered, respectful, active listening, expressing empathy, culturally sensitive, and use non-verbal behavior (e.g., eye contact).
- If it is a consultation for a primary care provider, what are his/her expressed and implied needs in terms of outcomes?
- Group formats for care: introductions, engaging others to get involved, and giving directions or ground rules to provide structure.

Learning to Do Telemental Health

General Considerations

- planning of session (e.g., main goals)
- pre-reading chart, if available
- summarizing knowledge
- managing the session (e.g., people, room set up, dress, behavior style, voice projection, limited moving)
- feeling organized
- consider an opening script for new evaluations

Learning to Do Telemental Health

Clinical Considerations

General Issues

- Maintain the standard of care and quality of service
- Consider scope issues: consultant versus direct care roles
- Informed consent: not just the documentation
- Social chit chat at beginning helps
- Level of interaction (e.g., toys for kids with a table; hearing limitations) patient attitudes or complaints
- Sources of information.

Learning to Do Telemental Health

Clinical Considerations

General Issues

- Video interviewing takes longer than face-to-face and requires more concentration
- The setting/room: both ends private/secure
- Announce anyone who is unseen to the patient, check lighting and check equipment
- Check in with the patient at the end of the session to see if they are Ok with the format.

Learning to Do Telemental Health

Social communication reminders:

- “Less is more” in terms of interruptions and amount of information dispensed, just as in-person
- You: dress appropriately (i.e., no stripes that cause dizziness), and project voice and other gestures about 15% greater than in-person.
- Adjust to age (e.g., toys and table for kids; support person for older adults).

Learning to Do Telemental Health

The clinical examination is virtually the same, with a few caveats:

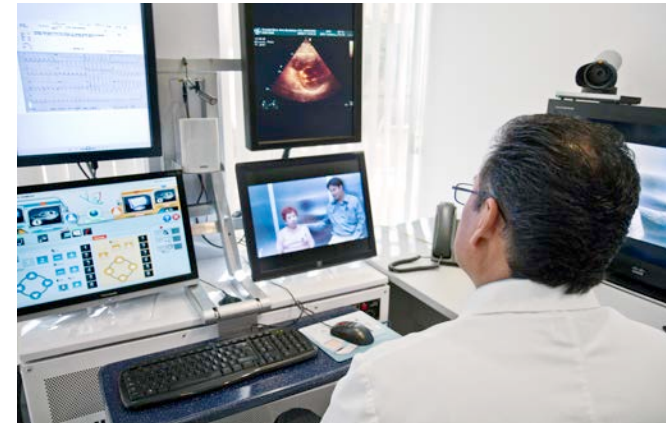
- Cognitive examination: may require item substitution if clock drawing or sentence writing cannot be uploaded to see or held visually in the camera
- Physical examination: camera control at the far end enables easy wide angle, close-up, and focused viewing to detect tremors, micrographia, and other abnormalities
 - staff may need to be trained to check for extrapyramidal side effects (EPS) like cogwheel rigidity or rashes (Steven Johnson)

Learning to Do Telemental Health

Before initiating, make sure there is an emergency protocol in place at the client site if a more restrictive level of care is warranted.

Technology Basics

- A typical telepsychiatry setup includes a video camera, microphone, speakers (or headset), and one or two displays (monitors) at each end of the system.
- Often, separate displays or a picture-in-picture (if one display) are used to enable participants to see both outgoing (preview) and incoming video.



Technology Basics: Components

- Telepsychiatry primarily involves interactive audiovisual conferencing systems over high capacity (high-bandwidth) networks.
- The central component of interactive telepsychiatry is the codec (coder/decoder), which provides the requisite compression and decompression, and synchronization of audio and video signals.
- Most often, a codec is a separate device (appliance), but personal computer (PC)—based codecs are increasingly employed as their capabilities improve.
- A codec is required at both the patient and consultant ends of the system.

Technology Basics: Configuration

- Mobile capability: IP technologies equipped with encryption for interactive
- Patient Room Pan/Zoom/Tilt camera w/far-end control
- Mobile desktop unit for clinic connectivity



Technology Basics: Networks

- Use a broadband internet connection that, at minimum, has a transmission speed of at least 5 MB upload/download to avoid pixilation, frequent buffering, and other video and audio difficulties
 - Higher speeds might be required for newer technologies that use HD capabilities
- Choose a software solution that is HIPAA-compliant, as many popular, free products are not
- When reviewing software options, many vendors require a “business associate agreement,” or a BAA, to ensure HIPAA compliance. Contact the vendor and confirm what such an agreement entails

Technology Basics: Networks

- When partnering with 3rd party telepsychiatry vendors, be sure to check if their:
 - encryption meets the FIPS 140-2 certified 256 bit standard;
 - that any peer-to-peer videoconferencing (streamed endpoint-to-endpoint) is not stored or intercepted by the company in any way; and
 - that any recorded videoconferences or—if available—text-based chat sessions near the chat window are stored locally, on your own HIPAA-compliant device or electronic record keeping system, in order to safeguard any electronic protected health information or PHI.
- HIPAA compliance may also be dependent on the interface of your videoconferencing software with other aspects of your practice, such as EHRs, so it is best to think about HIPAA and telepsychiatry from a global, “all technologies” perspective.

Security Measures

- Use a secure, trusted platform for videoconferencing
- Make sure your audio and video transmission is encrypted. The Federal Information Processing Standard (FIPS) 140-2 is used by the United States government to accredit encryption standards. Encryption strengths and types can change.
- Make sure your device uses security features such as passphrases and two-factor authentication. Your device preferably will not store any patient data locally, but if it must, it should be encrypted.

Security Measures

- Compliance with HIPAA is essential.
 - HIPAA sets a minimum federal standard for the security of health information. States may also set privacy laws that can be even more strict, so be sure to check any relevant statute for the state in which you practice.
- Just because software says its HIPAA-compliant isn't enough.
- Be sure your devices and software use the latest security patches and updates. Install the latest antivirus, anti-malware, and firewall software to your devices.
- If you're part of an institution with IT staff, they should approve of and manage your device.

Security Measures

- 1.** PCs or mobile device should have the latest security patches and updates applied to the operating system and any third-party applications being utilized for telepsychiatry encounters.
- 2.** Audio and video transmission should be secured by using point-to-point encryption that meets recognized standards. Unauthorized persons should not be allowed access to sensitive information stored on the device or use the device to access sensitive applications or network resources.
- 3.** Protected health information and other confidential data must be backed up to or stored on secure data storage locations.

Security Measures

4. When using mobile devices, special attention needs to be given to:
 - adequate restriction on access to any patient contact information stored on the device;
 - a passphrase or equivalent security feature before the device can be accessed, preferably using multi-factor authentication;
 - an inactivity timeout function that requires a passphrase or re-authentication to access the device after the timeout threshold has been exceeded
 - ATA recommends this timeout not to exceed 15 minutes;
 - capability to remotely disable or wipe the device in the event it is lost or stolen.

Security Measures

5. ATA guidelines recommend providing services at a bandwidth of 384 Kbps or higher in each of the downlink and uplink directions and providing a minimum of 640×360 resolution at 30 frames per second.
6. Videoconference software should not allow multiple concurrent sessions to be opened by a single user.

When using mobile devices for telepsychiatry, special attention needs to be given to all of the following EXCEPT:

- A. Adequate restriction on access to any patient contact information stored on the device;
- B. A passphrase or equivalent security feature before the device can be accessed, preferably using multi-factor authentication;
- C. An inactivity timeout function that requires a passphrase or re-authentication to access the device after the timeout threshold has been exceeded (ATA recommends this timeout not to exceed 15 minutes);
- D. Capability to remotely disable or wipe the device in the event it is lost or stolen.
- E. Videoconference software that allows multiple concurrent sessions opened by a single user.

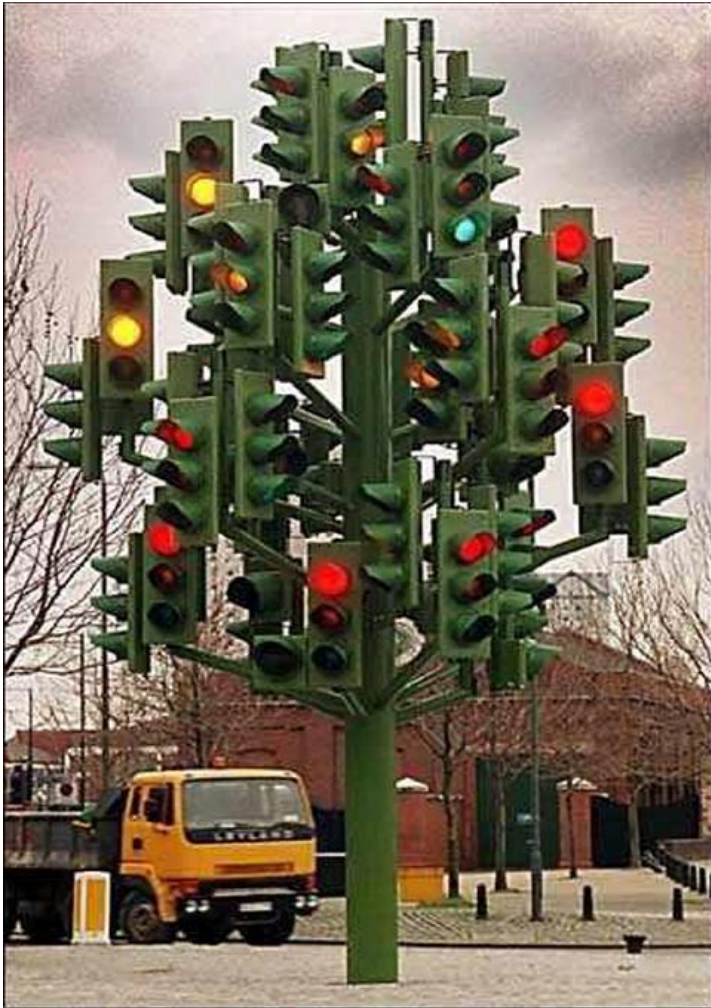
Telemedicine and Health Information Exchange (HIE)

- Telemedicine creates the “virtual” consultation and provision of service between providers and patients
= access to care
- HIE creates the consolidated “virtual” medical record about the patient from a variety of electronic health records and sources
= access to the patient’s health information

Telehealth and HIE

Telehealth and HIE should be closely linked as a means to improve access, enhance continuity of coordinated comprehensive quality care, support patients and providers at the site of care, as a means to achieve the best health outcomes and reduce costs

Where to start?



