



Using Telepsychiatry to Improve Access to Evidence-Based Care



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Tomorrow starts here.

Disclosure

Neither I nor any member of my immediate family have any relevant financial relationship with the manufacturers of any commercial products and/or providers of commercial services discussed in this presentation.

ACKNOWLEDGEMENTS

The plan for NC-STeP was developed in collaboration with a workgroup of key stakeholders including representatives from universities, NC DHHS, hospitals/healthcare systems, NC hospital Association, NC Psychiatric Association, and LME-MCOs. 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. NC DHHS provides administrative oversight of the funding.



Mental disorders are common

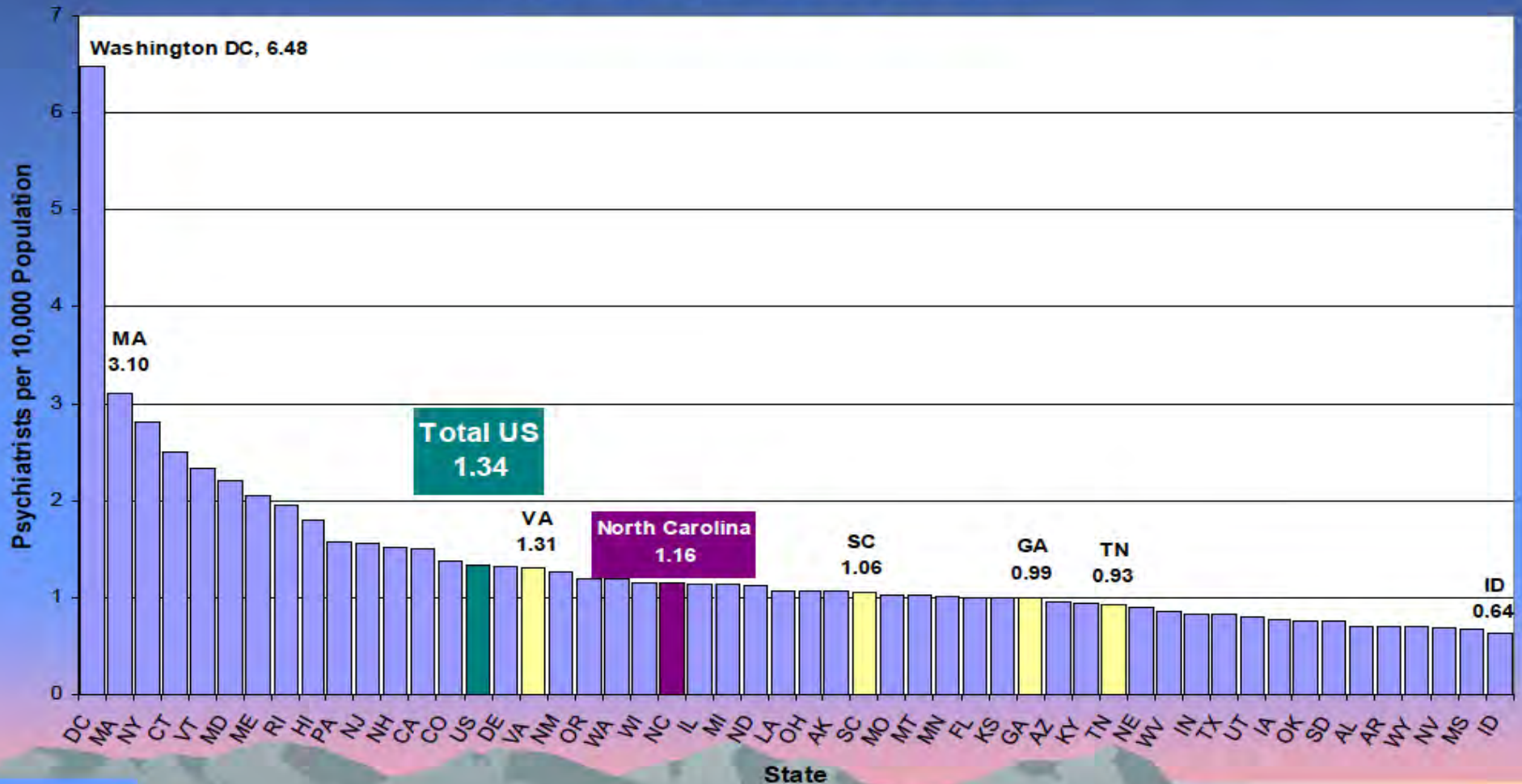
- An estimated 26.2% of Americans ages 18 and older (about 1 in 4) Americans have a mental disorder in any one year¹.
 - When applied to the 2014 U.S. Census residential population estimate for ages 18 and older, this figure translates to 61.8 million².
- The main burden of illness is concentrated in a much smaller proportion — about 6 percent, or 1 in 17 (14.2 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. <http://quickfacts.census.gov/qfd/states/00000.html>. ACCESSED September 24, 2015.

