

The Health Workforce in North Carolina: Challenges and Opportunities Shortened for Newsletter

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NCIOM Legislative Health Policy Fellows
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THE CECIL G. SHEPS CENTER FOR
HEALTH SERVICES RESEARCH

This presentation in one slide

- We are an objective, data-driven resource for you on health workforce issues facing NC
- Workforce challenges are jeopardizing access to primary care, behavioral health, nursing and oral health services in North Carolina
- Burnout and attrition are pressing issues. Predominant focus, and investment, should be on workforce retention
- There are numerous state and federal policy levers we can leverage to develop, train and sustain the state's health workforce



I'm lucky to work with a great team

Collaborators:

- Brianna Lombardi, PhD MSW
- Evan Galloway, MPS
- Tony Kane, MSCS
- Andy Knapton, MSc
- Brooke Lombardi, PhD MSW
- Emily McCarthy, PhD
- Haley Simons, BA
- Connor Sullivan, PhD



Who Are We?



**THE CECIL G. SHEPS
CENTER FOR
HEALTH SERVICES
RESEARCH**



Program on
Health
Workforce
Research &
Policy

Cecil G. Sheps Center
for Health Services Research

Program on
Health Workforce
and Policy

**SHEPS HEALTH
WORKFORCE NC**

Carolina
**HEALTH
WORKFORCE**
Research Center



UNIVERSITY OF NORTH CAROLINA
**BEHAVIORAL HEALTH WORKFORCE
RESEARCH CENTER**

SHEPS HEALTH WORKFORCE NC

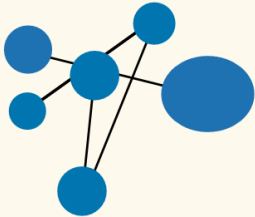
Mission: to provide timely, objective data and analysis to inform health workforce policy in North Carolina and the United States

- Based at Cecil G. Sheps Center for Health Services Research at UNC-CH, but mission is statewide
- Independent of government and health care professionals
- Primarily grant-funded
- We do not represent a particular profession, specialty or educational institution



You and your staff can access data, maps, analysis, blogs & more

Explore



Interactive
Visualizations
Explore trends in the
NC health workforce.



Supply
Visualization
See where health
care professionals
work across the state.



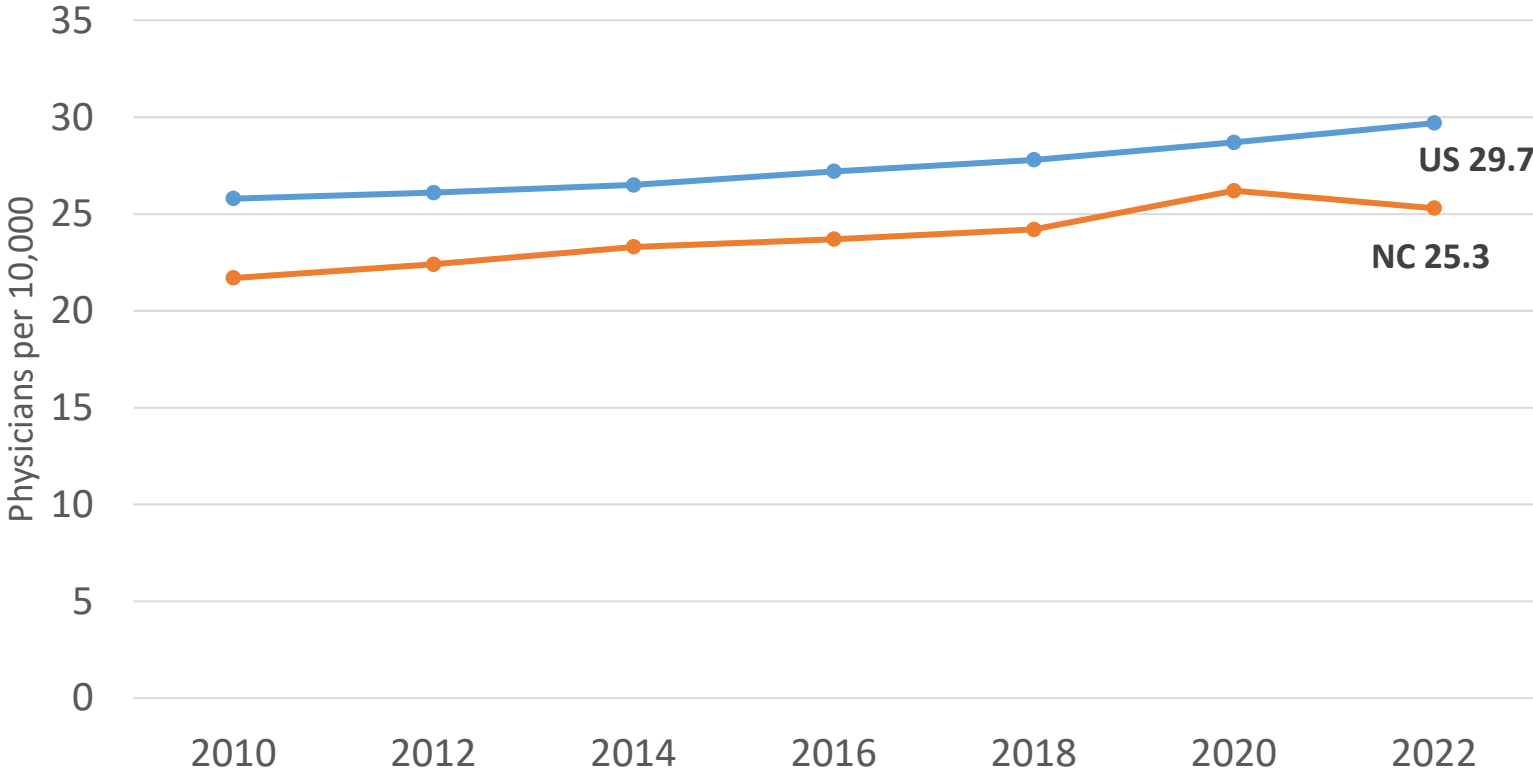
Blog
Check out our recent
blogs.

