

About the Office of Rural Health (ORH) and Our Mission

- **First state office (1973) in the nation created to focus on the needs of rural and underserved communities**
- **Assists underserved communities by developing and funding innovative strategies for improving:**
 - **Access to health care**
 - **Quality of health care**
 - **Cost-effectiveness of health care**

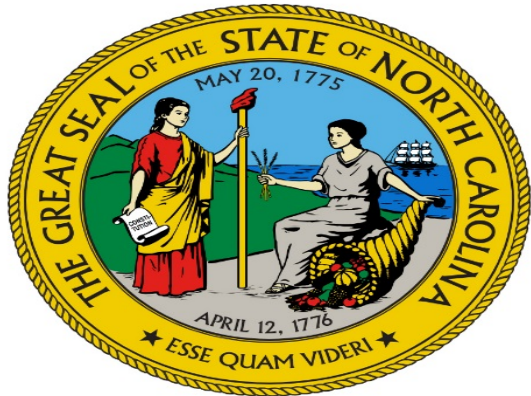


State Fiscal Year 2018 Office Facts:

- **Administered over 300 contracts**
- **Spent \$31.6 million from state, federal, and philanthropic sources**
- **Provided over 1,300 technical assistance activities**

While we do not provide direct care, our programs support numerous health care safety net organizations throughout North Carolina.





NC Department of Health and Human Services

Telehealth: Improve Access to Care

Nick Galvez, Rural Hospital Manager

June 2019

Programs at ORH



Placement and HPSA Services

Recruit providers and designates health professional shortage areas



NC Rural Health Centers

Supports state designated rural health centers that serve the entire community



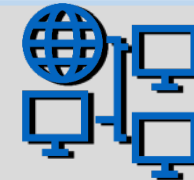
NC Community Health Grants

Supports the primary care safety net system with increasing access to health care for vulnerable populations



NC Farmworker Health Program

Supports medical, dental and educational services for members of the North Carolina agricultural labor force and their families



Rural Health Information Technology Program

Provides technical assistance to improve the use of Electronic Health Record (EHR) Systems and the use of health information exchange



NC Rural Hospital Program

Funds operational improvement projects for the benefit of all critical access hospitals and eligible small rural hospitals



NC Medication Assistance Program

Provides free and low-cost medications donated by pharmaceutical manufacturers to patients who cannot afford them



NC Statewide Telepsychiatry Program

Supports psychiatric evaluation of patients through videoconferencing technology in emergency departments



NC Analytics & Innovations

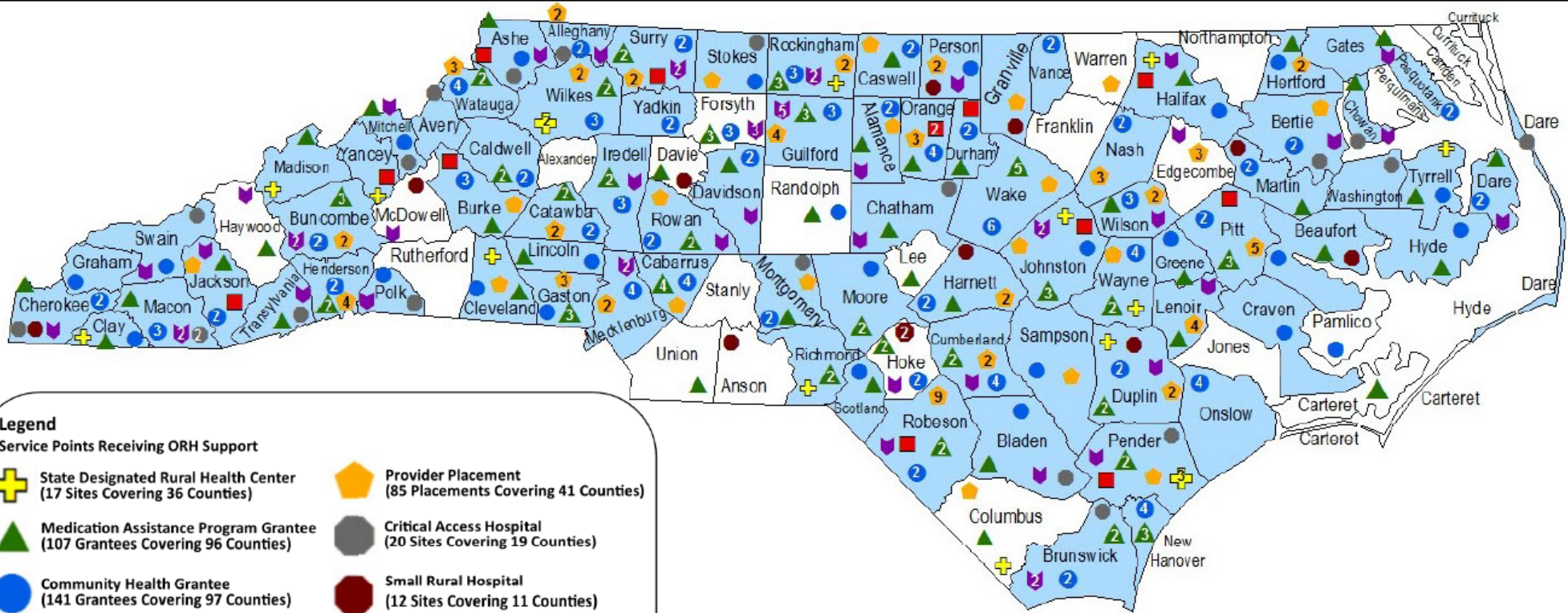
Support data analytics, shortage designations, and pioneering efforts to improve health

Program Reach

160
Agencies funded

100
Total counties covered

70
Rural counties covered



Legend

Service Points Receiving ORH Support

State Designated Rural Health Center (17 Sites Covering 36 Counties)	Provider Placement (85 Placements Covering 41 Counties)
Medication Assistance Program Grantee (107 Grantees Covering 96 Counties)	Critical Access Hospital (20 Sites Covering 19 Counties)
Community Health Grantee (141 Grantees Covering 97 Counties)	Small Rural Hospital (12 Sites Covering 11 Counties)
Farmworker Health Grantee (13 Grantees Covering 63 Counties)	Telepsychiatry Site (54 Sites Covering 41 Counties)

Health Information Technology Program
Electronic Health Record Grantee (77 Counties)

*Numbers inside of symbols indicate number of sites, grantees, or placements, based on symbol

Service Areas for NC ORH



Objectives

- Learn the definition of telehealth
- Discuss the primary modes of telehealth
- Review Medicare/NC Medicaid guidelines for telehealth
- Show examples of telehealth in NC
- Discuss broadband as it relates to telehealth

Does Telehealth = Telemedicine

- The Health Resources Services Administration (HRSA) defines telehealth as the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.
- **Telehealth** is different from telemedicine because it refers to a *broader scope of remote healthcare services* than telemedicine

Medicare telehealth definition: real time, interactive video; (simulates face to face encounters)

Social Security Act (1997) limits telehealth to:

- MUST be Rural
- Originating Sites (11)
 - Geographic/Facility
- Distant Providers (9)
- Synchronous two way video

Originating Site (patient location)