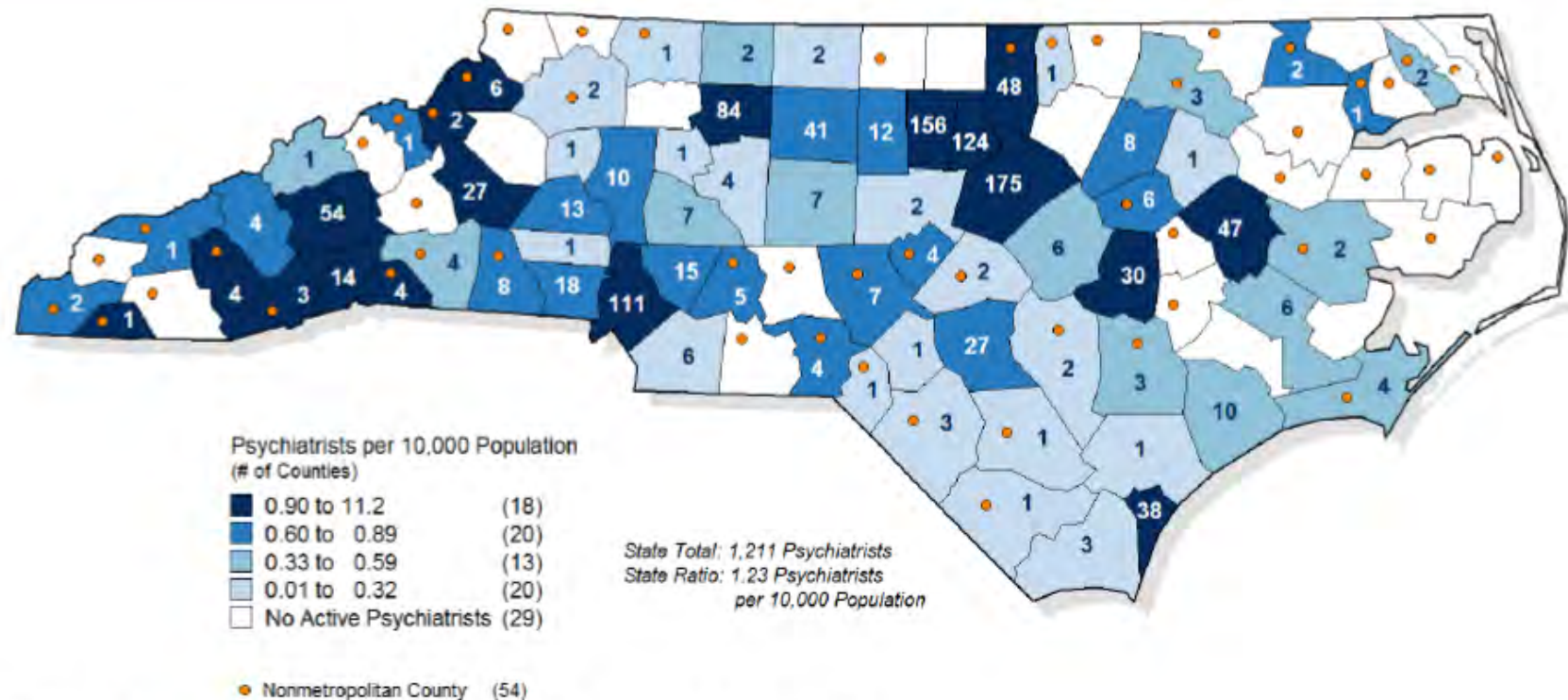


Psychiatrists per 10,000 Population

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.

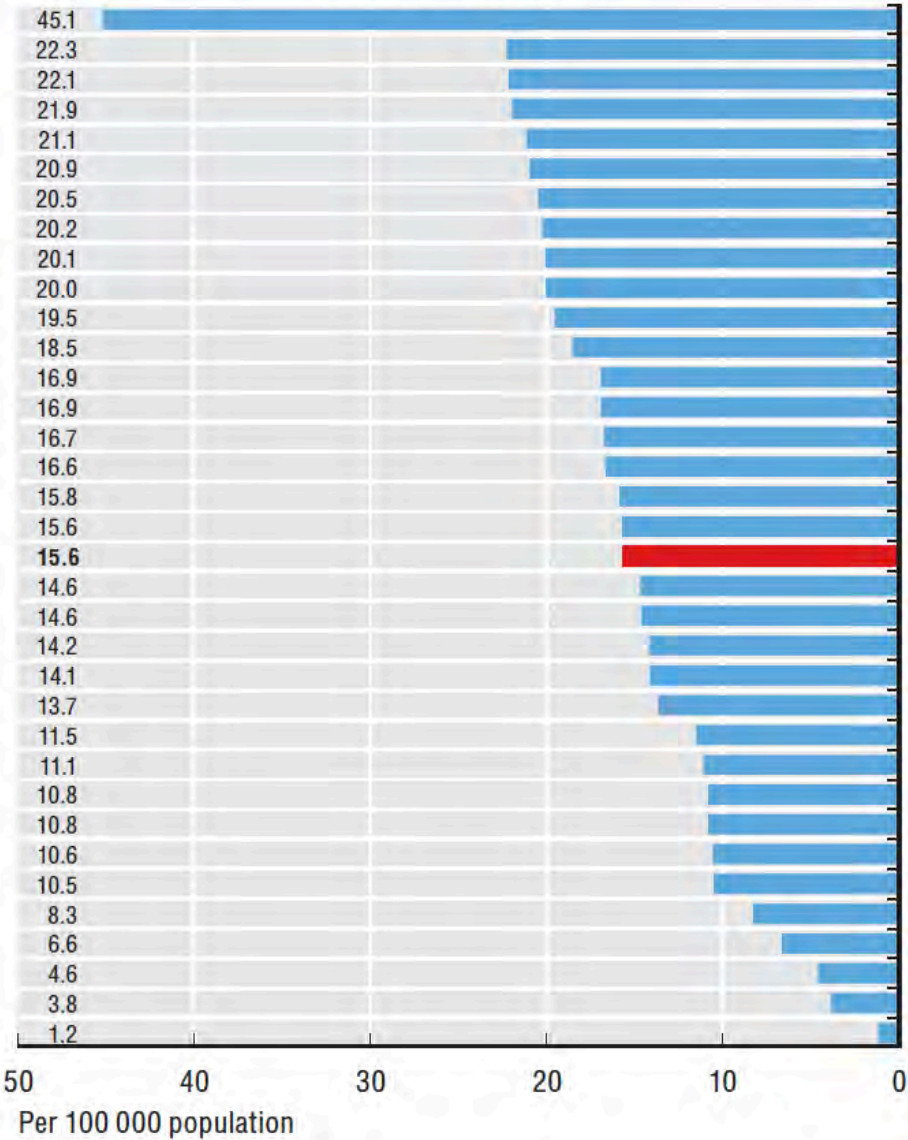
Distribution of psychiatrists statewide is such that many counties have a shortage

- 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.