With funding from NC AHEC, we collect and analyze annual data on demographic, practice and geographic characteristics of 21 health professions. Available at county-level and for AHEC, rural/urban and Medicaid regions

nchealthworkforce.unc.edu

Fears of physician shortages create headlines, but we've seen steady increase in supply relative to population

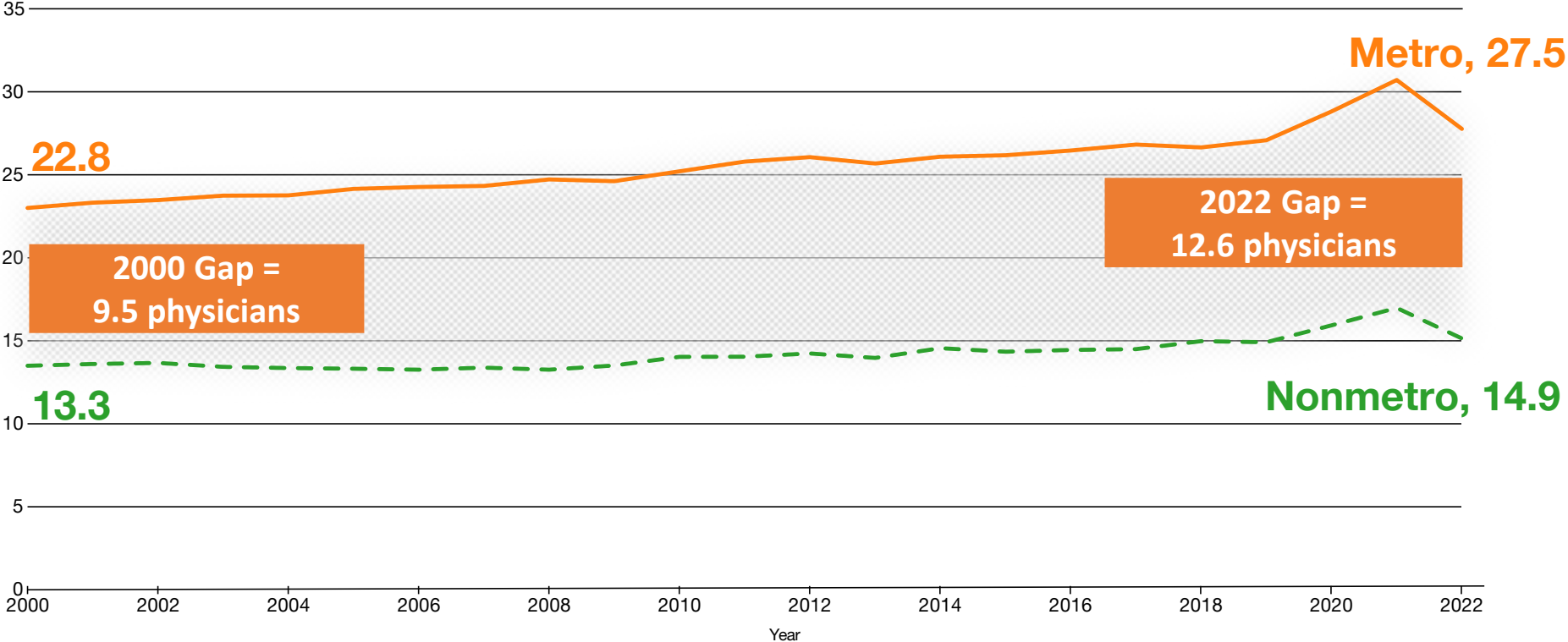
Physicians Per 10,000 Population, NC vs. US, 2010-2022



•Sources:North Carolina Health Professions Data System, 2010-2022, with data derived from the NC Medical Board; AAMC State Physician Workforce Data Book, years 2009, 2011, 2013, 2015, 2019, 2023 with data derived from the AMA Physician Masterfile; US Census Bureau; North Carolina Office of State Planning. North Carolina physician data include all licensed, active, physicians practicing in-state, inclusive of federally employed physicians and excluding residents-in-training. US data includes total physicians active in patientcare, inclusive of federally employed physicians and excluding residents-in-training.

Real issue is maldistribution. Gap between metro and non-metro counties is growing

Physicians per 10,000 Population for Metropolitan and Nonmetropolitan Counties, North Carolina, 2000-2022



Notes: Data include active, licensed providers in practice in North Carolina as of October 31 of each year. Data are derived from licensure files provided by each profession's licensing board. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management and are based on US Census data. Metropolitan or rural (non-metropolitan) county status was defined using US Office of Management and Budget Core Based Statistical Areas (CBSAs). Non-metropolitan counties include micropolitan counties and non-CBSAs. The vintage or year of the delineation file used to aggregate the counties corresponds with the delineations in place for each year of data. That is, the counties defined as non-metropolitan in 2000 are different than the non-metropolitan ones in 2017. Source: North Carolina Health Professions Data System, Program on Health Workforce Research and Policy, The Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. Created January 5, 2024 at <https://gallowayevan.static.observableusercontent.com/next/worker-213a8f8b.html>.

Primary Care Workforce Shortages Are Particularly Acute

PRIMARY CARE DISRUPTED

Will the Doctor See You Now? The Health System's Changing Landscape

Concern grows around US health-care workforce shortage: 'We don't have enough doctors'

| SPORTS | BUSINESS | POLITICS | OPINION

NBC NEWS

By Jacqueline Howard, CNN
5 minute read · Published 11:00 AM EDT, Tue May 16, 2023

NIGHTLY NEWS

Primary care doctor shortage worsening across U.S.

