



Using Telepsychiatry to Improve Access to Evidence-Based Care



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Tomorrow starts here.

Mental disorders are common

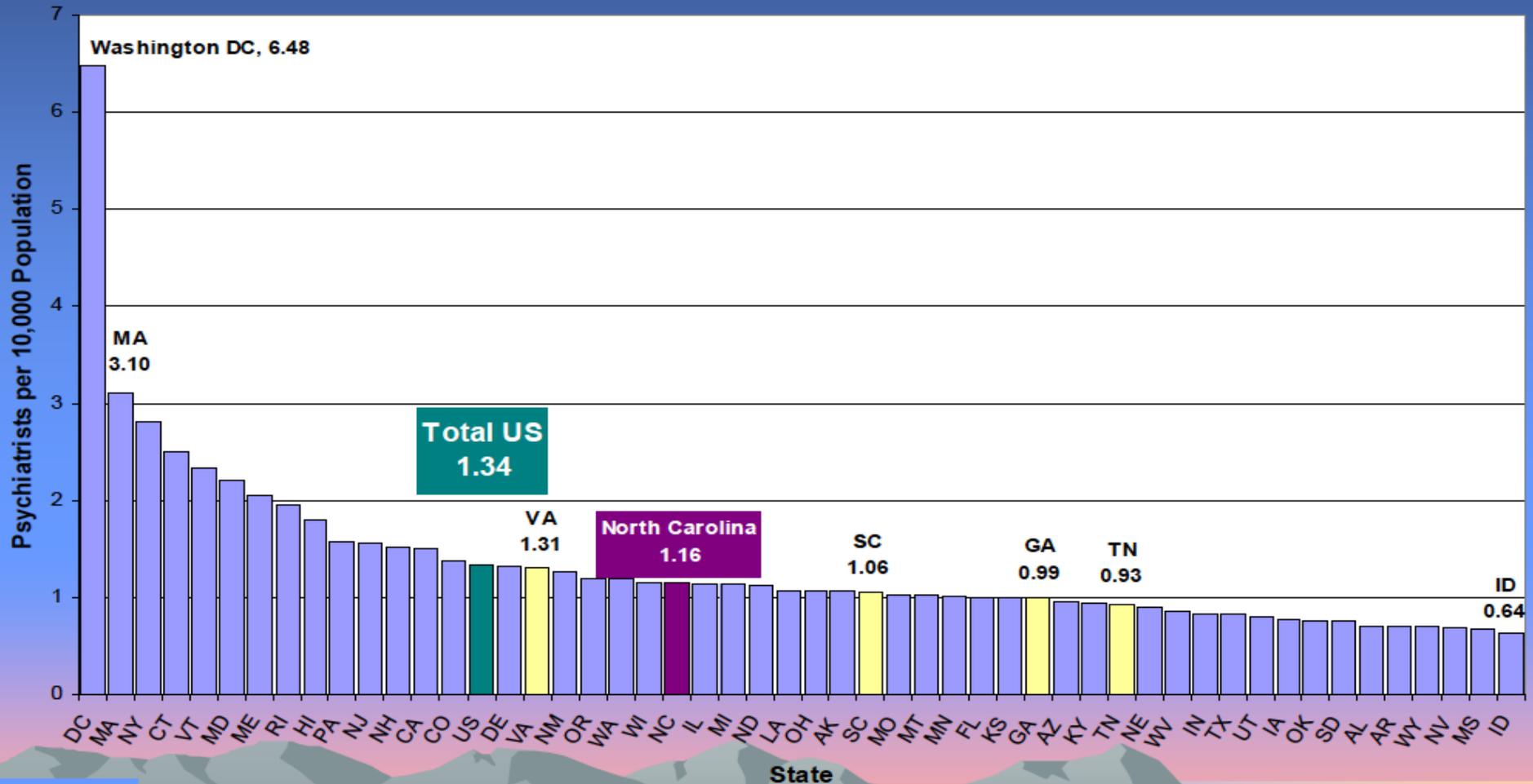
- An estimated 26.2% of Americans ages 18 and older (about 1 in 4) Americans have a mental disorder in any one year¹.
 - When applied to the 2004 U.S. Census residential population estimate for ages 18 and older, this figure translates to 57.7 million².
- The main burden of illness is concentrated in a much smaller proportion — about 6 percent, or 1 in 17 (13.2 million) — who 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.
2. U.S. Census Bureau Population Estimates by Demographic Characteristics. Table 2: Annual Estimates of the Population by Selected Age Groups and Sex for the United States: April 1, 2000 to July 1, 2004 (NC-EST2004-02) Source: Population Division, U.S. Census Bureau Release Date: June 9, 2005. <http://www.census.gov/popest/national/asrh/>

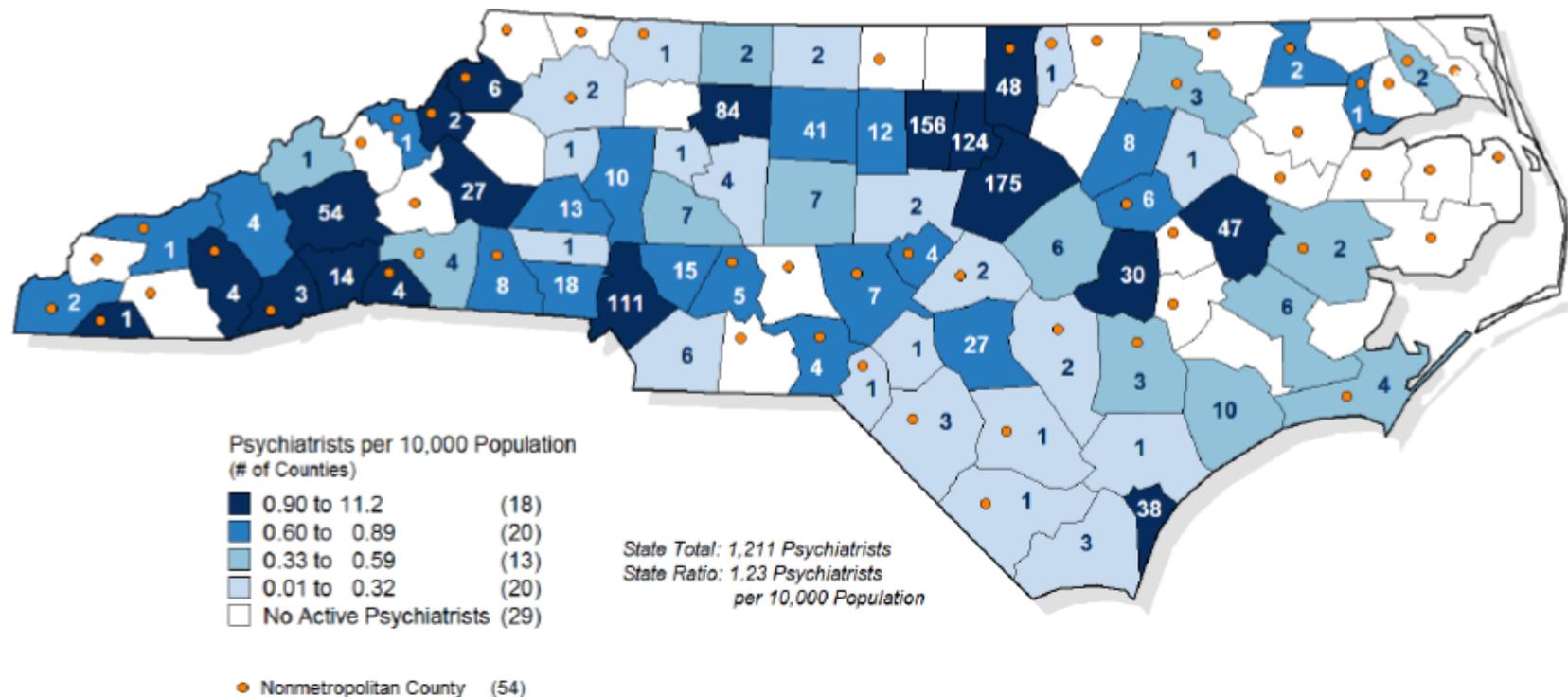


Psychiatrists per 10,000 Population

Psychiatrists per 10,000 Population



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.

