Introduction to Health Workforce Team at Sheps

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Program on Health Workforce Research and Policy

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SHEPS HEALTH WORKFORCE NC

UNC THE CECIL G. SHEPS CENTER FOR HEALTH SERVICES RESEARCH

Roadmap for this presentation

- Who we are and what we do
- Routine Analyses of State Health Workforce
- Work with State Agencies
- Current Projects
- State of Health Workforce in NC
- If it seems to easily fit—how your work is supported, your potential interest in working w HHS, and what sorts of work you might do

Context shaping NC health and social care workforce

- Medicaid transformation, alternative payment models, and push toward value-based care will require adequately sized, distributed and deployed health and social care workforce
- Prevailing narrative focuses on shortages but bigger issue is maldistribution by geography, specialty and setting
- State faces growing gap between workforce supply in rural and urban areas
- Need to focus on “health care services essential for “whole person care”: in primary care, behavioral health/SUD, long-term care, and general surgery
- Care is moving upstream to address social determinants of health and “health opportunities”. Need to support more team-based training models and broaden definition of who is in the workforce

REFRAME FOR MEDICAID TRANSFORMATION?

- Most health care systems currently operating in predominantly fee-for-service model, but actively planning for value-based payment

- Medicare's payment incentives through MACRA will likely accelerate shift from volume to value-based and alternative payment models

Who we are and what we do

SHEPS HEALTH WORKFORCE NC

Mission: to provide timely, objective data and analysis to inform health workforce policy in North Carolina and the United States

Based at Cecil G. Sheps Center for Health Services Research at UNC-CH, but mission is statewide

Three main service lines:

1. Provide data and research
2. Conduct policy analyses
3. “Engaged scholarship” that serves state and nation

Culture of "engaged scholarship": serving the state and nation

Sheps Health Workforce NC is a hub for reliable, trustworthy information. Dissemination efforts in the most recent five years include:

- 27 fact sheets and reports
- 85 presentations to local, state, national and international audiences
- 830 responses to requests for information—data, maps, information, quick turn-around analyses—from national and state policymakers, researchers, educators, others
- 34 states requesting technical assistance (since 2003) about building better health workforce planning systems

SHEPS HEALTH WORKFORCE NC

- Maintain the NC Health Professions Data System, which includes data on 19 different health professions from 11 different boards
- Core work undertaken with funding from AHEC
- Also undertake policy-relevant, state workforce analyses with grant/contract funding

North Carolina HPDS Professions

(all 1979-present unless start date noted)

- Physicians (MDs and DOs)
- Physician Assistants
- Dentists
- Dental Hygienists
- Optometrists
- Pharmacists
- Physical Therapists
- Physical Therapist Assistants
- Respiratory Therapists (2004)
- Registered Nurses
- Nurse Practitioners
- Certified Nurse Midwives (1985)
- Licensed Practical Nurses
- Chiropractors
- Podiatrists
- Psychologists
- Psychological Associates
- Occupational Therapists (2006)
- Occupational Therapy Assistants (2006)

The North Carolina HPDS is a collaborative effort

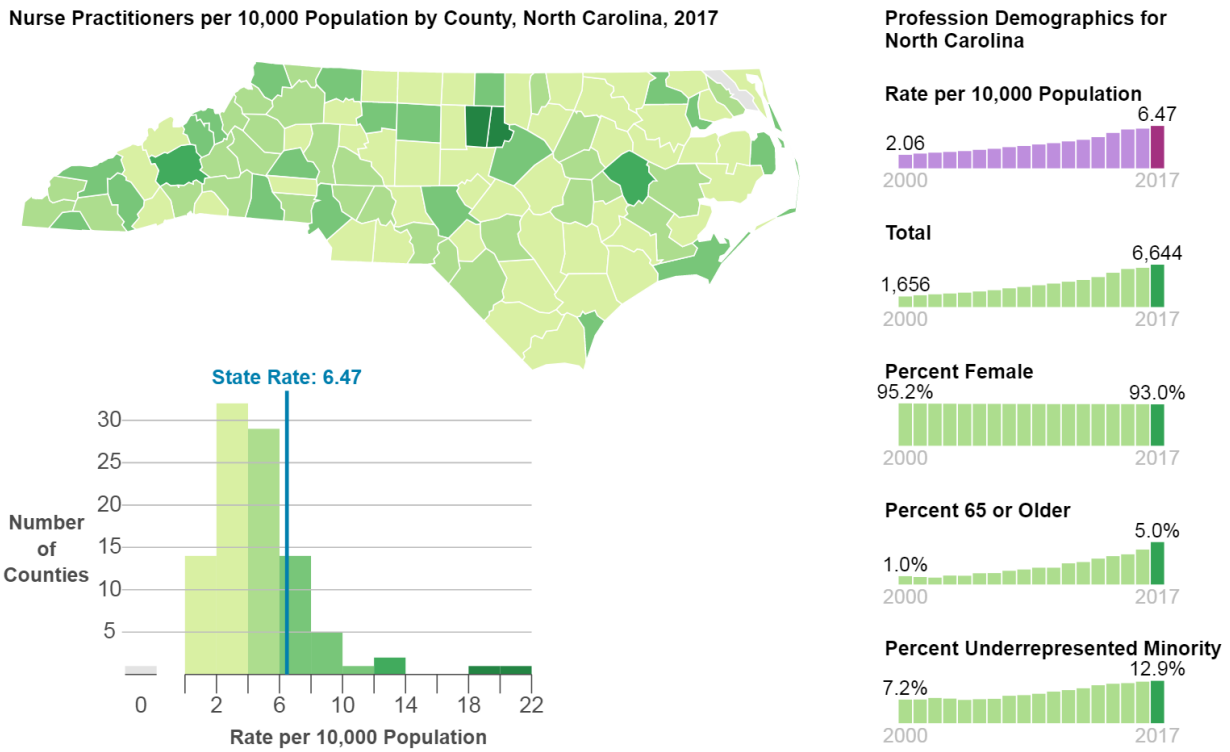
- A collaboration between the Sheps Center, NC AHEC and the health professions licensing boards
- System is independent of government and health care professionals
- Independence brings rigor and objectivity
- Funding provided by: NC AHEC Program Office, data request fees, project cross-subsidies, and the UNC-CH Office of the Provost (Health Affairs)

North Carolina's health workforce data system is a national model

- 38 years of continuous, complete licensure (***not survey***) data on 19 health professions from 11 boards
- Data are provided ***voluntarily*** by the boards—there is no legislation that requires this and there is no appropriation
- Data housed at Sheps but remain property of licensing board, permission sought for each "new" use

System would not exist without data and support of licensure boards

Interactive data visualization soon to include Medicaid NC Medicaid Managed Care Regions