Across
Doct
fast e

Sept. 26, 2023

Months-long waits accessing care leave patients sicker and in anguish

A fourth of Massachusetts doctors plan to leave the field in the next two years, according to a survey.

By **Jessica Bartlett** Globe Staff,
Updated March 16, 2023, 5:27 a.m.

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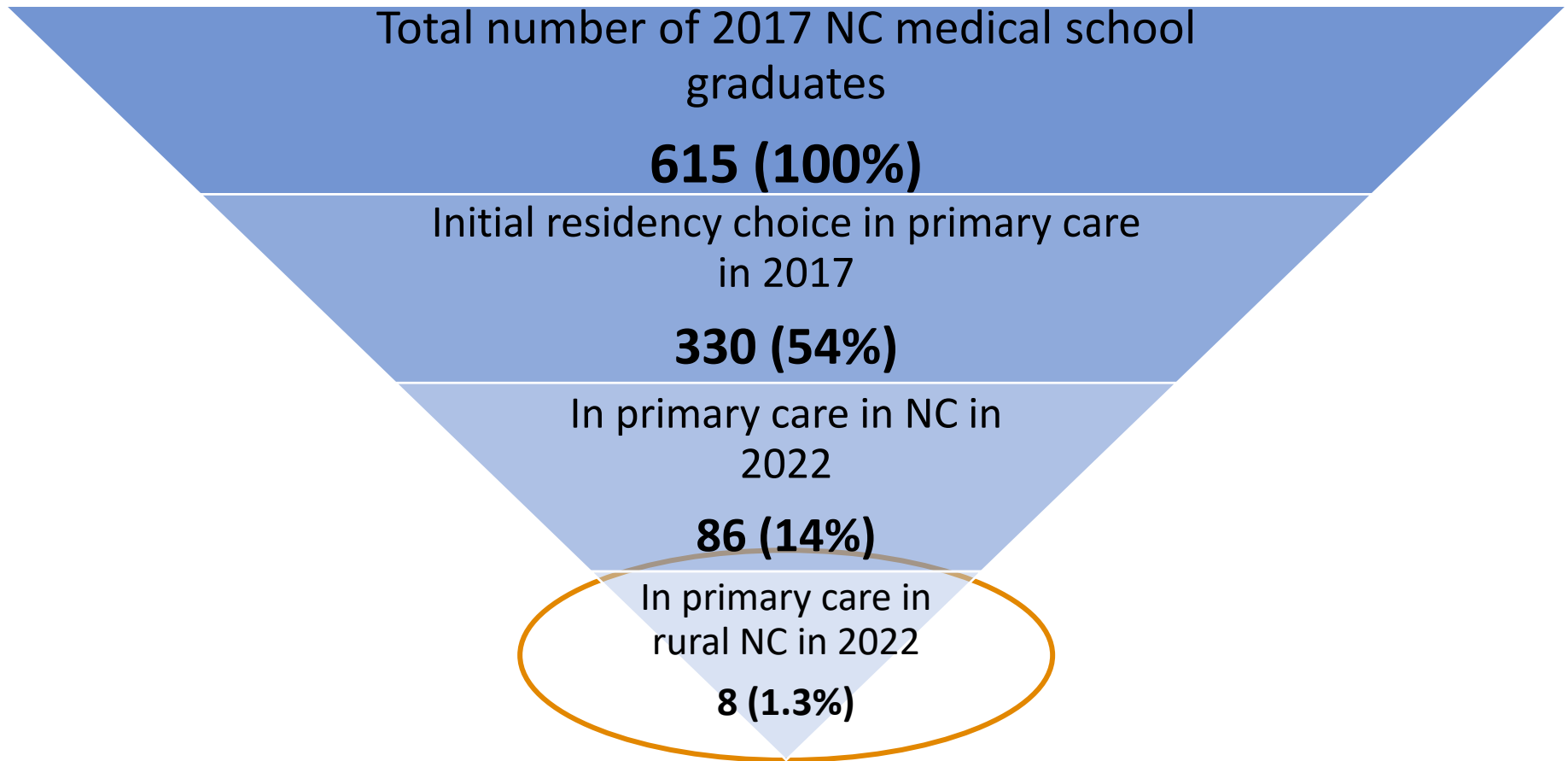
☰ **KFF Health News**