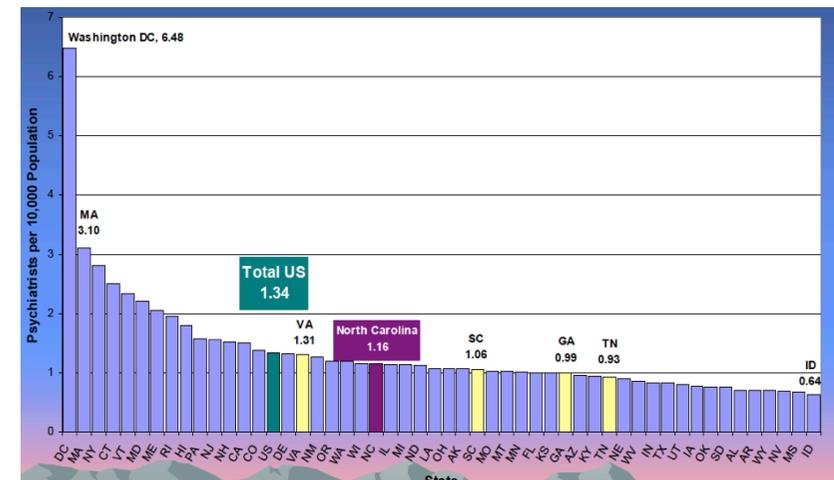
Note: Data are based on primary practice location and include active, in-state, nonfederal, non-resident-in-training MDs and DOs licensed in NC as of October 31, 2013 who indicate that their primary area of practice is psychiatry, child psychiatry, psychoanalysis, psychosomatic medicine, addiction/chemical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

Distribution of psychiatrists statewide is such that many counties have a shortage

- 29 out of 100 counties in NC have no psychiatrists
- 58 out of 100 counties have a shortage of MH services
 - According to federal guidelines, 58 counties in North Carolina qualify as Health Professional Shortage Areas because of shortages of mental health providers to meet population needs.



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

In recent years North Carolina has seen high emergency department admissions related to behavioral health issues and extended lengths of stays (LOS), ranging from long hours to multiple days¹.

- 1) Akland, G. & Akland, A. (2010). State psychiatric hospital admission delays in North Carolina. Retrieved from <http://naminc.org/nncpublications/namiwakerpt.pdf>. (Accessed October 2, 2014)



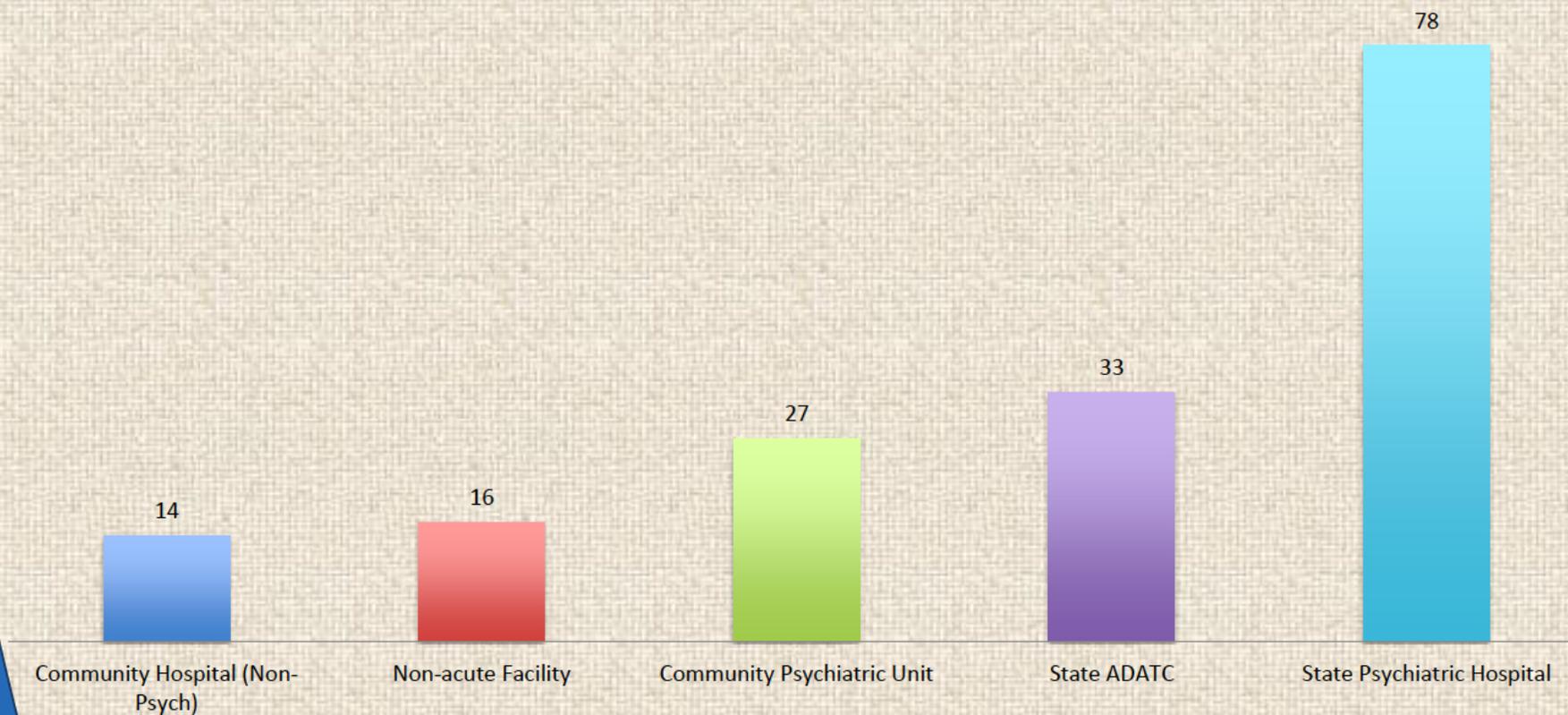
The majority of NC Emergency Departments do not have access to a full-time psychiatrist

- 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?

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



Source: NCHA ED Tracker. 2012 Data.

Gap between what we know and what we practice

- A large gulf remains between what we know and what we practice^{*}.
- Large gaps also exist between best evidence and practice in the implementation of guidelines^{*}.
- Failure to follow best evidence highlights issues of underuse, overuse, and misuse of drugs^{**} and has led to widespread interest in the safety of patients^{***}.

^{*}Eisenberg MJ, Garzon P. *Am J Cardiol* 1997;79: 867-72.

^{**} Chassin MR, Galvin RW. *JAMA* 1998;280: 1000-5.

^{***} Institute of Medicine. *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: National Academy Press, 2001.