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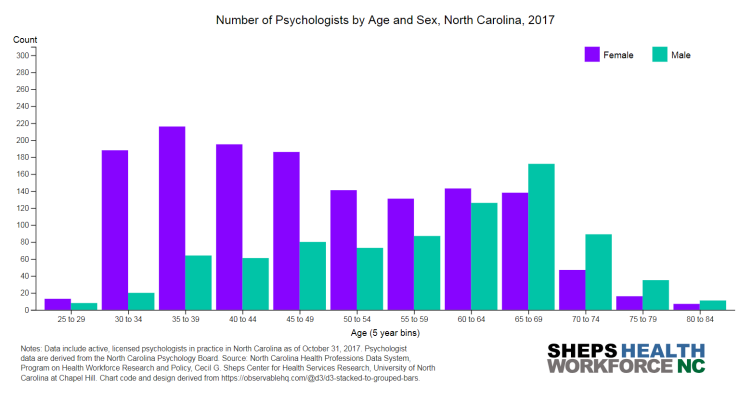
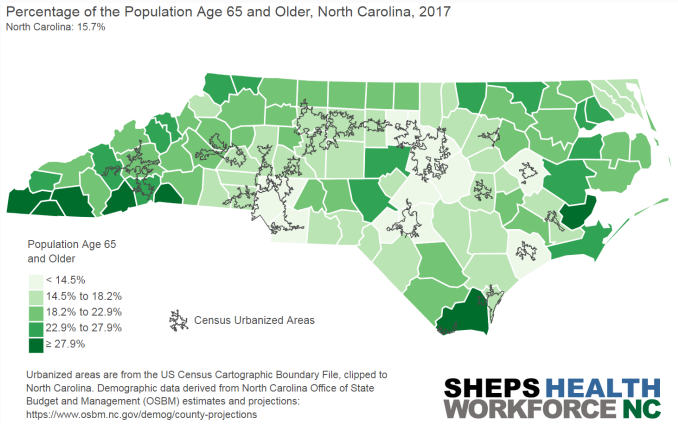
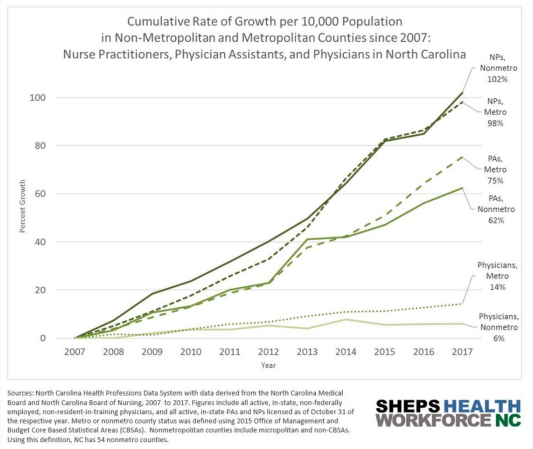
Notes: Data include active, licensed nurse practitioners in practice in North Carolina as of October 31 of each year. Nurse practitioner data are derived from the North Carolina Board of Nursing. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management 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 April 17, 2019 at https://nchealthworkforce.unc.edu/supply/.

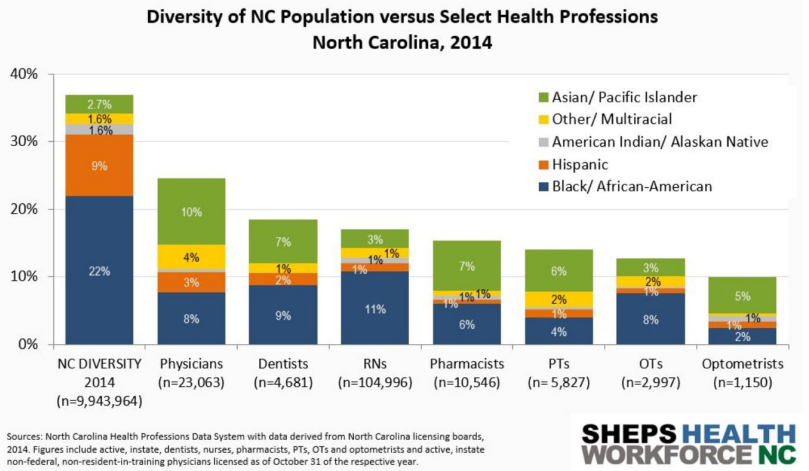
website: nchealthworkforce.unc.edu

Micro-Blogs: Static and interactive charts with 2-3 bullets summarizing key takeaways