- An originating site is the location where a Medicare beneficiary/patient
- The beneficiary must go to the originating site for the services located in either:
 - A county outside a Metropolitan Statistical Area (MSA)
 - A rural Health Professional Shortage Area (HPSA)

<https://data.hrsa.gov/tools/medicare/telehealth>

*refer to NC Office of Rural Health HPSA scores

Originating Sites (facilities)

- Physician and practitioner offices
- Hospitals
- Critical Access Hospitals (CAHs)
- **Rural Health Clinics**
- Federally Qualified Health Centers
- Hospital-based or CAH-based Renal Dialysis Centers (including satellites)
- Skilled Nursing Facilities (SNFs)
- Community Mental Health Centers (CMHCs)

NEW 2019 Sites location exceptions

CMS Originating Site Exceptions

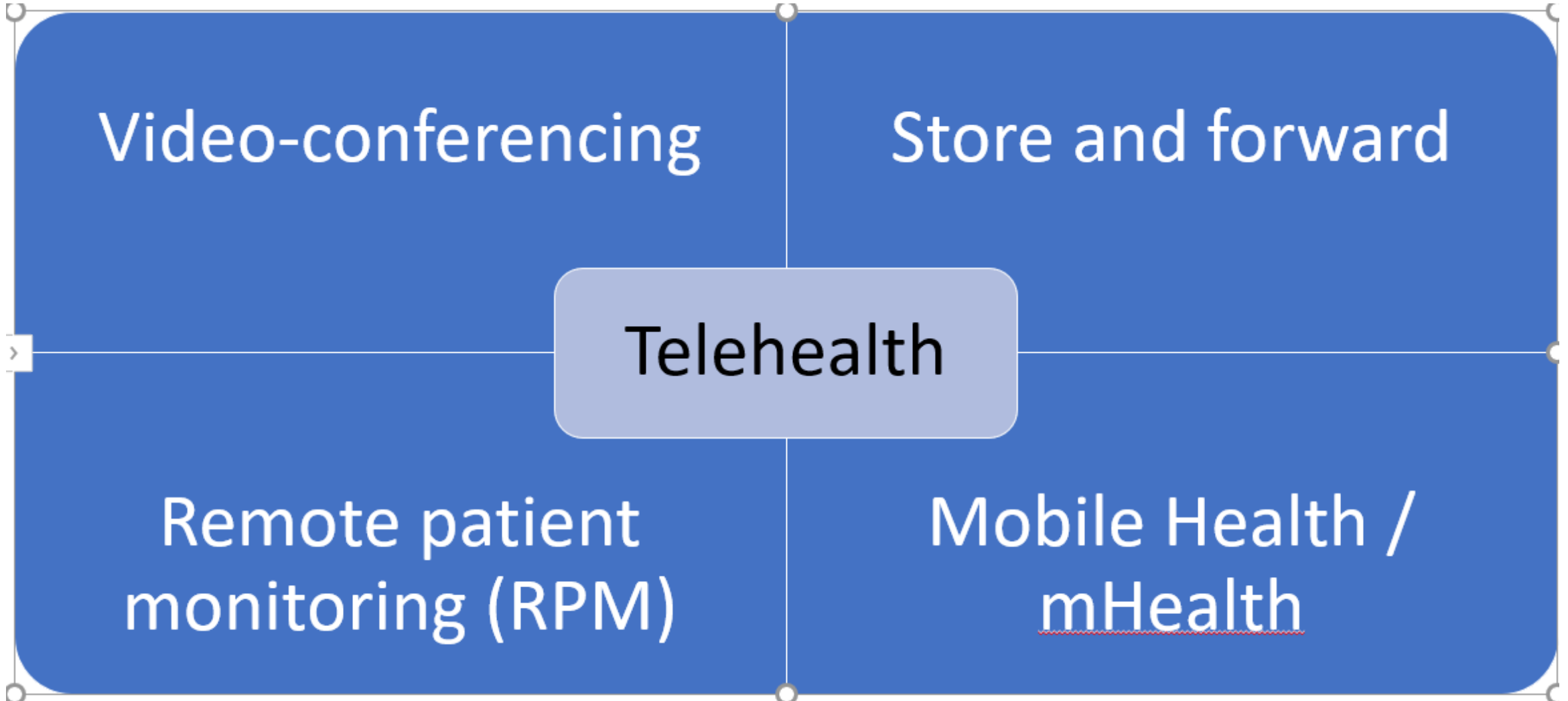
- Beginning January 1, 2019, the originating site **geographic** conditions and added eligible originating sites for an acute stroke. (does not need to be rural)
- CMS does not apply originating site geographic conditions to hospital-based and CAH-based renal dialysis centers, renal dialysis facilities, and beneficiary homes when practitioners furnish monthly **home** dialysis ESRD-related medical evaluations.
- Beginning July 1, 2019, CMS adds an individual's **home** as a permissible originating telehealth services site for treatment of a substance use disorder or a co-occurring mental health disorder.

Approved Site Practitioners

Distant site practitioners who can furnish and get payment for covered telehealth services (subject to State law) are:

- **Physicians**
- **Nurse practitioners (NPs)**
- **Physician assistants (PAs)**
- **Certified nurse-midwives**
- **Clinical nurse specialists (CNSs)**
- **Certified RNAs**
- **Registered dietitians or nutrition professionals**
- **Psychologists and social workers (some restricted codes)**

Telehealth Domains



Video-conferencing

Store and forward

Telehealth

Remote patient
monitoring (RPM)

Mobile Health /
mHealth

Video Conferencing



Video Conferencing

Many things can get in the way of getting in to see the doctor:

- Transportation can be expensive and time-consuming
- Inability to get time off from work
- Lack of specialty providers, especially in rural or underserved areas.