Quality of Health Care Delivered to Adults in the United States

- Only 55% chance of getting appropriate care
 - little difference among the proportion of recommended:
 - Preventive care (54.9 %)
 - Acute care (53.5 %)
 - Care for chronic conditions (56.1%)

McGlynn et al, 2003

The NEW ENGLAND JOURNAL of MEDICINE

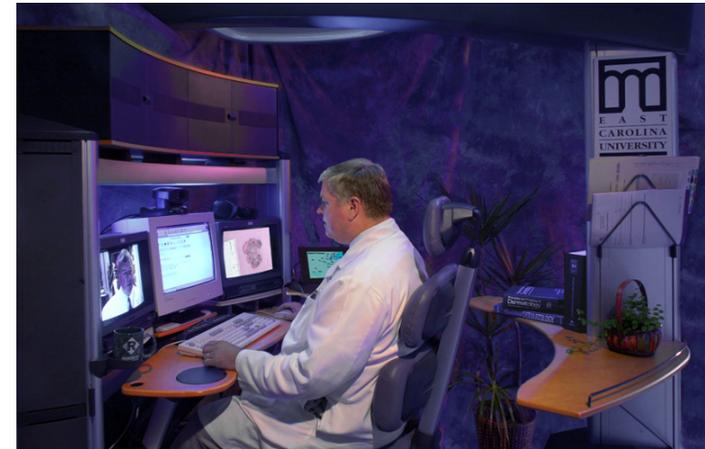
Problems

- Access
 - Mental disorders are common
 - Workforce
 - Shortage of psychiatrists
 - Distribution of psychiatrists
- Gap between science and practice



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.

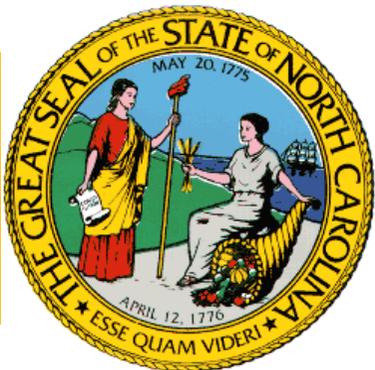




NORTH CAROLINA

STATEWIDE TELEPSYCHIATRY PROGRAM

This statewide program was developed in response to Session Law 2013-360 directing the N.C. Department of Health and Human Services' Office of Rural Health and Community Care to "oversee and monitor establishment and administration of a statewide telepsychiatry program." (G.S. 143B-139, 4B).



General Assembly of North Carolina Session 2013
Session Law 2013-360
Senate Bill 402

Governor McCrory announced funding of Statewide Telepsychiatry Program (NC-STeP) at ECU in August of 2013



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.



NC-STeP Status as of June 2015

- 71 hospitals in network
 - 56 hospital currently live
 - 2 hospitals ready to go live, waiting on credentialing
 - 13 additional hospitals in process (i.e. contract negotiations, equipment being ordered, etc)
- Over 12,000 total Telepsychiatry Assessments have been conducted under the program since its inception in October 2013.

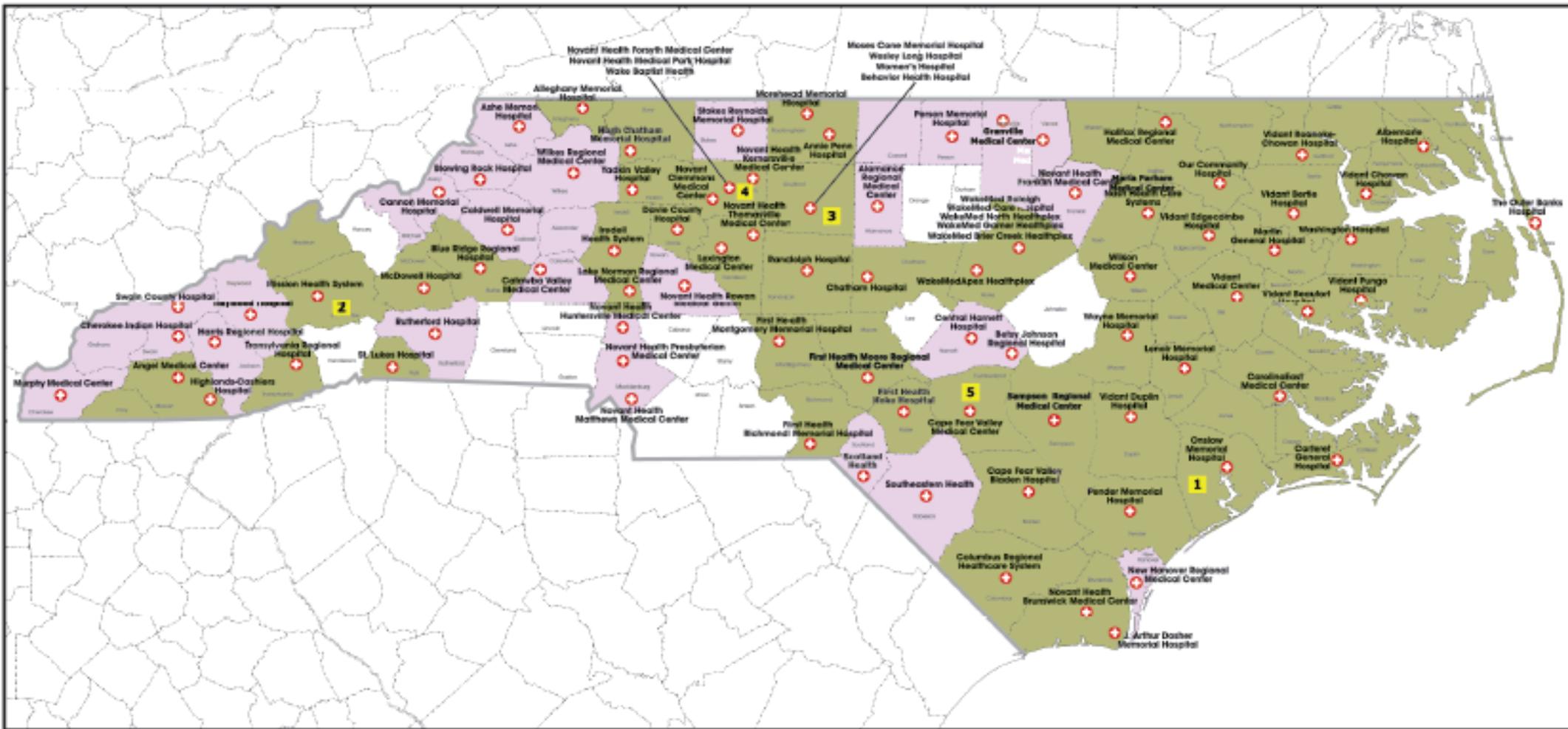


NC-STeP Status as of June 2015

- Five Clinical Providers' Hubs
 - Cape Fear Valley
 - Coastal Carolina Neuropsychiatry
 - Cone Health
 - Mission
 - Novant



NC-STeP Status - June 2015



Provider Hubs

- 1. Coastal Carolina Neuropsychiatric Center**
- 2. Mission**
- 3. Cone Health**
- 4. Novant**
- 5. Cape Fear**





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



- “Health Information Exchange System” for NC-STeP
- Support all the HIT functions required of the program
- 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
- Uses Direct Messaging and CCD/CCDA to deliver clinical information via DirectTrust HISP, using MU standards