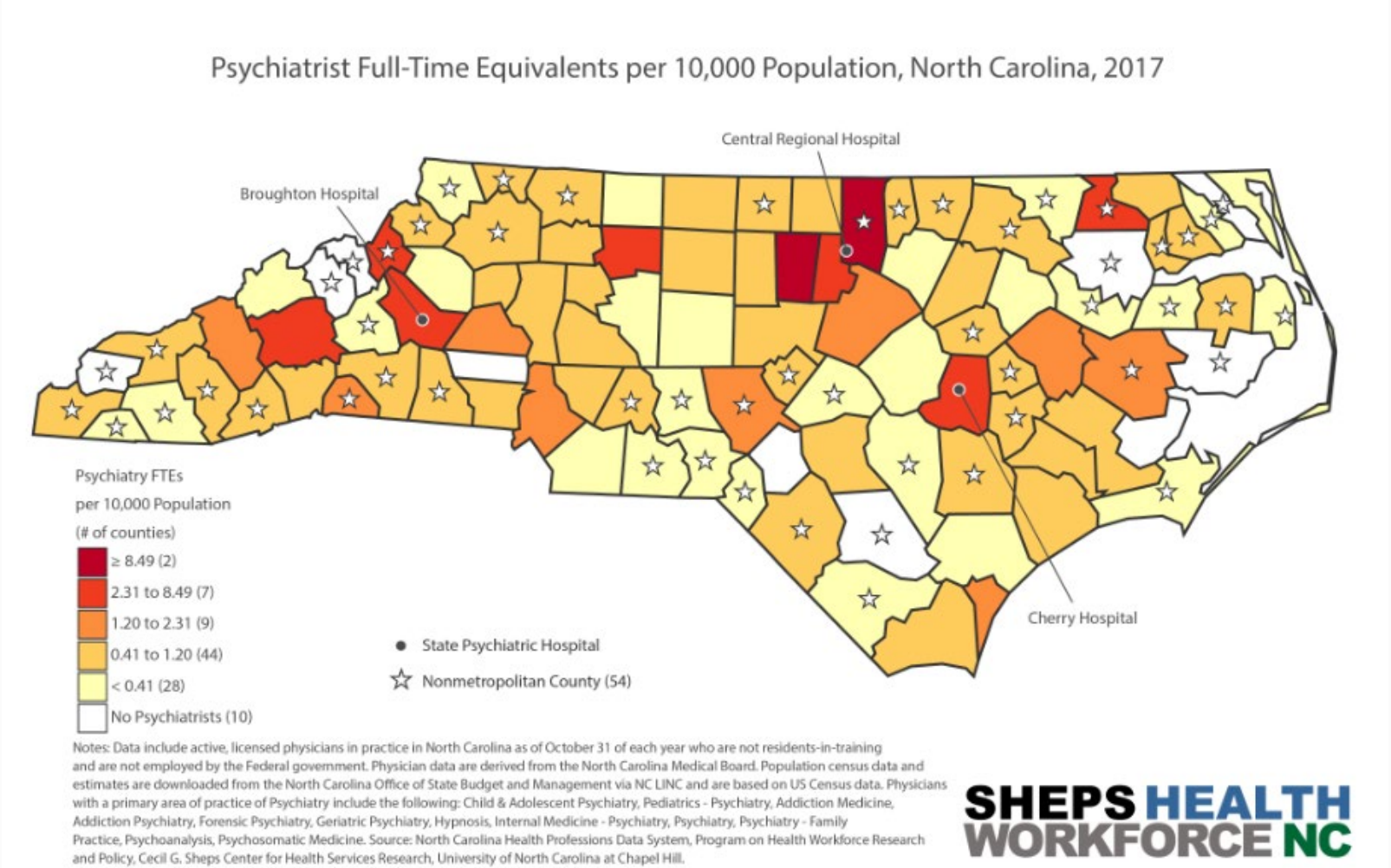






website: nchealthworkforce.unc.edu

10 counties in NC have no psychiatrist coverage



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. 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. Physicians with a primary area of practice of Psychiatry include the following: Child & Adolescent Psychiatry, Pediatrics - Psychiatry, Addiction Medicine, Addiction Psychiatry, Forensic Psychiatry, Geriatric Psychiatry, Hypnosis, Internal Medicine - Psychiatry, Psychiatry, Psychiatry - Family Practice, Psychoanalysis, Psychosomatic Medicine. 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.

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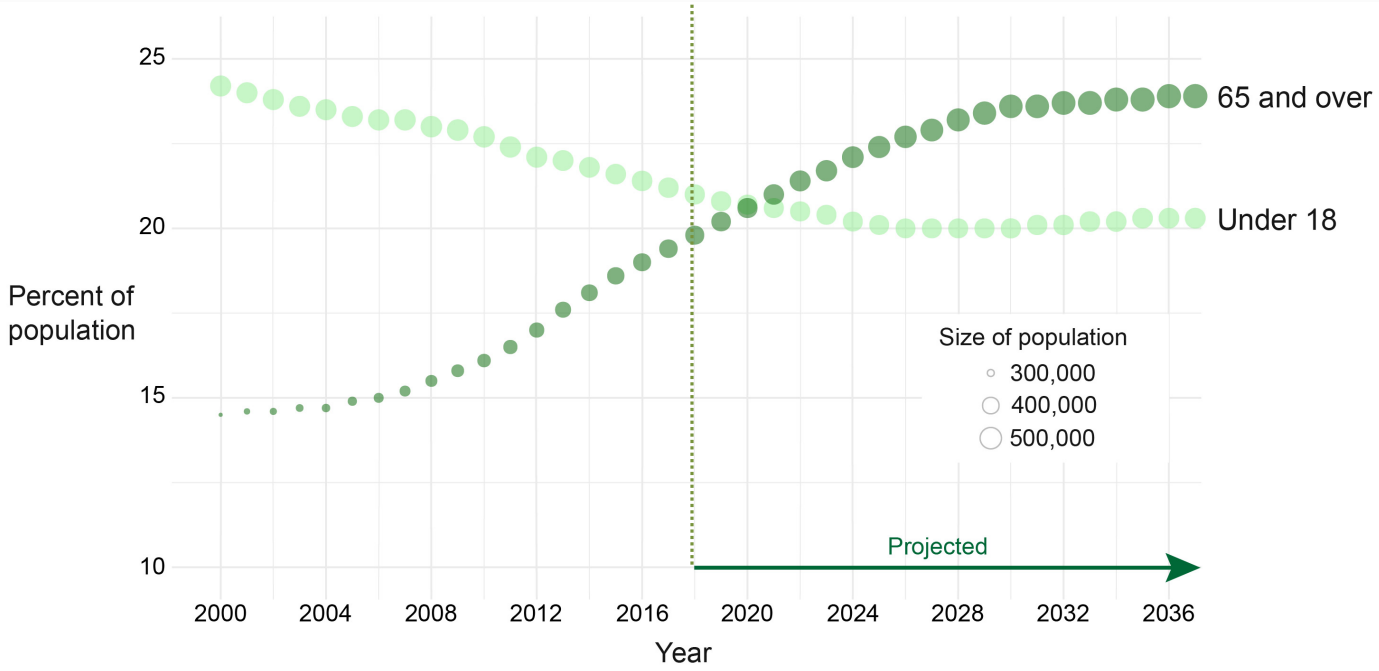
Retirees will soon be more numerous than kids in rural NC

Percent and Size of Rural Younger and Older Populations Over Time, NC



Notes: Rural is defined at the county level using the US Office of Management & Budget Metro 2015 delineation files. Rural includes all counties that are not classified as metropolitan (54 counties). Population estimates and projections are from the North Carolina Office of State Budget & Management.