The Shrinking Number of Primary Care Physicians Is Reaching a Tipping Point

PERSPECTIVE

The Shrinking Number of Primary Care Physicians Is Reaching a Tipping Point

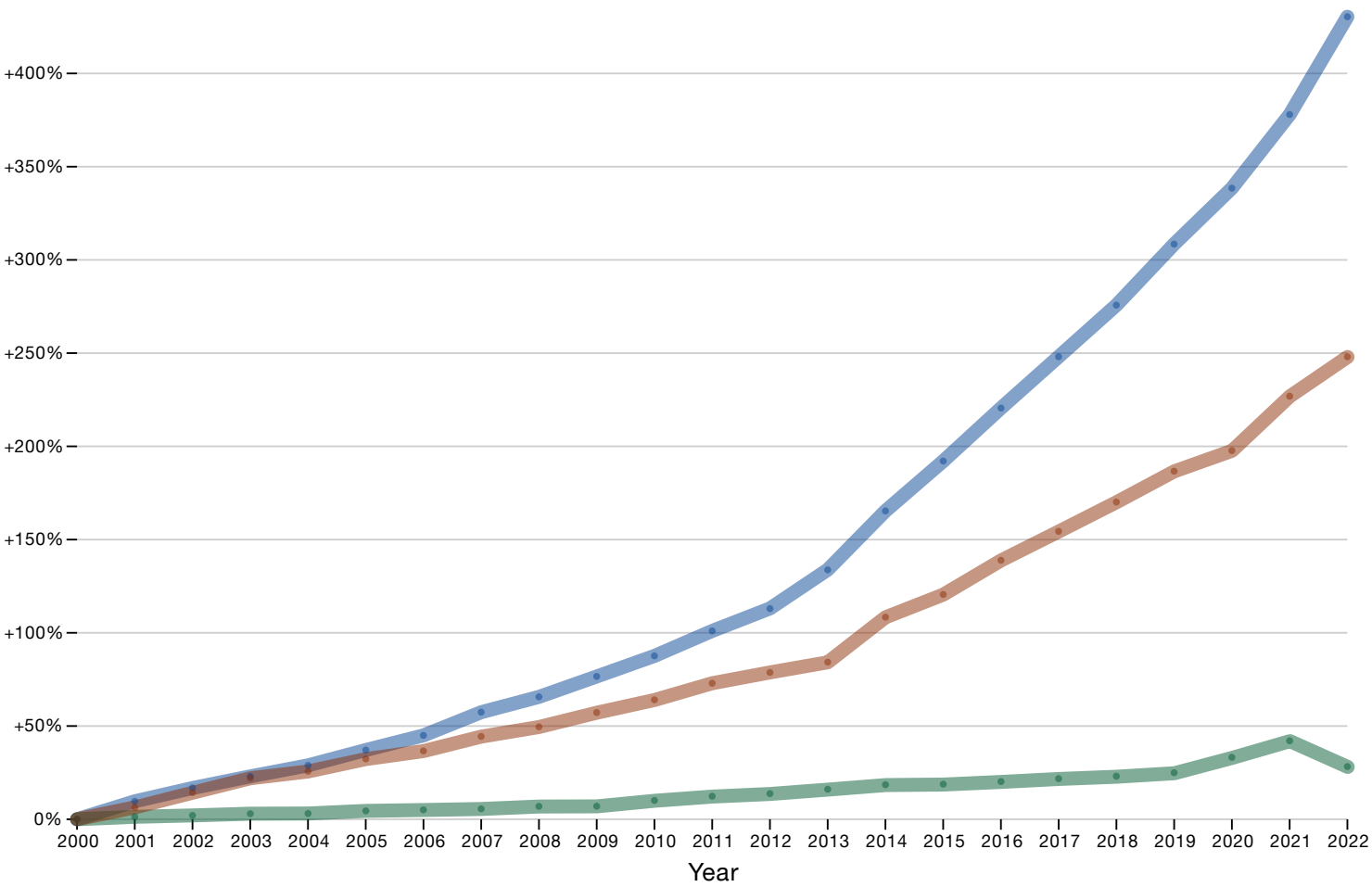
Why the shortages? 5 years after graduation, only 1.3% of medical students practice in rural, primary care in NC



NC has experienced rapid growth in Nurse Practitioner and Physician Assistant Workforce

Cumulative Percentage Growth per 10,000 Population since 2000 for Nurse Practitioners, Physicians, Physician Assistants in North Carolina