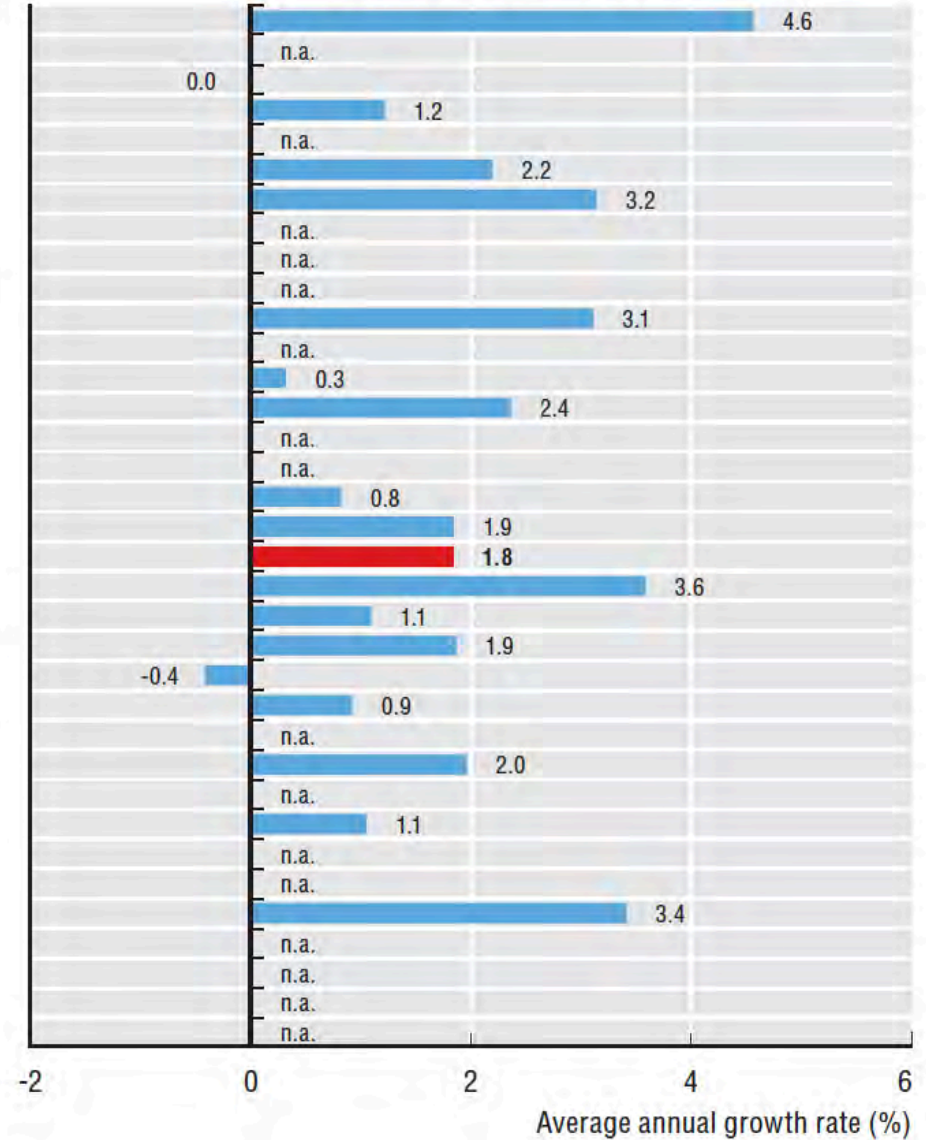


Psychiatrists per 100 000 population, 2009 and change between 2000 and 2009

2011 (or nearest year)



Change 2000-11 (or nearest year)



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.
- According to the North Carolina Hospital Association, in 2013, NC hospitals had 162,000 behavioral health emergency department visits.
- In 2010, patients with mental illness made up about 10 percent of all emergency room visits in North Carolina, according to a study by the Centers for Disease Control, and people with mental health disorders were admitted to the hospital at twice the rate of those without.

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



Patients with Mental Illness are now going to the ED for treatment*

- Nationally, greater than 6.4 million visits to emergency rooms in 2010, about 5 percent of total visits, involved patients whose primary diagnosis was a mental health condition or substance abuse.
 - That is up 28 percent from just four years earlier, according to the latest figures available from the Agency for Healthcare Research and Quality in Rockville, MD
- By one federal estimate, **costs to general hospitals in order to care for these patients is expected to nearly double to \$38.5 billion in 2014, from \$20.3 billion in 2013.**

* Cresewell, J . E.R. Costs for Mentally Ill Soar, and Hospitals Seek Better Way, NY Times, DEC. 25, 2013.

http://www.nytimes.com/2013/12/26/health/er-costs-for-mentally-ill-soar-and-hospitals-seek-better-way.html?_r=0



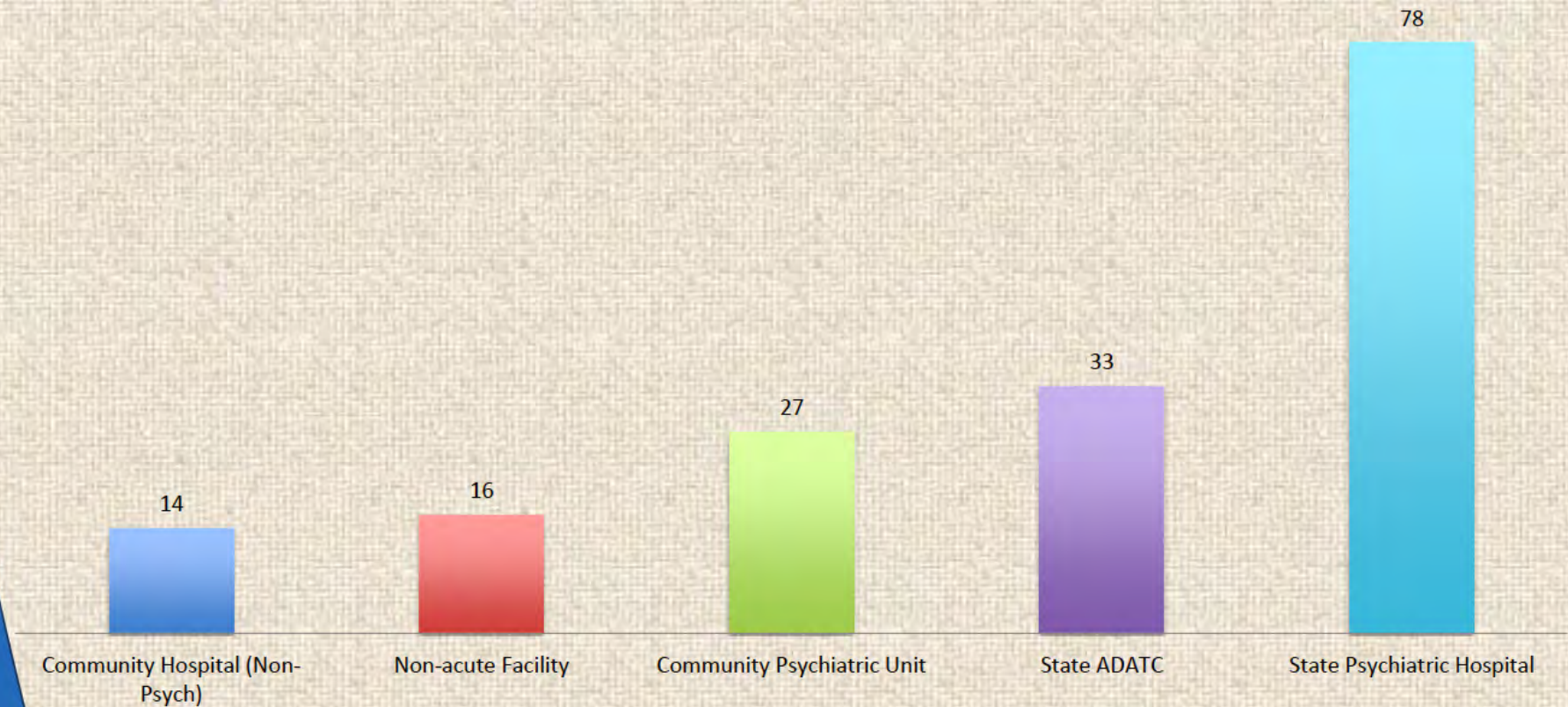
The majority of NC Emergency Departments do not have access to a full-time psychiatrist

- 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.

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.



Telemedicine: No longer just a rural area concept

- Improve Efficiency
- Expand service delivery
- Improve Outcomes

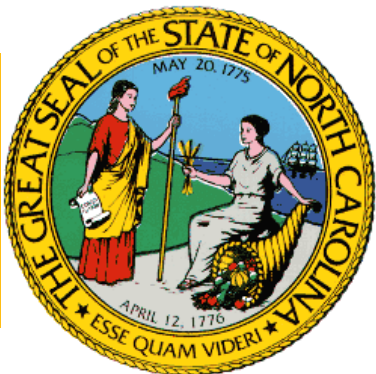




NORTH CAROLINA

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

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 December 31, 2015

- 74 hospitals in the network
 - 57 are “Live”
 - 17 are in process (i.e. waiting on credentialing, equipment, training, or portal)
- 2,788 total telepsychiatry assessments were conducted under the program during this three month period
- 20,716 total telepsychiatry assessments have been conducted under the program since its inception



NC-STeP Status as of December 31, 2015

- 1089 ED patients who received telepsychiatry services had an IVC in place during their ED stay.
 - 281 (26%) of those patients did not have an IVC in place when they were discharged.
- Of the ED patients who received telepsychiatry services, 36.3% were discharged to home. 56% were discharged to another facility.