- Type of TH service identified
- Equipment /network needs
- Available Telecommunication
- Available providers
- Technical and user support
- PHI transfer/MR creation
- F/U to referring provider
- Scheduling/ presentation protocol
- Training of users
- ONE number call center

Telehealth Planning:

Keys to successful implementation

- **Feasibility and Needs Assessment**
- **Technology Planning:** Platforms for both consulting and originating sites, connectivity, security
- **Operations Planning:** Workflow, workforce, C/P, Licensure, Documentation/Integration with EHR, scheduling vs. 24/7-emergencies, reimbursement (parity legislation)
- **Business Planning:** Integration with strategic direction, Sustainability, ROI
- **Evaluation Planning:** data collection, metrics of success
- **CQI**

Setting Up a Telepsychiatry Service- 1

1. Needs assessment for the service that addresses these three questions:
 - a) Is the Telebehavioral service needed?
 - b) Is it feasible?
 - c) Is it sustainable?

Setting Up a Telepsychiatry Service- 2

2. Determine which specific partnerships are going to implement and sustain the telepsychiatry service.
 - In essence, this includes the partnership at the site(s) where the patients are going to be located at (e.g., primary care clinics, health department clinics, hospital emergency departments, or other provider-based clinics) and the partnership at the providers' site (e.g., practice groups, academic practices, and employed providers).

Setting Up a Telepsychiatry Service- 3

3. Conduct a detailed assessment of the existing technological, organizational, and programmatic infrastructure, both at the patient's site and the provider's site.
4. Identify the equipment and network infrastructure that will be needed for the service, both at the patient's site(s) and the provider's site.

Setting Up a Telepsychiatry Service- 4

5. Establish the model of care (e.g., direct care, patient-centered consultation, provider-focused consultation, or hybrid).
6. Specific protocols, clinic policies, and procedures should be established.
 - It is usually helpful to have an operations manual that contains all such information.

Setting Up a Telepsychiatry Service: Operations Manual

Operations manual should also contain information regarding:

- i. available providers:
- ii. technical and user support
- iii. transfer of personal health information and/or the creation of medical records
- iv. follow-up to the referring provider
- v. protocols
- vi. a single number for the call center

Protocols

It is important to have a written protocol that specifies who performs what function in the process of intake, evaluation, and treatment to clarify roles and identify process issues quickly when they arise.

Examples of Protocols

- Psychiatrists' role within the continuum of care
- Staffing Requirements
- Exam Room Specs
- Sites Obligations
- In the event of equipment failure....
- Medical Records
- Procedure for Prescribing Medications
- Role Definitions (who does what)
- Interim Care
- Duration of Visits

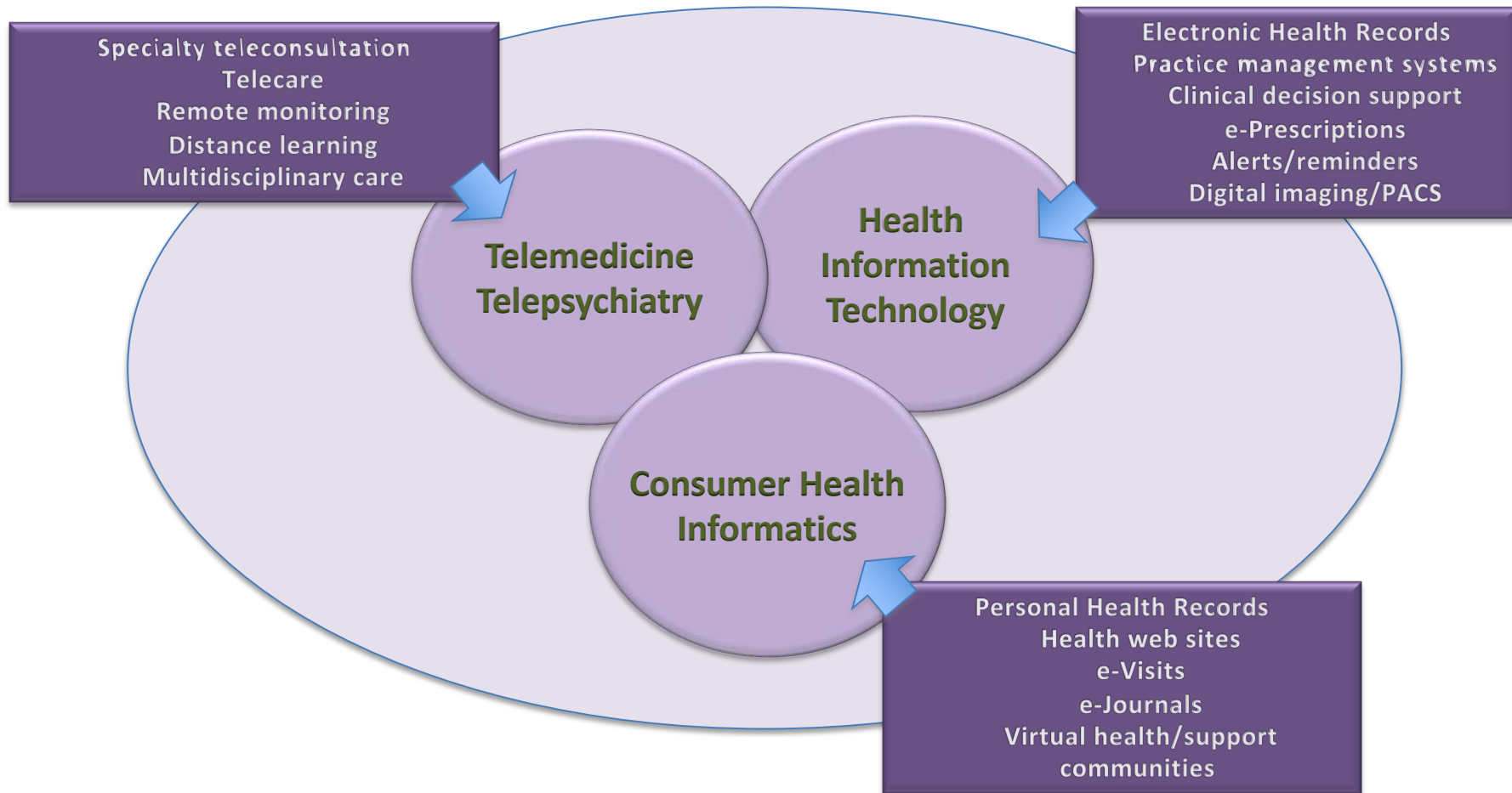
Setting Up a Telepsychiatry Service- 5

7. Establish a timeline for going live, and a work group or steering committee should be identified that can meet periodically to oversee a smooth implementation.
8. Identify and work out problems, revise protocols, and report data.
9. Do a small-scale trial run before going live.

Setting Up a Telepsychiatry Service- 6

10. An ongoing outcomes management system—one that includes attention to quality of care— needs to be in place to ascertain that the telepsychiatry program adequately addresses the needs of patients and institutions.

Connected Health (Saeed and Anand, 2015)



Telehealth applications include all of the following, EXCEPT:

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NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM



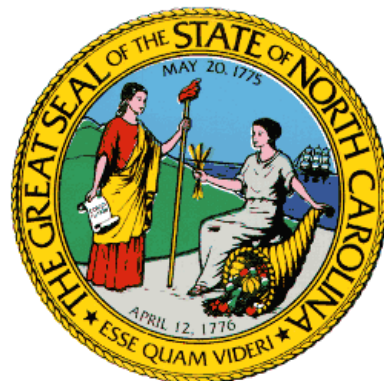


NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

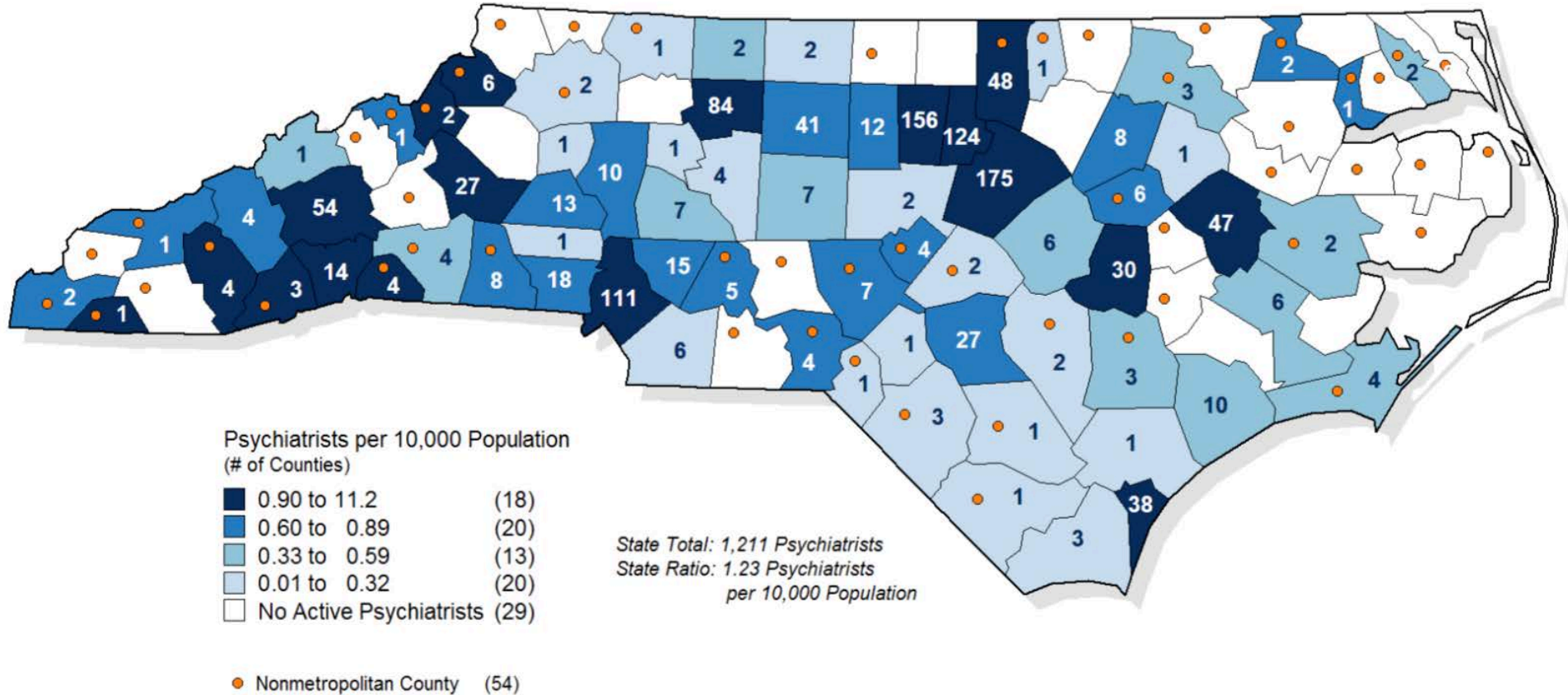
Developed in response to Session Law 2013-360.

- 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



Psychiatrists per 10,000 Population

North Carolina, 2013



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.



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.



NORTH CAROLINA

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 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





	Since project inception in November 2013	During Calendar Year 2014	During Calendar Year 2015	During Calendar Year 2016	During Calendar Year 2017	During Calendar Year 2018
Total Patient Encounters	28,814	5,144	7,128	1,896	3,970	6,100
Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)	39,353	8,130	13,573	1,942	4,347	6,674



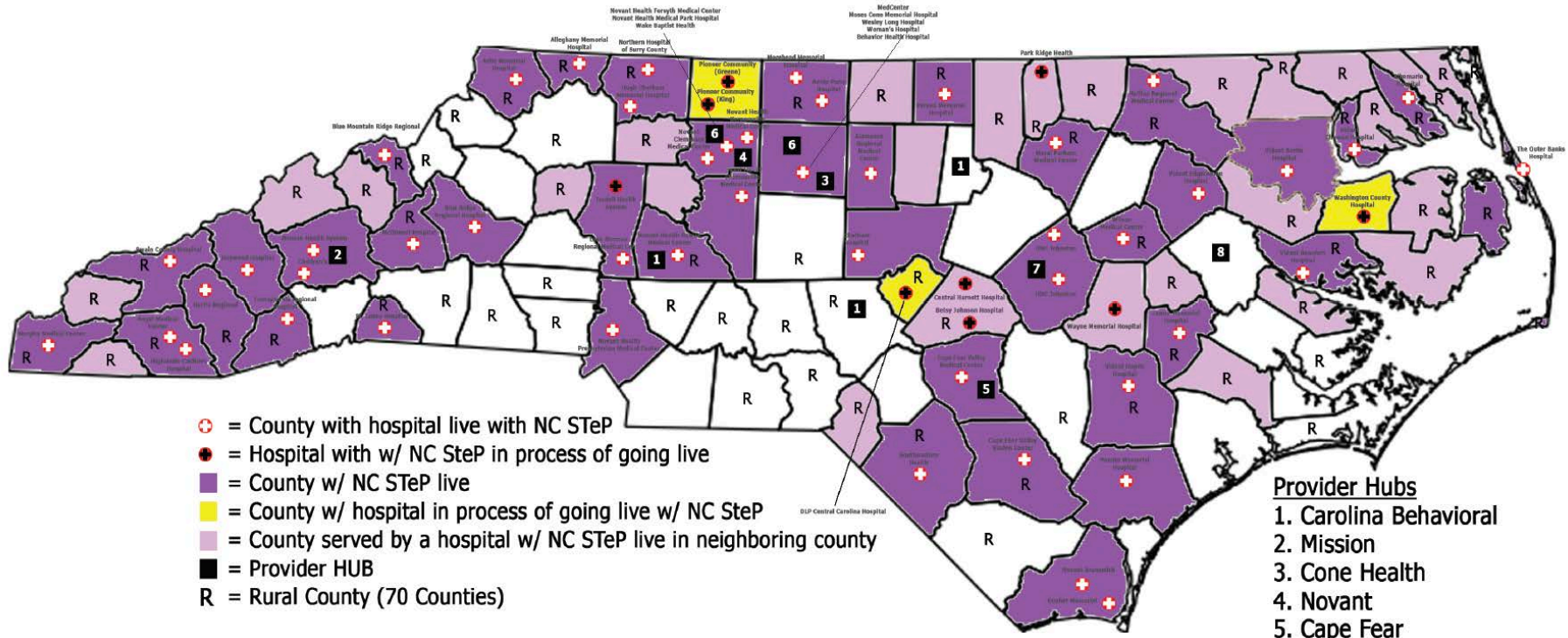
	Since project inception in November 2013	During Calendar Year 2019	Quarter Jan- Mar 2019	Quarter Apr- Jun 2019	Quarter Jul- Sep 2019	Quarter Oct- Dec 2019
Total Patient Encounters	28,814	3,622	1,461	1,139	1,034	
Total Number of Assessments (Billed Assessments for Model 1 Hospitals + Number of Patient Encounters for Model 2 Hospitals)	39,353	3,974	1,594	1,268	1,131	

NC-STeP Benchmarks



Goals	Values Reached		
Cumulative Target to be reached by (06/30/2019)	Value Reached as of most recent previous quarter (03/31/2019)	Value Reached as of this reporting quarter (06/30/2019)	Year-to-Date Total with % of the Yearly Target (03/31/2019)
Number of IVCs	2,817	2,217	2,878 102% of Yearly Target
Number of IVCs Overturned	1,197	939	1,175 98% of Yearly Target
Total Number of Assessments (Billed assessments for Model 1 hospitals + Number of patient encounters for Model 2 hospitals.)	5,086	5,427	6,676 131% of Yearly Target