Telepsychiatry Portal



NORTH CAROLINA
STATEWIDE TELEPSYCHIATRY PROGRAM

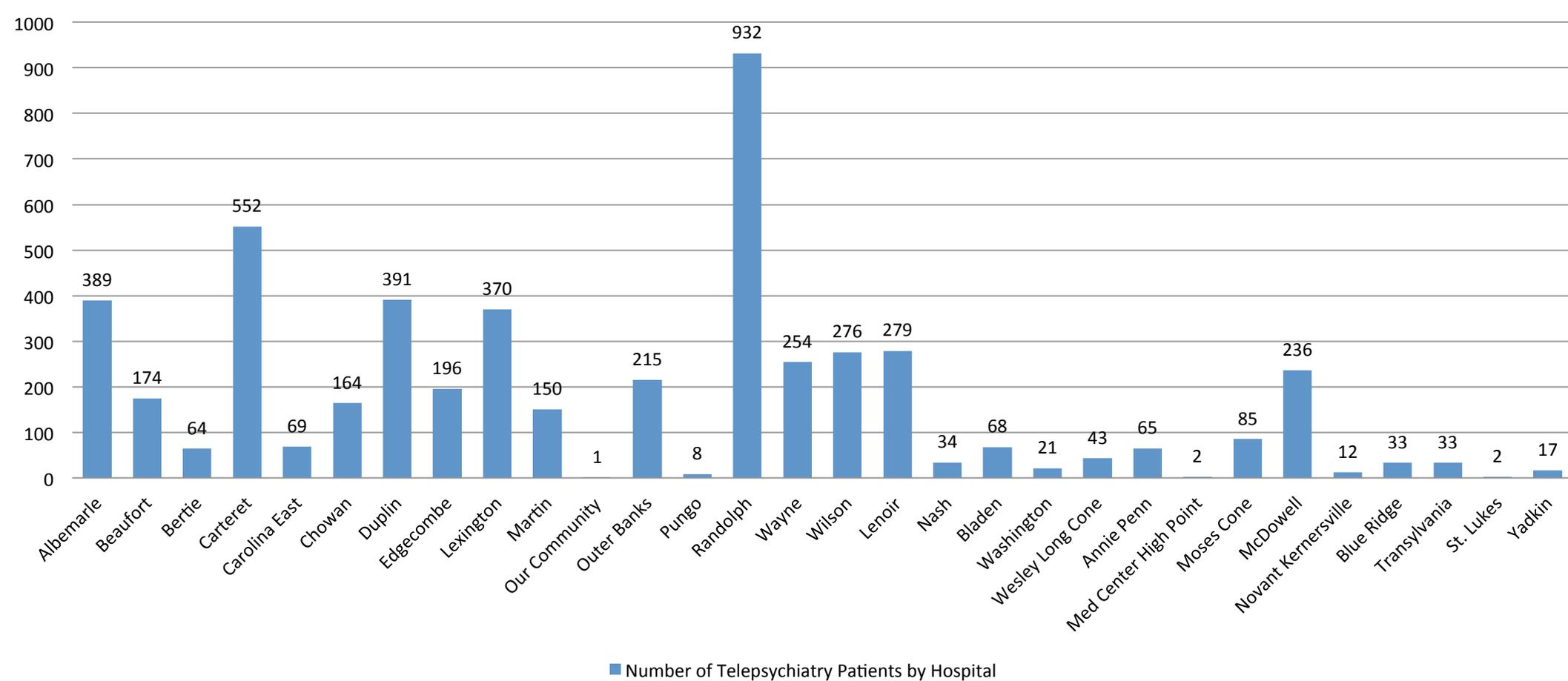
- Data collected and reviewed regarding:
 - Scheduling of patients and providers
 - Exchanging clinical data for patient care
 - Data for billing agents and to support timely referrals
 - Reporting of utilization, program needs, and population health
- NCHA Psychiatric and Substance Abuse Bed Board linkage

NC-STeP Quality Management and Outcomes Monitoring Processes

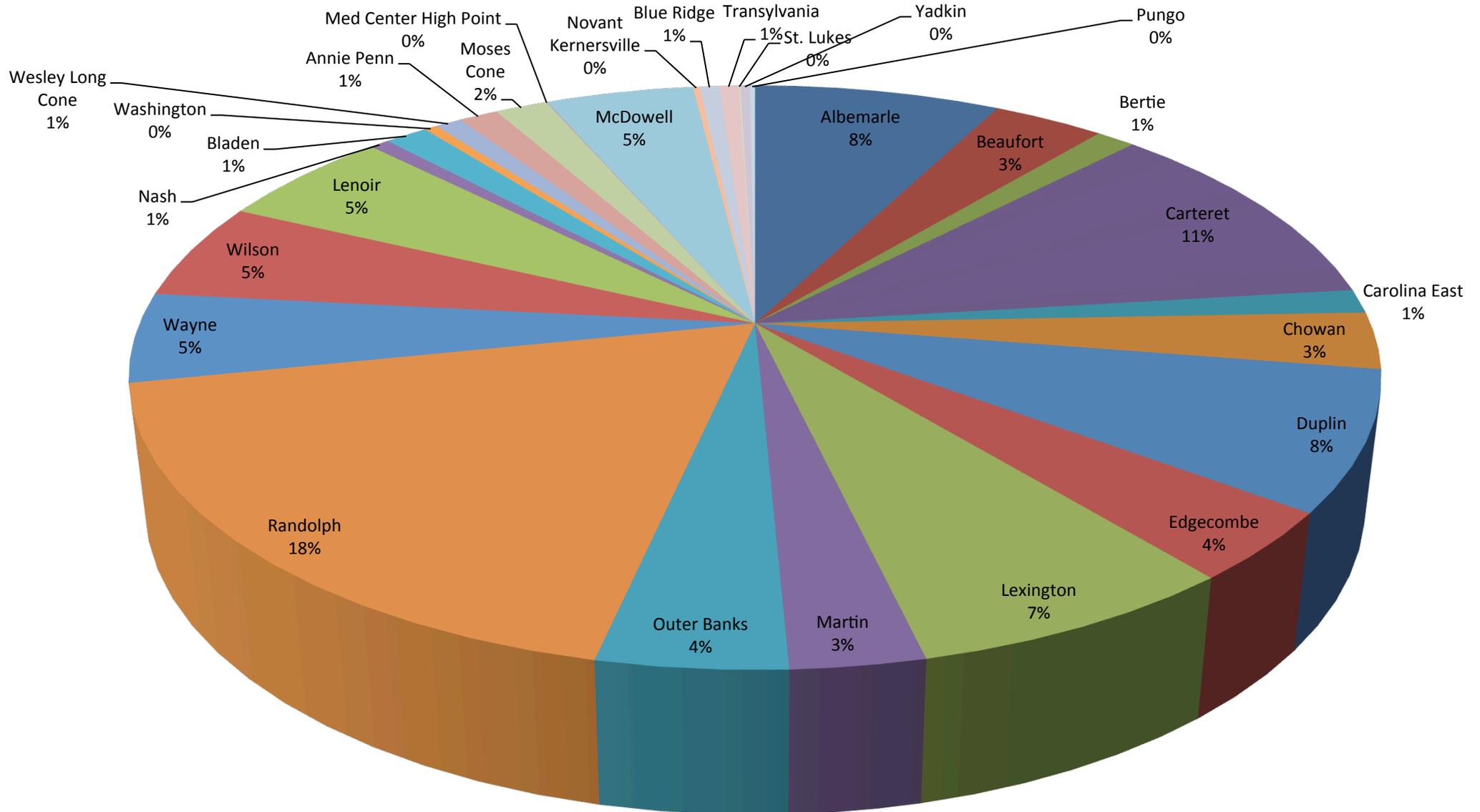
- The Center aggregates the referral site data for each quarterly reporting period and conducts analysis to determine the metrics below. Analysis is conducted for each individual site and for the program overall.
 - Total number of assessments
 - Length of stay
 - Length of stay by discharge disposition
 - Number of IVCs
 - IVC turnover rate
 - Percent of patients by discharge disposition
- The Center reports this data quarterly and develops ongoing procedures (graphs, charts, progress reports) so that these metrics can be monitored and compared over time to assess the program outcomes and monitor program quality.