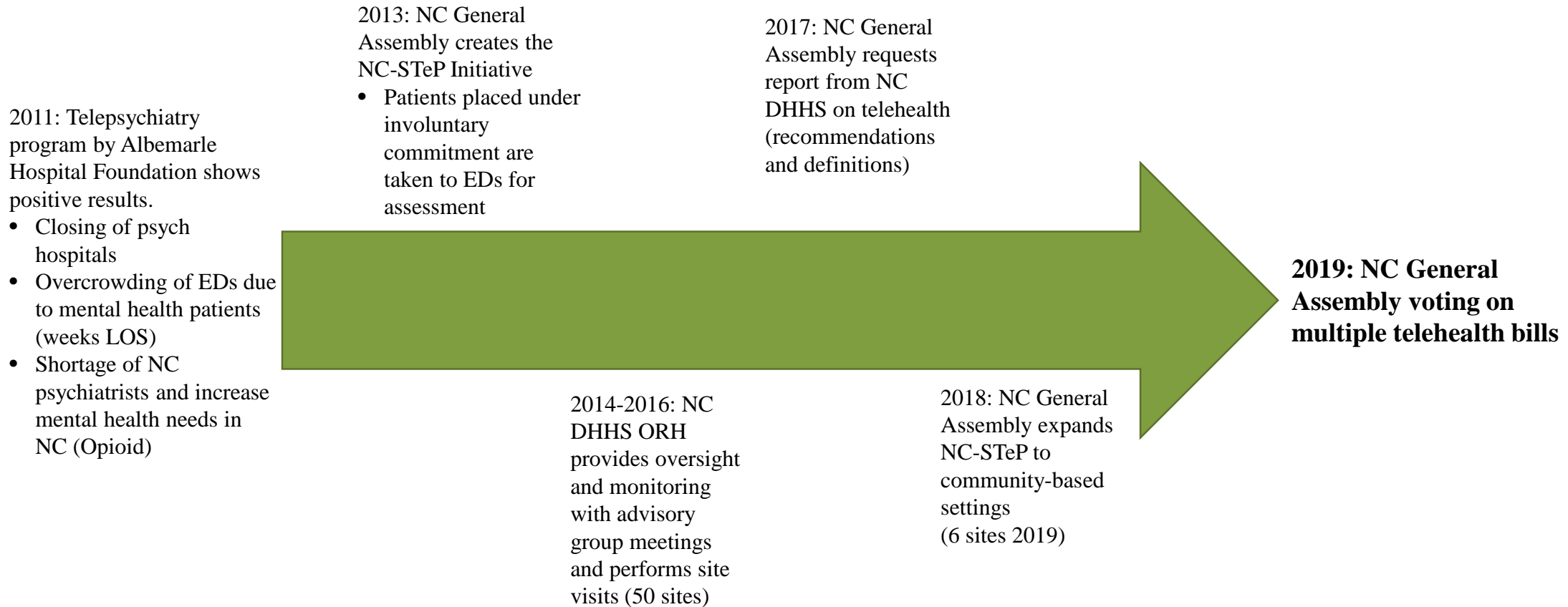


NC State Telepsychiatry Program (NC-STeP)

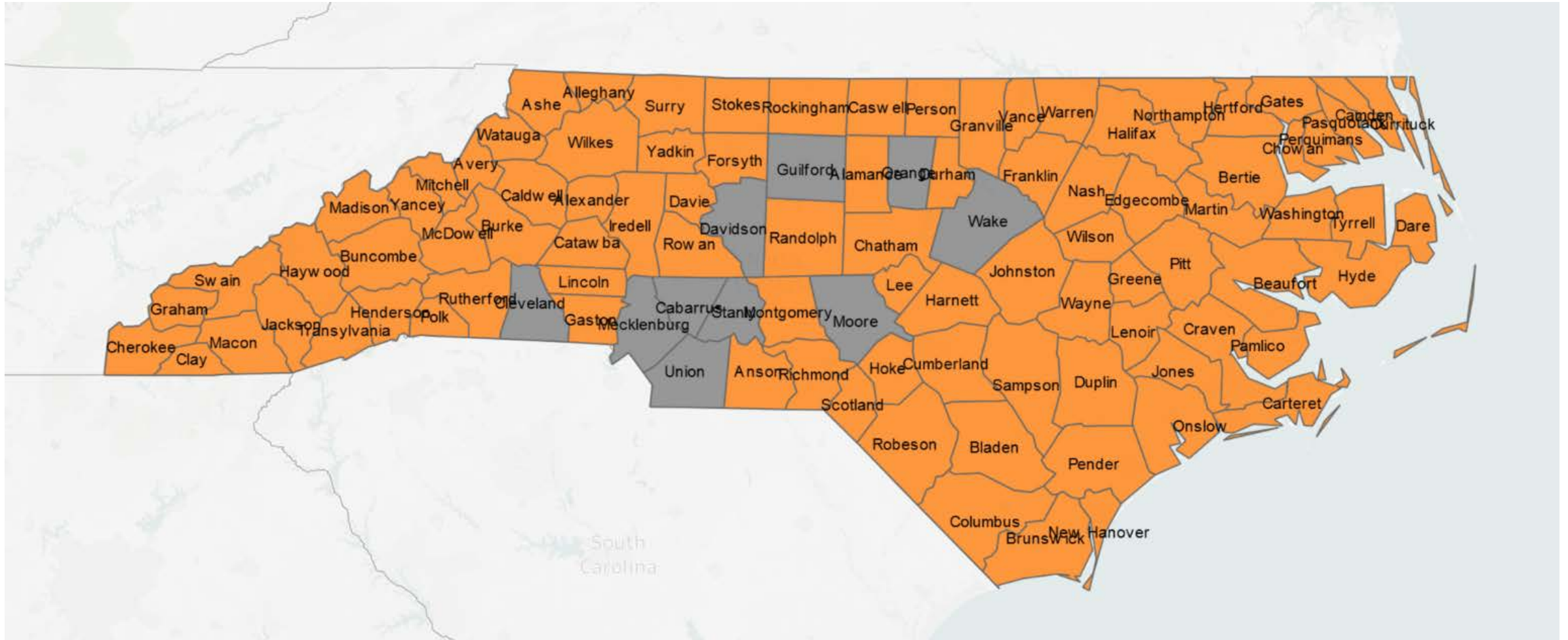
Program Goal: Address the mental health needs for EDs without access to psychiatric specialties

- Patient placed under involuntary commitments (IVCs) were being stuck in the ED departments at hospital Eds
- NC General Assembly
 - The NC Statewide Telepsychiatry Program (NC-STeP) was developed in response to Session Law 2013-360, directing the Office of Rural Health (ORH) to oversee a statewide telepsychiatry initiative.
- Funding – \$2 million in recurring state appropriations since 2013
 - Additional one-time \$1.5 million awarded by The Duke Endowment