Percent Growth
+450%—



Nurse Practitioner,
430%
n=11,593

Physician Assistant,
248%
n=8,636

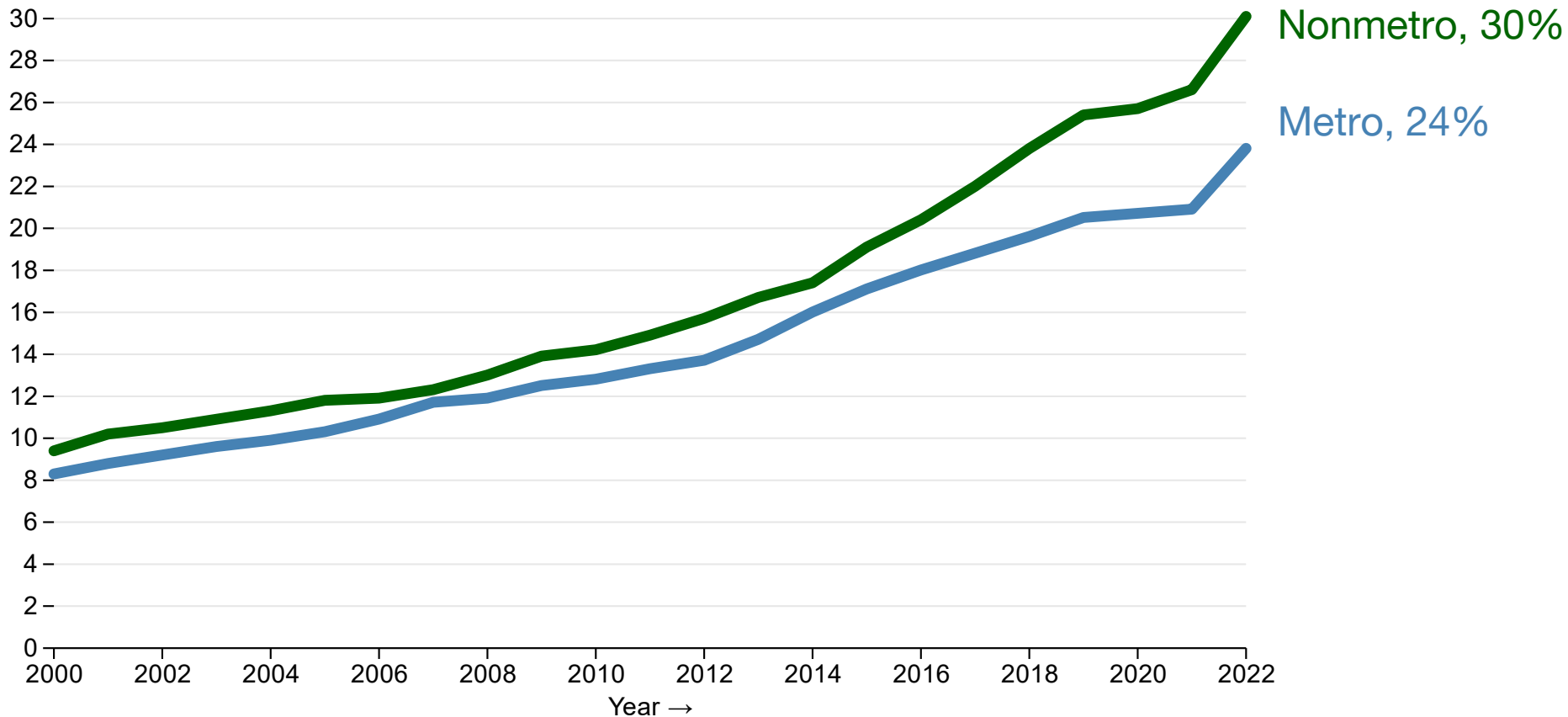
Physician, 28%
n=26,955

Sources: North Carolina Health Professions Data System with data derived from the North Carolina Medical Board and North Carolina Board of Nursing, 2000 to 2018. Figures include all active, in-state, non-federally employed, non-resident-in-training physicians, and all active, in-state PAS and NPs licensed as of October 31 of the respective year.

Nurse Practitioners make up an increasing percentage of workforce in North Carolina's rural communities

NPs as a Percentage of Total Clinicians (Physicians+NPs+PAs) in Non-Metropolitan Counties, North Carolina, 2000-2022

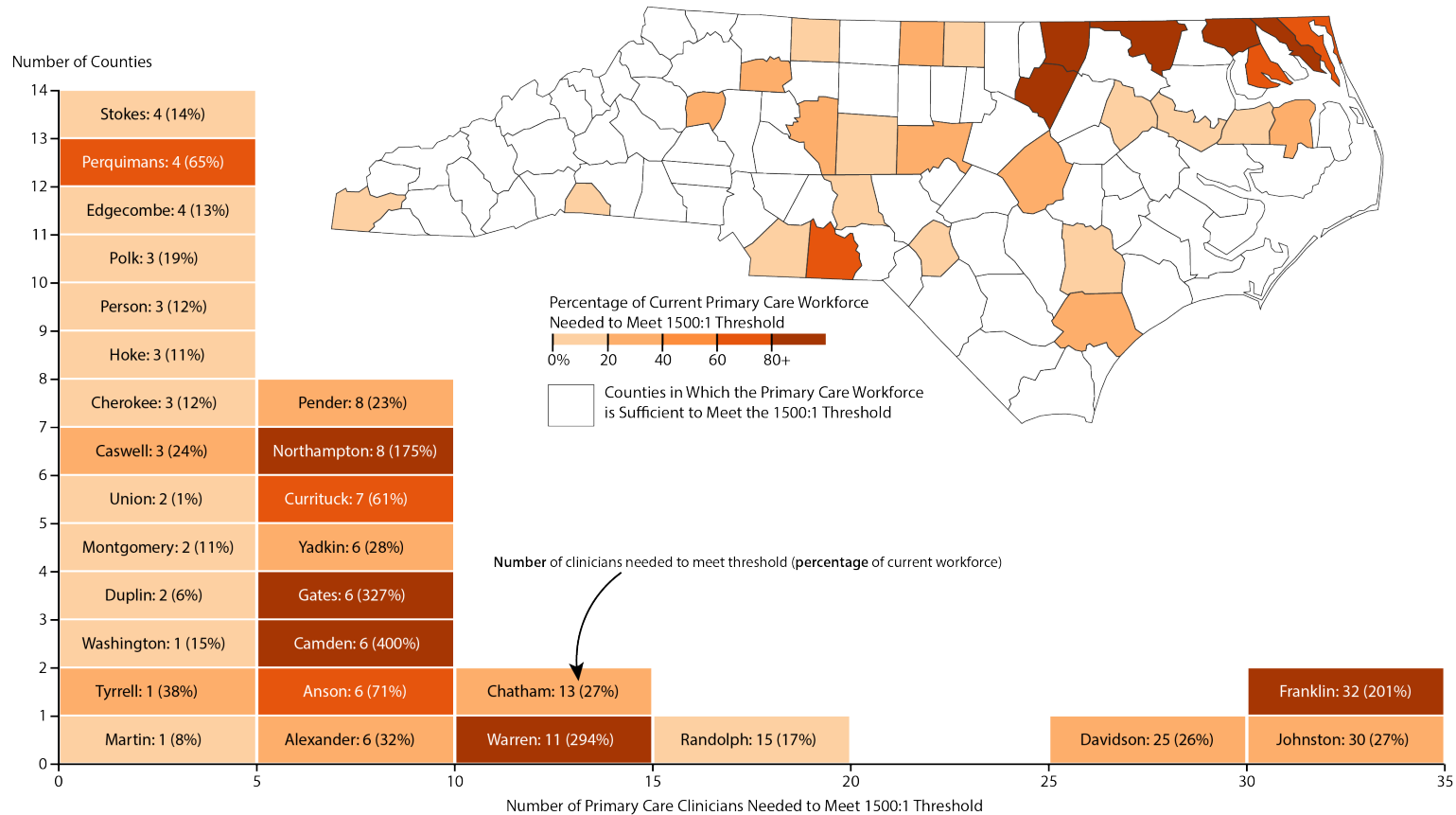
↑ Percentage NPs of Clinicians (%)



Notes: Data include active, licensed professionals in practice in North Carolina as of October 31 of each year. Data are derived from licensure data from each profession's licensing board. County estimates are based on primary practice location. Metro and nonmetro delineations are from the United States Office of Management and Budget and applied to Census data. According to the 2017 version of the delineation file, which is used for this analysis, North Carolina had 54 nonmetro (rural) counties.