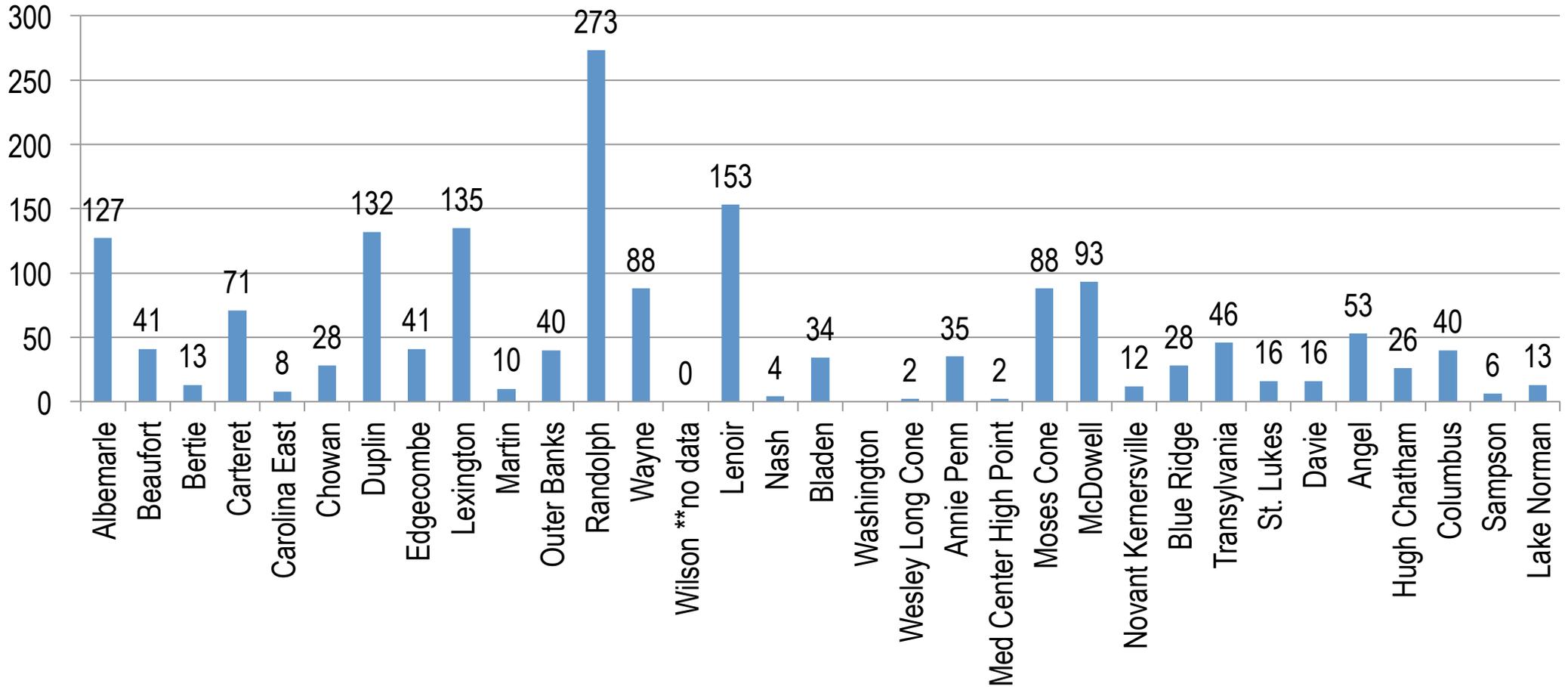
Total Number of ED Telepsychiatry Patients by hospital - for January - December 2014