NC-SteP Status as of January 1, 2020

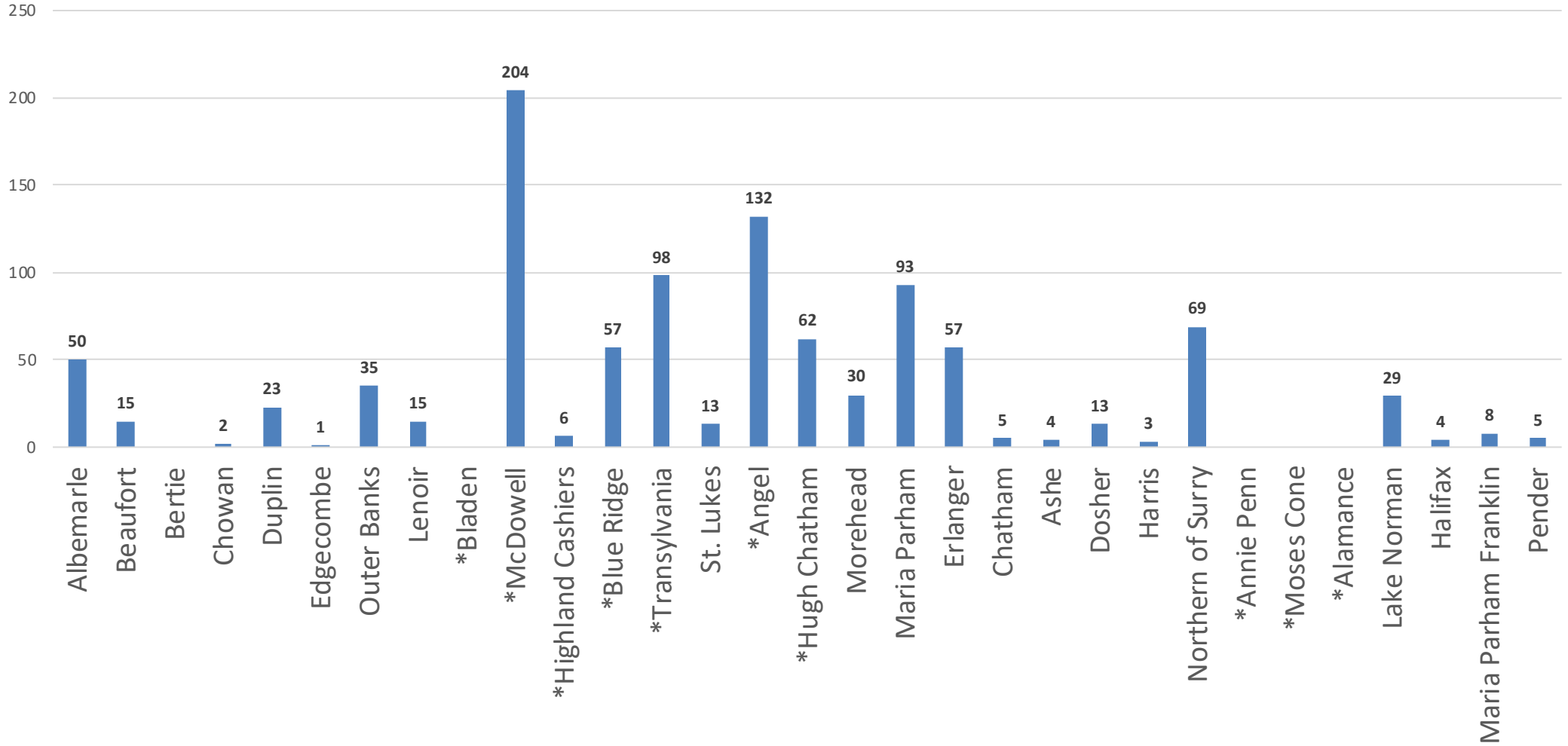


Workflow for the Portal

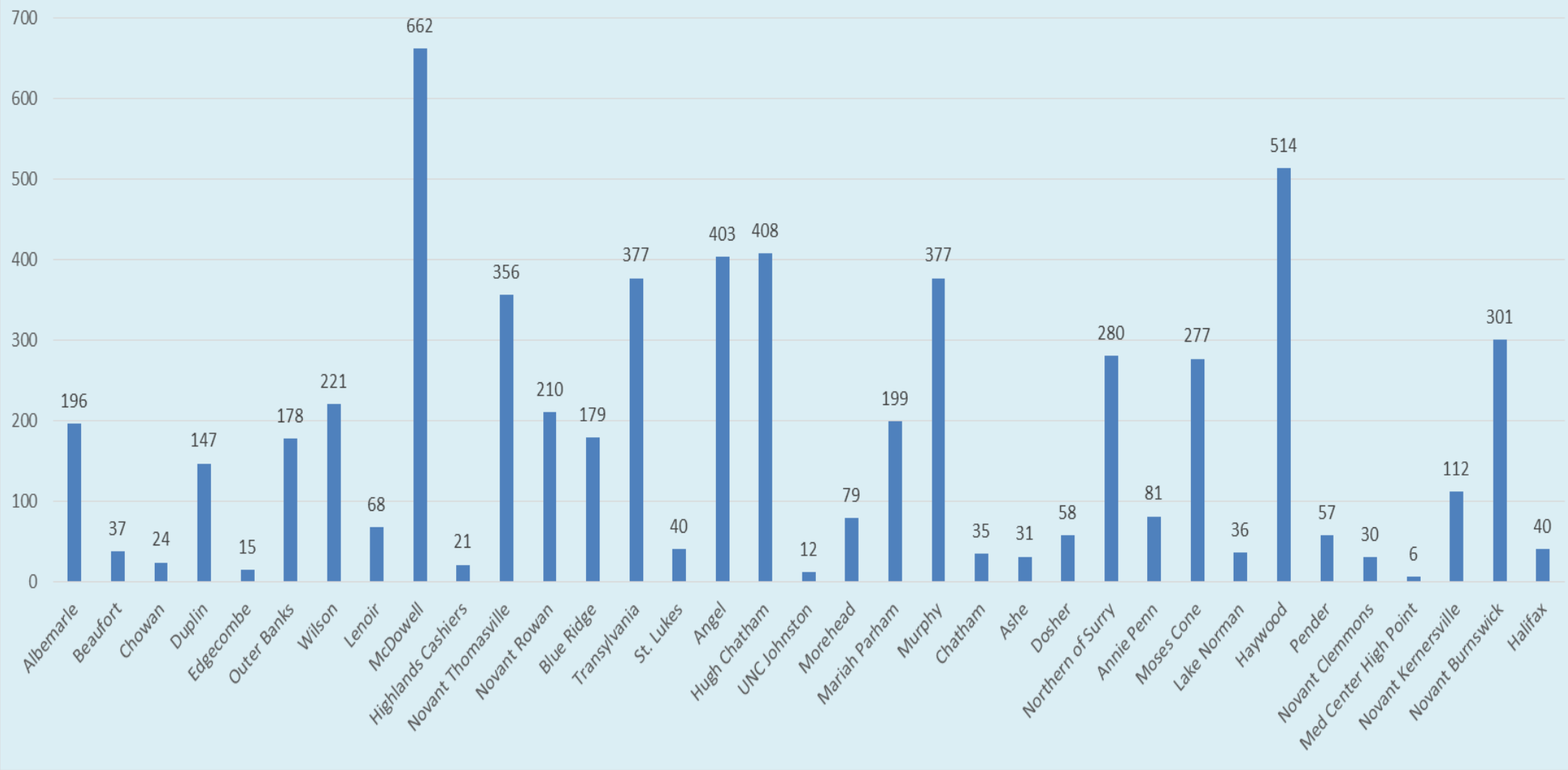


Number of NC-SteP Patients by Hospital

July - September 2019



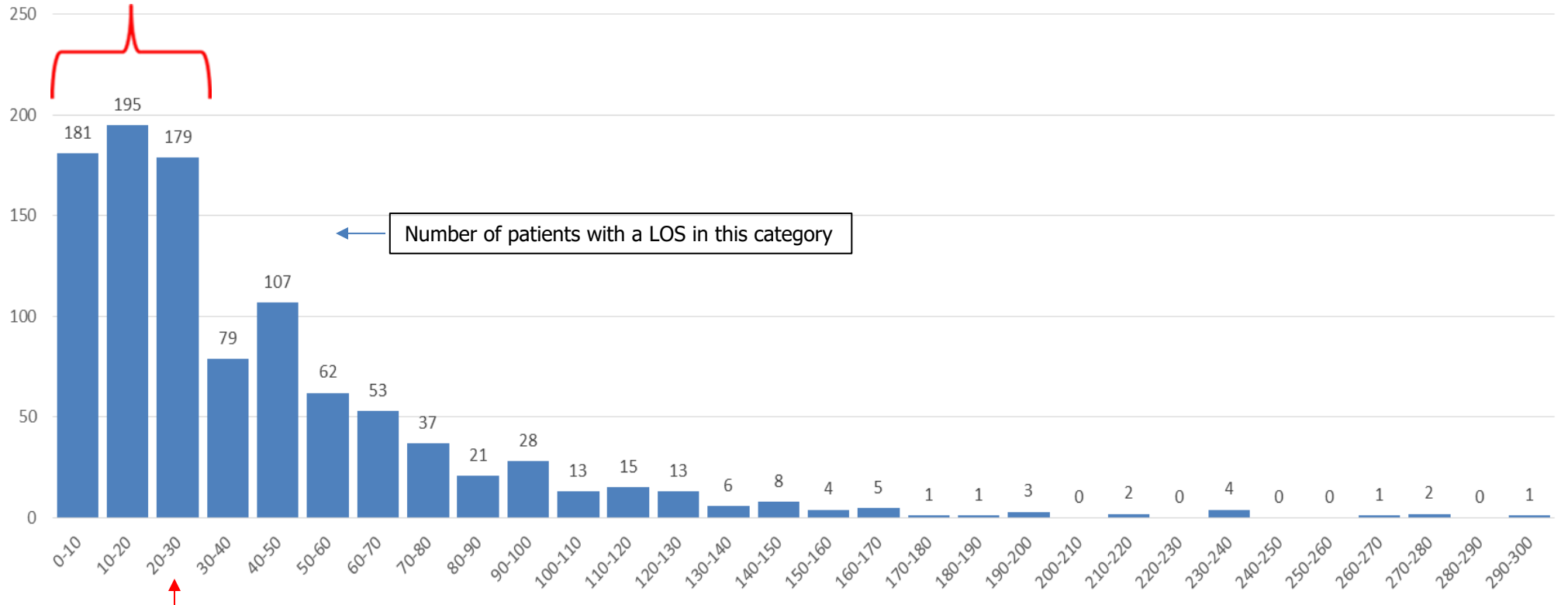
Number of NC-STeP Patients by Hospital January - December 2018



Note: Several hospitals with a count of 5 or fewer were not included on this chart. Those hospitals are: Swain, Person, Wesley Long Cone, Alamance, Novant Forsyth, Bladen, Bertie

Number of NC-STEP Patients by LOS Category Jul-Sep 2019 (in hours)

53.6% percent of patients had a LOS of 30 hours or less



Median Length of Stay for Jul-Sep 2019 = 27.2 Hours

13 patients had a LOS longer than 300 hours

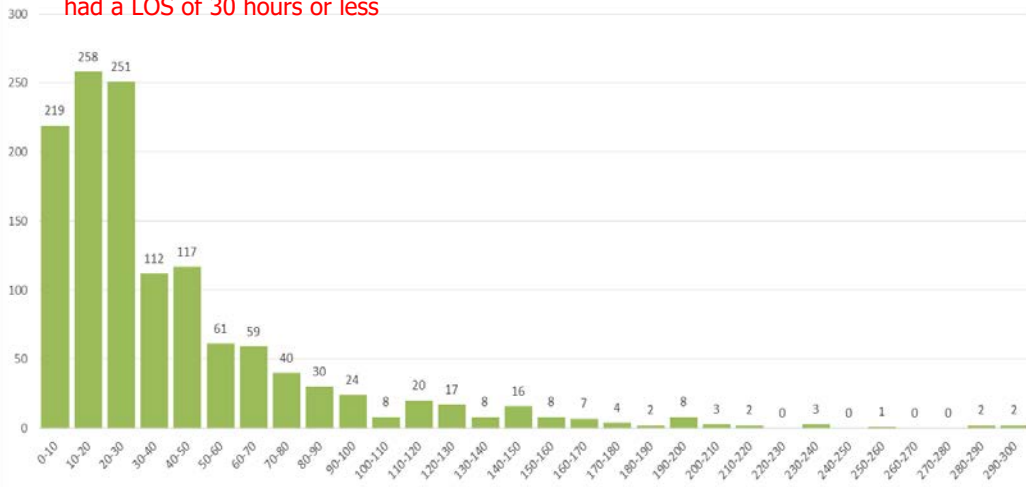


Number of NC-STeP Patients by LOS Category

Jan-Mar 2019

(in hours)