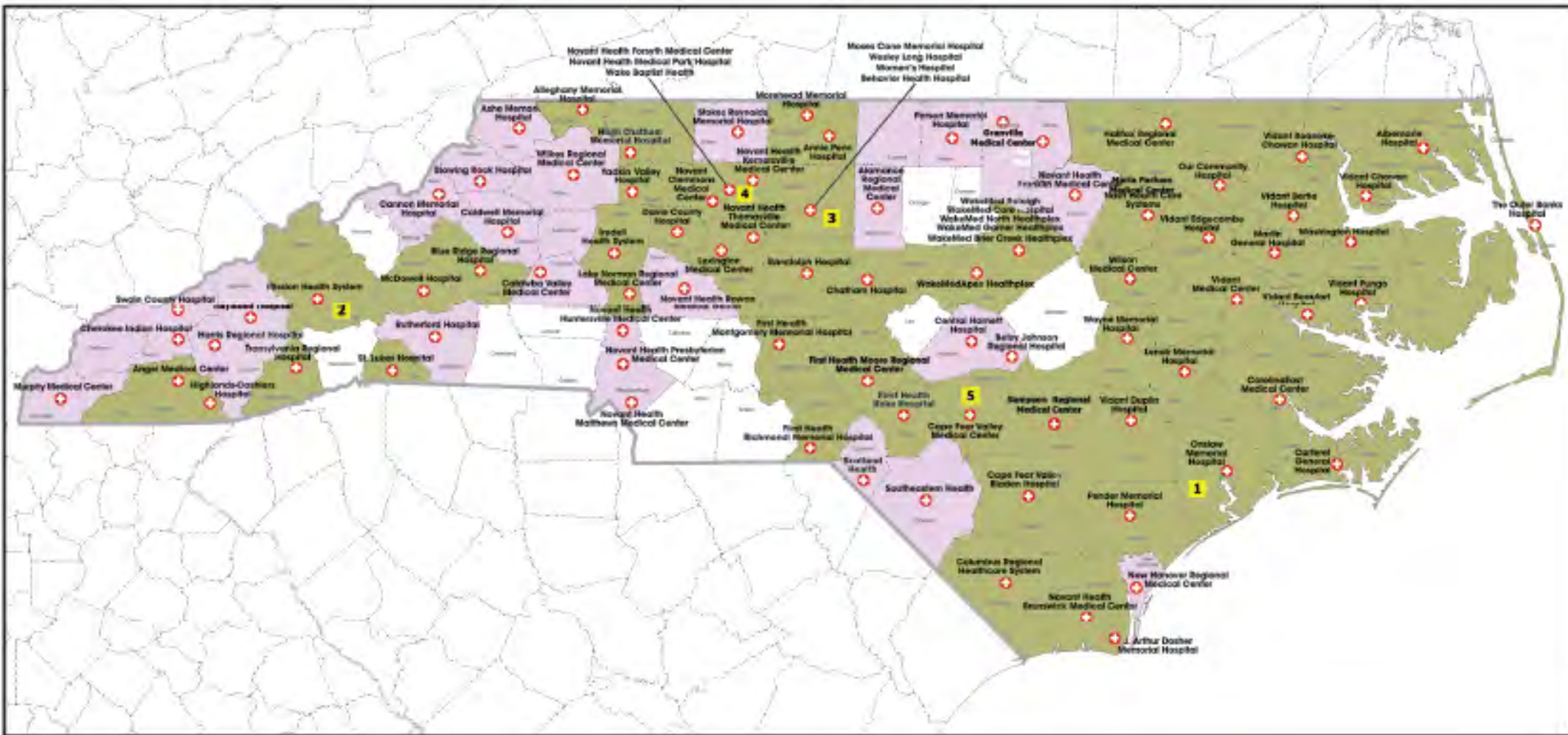


NC-STeP Status as of December 31, 2015

- Four Clinical Providers' Hubs
 - Cape Fear Valley
 - Cone Health
 - Mission
 - Novant
- Four new Hubs in various stages of development



NC-STeP Footprint



Provider Hubs

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





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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



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- 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

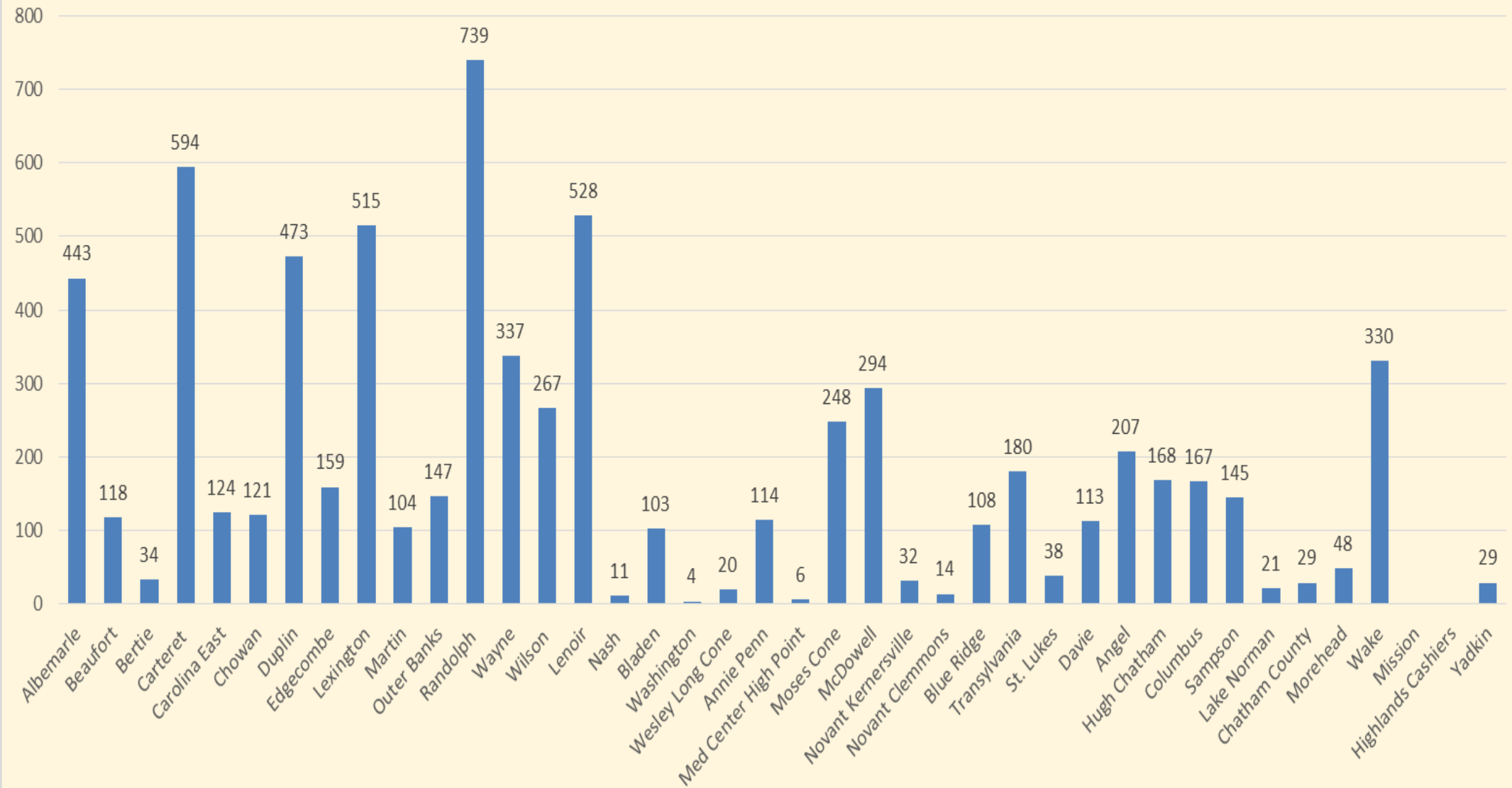
- The Center aggregates the referral site data for each quarterly reporting period and conducts analysis to determine the metrics below. Analysis is conducted for each individual site and for the program overall.
 - Total number of assessments
 - Length of stay
 - Length of stay by discharge disposition
 - 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.