After accounting for primary care physicians, NPs, PAs, and CNMs together, 28 NC counties still face primary care workforce shortages

Percentage of Current Primary Care Workforce Needed to Meet 1500:1 Population to Clinician Threshold, 2017 - 2021 Average, North Carolina

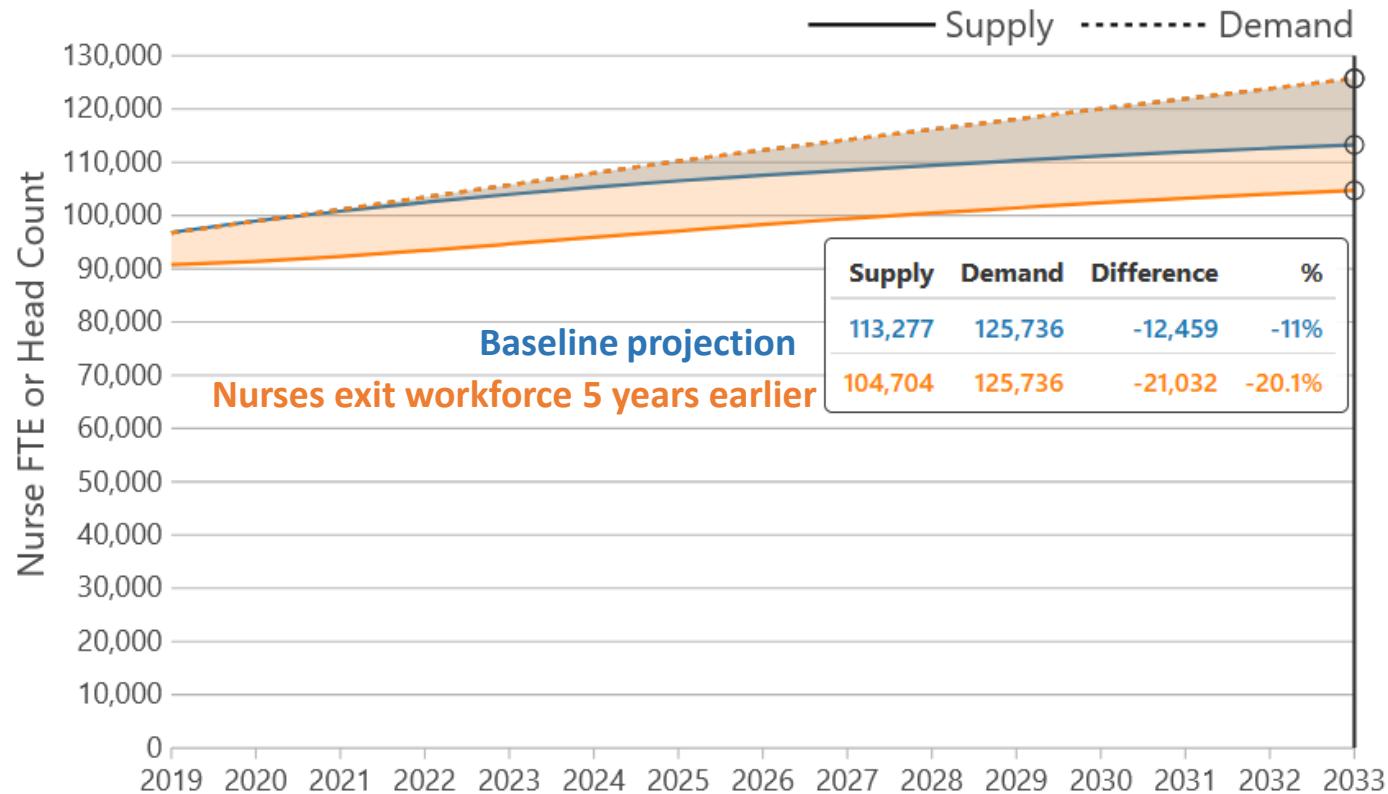


Notes: Primary care physicians, physician assistants, and nurse practitioners are defined as in Spero, J. C., & Galloway, E. M. (2019). Running the Numbers. North Carolina Medical Journal, 80(3), 186-190. Physicians with a primary area of practice of obstetrics/gynecology were weighted as 0.25 of a full-time equivalent (FTE) primary care practitioner. All other primary care physicians were weighted as 1 FTE. Primary care physician assistants, nurse practitioners, and certified nurse midwives were weighted as 0.75 FTE. Physician and physician assistant data are derived from licensure data provided by the North Carolina Medical Board. This analysis only includes physicians who are not residents-in-training and are not employed by the Federal government. Nurse practitioner and certified nurse midwife data is derived from licensure data provided by the North Carolina Board of Nursing. Data include active, licensed practitioners in practice in North Carolina as of October 31 of each year. Practitioners are assigned to counties based on primary practice location. County populations were adjusted for age and gender according to primary care use rates described in data from the Medical Expenditure Panel Survey. The raw (unadjusted) population data was from the NC Office of State Budget and Management (<https://www.osbm.nc.gov/demog/county-projections>).