Hospital EDs and Percent of Use - January - December 2014



Total Number of ED Telepsychiatry Patients by Hospital - for April - June 2015

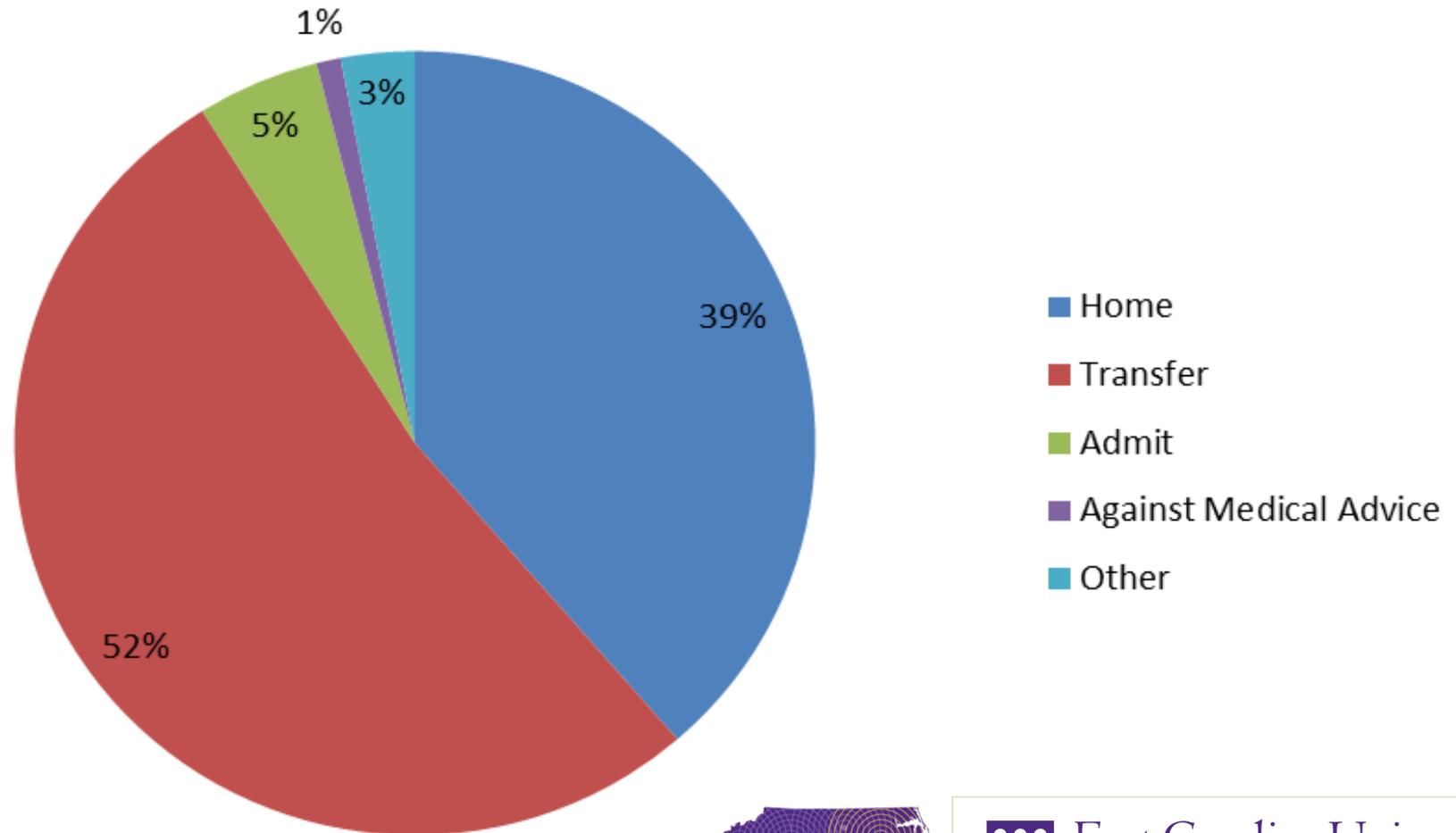


NC-STeP

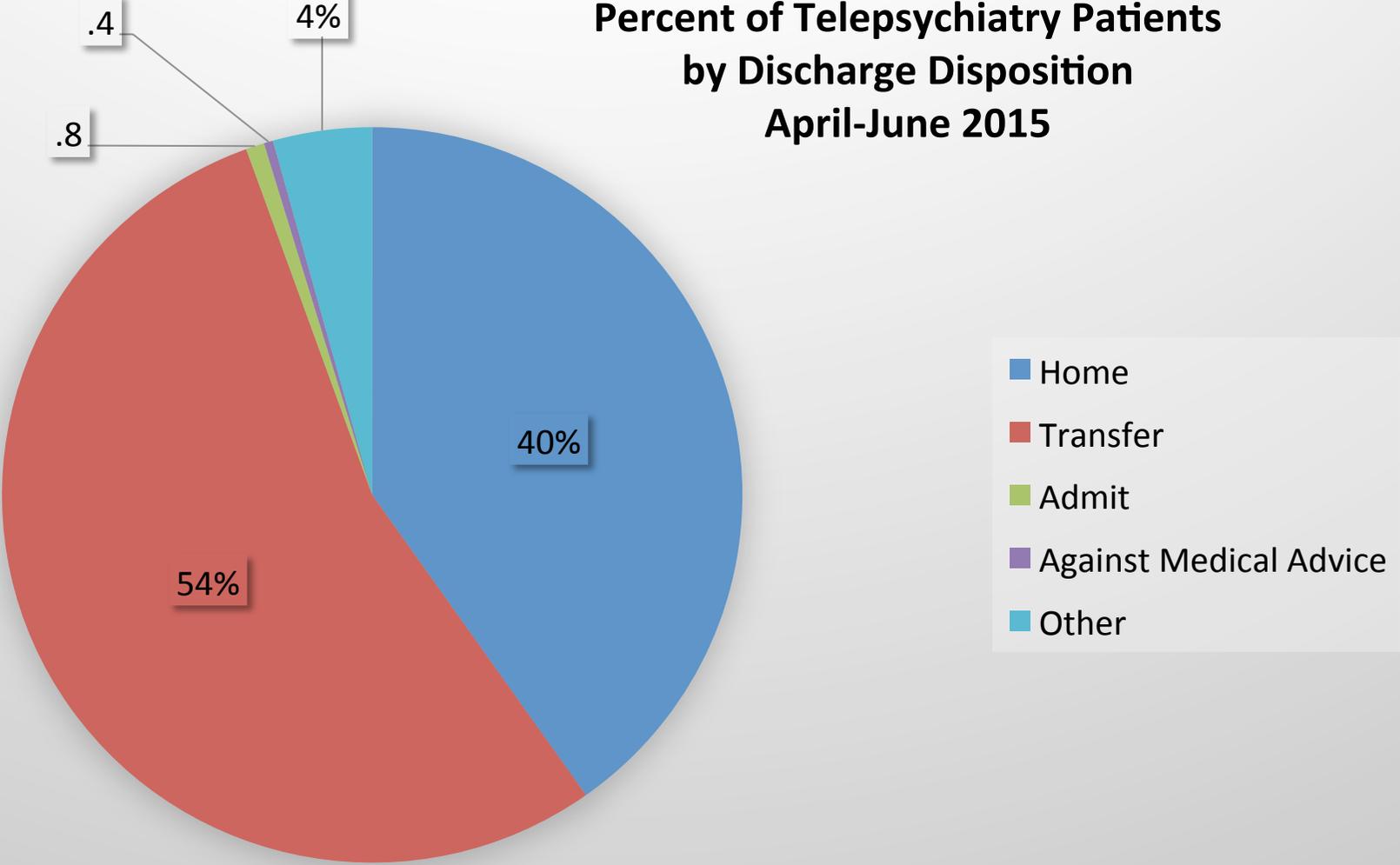


East Carolina University
CENTER FOR TELEPSYCHIATRY

Percent of ED Telepsychiatry Patients by Discharge Disposition January - December 2014