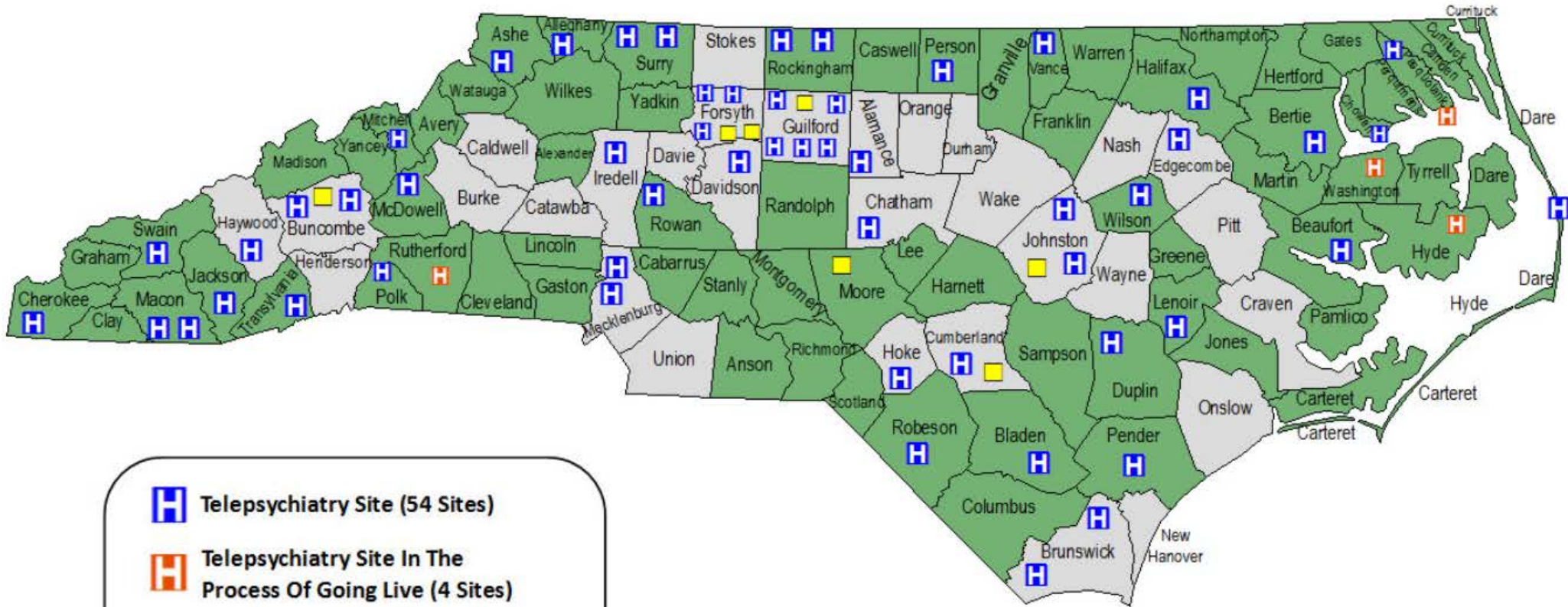
NC-STeP: Timeline of activities



Mental Health Professional Shortage Area (HPSA)



Office of Rural Health North Carolina Statewide Telepsychiatry Program SFY 2018



- Telepsychiatry Site (54 Sites)**
- Telepsychiatry Site In The Process Of Going Live (4 Sites)**
- Provider Hub (7 Hubs)**
- Rural County (70 Counties)**
- Urban County (30 Counties)**



**NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES**
 Office of Rural Health

Program Outcomes

Performance Measure	Baseline (2013)	Target for 2017	Actual Value as of end of 2018
Reports of Involuntary Commitments (IVCs) admitted to hospitals	147 per month	12,264	14,434
Number of IVCs Overturned	42 per month	3,160	4,668
Number of telepsychiatry assessments conducted	450 per month	33,950	35,534
Average LOS (in hours) for behavioral health patients	Between 48 and 72	Mean: 43	Mean: 43.5 Median: 24.6

- The difference between the mean LOS (43.5 hours) and the median LOS (24.6 hours) is due to extreme outliers.
- Due to 4,668 overturned IVCs, NC-STeP estimates a cumulative cost savings of **\$25,207,200** to state psychiatric facilities since 2013



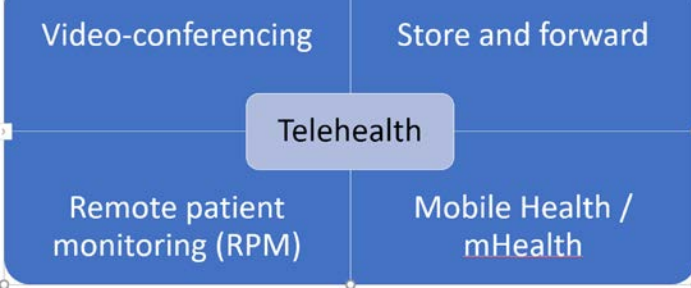
NC-STeP Expansion to Community

Community based (Health Department) sites operating under NC-STeP: Pasquotank, Albemarle, Camden, Hyde, Martin Counties. (Macon county HD June 1)



- If you have program questions, please contact: Telepsych@ecu.edu

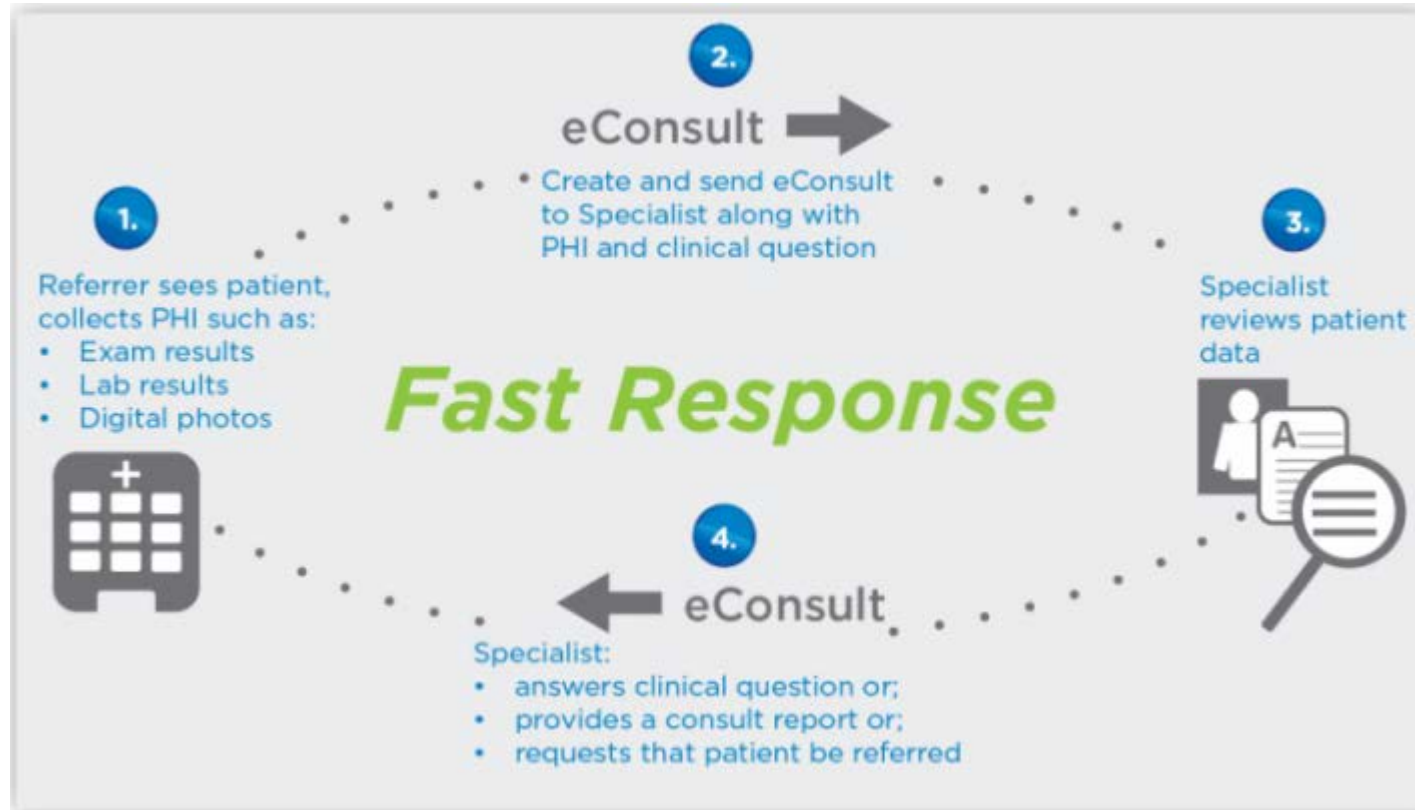




Store and Forward

- **In store-and-forward systems, rural providers transmit secure health information to external specialists in order to seek consultations outside of a real-time patient interaction.**
- **A rural provider could send a patient's X-ray images to a specialist through secure channels and receive a diagnosis through email. Some store-and-forward systems are conducted through electronic health records.**
- **Asynchronous**

Clinical Information Flow



Source: ReferralMD (<https://getreferralmd.com/solutions/e-consults-management/>)

Store and Forward Outcomes

“More than 70% of routine specialist referrals can be replaced by store and forward”

- **Improved Quality:** 72% of eConsults improved providers' treatment plans.
- **Decreased time:** Decreased 19 days of wait time for specialty appointments.
- **Decreased cost of care:** Reducing avoidable specialist visits, testing, procedures and ER visits by \$370 (average per consult).