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Total Number of ED Telepsychiatry Patients by Hospital for 2015 (January - December)



NC-STeP



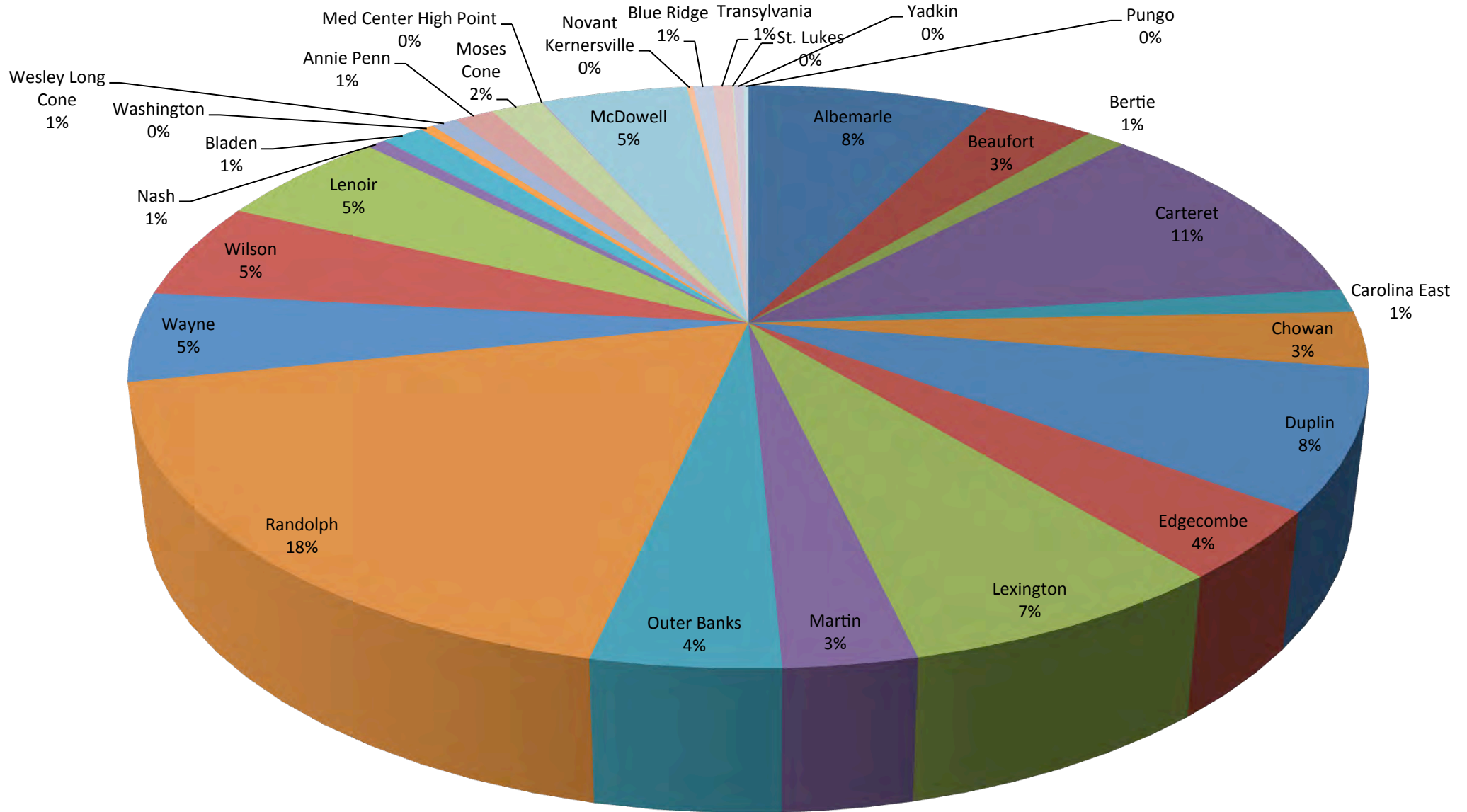
East Carolina University
CENTER FOR TELEPSYCHIATRY