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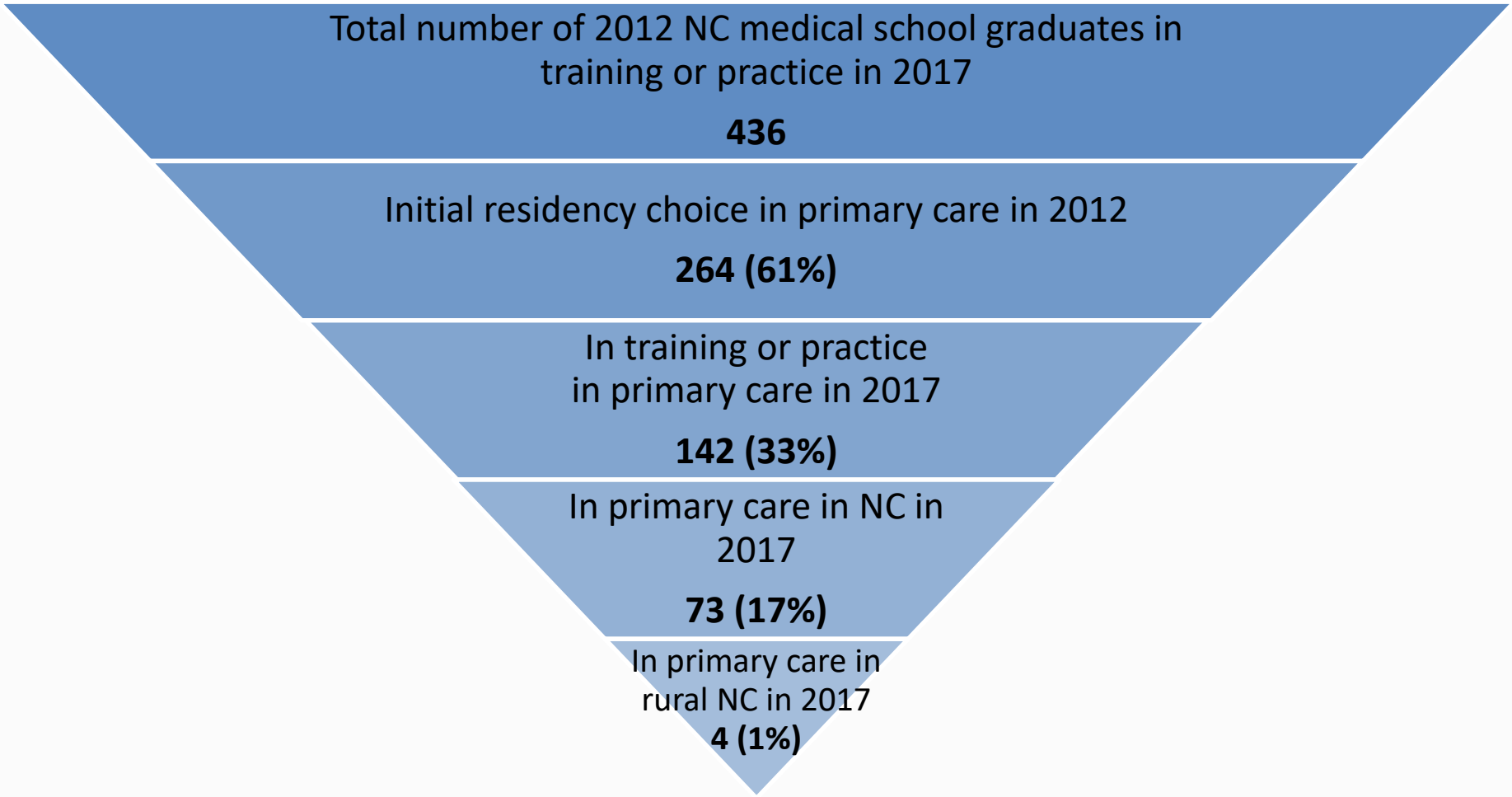
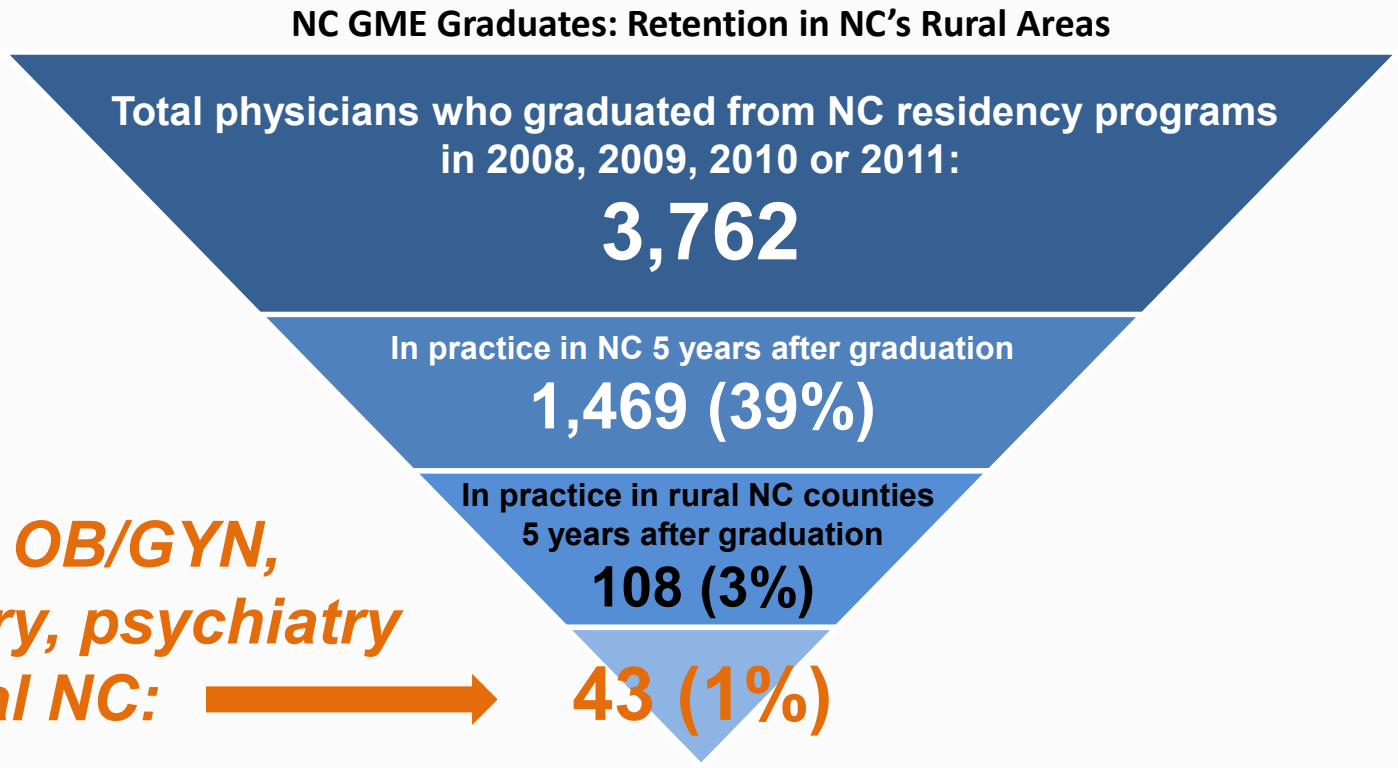
2012 NC Medical School Graduates: Retention in Primary Care in NC's Rural Areas 5 years later



Produced by the Program on Health Workforce Research and Policy, Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
Source: North Carolina Health Professions Data System with data derived from the Association of American Medical Colleges, and the NC Medical Board, 2017.

Rural source: US Census Bureau and Office of Management and Budget, July 2017. "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.

Few graduates from NC residency programs practice in rural counties five years later



In PC, OB/GYN, surgery, psychiatry in rural NC:

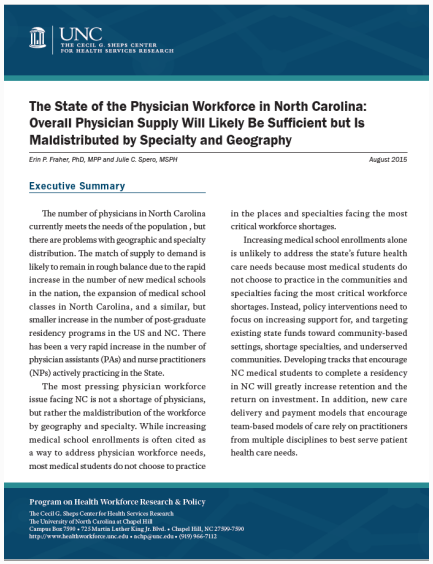
Sources: North Carolina Health Professions Data System with data derived from the NC Medical Board
Presented by the Program on Health Workforce Research and Policy, Sheps Center for Health Services Research, UNC-CH

Current and Past Work with State Stakeholders

Who Uses Our Data?