Store and Forward reduces wait time

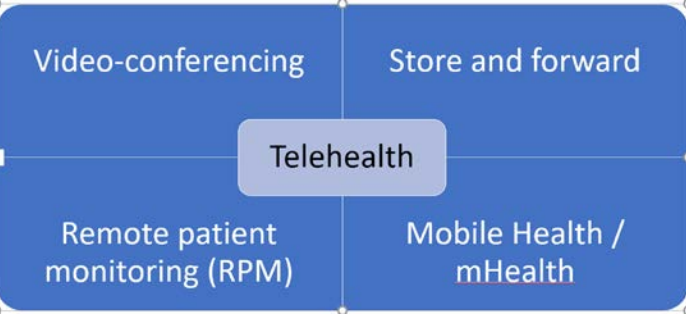
A model for teledermatology services in community health centers.

University of Connecticut School of Medicine, Farmington, Connecticut.

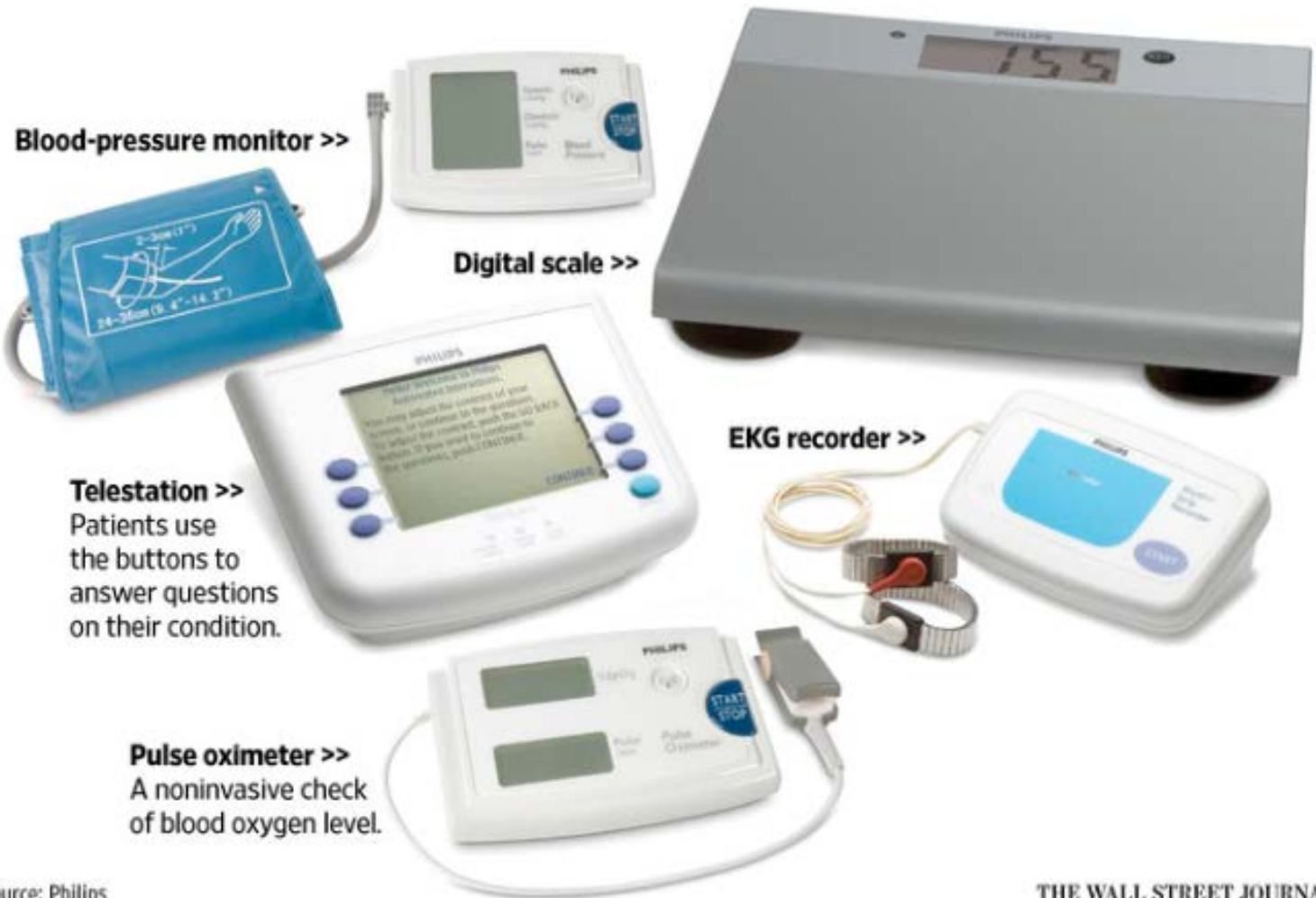
- **OBJECTIVE:** Evaluate the impact of implementing a teledermatology consultation program with dermoscopy on a statewide scale for skin cancer screening for medically underserved populations.
- **RESULTS:** Before implementation of electronic consultations (eConsults), access to dermatology was slow with a median wait time of **77 days**. Post implementation, median wait time of **28 days**. Ten malignancies were identified via eConsults.
- **CONCLUSION:** eConsults increase access to dermatologic care and reduce wait times for patients receiving medical care at community health centers.

Challenges

- **Lack of payment models.** Payment models for e-consults (store and forward) vary. Those at risk need to be confident that if specialists are paid for consults, face-to-face visits will actually decrease or save time/money. **North Carolina does not currently have payment model.(Medicare)**
- **Transitions of care from remote specialists.** The transitions between origination and distant sites can be challenging, especially if follow up face to face is needed.
- **Primary care adoption.** Some referring providers will resist change and want their patients to be seen face-to-face. Identifying physician champions who understand the value of electronic consults is essential to the success of the model.



Remote Patient Monitoring (RPM)



Source: Philips

THE WALL STREET JOURNAL

Remote Patient Monitoring

- Remote patient monitoring (RPM) is a subcategory of telehealth that allows patients to use mobile medical devices and technology to gather health data and send it to healthcare professionals.
- Common physiological data that can be collected with RPM programs include: weight, blood pressure and heart rate.
- Patient data is sent to a physician by server or software application that can be assessed and analyzed in real time or reviewed upon the next office visit.

Remote Patient Monitoring

- Patients with chronic conditions face worse health outcomes, have higher hospital readmission rates, and generally incur higher healthcare expenses.
- There are tools currently available that identify data trends, elevate critical data points, and help aggregate, summarize, and visualize health data.