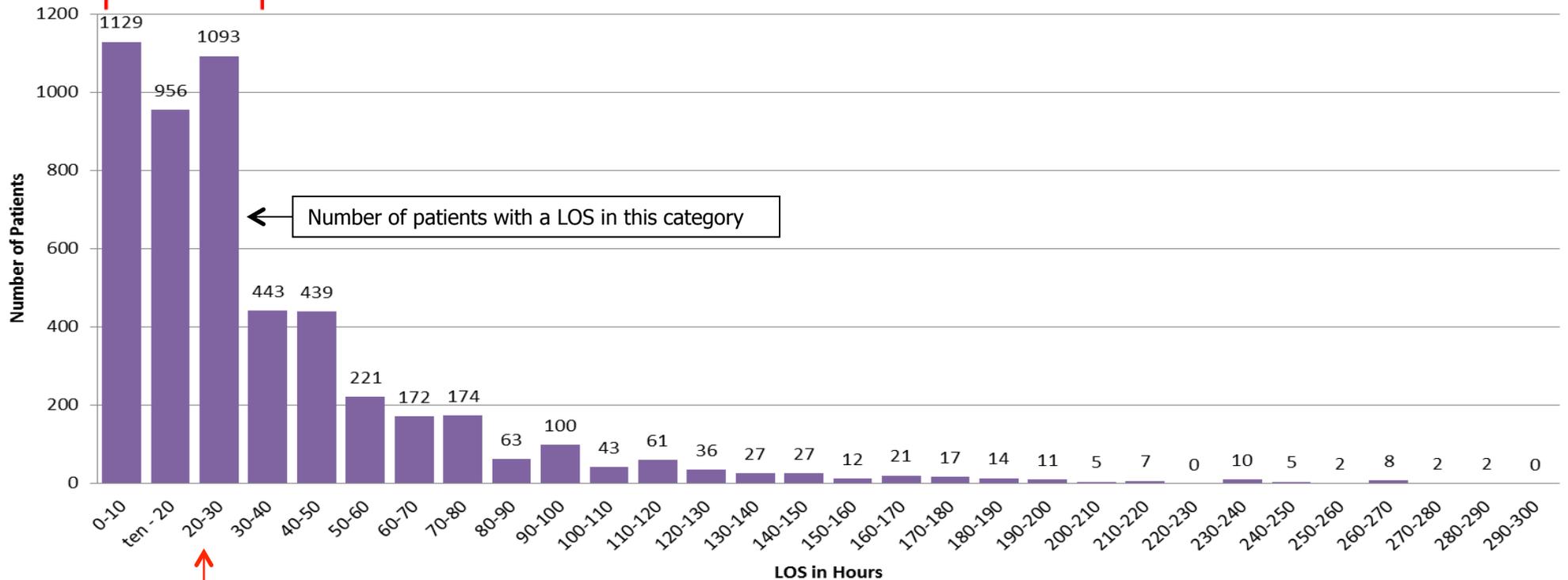


Percent of Telepsychiatry Patients by Discharge Disposition April-June 2015



62% percent of patients
Had a LOS of 30 hours or less

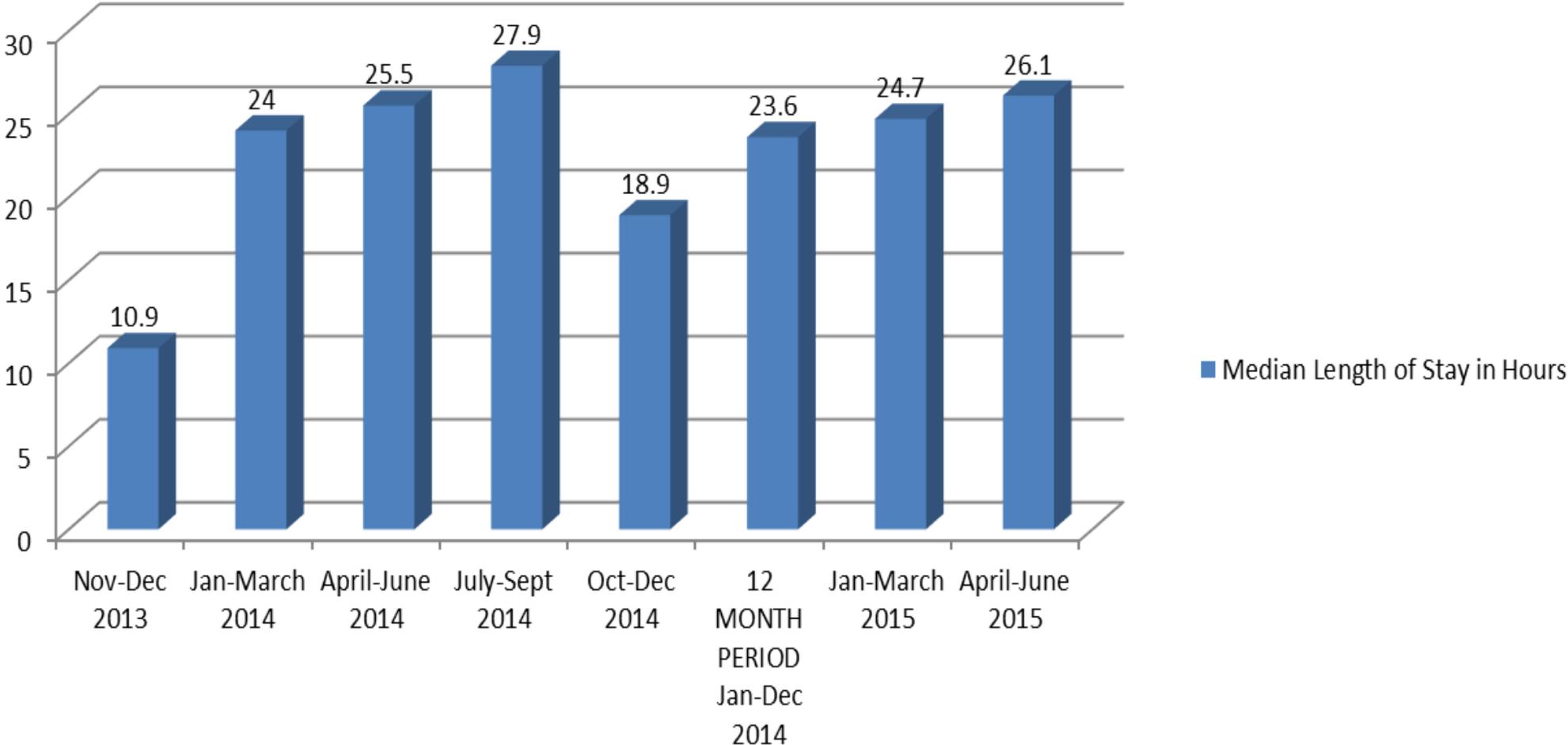
NC STeP January - December 2014 Number of Patients by LOS Category (in hours)



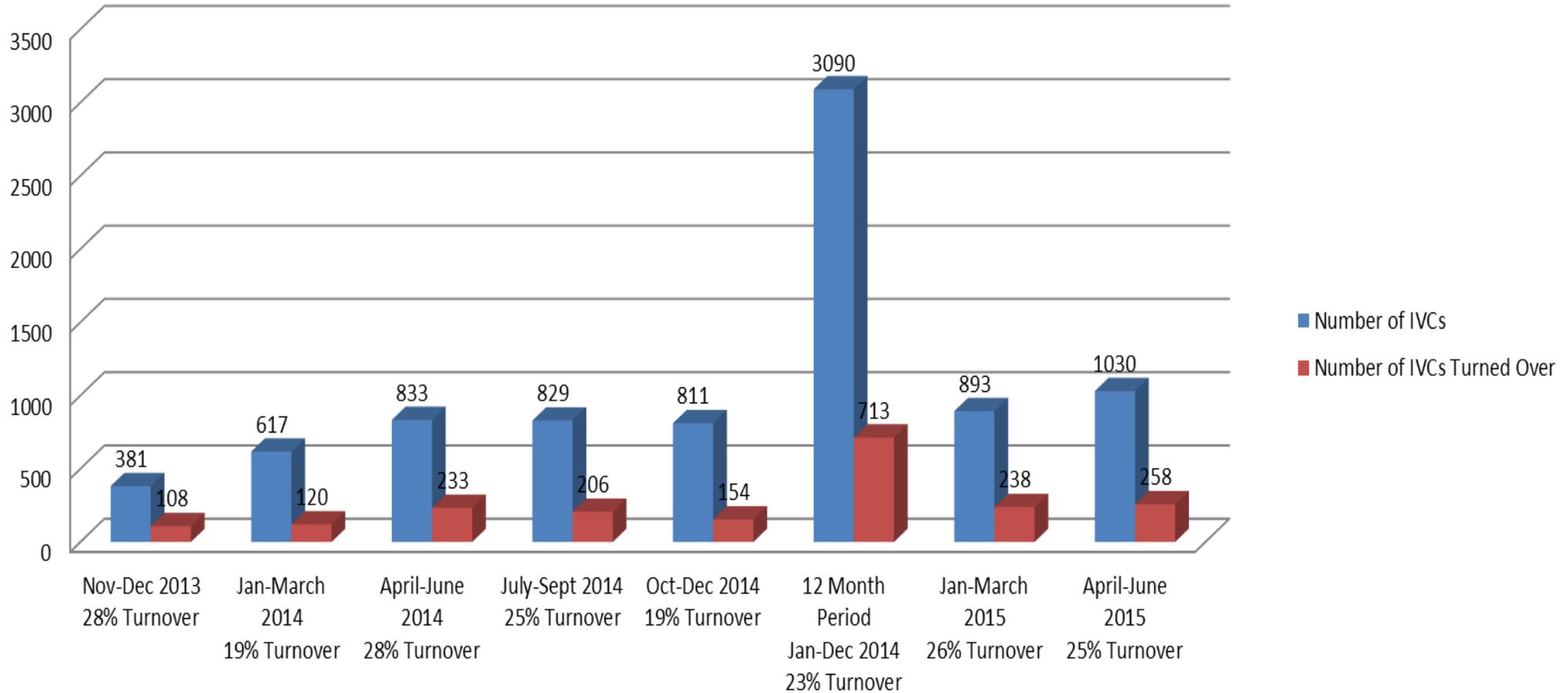
Median Length of Stay for Jan 2014 - Dec 2014 = 23.6 Hours



Median Length of Stay in Hours



NC STeP: Number of IVCs for Participating Hospitals by Quarter and for Year 2014



Satisfaction Data

Satisfaction surveys are conducted with 4 groups:

- Emergency Department Physicians
 - Hospital Emergency Department Staff
 - Hospital CEOs/COOs
 - Provider (HUB) Physicians
- Invitations to participate are sent via electronic mail
 - Surveys are completed online via Qualtrics software
 - Each group is given a different survey (with different questions) based on their role in the telepsychiatry program

For each group, one summary question is selected for an overall “satisfaction” rate. These are then averaged for a total rate.

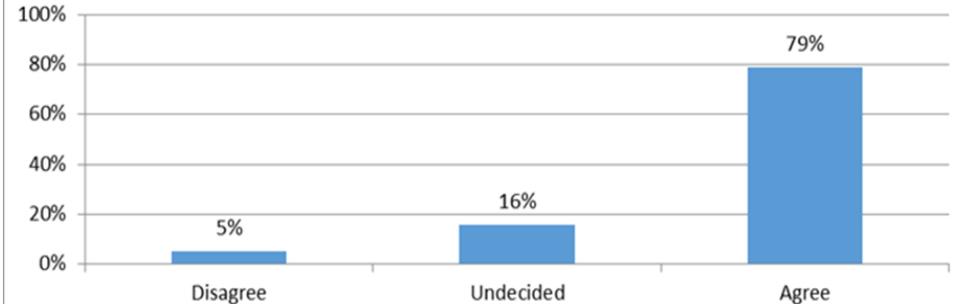


Overall Satisfaction: Determined by a weighted average of the satisfaction measures for the user groups. The weighted average for April-June 2015 was 73% satisfied.

- Provider Psychiatrists = 67%.
- ED Physicians = 79%.
- ED staff = 71%.