Type of Organization | Sample Stakeholders	Data Uses
Government General Assembly; US DHHS; Office of Rural Health; State Center for Health Stats; Department of Commerce; County Health Depts.	Policy Decisions, Allocate funding, Program planning, Evaluation, HPSA analysis, Grant proposals
Workforce Policy NC AHEC; NC Institute of Medicine; Council for Allied Health in NC	Evaluation; program planning; policy analysis; regulatory questions; grant proposals; pipeline and diversity
Education, Research UNC General Administration; NC Community College System; Private Colleges and Universities; Individual Researchers	Planning for new schools; planning for new programs; pipeline and diversity; evaluation; research projects; grant proposals
Regulatory Bodies NC Licensing Boards; NCSBN; FSMB	Improve data quality/quantity; regulatory decisions; understand licensee characteristics
Employers, Health Systems UNC Healthcare; Piedmont Alliance for Triad Healthcare; Cone Health	Workforce planning; diversity initiatives; planning for service areas
Funders Duke Endowment; Kate B. Reynolds Charitable Trust; NC Health and Wellness Trust Fund; RWJF; Physicians Foundation	Program planning; resource allocation; evaluation
National Organizations HRSA; IOM; AMA; AAMC;ACS	National policy; evaluation; dissemination; improve data quality
Professional Associations NC Academy of Family Physicians; NC Medical Society; NCHA	Advocacy/membership; policy analysis; program planning; grant proposals
Other Media; students; health professionals; individuals; continuing education	News stories; class projects; locational analysis; loan repayment; CME seminars

The State of the Physician Workforce in North Carolina: Overall Physician Supply Will Likely Be Sufficient but Is Maldistributed by Specialty and Geography (August 2015)



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The State of the Physician Workforce in North Carolina: Overall Physician Supply Will Likely Be Sufficient but Is Maldistributed by Specialty and Geography

Erin P. Fraher, PhD, MPP and Julie C. Spero, MSPH August 2015

Executive Summary

The number of physicians in North Carolina currently meets the needs of the population , but there are problems with geographic and specialty distribution. The match of supply to demand is likely to remain in rough balance due to the rapid increase in the number of new medical schools in the nation, the expansion of medical school classes in North Carolina, and a similar, but smaller increase in the number of post-graduate residency programs in the US and NC. There has been a very rapid increase in the number of physician assistants (PAs) and nurse practitioners (NPs) actively practicing in the State.

The most pressing physician workforce issue facing NC is not a shortage of physicians, but rather the maldistribution of the workforce by geography and specialty. While increasing medical school enrollments is often cited as a way to address physician workforce needs, most medical students do not choose to practice in the places and specialties facing the most critical workforce shortages.

Increasing medical school enrollments alone is unlikely to address the state's future health care needs because most medical students do not choose to practice in the communities and specialties facing the most critical workforce shortages. Instead, policy interventions need to focus on increasing support for, and targeting existing state funds toward community-based settings, shortage specialties, and underserved communities. Developing tracks that encourage NC medical students to complete a residency in NC will greatly increase retention and the return on investment. In addition, new care delivery and payment models that encourage team-based models of care rely on practitioners from multiple disciplines to best serve patient health care needs.

Program on Health Workforce Research & Policy
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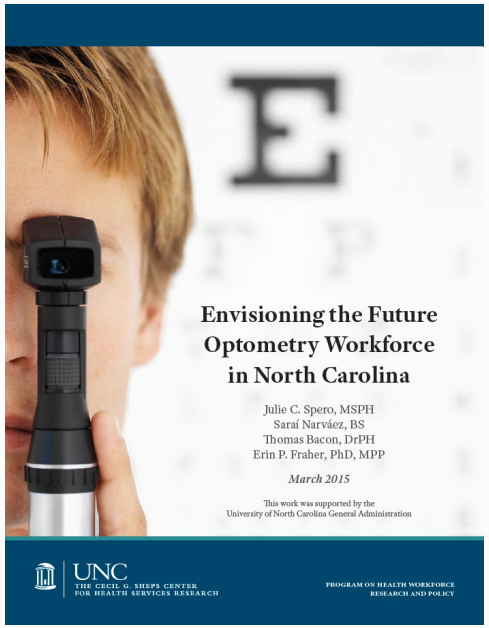
Policy Issue: Whether to build new medical school in Charlotte, NC

Key Findings:

- NC growth in physician supply outpacing national average
- Physician supply is maldistributed by location and specialty
- Physicians who complete medical school and residency in NC are more likely to stay in NC
- The supply of non-physician clinicians (e.g. NPs, PAs, pharmacists) is growing

Policy Response: Preliminary decision not to develop independent medical school in Charlotte; proposals to develop board to oversee state GME allocations and distribution by location and specialty

Envisioning the Future Optometry Workforce in North Carolina (March 2015)



Policy Issue: Whether, and where, to build a new optometry school in NC

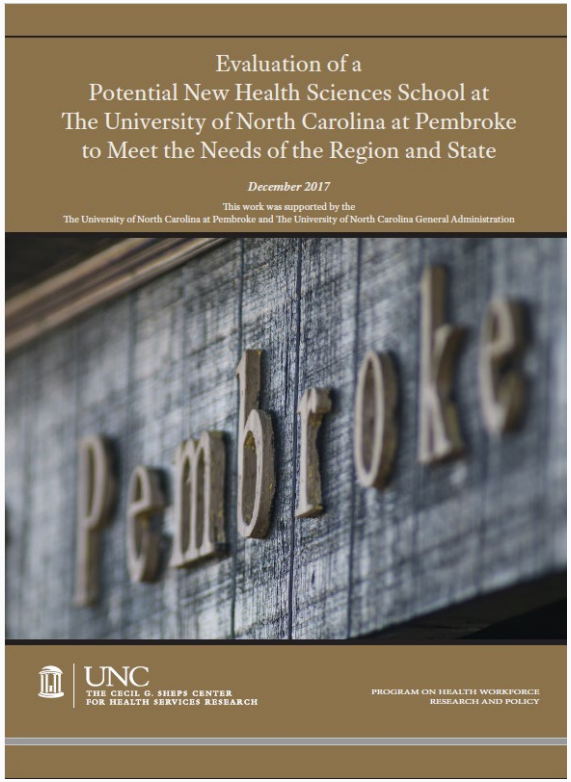
Key Findings:

- NC has a strong supply of optometrists
- Ratio of NC optometrists varies significantly by county
- 61% of NC optometrists are age 50 or younger; mean age is 46
- There has been a recent increase in the number of optometry schools in the US

Policy Response: UNC General Administration recommended against starting a school of optometry in NC; a bill modifying scope of practice was introduced in 2017 session of General Assembly

Fiscal Implications: Potential savings to state of $12-$40 million in initial start-up costs and an estimated $8-19 million in annual operation costs.