Remote Patient Monitoring of Chronic Conditions

- Chronic conditions now account for the most deaths in the nation and take up more than 85 percent of annual healthcare expenditures, according to the CDC.
- A report from the Rand Corporation, found that 60 percent of the nation's adults has at least one chronic condition, and 42 percent have more than one.

Video-conferencing

Store and forward

Telehealth

Remote patient monitoring (RPM)

Mobile Health / mHealth

mHealth



mHealth

mHealth is an abbreviation for **mobile health**, a term used for the practice of medicine supported by mobile devices.

The term is most commonly used in reference to using mobile communication devices:

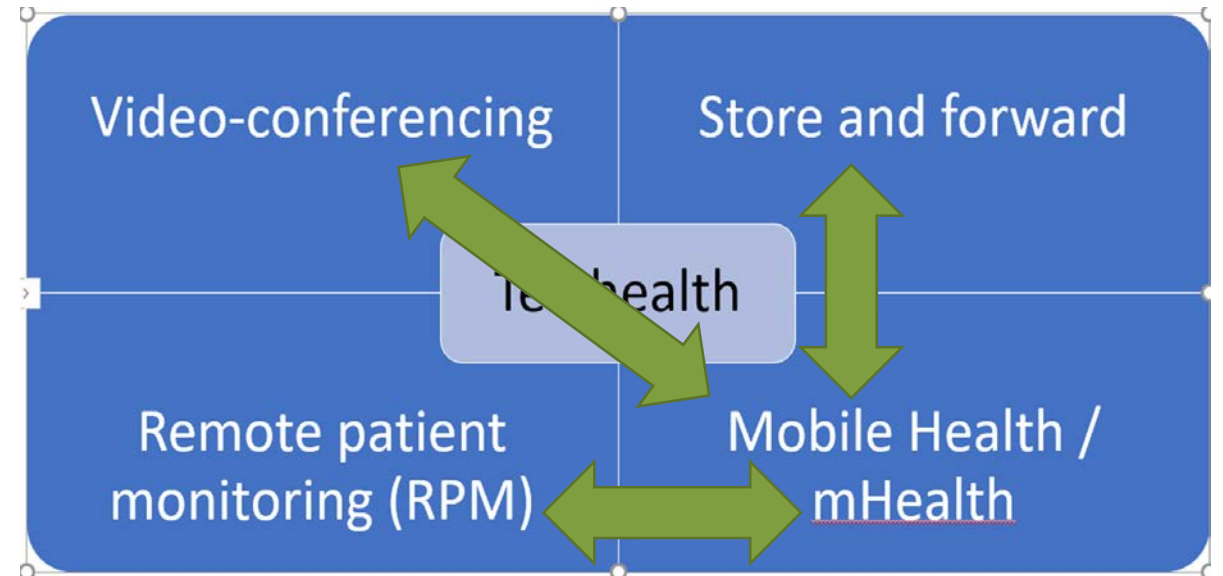
- mobile phones
- tablet computers
- wearable devices such as watches

Over 325,000 mHealth apps available (most are free)

mHealth

- Mobile health data exchange could lead to:
 - Store and forward
 - Video conference
 - Remote monitoring information
 - Medical office visits (data trends)
 - Emergency room referral
 - Family notification

(Not typically covered)
some Medicare exceptions



Reimbursement for Telehealth



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NC Medicaid Policy

North Carolina Medicaid and NC Health Choice will reimburse for live video telepsychiatry and medical services subject to conditions.

North Carolina Medicaid will reimburse a facility fee to originating site providers, with some restrictions. Some telemedicine and telepsychiatry providers are eligible for reimbursement.

North Carolina Medicaid Requirements

Specific criteria **covered** by both Medicaid and NCHC Medicaid shall cover Telemedicine and Telepsychiatry services when medically necessary under all of the following conditions:

- The beneficiary shall be present at the time of consultation.
- The distant site of the service(s) must be of a sufficient distance from the originating site to provide service(s) to a beneficiary who does not have readily available access to such specialty services.
- The consultation must take place by two-way real-time interactive audio and video telecommunications system.

North Carolina Medicaid Reimbursement

Specific Criteria **Not Covered** by both Medicaid and NCHC Medicaid and shall not cover Telemedicine and Telepsychiatry Services for all of the following:

Interactions that DO NOT constitute covered telemedicine or telepsychiatry services including:

- 1. Telephone conversations
- 2. Video cell phone interactions
- 3. E-mail messages
- 4. Facsimile transmission between a health care provider and a beneficiary
- 5. “Store and forward”- Transfer of data from beneficiary visits and consultations from one site to another through the use of a camera or similar device that records (stores) an image that is sent by telecommunication to another site for consultation

Medicare telehealth definition: real time, interactive video; *(simulates face to face encounters)*

Social Security Act (1997) limits telehealth to:

- Patient MUST be Rural
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Medicare Reimbursement

TELEHEALTH SERVICES: You must use an interactive audio and video telecommunications system that permits real-time communication between you at the distant site, and the beneficiary at the originating site.

Service	HCPCS/CPT Code
Telehealth consultations, emergency department or initial inpatient	G0425–G0427
Follow-up inpatient telehealth consultations furnished to beneficiaries in hospitals or SNFs	G0406–G0408
Office or other outpatient visits	99201–99215
Subsequent hospital care services, with the limitation of 1 telehealth visit every 3 days	99231–99233
Subsequent nursing facility care services, with the limitation of 1 telehealth visit every 30 days	99307–99310
Individual and group kidney disease education services	G0420–G0421
Individual and group diabetes self-management training services, with a minimum of 1 hour of in-person instruction furnished in the initial year training period to ensure effective injection training	G0108–G0109
Individual and group health and behavior assessment and intervention	96150–96154
Individual psychotherapy	90832–90838
Telehealth Pharmacologic Management	G0459
Psychiatric diagnostic interview examination	90791–90792
End-Stage Renal Disease (ESRD)-related services included in the monthly capitation payment	90951, 90952, 90954, 90955, 90957, 90958, 90960, 90961
End-Stage Renal Disease (ESRD)-related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	90963

Service	HCPCS/CPT Code
Annual Wellness Visit, includes a personalized prevention plan of service (PPPS) subsequent visit	G0439
Telehealth Consultation, Critical Care, initial, physicians typically spend 60 minutes communicating with the patient and providers via telehealth	G0508
Telehealth Consultation, Critical Care, subsequent, physicians typically spend 50 minutes communicating with the patient and providers via telehealth	G0509
Counseling visit to discuss need for lung cancer screening using low dose CT scan (LDCT) (service is for eligibility determination and shared decision making)	G0296
Interactive Complexity Psychiatry Services and Procedures	90785
Health Risk Assessment	96160, 96161
Comprehensive assessment of and care planning for patients requiring chronic care management	G0506
Psychotherapy for crisis	90839, 90840
Prolonged preventive services	G0513, G0514

Not all covered Medicare codes

CMS Remote patient monitoring (RPM)

New CMS CPT codes added in 2019:

- **CPT code 99453:** “Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment.”
- **CPT code 99454:** “Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial; device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days.”
- **CPT code 99457:** “Remote physiologic monitoring treatment management services, 20 minutes or more of clinical staff/physician/other qualified healthcare professional time in a calendar month requiring interactive communication with the patient/caregiver during the month.”