56.2% percent of patients had a LOS of 30 hours or less

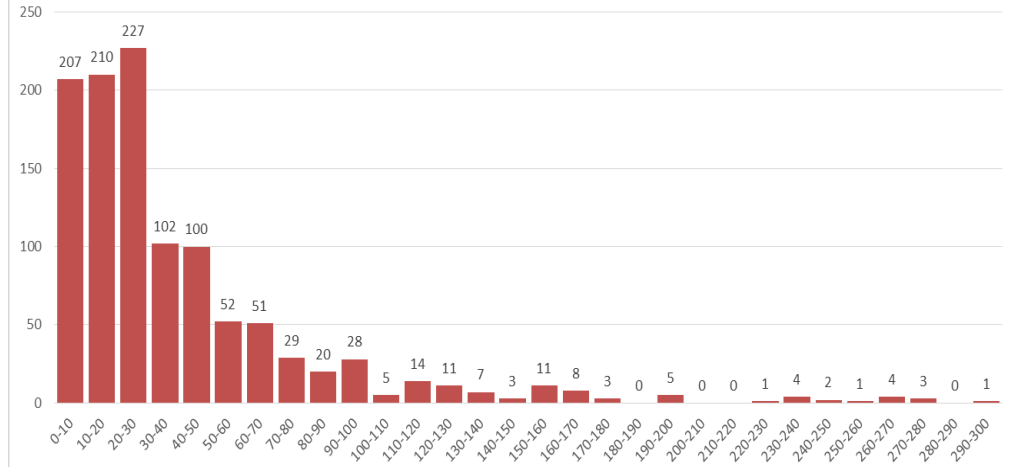


Number of NC-STeP Patients by LOS Category

Apr-Jun 2019

(in hours)

57.1% percent of patients had a LOS of 30 hours or less

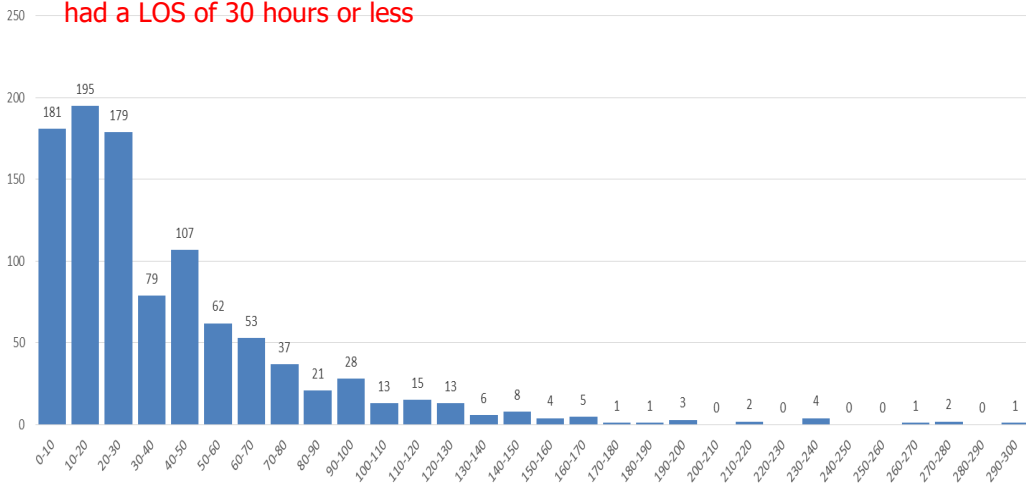


Number of NC-STeP Patients by LOS Category

Jul-Sep 2019

(in hours)

53.6% percent of patients had a LOS of 30 hours or less

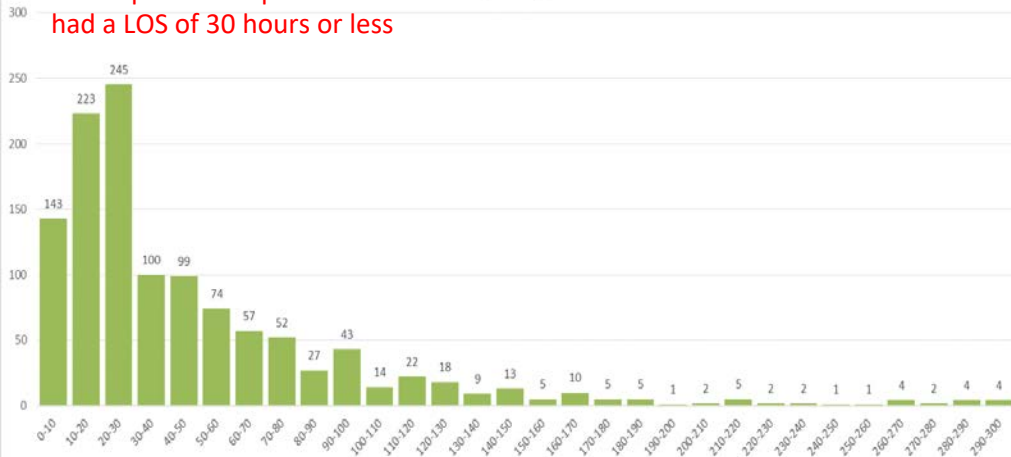


Number of NC-STeP Patients by LOS Category

January - March 2018

(in hours)

50.2% percent of patients had a LOS of 30 hours or less

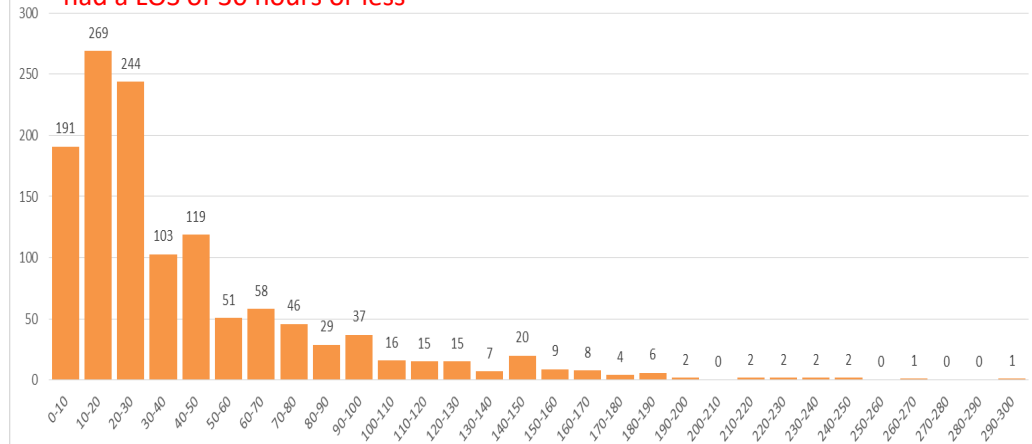


Number of NC-STeP Patients by LOS Category

April - June 2018

(in hours)

55% percent of patients had a LOS of 30 hours or less

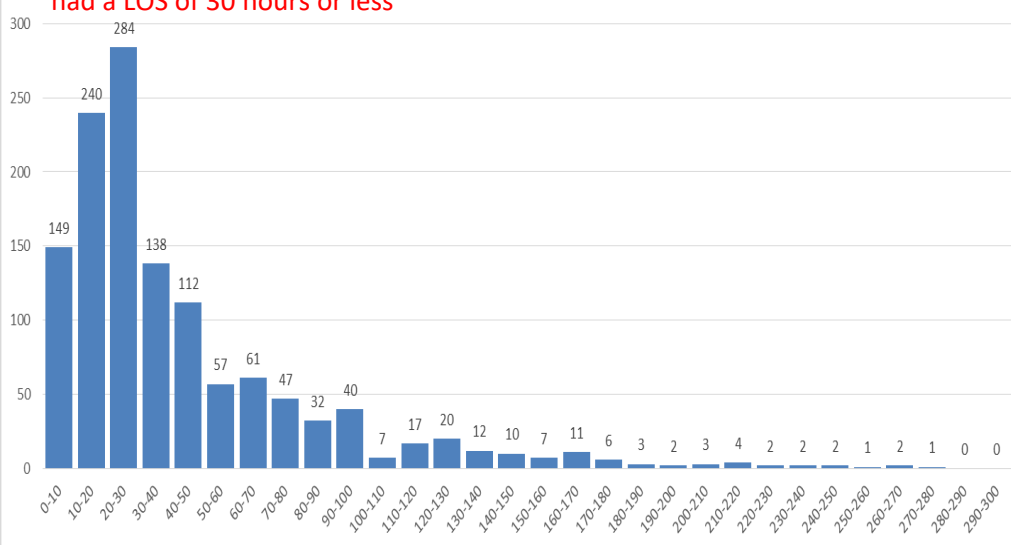


Number of NC-STeP Patients by LOS Category

July - September 2018

(in hours)