Evaluation of a Potential New Health Sciences School at the University of North Carolina at Pembroke to Meet the Needs of the Region and State (December 2017)



Policy Issue: Whether to build a school of health sciences at UNC-Pembroke, and what health professional types are of high need in the region

Key Findings:

- A health sciences school at UNC-P could make a contribution toward improving regional health workforce supply and increasing the racial and ethnic diversity of the workforce
- Optometry, Occupational Therapy, Registered Dietician, Nurse Practitioner, and Physician Assistant options evaluated

Policy Response: UNC-P formed College of Health Sciences in 2018, and will add health professional training in a 3-phased approach

Fiscal Implications:

Ongoing work with NCGA, Fiscal Research, AHEC, and ORH on GME issues

- S.L. 2018-88: Improving NC Rural Health
  - Examine possible new residency programs in rural hospitals
- H1002/S773: Medical Education and Residency Study (2018 session, not passed)
- S.L. 2017-57: Appropriations Act
  - In 2018, Sheps & DHHS produced two reports on workforce outcomes of NC medical schools and residency programs

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Workforce Outcomes of North Carolina Medical School Graduates: A Report to the Joint Legislative Oversight Committee on Health and Human Services and the Joint Legislative Education Oversight Committee

Julie C. Spero, MSPH and Erin P. Fraher, PhD, MPP — January 10, 2018

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The Workforce Outcomes of Physicians Completing Residency Programs in North Carolina

Erin P. Fraher, PhD, MPP; Julie C. Spero, MSPH; Evan Galloway, MPS; Jim Terry — January 11, 2018

INTRODUCTION

North Carolina Session Law 2017-57, the Current Operations Appropriations Act of 2017, directed the North Carolina Department of Health and Human Services (DHHS) and The University of North Carolina (UNC) to provide a report on the workforce outcomes of medical school and graduate medical education (GME) programs in North Carolina. The report will be reviewed by subcommittees appointed by the Joint Legislative Oversight Committee on Health and Human Services and the Joint Legislative Education Oversight Committee to assess the degree to which state support of physician training programs meet the health care needs of North Carolina's citizens.

The Program on Health Workforce Research and Policy at the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill was asked to provide data for the report. This document focuses on graduate medical education (GME or "residency training") outcomes; a separate report addresses medical school outcomes in North Carolina.

This report responds to the legislation which asked DHHS and UNC to:

1. determine the identity, location, and number of positions for graduate medical education training programs in the state, broken down by location;
2. identify the number of graduates from GME programs in the state that are in practice in North Carolina in 2016 in anesthesiology, neurology, neurosurgery, obstetrics and gynecology, primary care, psychiatry, surgery and urology;
3. track the outcomes of graduates of North Carolina residency training programs in primary care, obstetrics and gynecology, and psychiatry five years after completing residency training.

BACKGROUND

Graduate medical education (GME), commonly referred to as "medical residency" or "residency," occurs after medical school. After graduating from medical school, physicians complete a residency to gain skills and competencies in a particular branch of medicine, for example, family medicine, obstetrics and gynecology, or general surgery. Both allopathic (MD) and osteopathic (DO) physicians must complete medical residencies to become fully licensed by the NC Medical Board. The length of a medical residency depends on the specialty, with most residencies lasting between three to seven years.

www.healthworkforce.unc.edu @UNC_PHWRP uncworkforce

http://www.shepscenter.unc.edu/product/evaluating-workforce-outcomes-north-carolinas-medical-education-programs/

Current Projects

Developing a Supply and Demand Model for Nurses in NC

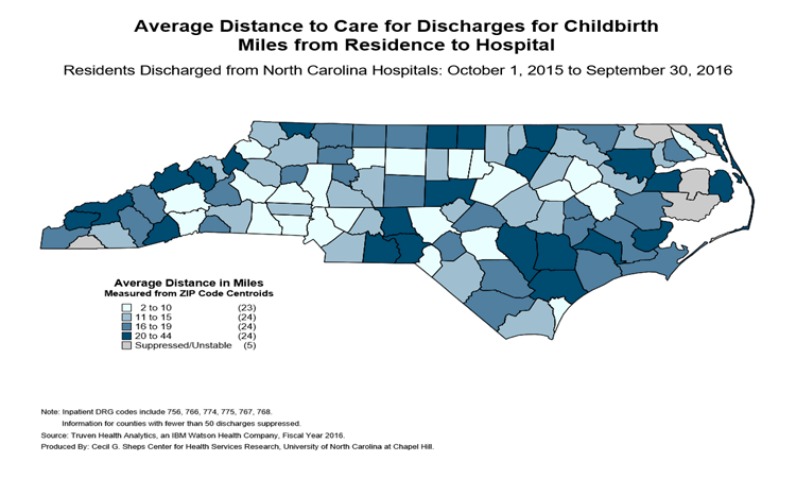
NC Board of Nursing-funded project to describe current and future trends in the supply, demand and distribution of RNs and LPNs in North Carolina

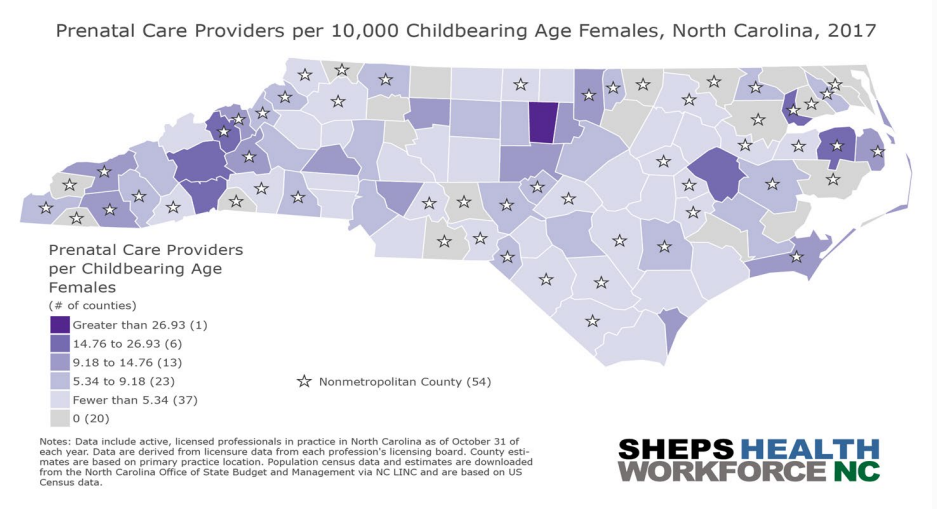
Generate descriptive statistics on workforce, as well as:

- Forecast the future supply of RNs and LPNs in North Carolina
- Forecast the future demand of RNs and LPNs in North Carolina
- Estimate the shortage/surplus of RNs and LPNs by employment setting at the state level, by Area Health Education Centers (AHEC) region, and in rural/urban counties

Examining NC Obstetric Delivery Provider Supply

- 12 of the counties with the longest travel times lack maternity care providers and birth facilities; 2,383 (2%) births originated from these counties.
- 20 counties do not have a health professional providing prenatal services





Determining NC Medicaid Participation Rates for Physicians, PAs, NPs, and Psychologists (PI: Marisa Domino)

Project Goals:

1. link data on licensed active providers (physicians, physician assistants, nurse practitioners, and practicing psychologists) in NC from 2015-2018 to Medicaid claims data
2. examine predictors of whether (a) providers serve Medicaid enrollees; (b) whether prescribing providers obtained their DATA 2000 waiver (through linkage with DEA data)
3. determine if providers with DATA 2000 waivers serve Medicaid enrollees with opioid use disorders

Collab with DHHS?

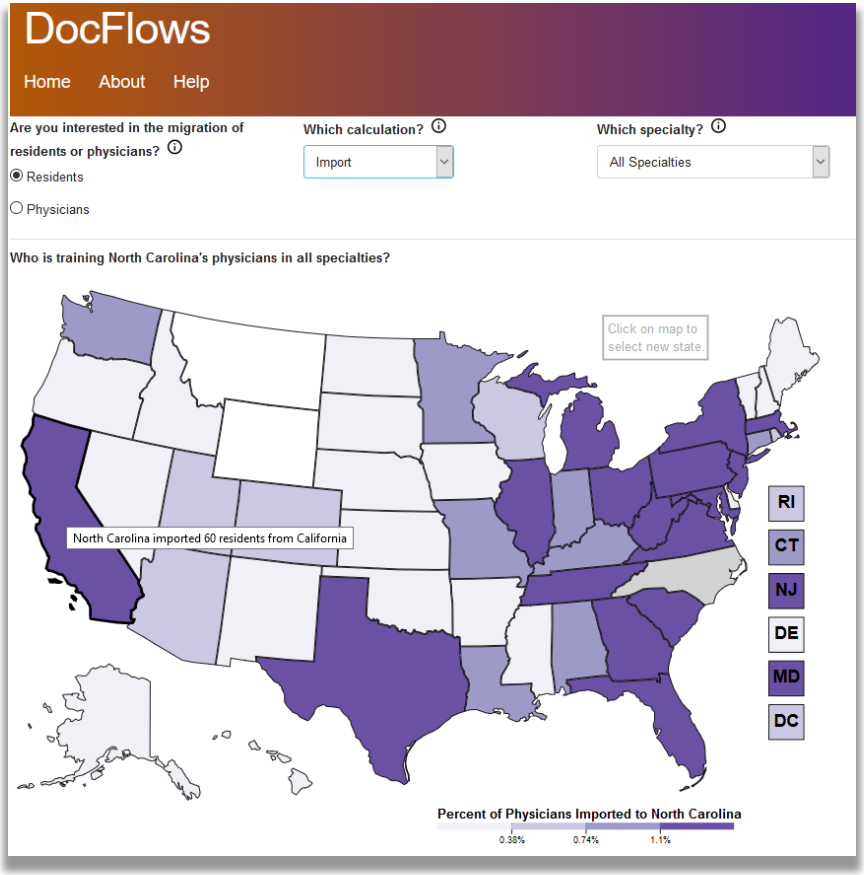
Workforce Adequacy?

Back Pocket Slides

Pur DocFlows App that provides data on migration of residents after training

- Data visualization tool allows users to query, download and share maps showing moves by residents and actively practicing physicians between states in 36 specialties

- DocFlows available at: docflows.unc.edu

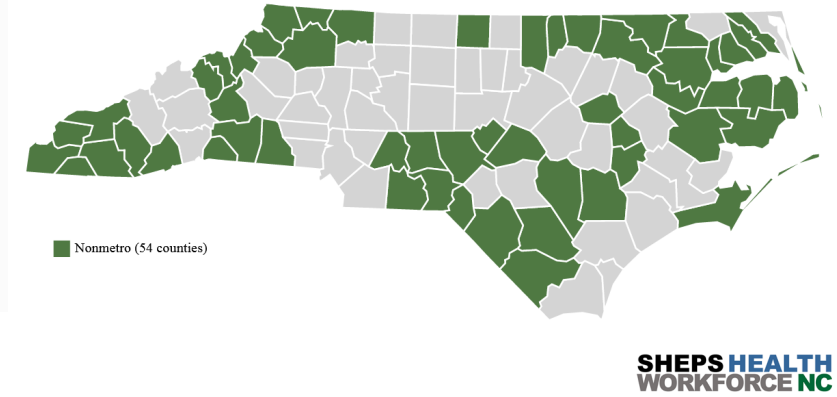


Where is rural?
We all think different things

Definition used in this slidedeck

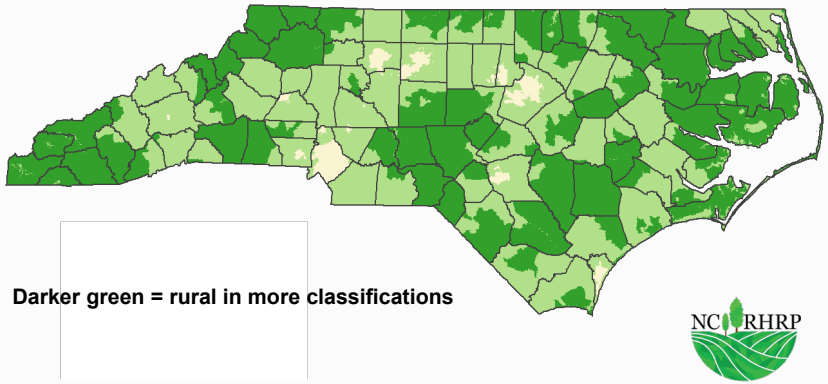
In reality, "rural" is not binary

Metropolitan Status*
North Carolina, 2017



Source: US Census Bureau and Office of Management and Budget, July 2017.
Note: 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: North Carolina Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