Even before the pandemic hit, NC was expected to face a nursing shortage. If nurses exit the workforce five years earlier, shortage will nearly double

Projection of Nurse Workforce, Supply - Demand

North Carolina, 2019 - 2033



Hospitals and nursing homes/extended care/assisted living face largest shortages

NC Nurse Workforce Shortage and Surplus Estimates for 2033

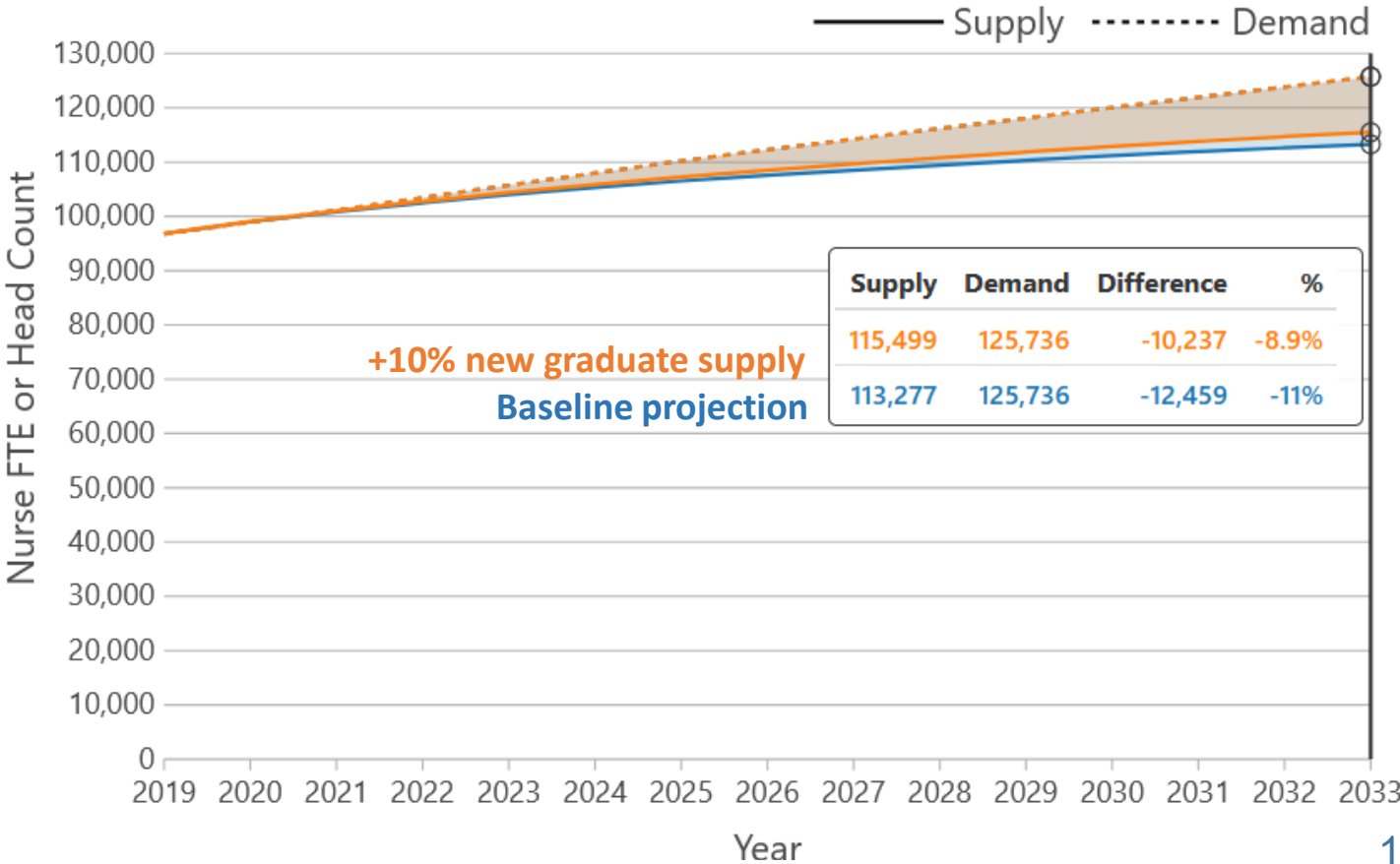
Setting	2033 RN Shortage/ Surplus #	2033 RN Shortage/ Surplus %	2033 LPN Shortage/ Surplus #	2033 LPN Shortage/ Surplus %
Hospital	-9,927	-16.7%	-314	-31.7%
Nursing Home/Extended Care/Assisted Living	-1,888	-30.8%	-3510	-49%
Home Health/Hospice	-1,535	-17.9%	-504	-14%
Nursing Education	-132	-8.9%	n/a	n/a
Correctional Facility	-128	-15.7%	-9	-2.2%
Mental Health Hospital/Facility	-26	-0.9%	-58	-9.4%
Community and Population Health	86	1.4%	n/a	n/a
Ambulatory Care	363	2.3%	-148	-6.7%

Note: Data from NC Nursecast, which includes NC Board of Nursing/Health Professions Data System, population data from NC Office of Budget and Analysis and Expert Input

Educating more nurses is not going to solve the problem. We need to focus on retention

Projection of Nurse Workforce, Supply - Demand

North Carolina, 2019 - 2033



The Program on Health Workforce Research and Policy at the Cecil G Sheps Center. "NC Nursecast: A Supply and Demand Model for Nurses in North Carolina." November 1, 2021. <https://ncnursecast.unc.edu/model/>

Responding to North Carolina's Behavioral Health Workforce Crisis

October 3, 2023

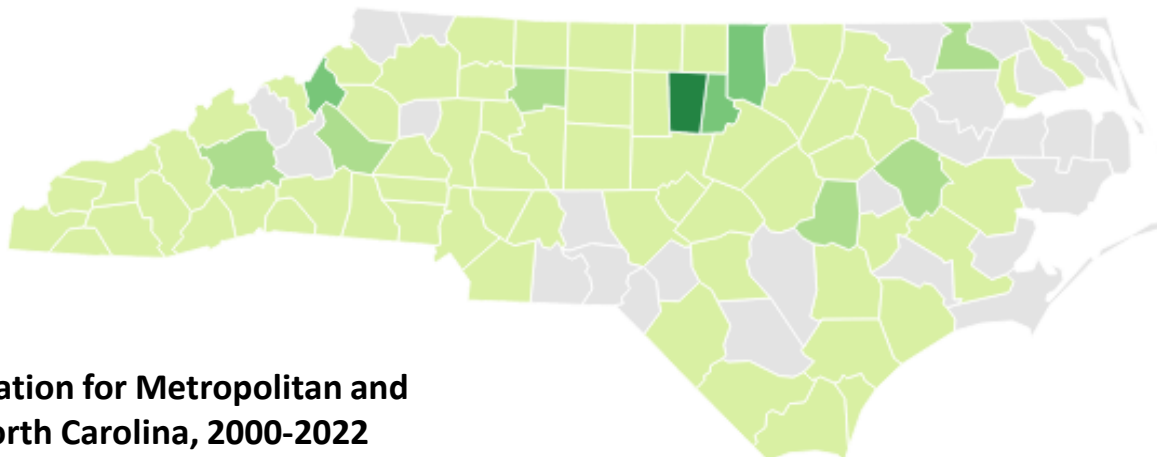
By [Brianna Lombardi](#) and [Paul Lanier](#)