52% percent of patients had a LOS of 30 hours or less

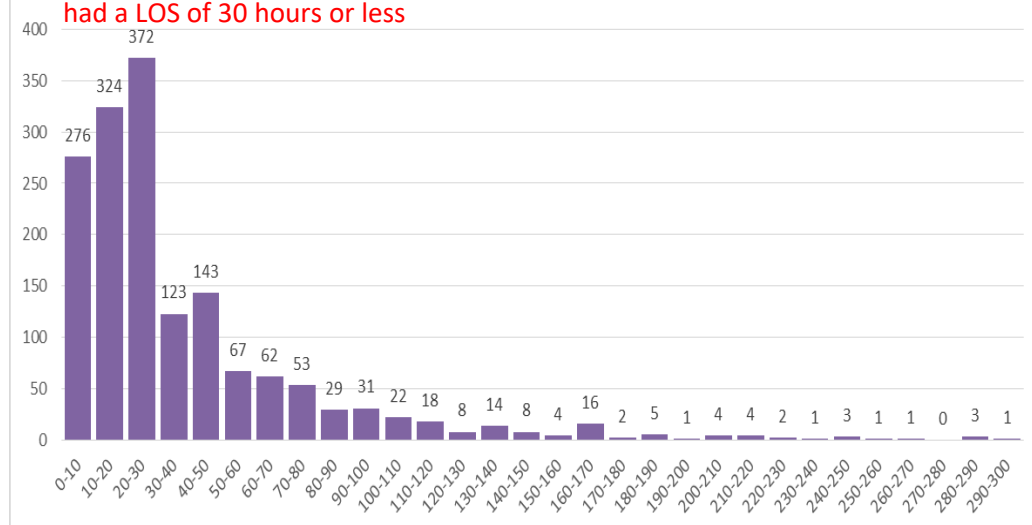


Number of NC-STeP Patients by LOS Category

Oct-Dec 2018

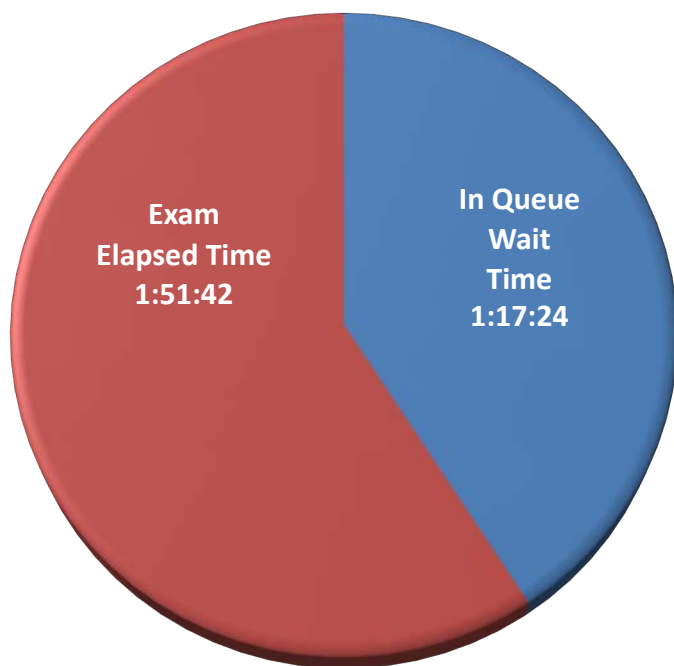
(in hours)

60.3% percent of patients had a LOS of 30 hours or less

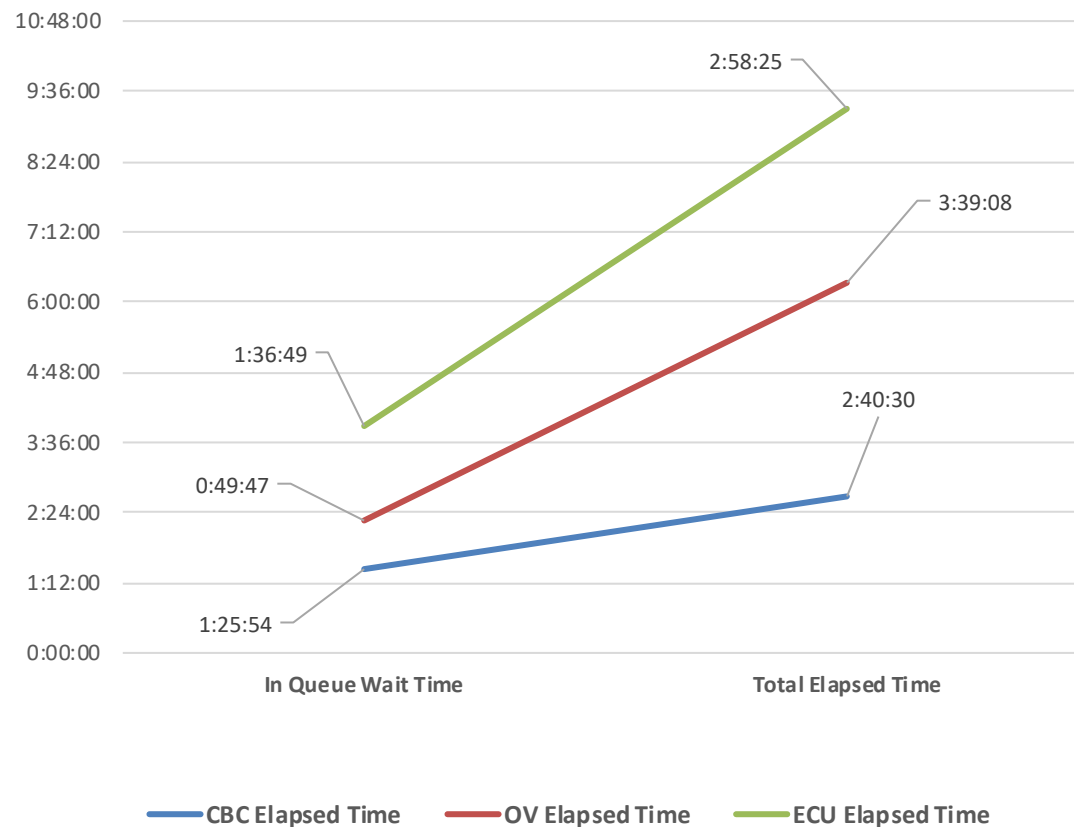


Consult Elapsed Time: July - September 2019

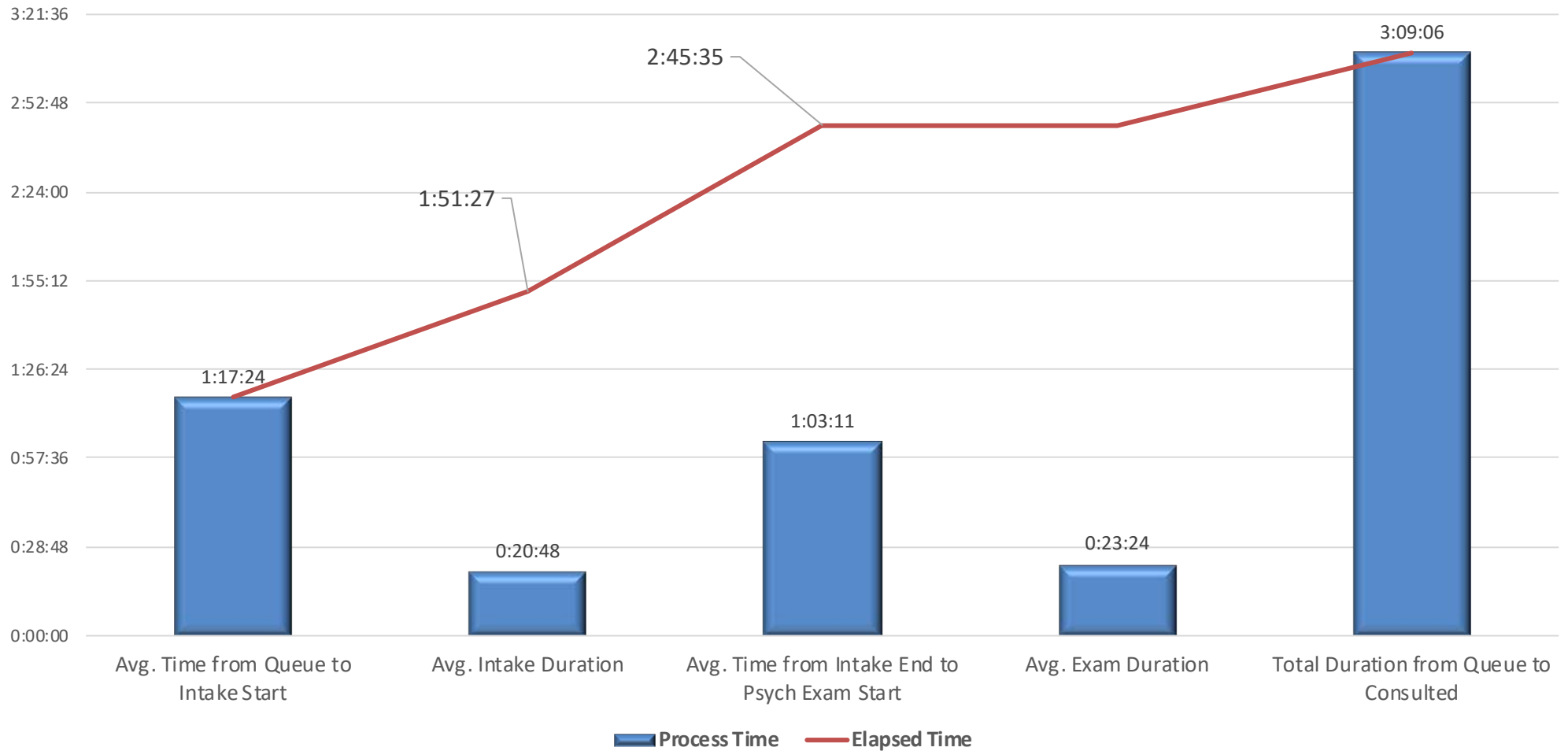
Average Consult Elapsed Time
In Queue to Exam Complete
(3 hrs. 9 min.)