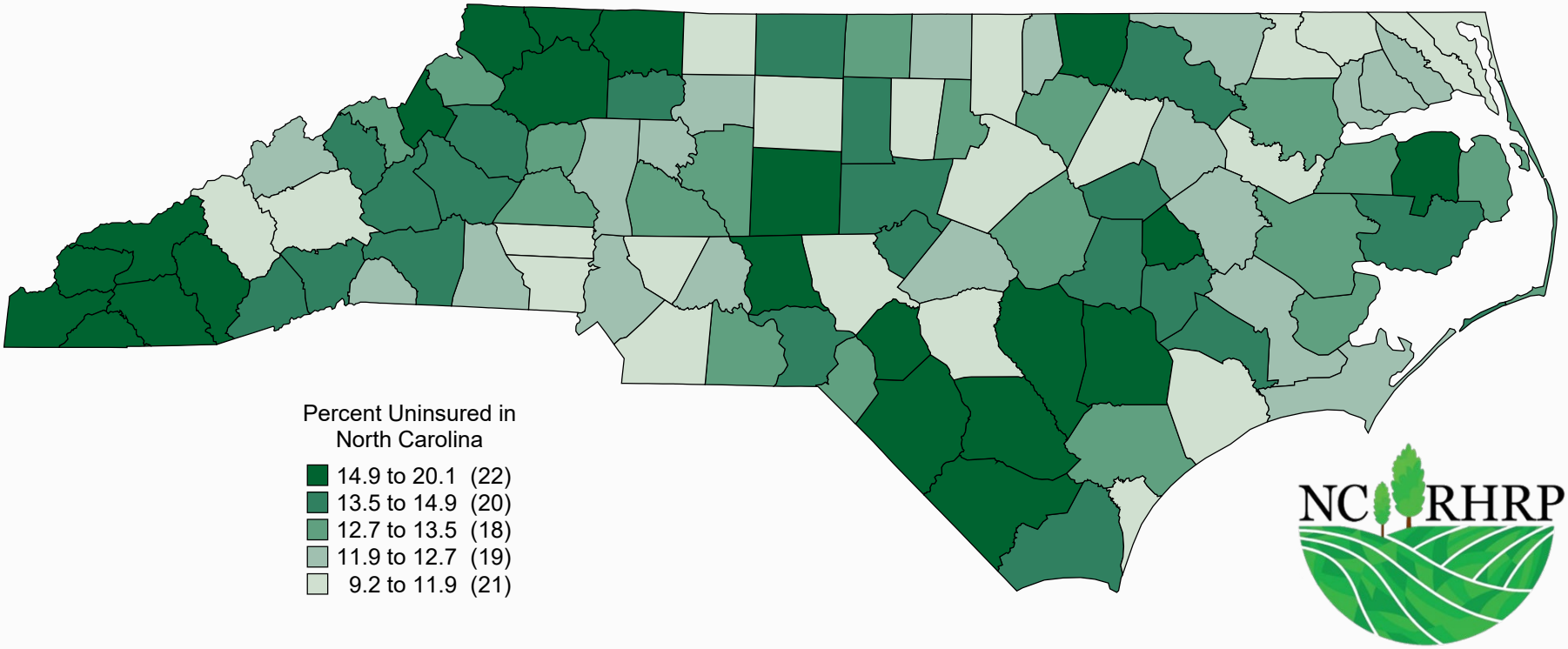
Combination of Five Common Federal and State Rural Definitions



Source: Holmes M. Access to Healthcare in Rural NC. Presentation to Committee on Access to Healthcare in Rural North Carolina, NC General Assembly, Raleigh, NC, 1/8/18. Accessed 11/30/18 at: https://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=374&sFolderName=\January%208,%202018

20 of the 22 NC counties with the highest percent uninsured are rural

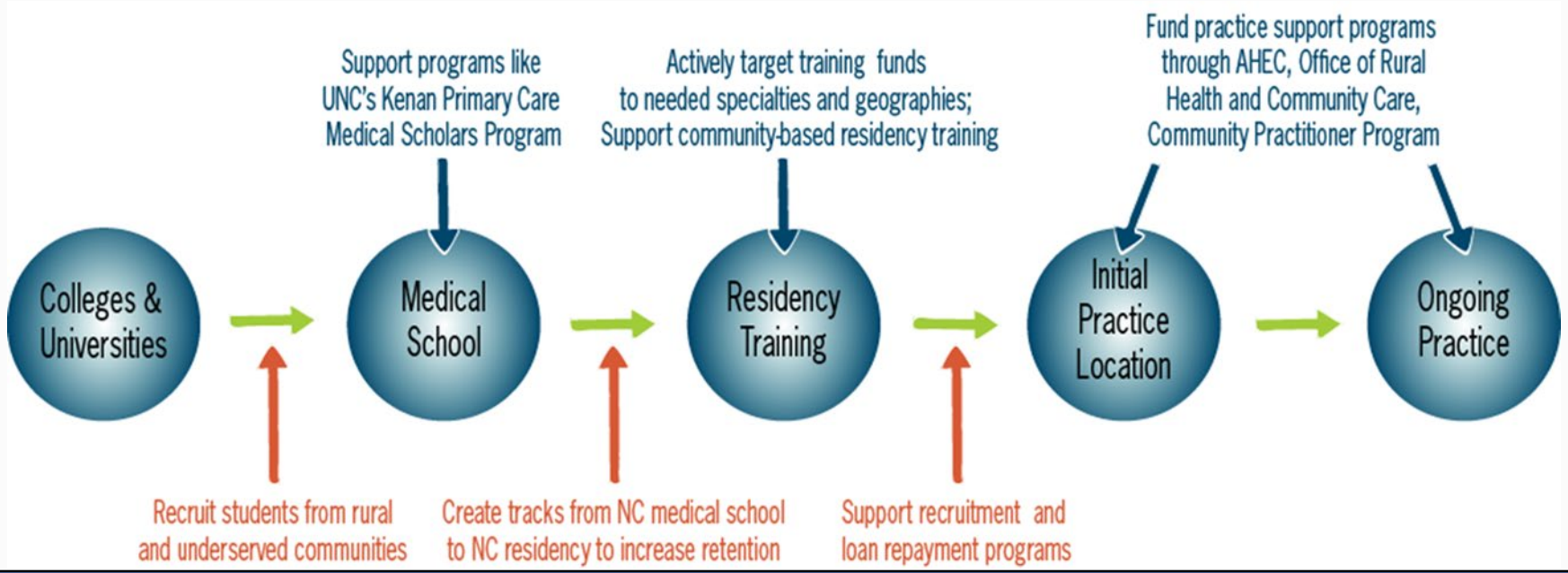
Percentage of Population without Health Insurance in Rural and Urban North Carolina: Residents Less Than 65 Years Old, 2016



Source: Randolph R. Running the numbers: Health insurance coverage in North Carolina: Rural-urban uninsured gap. *NCMJ*, 2018. 79 (6): 397-401.

What policy levers can affect health workforce distribution? (1)

- Recruit rural students into healthcare fields
- Train health professionals in rural areas
- Provide loan repayment to incent health professionals to work in rural areas



What policy levers can affect health workforce distribution? (2)

- Recruit rural students into healthcare fields
- Train health professionals in rural areas
- Provide loan repayment to incent health professionals to work in rural areas
- (maybe) Change scope of practice regulations so that more types of health professionals can provide services
- Explore telehealth opportunities

In general: Ensure rural healthcare delivery is financially viable

Health Workforce Research Center

- Projects of highest interest to DHHS