- ~4 million people, ~2 in 5 North Carolinians, live in a [mental health professional shortage area](#)
- Depression, anxiety, and opioid use disorders have [increased](#) since the onset of the pandemic
- More than 50% of children and adults who want to access behavioral health care are unable to get care
- Crisis most acute for North Carolina's youth
 - 14.2% of youth in North Carolina [reported](#) a severe major depressive episode in 2022
 - [Youth suicide rates](#) in North Carolina reached an unprecedented level in 2021
- 68 counties in North Carolina have no child psychiatrists

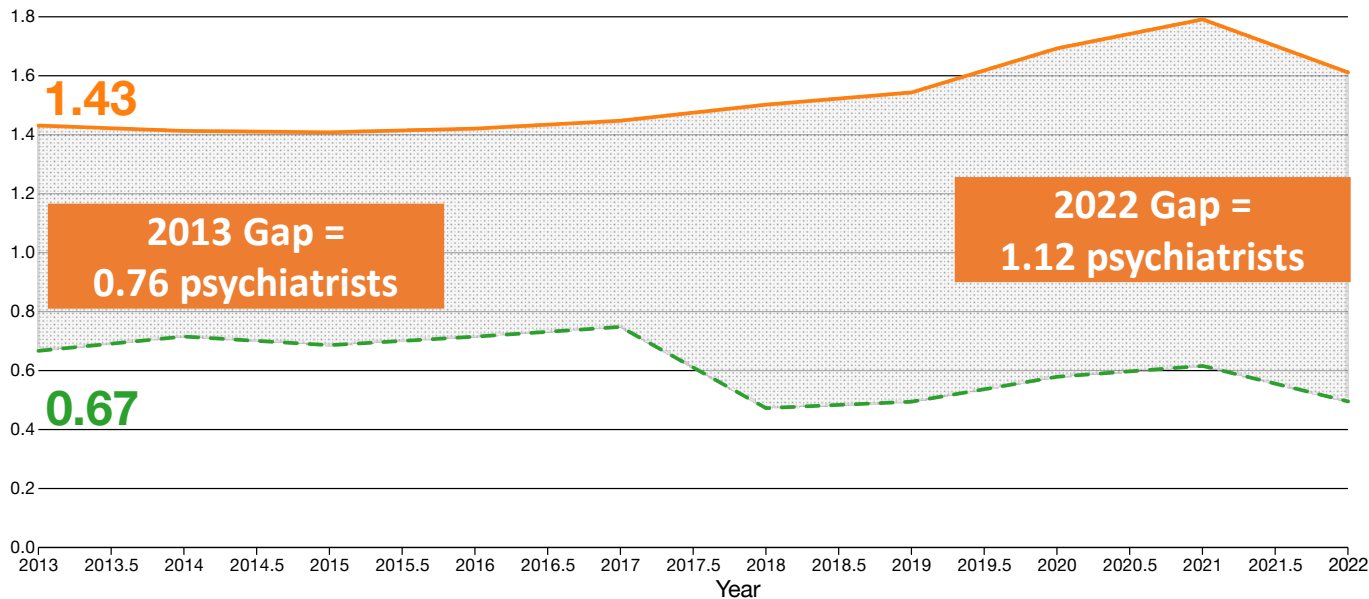
Behavioral Health Workforce Access is Worsening in NC's Rural Areas

Physicians with a Primary Area of Practice of Psychiatry, All Specialties per 10,000 Population by County, North Carolina, 2022

28 Counties Have No Psychiatrists
(based on primary practice address)



Psychiatrists per 10,000 Population for Metropolitan and Nonmetropolitan Counties, North Carolina, 2000-2022



Metro, 1.61

Gap between Rural and Urban Psychiatrists is Growing

Nonmetro, 0.49

Lack of Data Limits Our Ability to Assess Gaps and Develop Policy to Address Shortages

- Limits us from understanding how to best develop and target policies for communities and/or populations who need most help
- Limits us from evaluating which policies and interventions work best in training, retaining, and sustaining the behavioral health workforce
- ...For example, it's an exciting time for BH investment in NC due to reimbursement rate increases—But it will be difficult to evaluate effect without better data



More Good News: NC gained dentists per capita and we moved up in the national rankings

Dentists Working in Dentistry per 10,000 Population

	2001		2013		2017		2022	
	Rank	Ratio	Rank	Ratio	Rank	Ratio	Rank	Ratio
United States		5.7		6.0		6.1		6.1
North Carolina	47	4.2	44	4.8	37	5.1	24	5.6

Source: Supply of Dentists in the U.S.: 2001-2022 (XLSX - Published April 2023). American Dental Association, Health Policy Institute analysis of ADA masterfile. Downloaded 6/27/2023 from <https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists>

Bad news: 60% of new dentists went to just 5 counties. 90 counties gained only 20% of new dentists, yet they represent 60% of NC's population.

North Carolina added 586 dentists between 2017 and 2021.
Where did they go?