Remote Patient Monitoring (RPM) revenue

Month 1

Set up	\$21
Devices	\$69
Services	\$54
Total	\$144 PPPM

Month 2+

Devices	\$69
Services	\$54
Total	\$123 PPPM

Medicare Codes

- Chronic Care Management (CCM) ; \$67/month or \$10-20 for contracted services
 - “CMS connected care” for reference
 - 30 minutes per month
- Virtual Care check in (VCC) – G2010 \$15/5-10 minutes
 - Cannot bill if relates to 7 days prior visit
 - Cannot bill if leads to visit within 24 hours
 - MD or qualified practitioner
 - Direct interaction with patient/billing provider

Not telehealth billed – no video interaction with provider/patient

Medicare Codes

- Interprofessional Consultation
 - Originating clinician \$34/30 minutes
 - Phone, email, EHR transfer (Store and forward/e-consult)
 - Distant clinician (\$18-73/based on 5-31 minutes)
 - Verbal follow up \$34
 - Written report up to \$73
- Remote evaluation of pre-recorded patient information (REPI) – G2012 \$13
 - **Store and Forward**
 - MUST follow up within 24 hours (call, text, portal)
 - Cannot bill if relates to 7 days prior visit

Telehealth in North Carolina



Disclaimer

- *This presentation includes a few examples of telehealth at work in North Carolina. While the Office of Rural Health cannot endorse any one vendor, or highlight the many that are out there during this presentation, we encourage you to be aware of the valuable resources.*

UNC Consultation Center

Carolina Consultation Center

- If you are a physician in North Carolina seeking a UNC physician regarding your patient's care
- No charge for NC Providers for specialist care
- Carolina Consultation Center's toll free number at 1-800-862-6264 and be connected.

NC Pediatric Access Line (NC-PAL)

Duke University Psychiatry Department

- Provides mental health and telehealth support to pediatric primary care sites
- Year 1 pilot 8 counties (2018-2019 Feb)
- Year 3 statewide to all 100 NC counties (2020-2021)
- 5-year project period

Call Duke for more information: 919-681-2909

Health-e-Schools (Video)

- Health-e-Schools is improving access to healthcare for students in Burke, McDowell, Mitchell & Yancey counties in Western North Carolina through the use of telemedicine.
- High-definition video-conferencing using specially equipped stethoscopes and cameras so that a centrally located health care provider can examine students at multiple schools without traveling.
- Provides chronic disease management, medication management, sports physicals, adolescent medicine consultations, and behavioral health visits in schools.



Store and Forward (eConsults)

Services provided:

- Provide consultation platform for provider to provider communication
- Web based platform/EHR integration
- Same day responses, within 4 to 6 hours
- \$250 per provider, per month, unlimited access to specialists (Rubicon, Arista)
- \$40 dollars per consult, \$.10 per member per month (Community eConsult Network)

The Office of Rural Health does not endorse one platform over another

RelyMD (video)

- RelyMD was founded by a group of 90 innovative emergency medicine physicians in NC to deliver more convenient, efficient, and cost-effective care.
- Connecting via mHealth (phone application)
- Delivering 24/7 Health Care Access
- RelyMD hospitals address unscheduled care needs with an easy to implement virtual medicine solution
- Average wait time to see a provider is fewer than 10 minutes.

Mission/HCA Virtual Care (mHealth)

You can use **Mission Virtual Clinic** for the following conditions:

- Cold, flu and allergies
- Sinus infection or sore throat
- Influenza (flu)
- Influenza prevention

Female health

- Urinary tract infection (UTI)
- Vaginal yeast infection


Minor eye conditions

- Pink eye (conjunctivitis)

Skin conditions

- Canker or cold sore
- Eczema and dermatitis

1 hour response time



Virtual Care
See a doctor online for only \$25

Busy with life or sick in bed? Online visits help you skip-the-trip! Start a visit between the hours of 7am-11pm for common illnesses like a cold and pink eye.

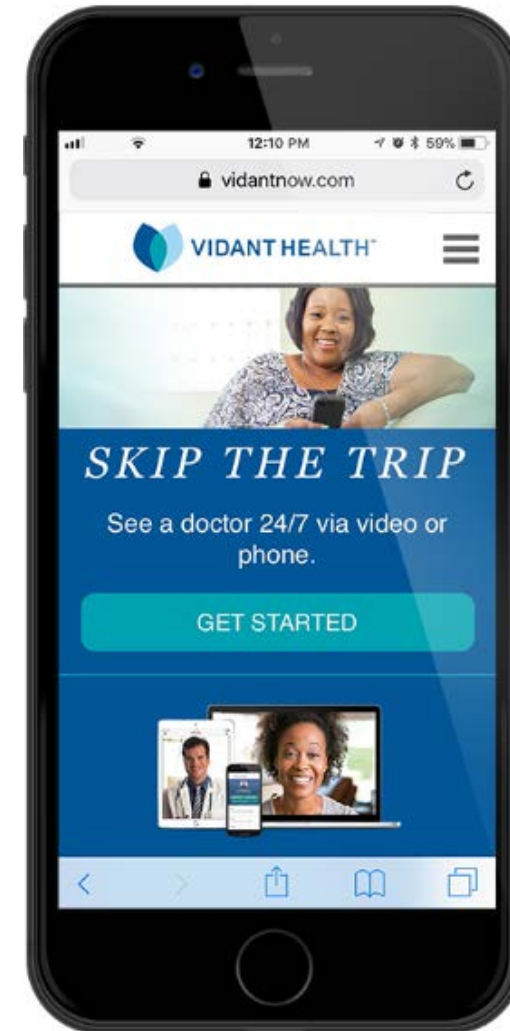


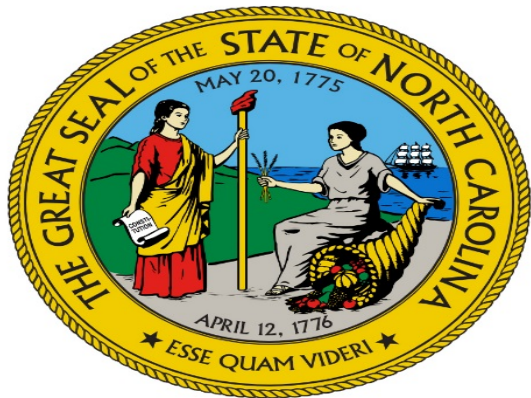
Get care online now >

Vidant (mHealth)

Vidant Health

VidantNow, allows any resident in North Carolina access to a licensed physician for urgent, but non-emergency medical issues 24/7 through their smartphone or computer.