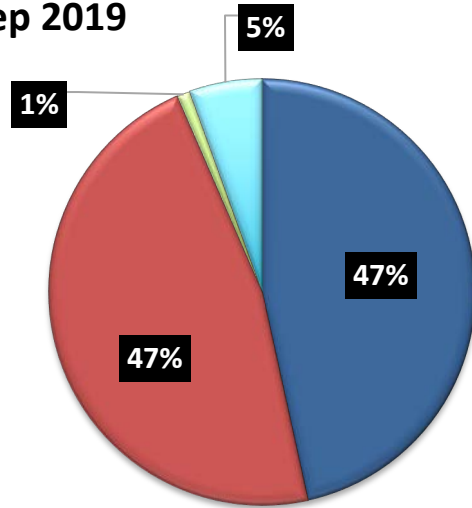
Comparison of CBC, OV & ECU
Average Consult Elapsed Time
In Queue to Exam Complete
(hh:mm:ss)



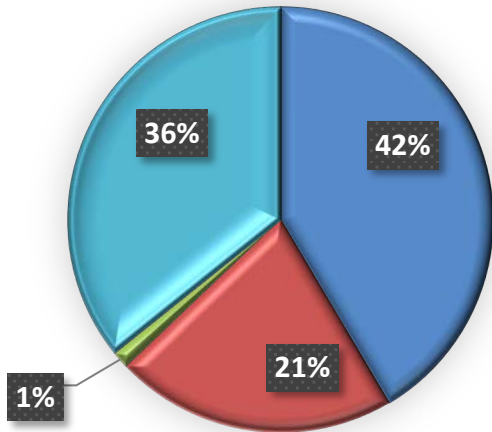
Key Processes and Elapsed Times Averages July - September 2019