Patient Encounters and Assessments Continued to Grow

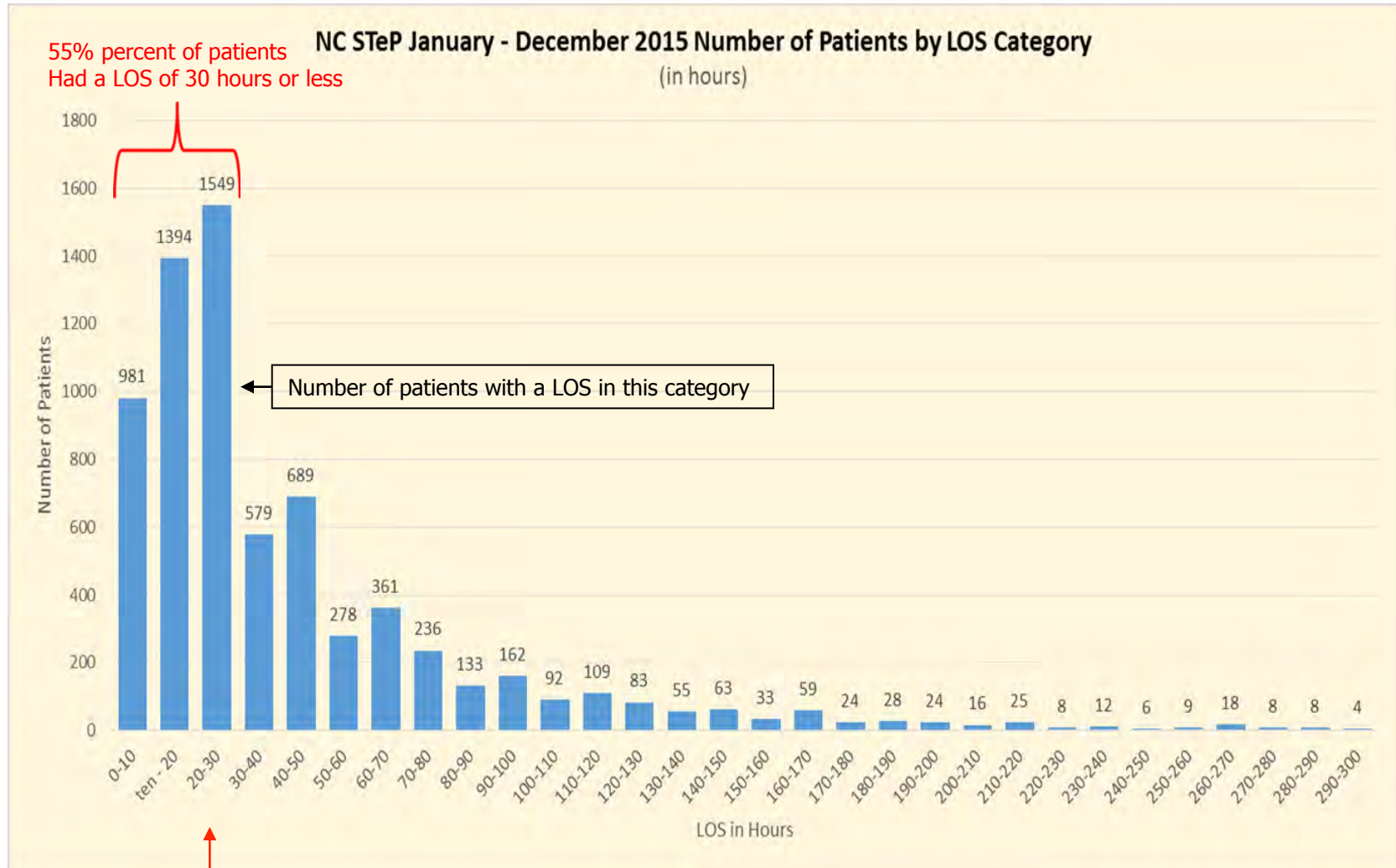
	Since project inception in November 2013	During Calendar Year 2014	During Calendar Year 2015	During Quarter October - December 2015
Total Patient Encounters	13,219	5,144	7,132	1,691
Model-1 hospitals	11,373	4,578	5,872	1,368
Model-2 hospitals	1,846	566	1,280	323
Total Number of Assessments	20,716	7,548	12,294	2,788