Questions/Time check

Broadband for Telehealth



Challenges

- Definition (changing)
- Speed for video conferencing
- Coverage for patients/providers

Broadband Technical Specifications

- **Measured in Megabits per second (Mbs): speed at which data (images or video) arrive from the internet to your device**
- **Download speed: speed of getting data from the internet to your device**
- **Upload speed: speed at which you can send data to a user**

Broadband

- There is not “one” definition
- Federal Communications Commission (FCC) has common definitions
- FCC recommended threshold for high speed broadband is 25 download/3 upload
- Multiple technology types & speed thresholds



Broadband Availability Challenges

~738,306

North Carolinians without access broadband*

~661,224

Live in rural North Carolina

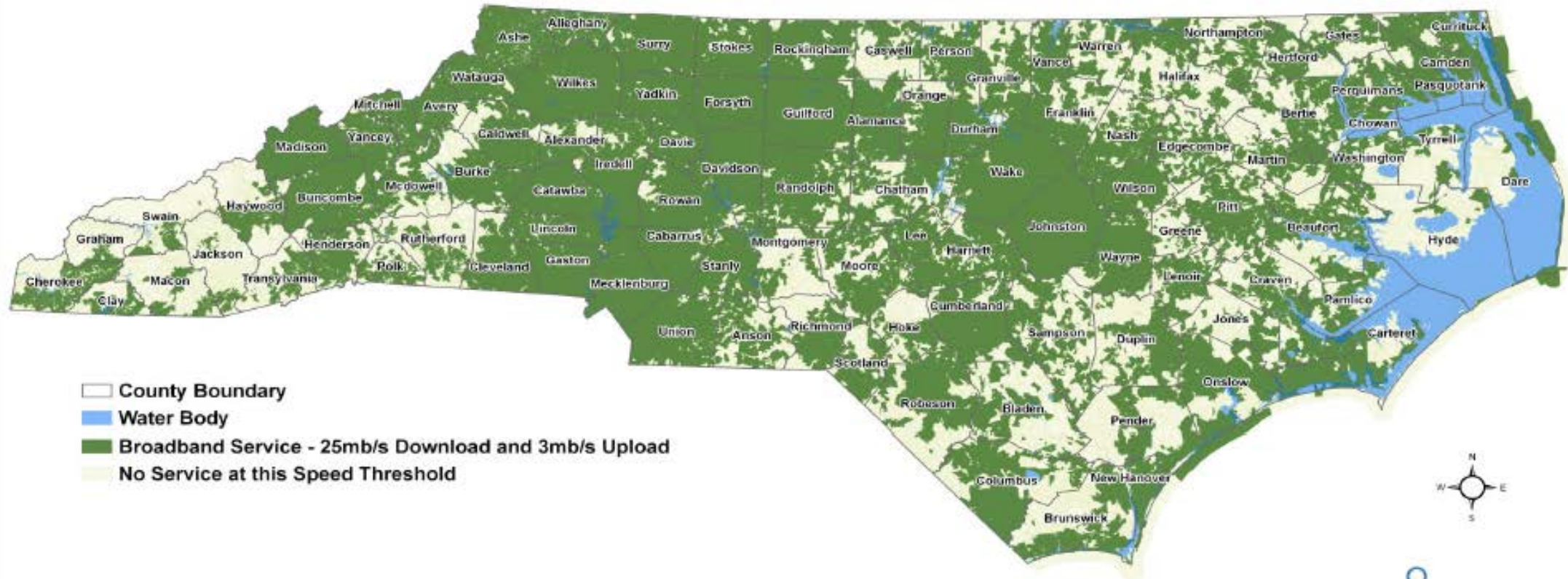
Source: FCC 2016 Broadband Progress Report

North Carolina Broadband Service Inventory

Advertised Speeds of at Least 25 Mbps Download and 3 Mbps Upload

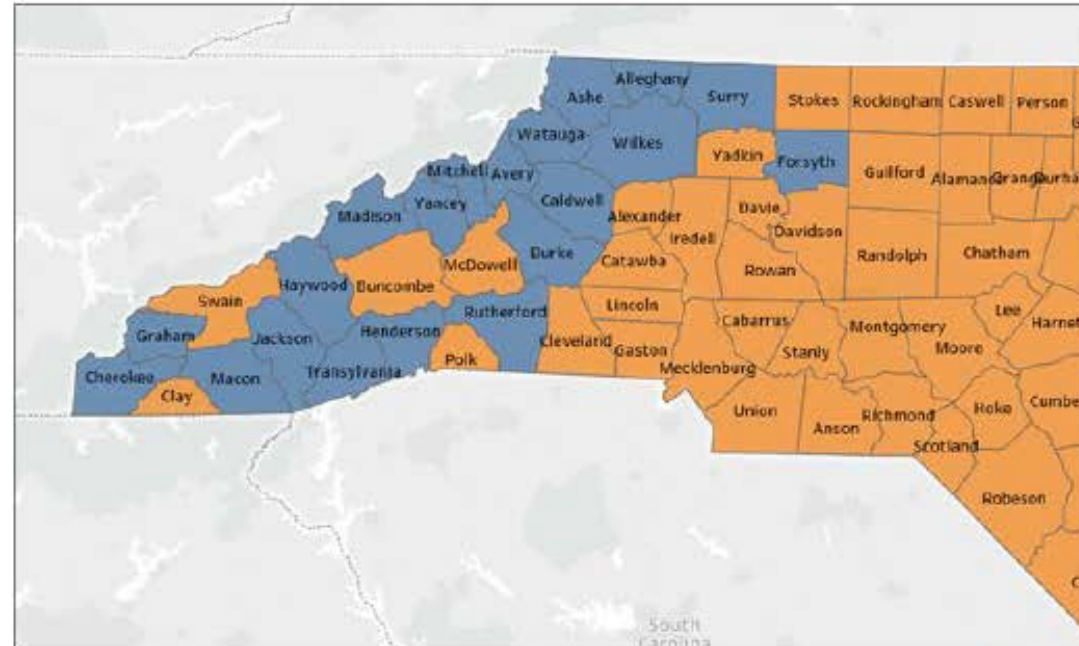
Data derived from U.S. Federal Communications Commission Form 477 Data Release Dec. 2017.

Note: A provider that reports deployment of a particular technology and bandwidth in a census block may not necessarily offer that service everywhere in the block.



Broadband Feasibility Study for Telehealth Deployment

- BIO & the Office of Rural Health received \$98,273.00 POWER grant from Appalachian Regional Commission in late Feb. 2019
- Partners will conduct feasibility study in 20 counties in ARC Region
- Study will identify the region's broadband, healthcare, and telehealth assets, gaps and opportunities
- Final report will provide cost estimates for broadband deployment and recommended strategies to expand telehealth



Starting Telehealth Programs

- **Call NC Office of Rural Health (telehealth specialists)**
- **Start small (eConsults)**
- **High speed broadband (ORH/DIT/BIO)**
- **Telehealth providers with online video conferencing**
- **Video conference with HIPPA complaint applications**

Funding/Program Ideas:

- **HRSA telehealth resource center (Mid Atlantic Charlottesville, VA)**
- **Secure grant funds from private, state or federal sources (USDA, HRSA, ARC, ORH)**
- **Collaborate with hospital/ACO and other providers on telehealth**
- **Ask county government to support telehealth**

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Nick.Galvez@dhhs.nc.gov
919-527-6467

<https://www.ncdhhs.gov/divisions/office-rural-health/office-rural-health-programs/north-carolina-rural-hospital-program>

North Carolina Department
of Health and Human
Services Website

North Carolina Office of
Rural Health Website