Jul-Sep 2019



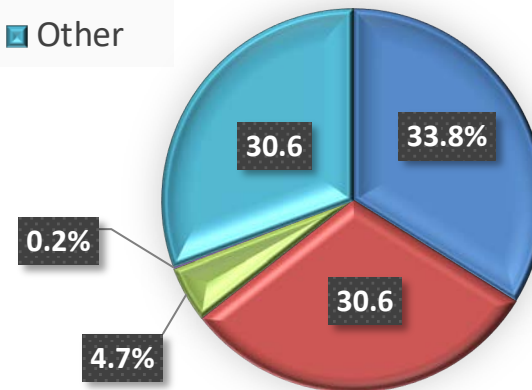
Apr-Jun 2019



Percent of Patients by Discharge Disposition

- Home
- Transfer
- Admit
- AMA
- Other

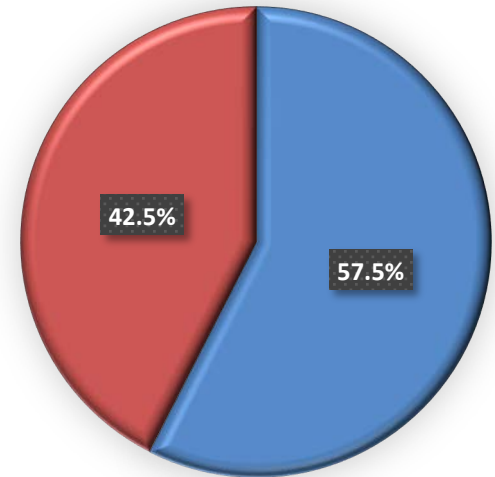
Jan-Mar 2019



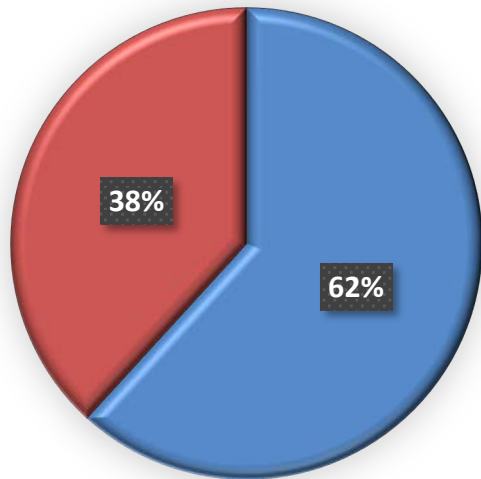
IVCs – By Release Status

- IVCs - percent not released
- IVCs - percent released

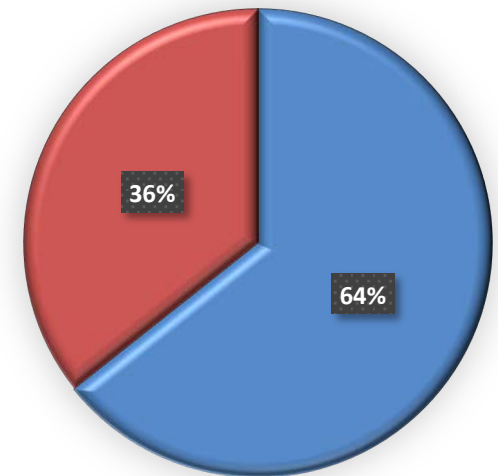
Jan-Mar 2019



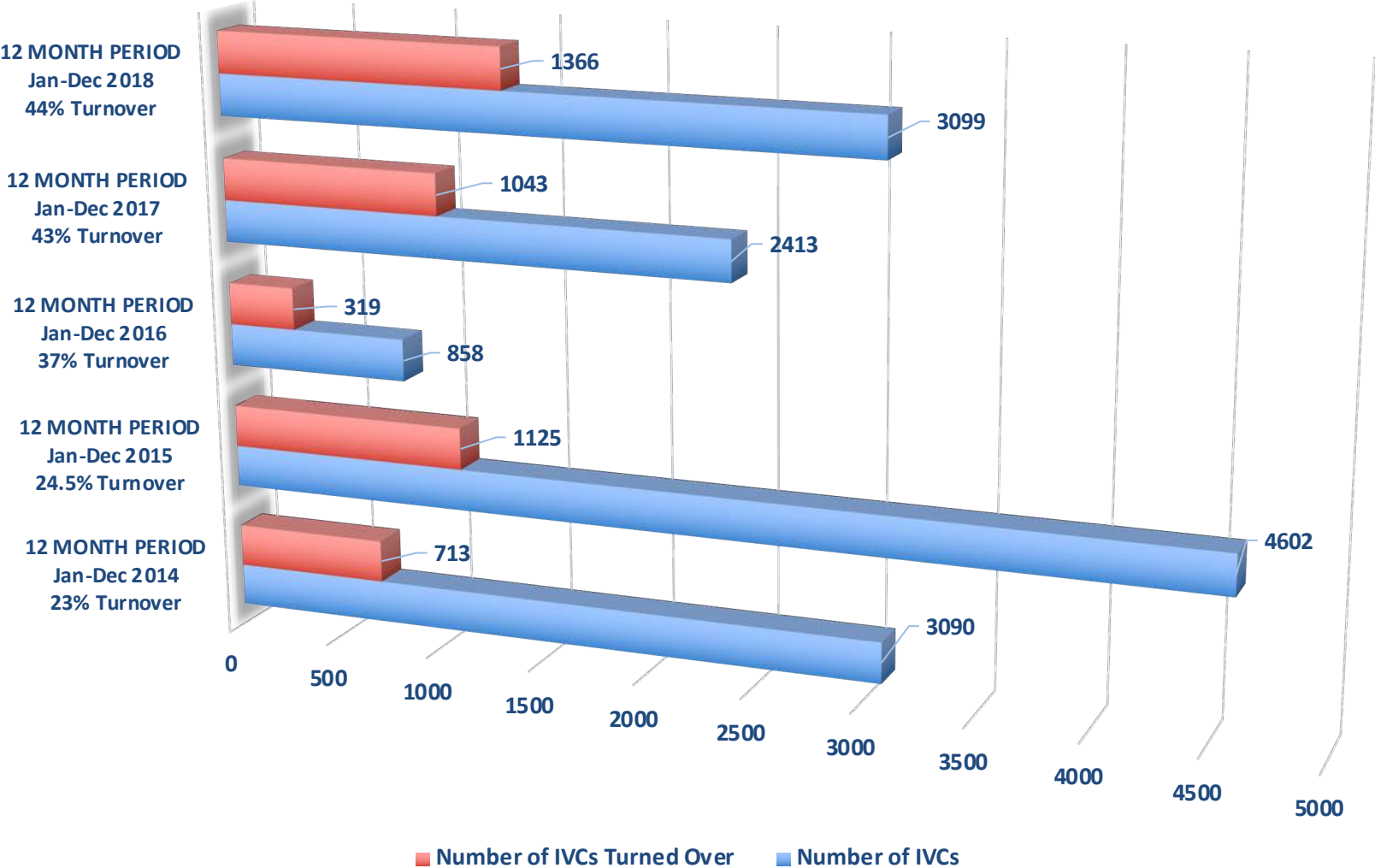
Jul-Sep 2019



Apr-Jun 2019

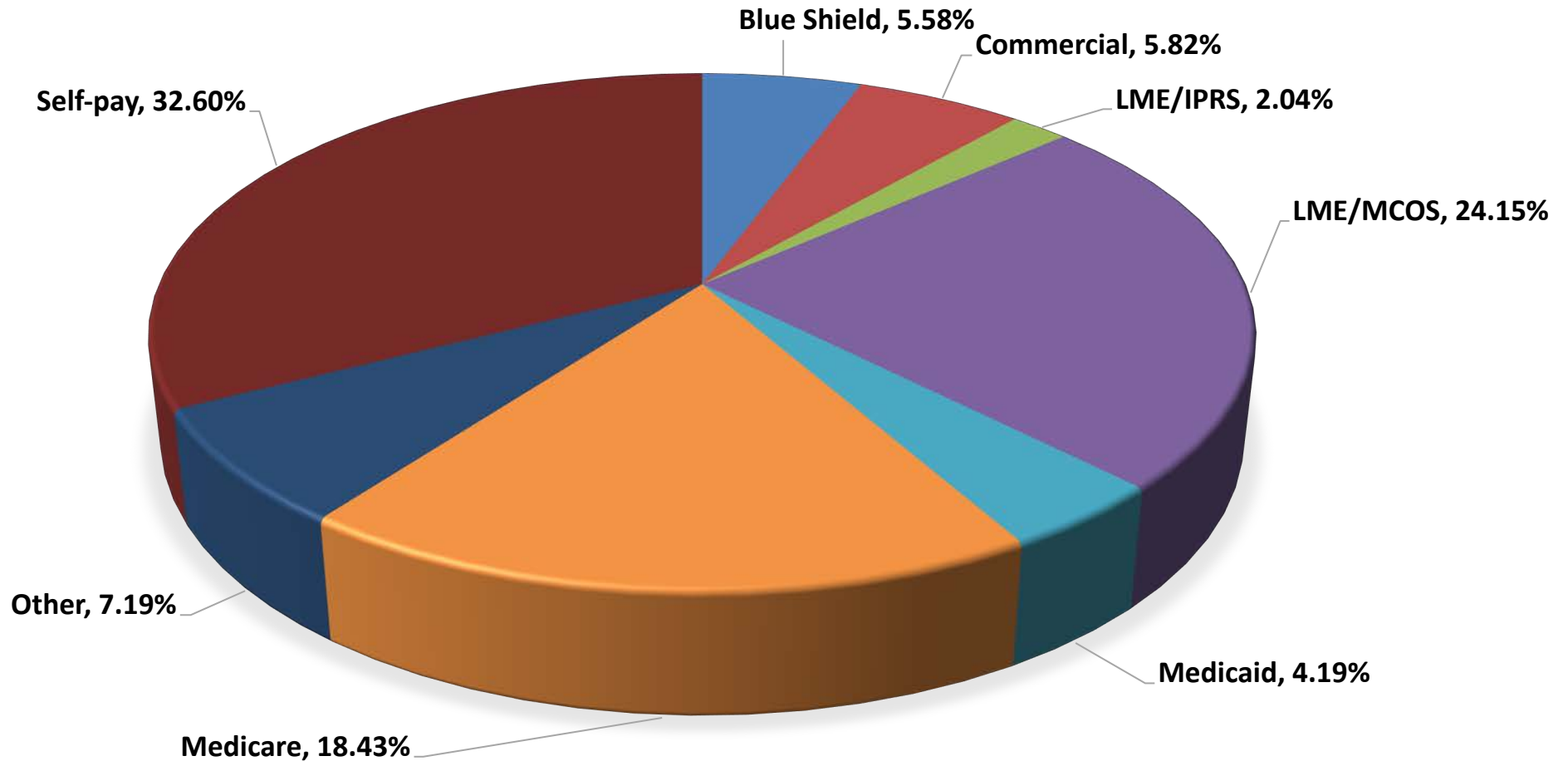


Number of IVCs and IVCs Turned Over by Year



NC-STeP Charge Mix – Project to Date

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

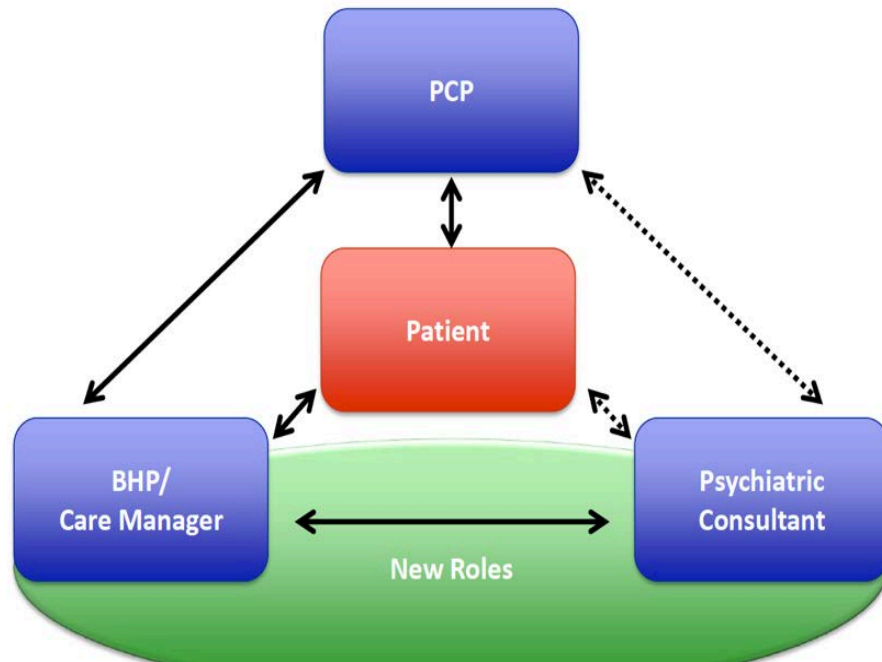


NC-STeP Status as of September 30, 2019

- 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

Next Steps: Community-Based Demonstration Projects

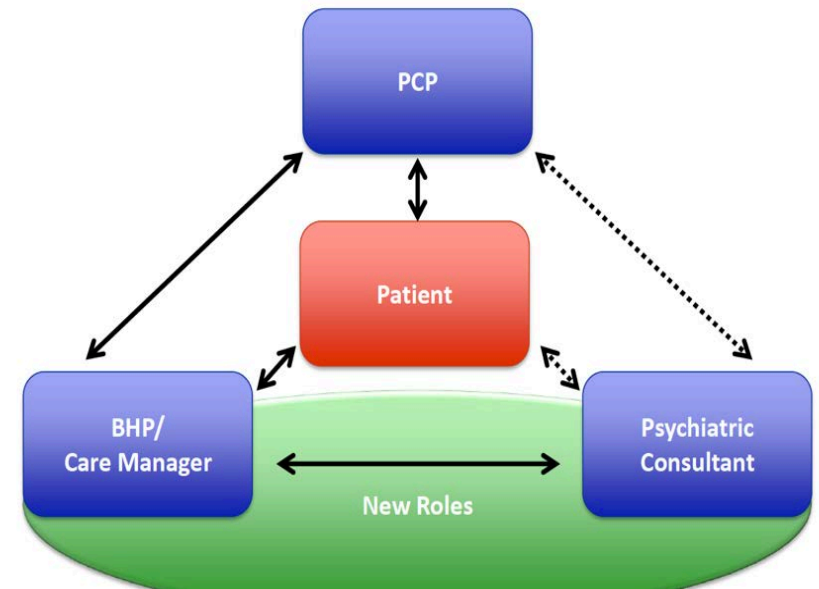
Patient-Centered Collaboration



- 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 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 is upon the total health care needs of the patient.

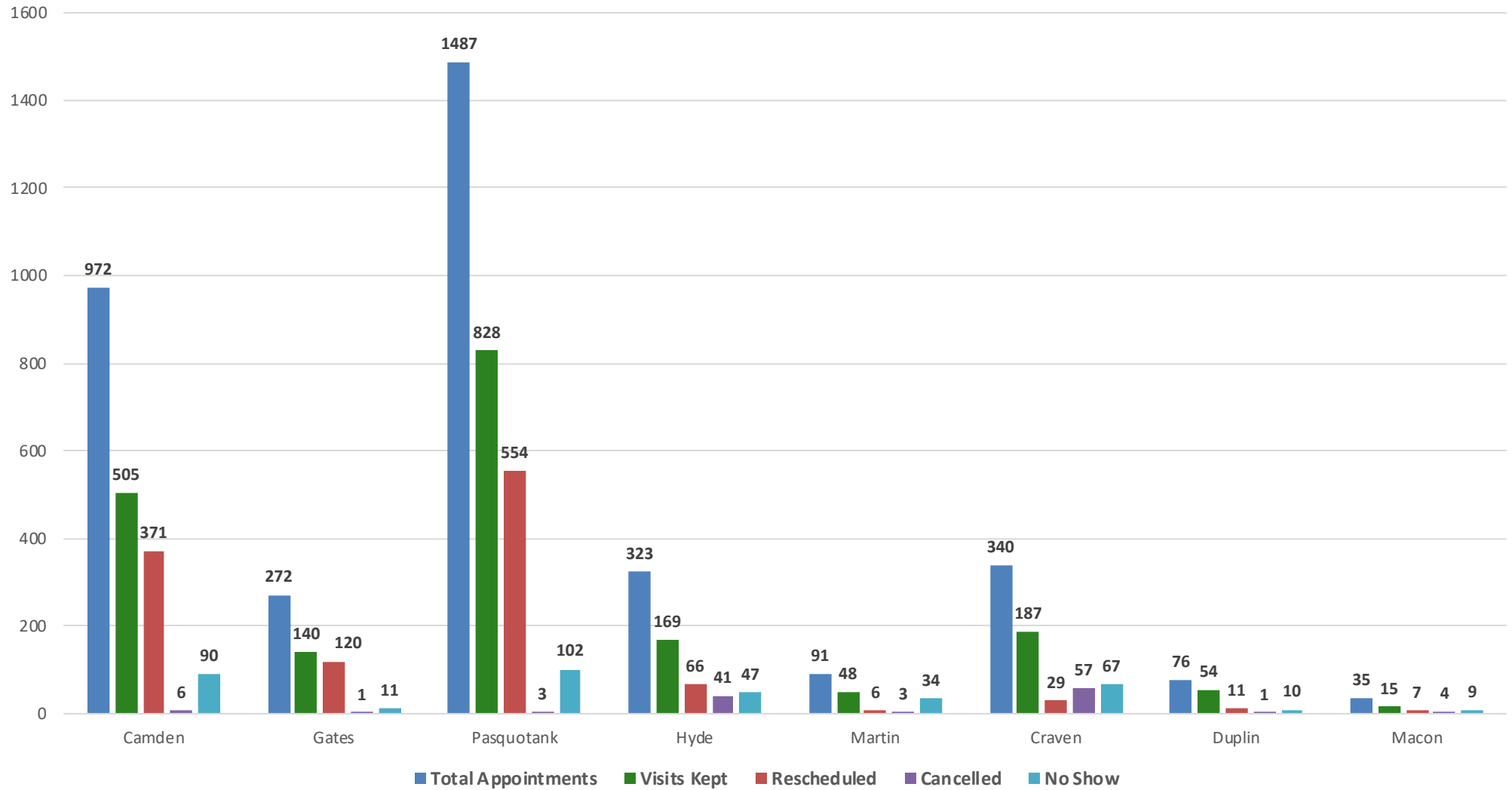
Key Principles

- Team-Based Care
- Primary care provider remains the driver and prescriber
- Patient-Centered Collaboration
- Its about expanding the limits of behavioral health care within primary care setting
- Measurement-Based Treatment to Target
- Evidence-Based Care



NC-STeP Community Appointments by Site

Program to Date Through September 2019



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.
- Evidence-based practices to make recovery possible.

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.



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.

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

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- 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.

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