Hospital EDs and Percent of Use - January - December 2014



Annual Charts for January – December 2015

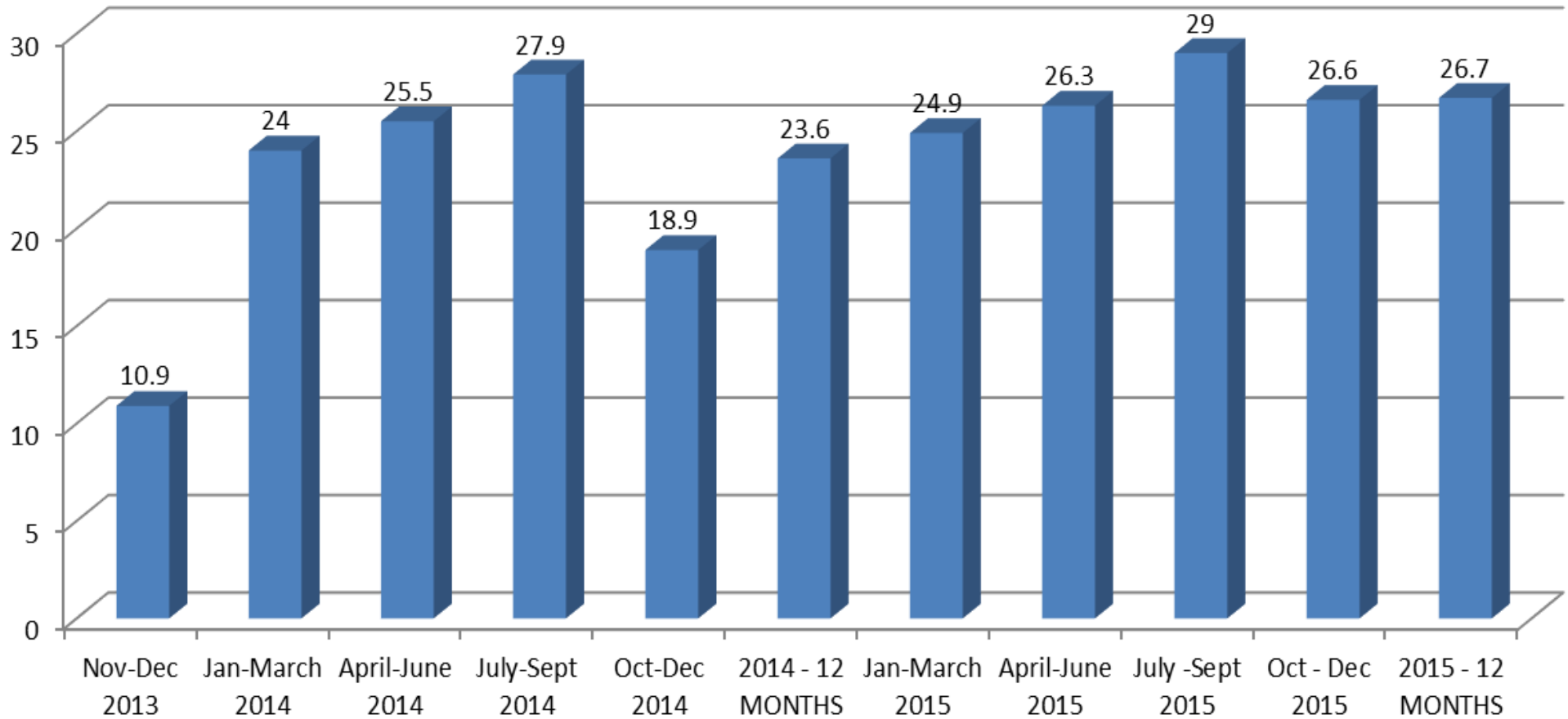


Median Length of Stay for January – December 2015 = 26.7 Hours

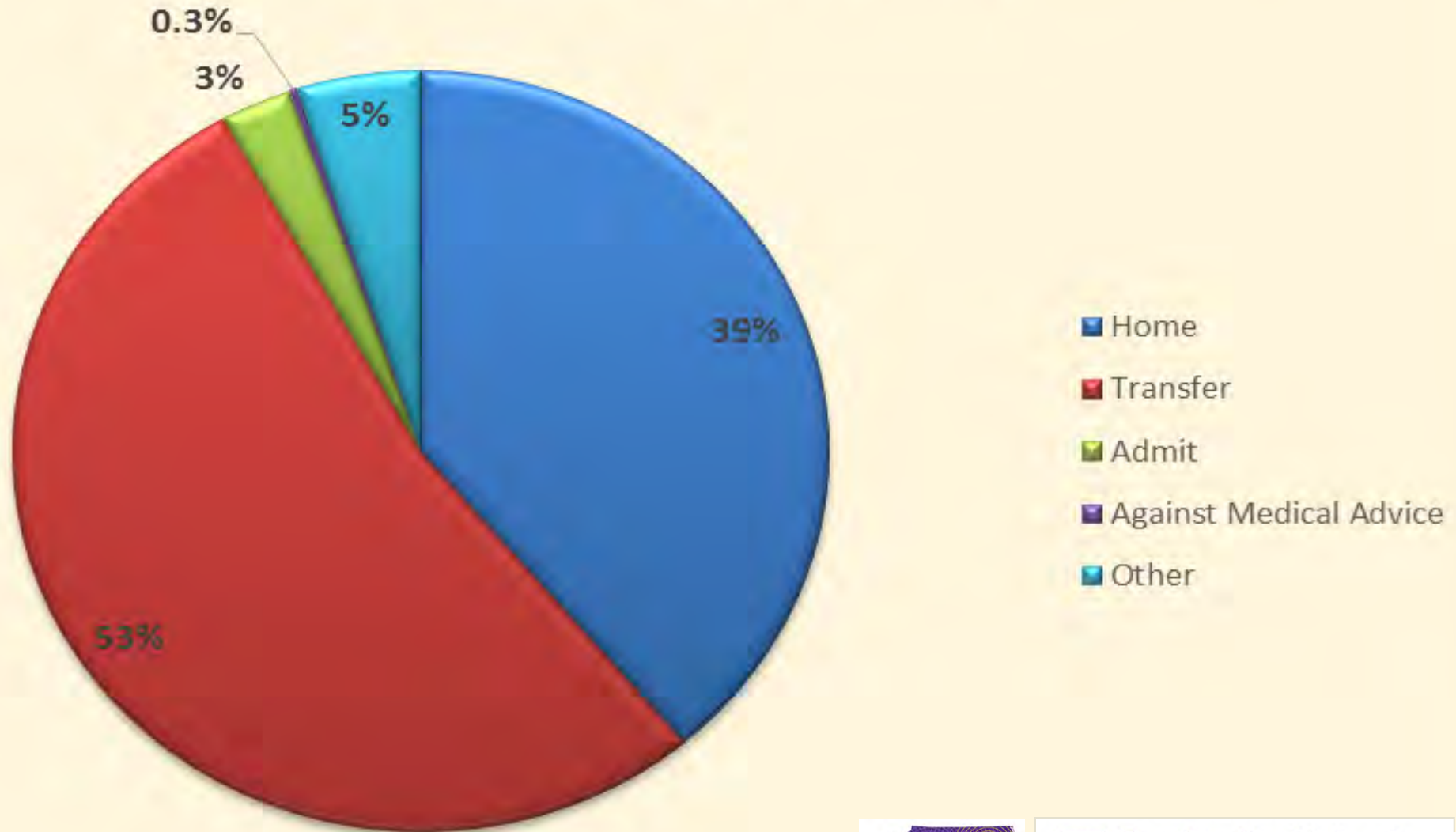
There were 90 patients (1.2%) with a length of stay longer than 300 hours.



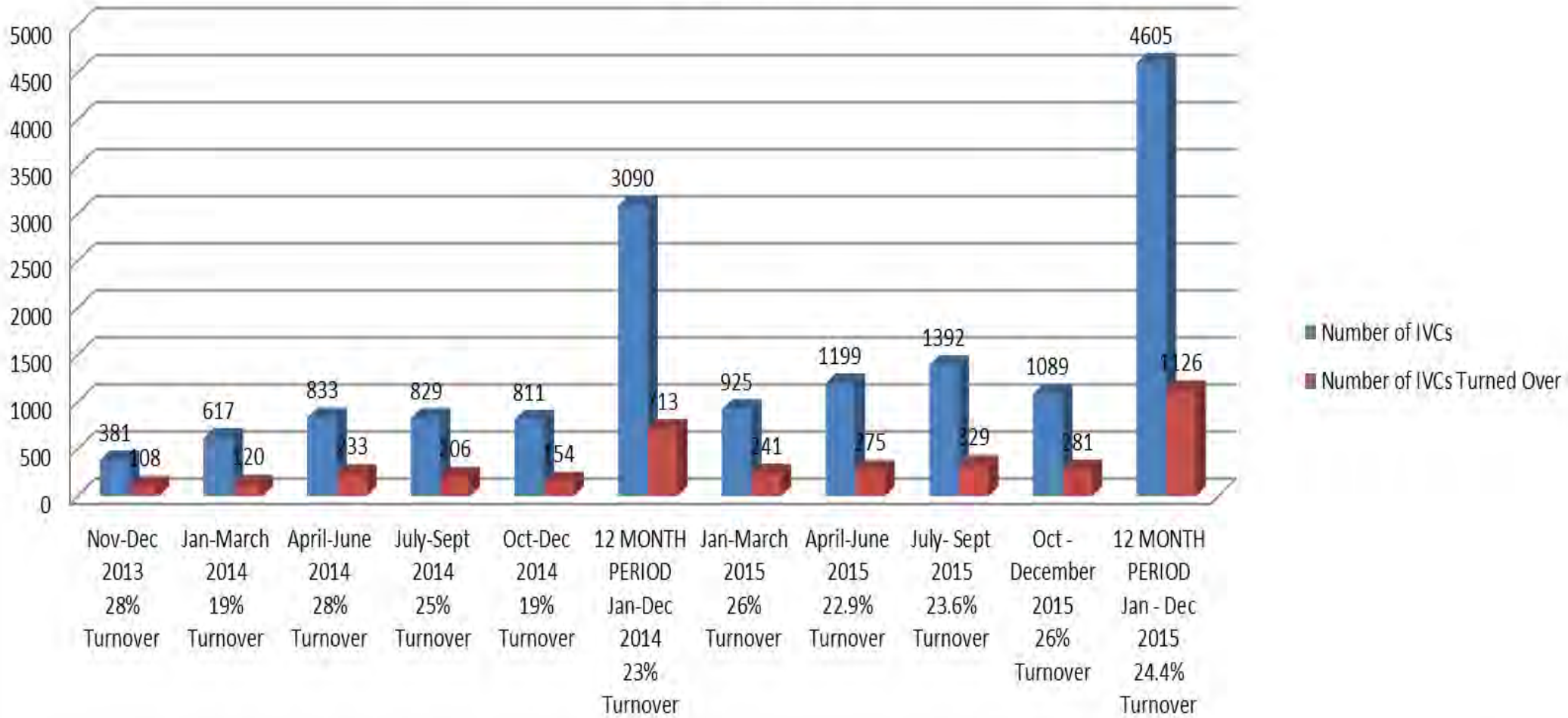
Median Length of Stay in Hours



Percent of ED Telepsychiatry Patients by Discharge Disposition for Jan - Dec 2015



NC STeP: Number of IVCs for Participating Hospitals by Quarter



Satisfaction Data

Satisfaction surveys are conducted with 4 groups:

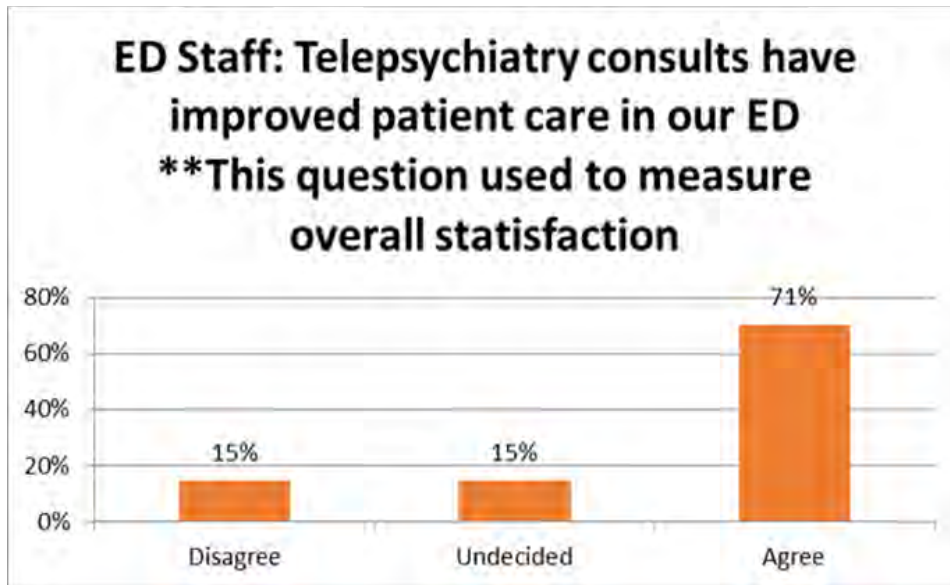
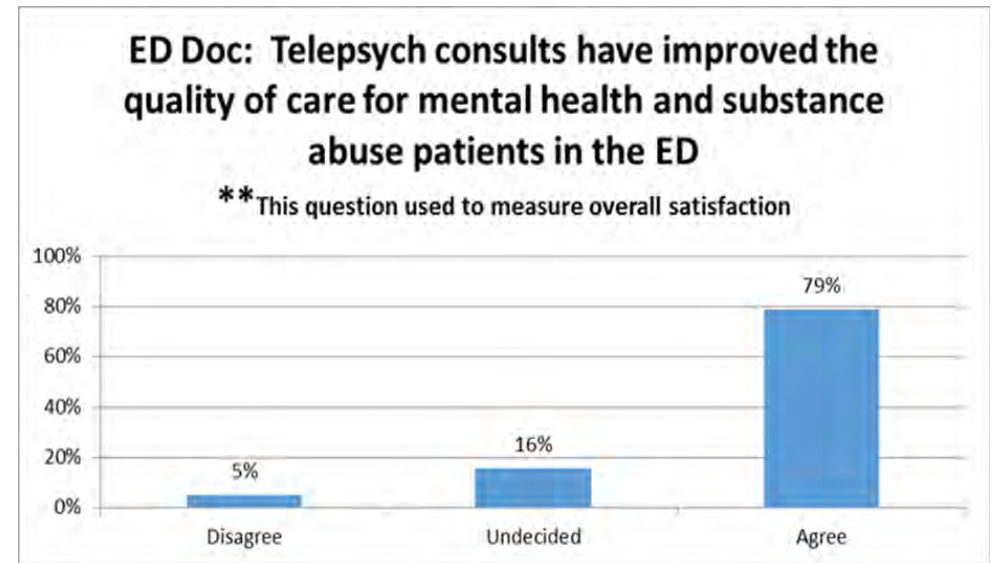
- Emergency Department Physicians
 - Hospital Emergency Department Staff
 - Hospital CEOs/COOs
 - Provider (HUB) Physicians
- Invitations to participate are sent via electronic mail
 - Surveys are completed online via Qualtrics software
 - Each group is given a different survey (with different questions) 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.



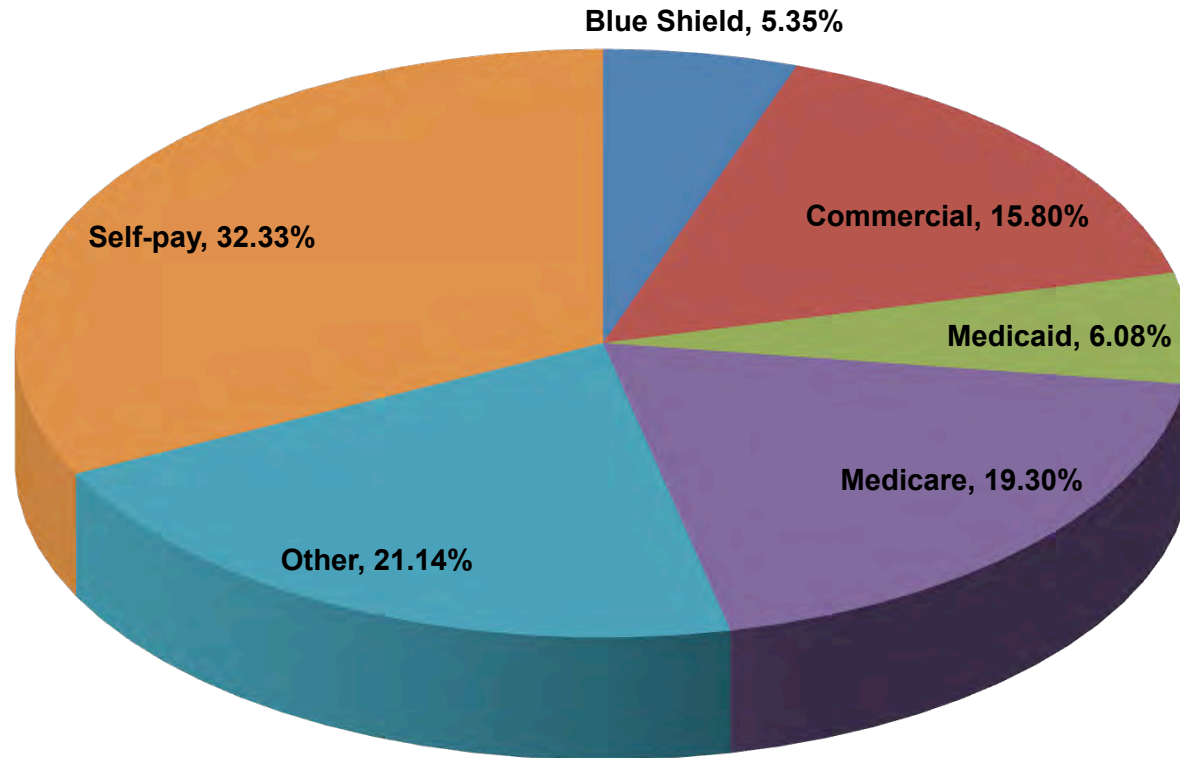
Overall Satisfaction: Determined by a weighted average of the satisfaction measures for the user groups. The weighted average for April-June 2015 was 73% satisfied.

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



NC-STeP CHARGE MIX (based on initial status)

PROJECT TO DATE: 10/1/13 - 12/31/15



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.



Opportunities

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



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.

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, and more are ripe for exploration.



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.





Contact

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Tomorrow starts here.



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