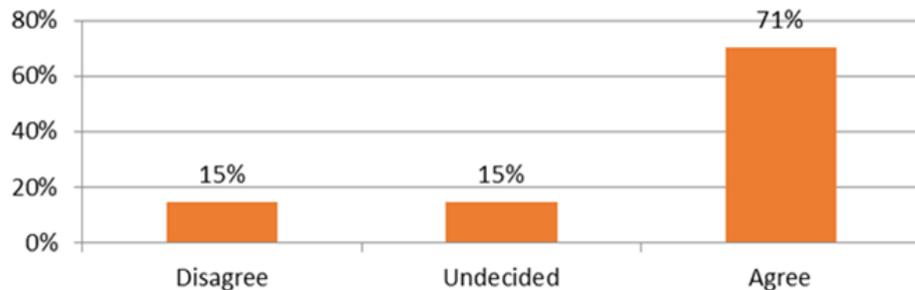
ED Doc: Telepsych consults have improved the quality of care for mental health and substance abuse patients in the ED

**This question used to measure overall satisfaction



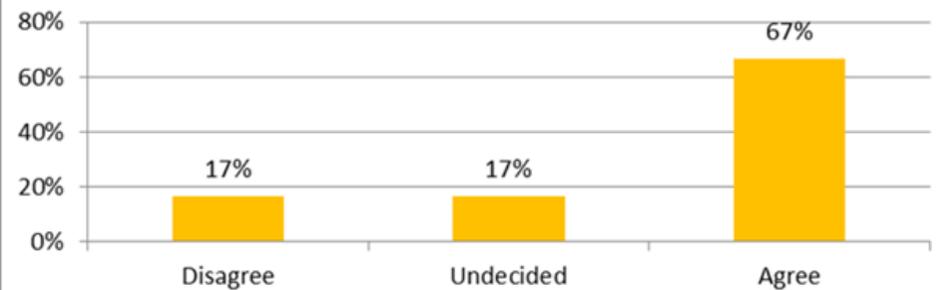
ED Staff: Telepsychiatry consults have improved patient care in our ED

**This question used to measure overall satisfaction



Psychiatrist: I am satisfied with providing psychiatric consults via telepsychiatry

*This question used to measure overall satisfaction



Challenges & Opportunities

- Psychiatrists
 - Rewarding work but financially not attractive
 - Should we use psychiatrists from other states?
 - While telepsychiatry makes it possible to transcend geographical boundaries and utilize workforce nationally, even globally, we'll never be successful in resolving NC workforce shortages if our MH workforce was located outside our geographical boundaries.
 - We must build capacity for caring for these patients in our communities.



Challenges & Opportunities

- Recruiting Psychiatrists (continued)
 - 24/7 coverage not cost effective
 - Providing coverage after-hours and on weekend and holidays is difficult to staff
 - Creating collaborative linkages for aftercare across the continuums of care requires participation of community-based providers



Challenges & Opportunities

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



Challenges & Opportunities

- Community Capacity
 - Impact on LOS
 - Beds availability
 - Limited OP options
 - Few successful urgent care models
 - Limited 23-hours beds



Challenges & Opportunities

- Telepsychiatry can enhance quality of care
 - Improve efficiency
 - Expand service delivery
 - Improve outcomes
 - Evidence-based practices to make recovery possible



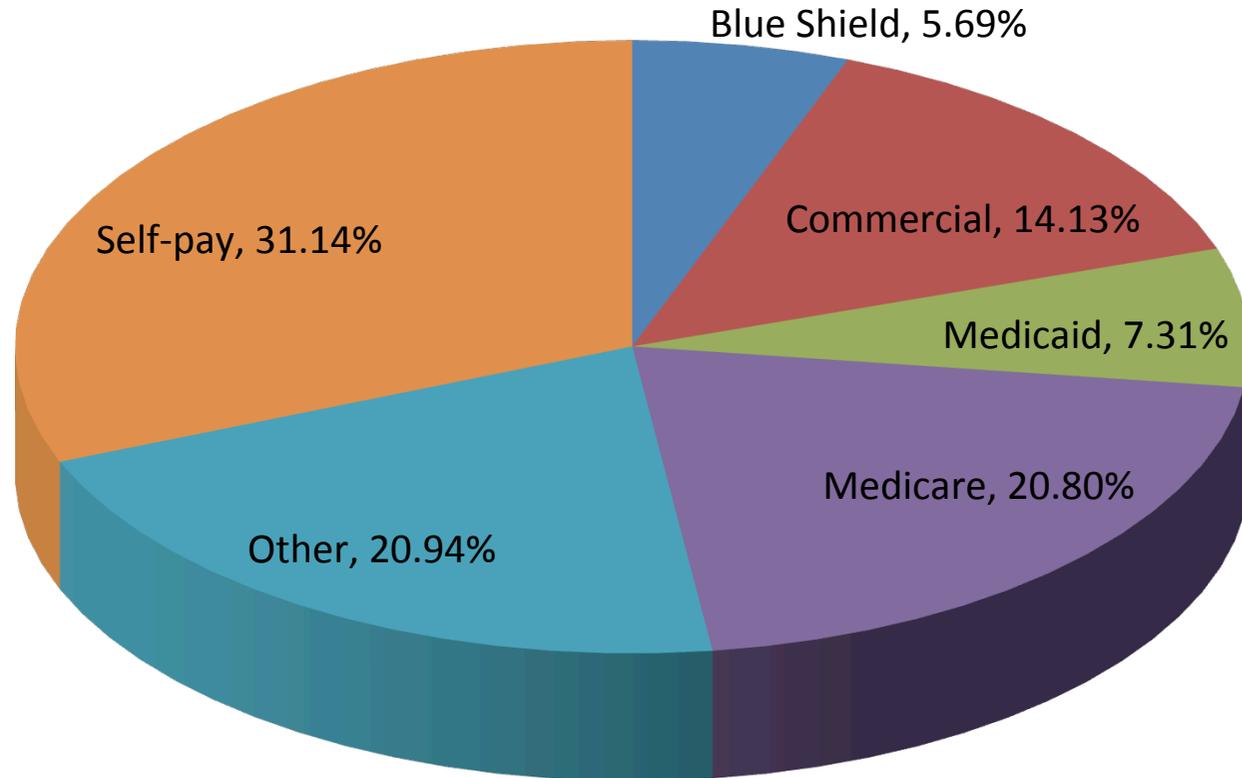
Challenges & Opportunities

- Sustainability
 - With the current payor mix, revenue by itself cannot support the program
 - Administrative costs
 - Equipment and connectivity costs



Challenges & Opportunities

**NC-STeP CHARGE MIX
PROJECT TO DATE
10/1/13 - 6/30/15**
(based on initial status)



Who are the beneficiaries?

(Who should pay for it?)

Entity	Cost Savings
Patients and Families	How to quantify reduced distress/disability, functional improvement, quality of life, gainful employment, etc.
Communities	How to quantify better "citizenship", reduced homelessness, crime reduction, more self reliance, etc.
NC-Medicaid + "Indigent Care" (? MCOs)	NC State projected cost savings from over turned IVC's for self-pay and Medicaid = \$4,441,239 Cost savings from reduced recidivism = ?
Third Party Payors	Projected cost savings from overturned IVC's = \$1,133,261 Cost savings from reduced recidivism + ?
Sheriff Department	Projected cost savings to Sheriff Department from overturned IVCs= \$535,404
Hospitals	Costs savings from increased throughput in the ED.

Challenges & Opportunities

- Statewide program vs. regional programs
 - Uniform standards and outcome management
 - Economy of scale
 - Data
 - Other applications
 - Mental Health
 - Other medical conditions



Connected Health

Network

Specialty teleconsultation
Telecare
Remote monitoring
Distance learning
Multidisciplinary care

Electronic Health Records
Practice management systems
Clinical decision support
e-Prescriptions
Alerts/reminders
Digital imaging/PACS

**Telemedicine
Telepsychiatry**

**Health
Information
Technology**

**Consumer Health
Informatics**

Personal Health Records
Health web sites
e-Visits
e-Journals
Virtual health/support
communities



Contact

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