

North Carolina's Oral Health Workforce: Challenges and Strategies

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Who we are and what we do



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North Carolina Health Professions Data System (HPDS)

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
- A collaboration between the Sheps Center, NC AHEC and the health professions licensing boards
- System is independent of government and health care professionals

North Carolina's health workforce data are the envy of other states

- 36 years of continuous, complete licensure (***not survey***) data on 19 health professions from 12 boards
- Data are provided ***voluntarily*** by the boards—there is no legislation that requires this, 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**



Overview of Presentation

- NC's oral health workforce
 - supply & distribution
 - demographics
- Policy options
 - What strategies has NC used to address oral health workforce needs?
 - What can we learn from other states?



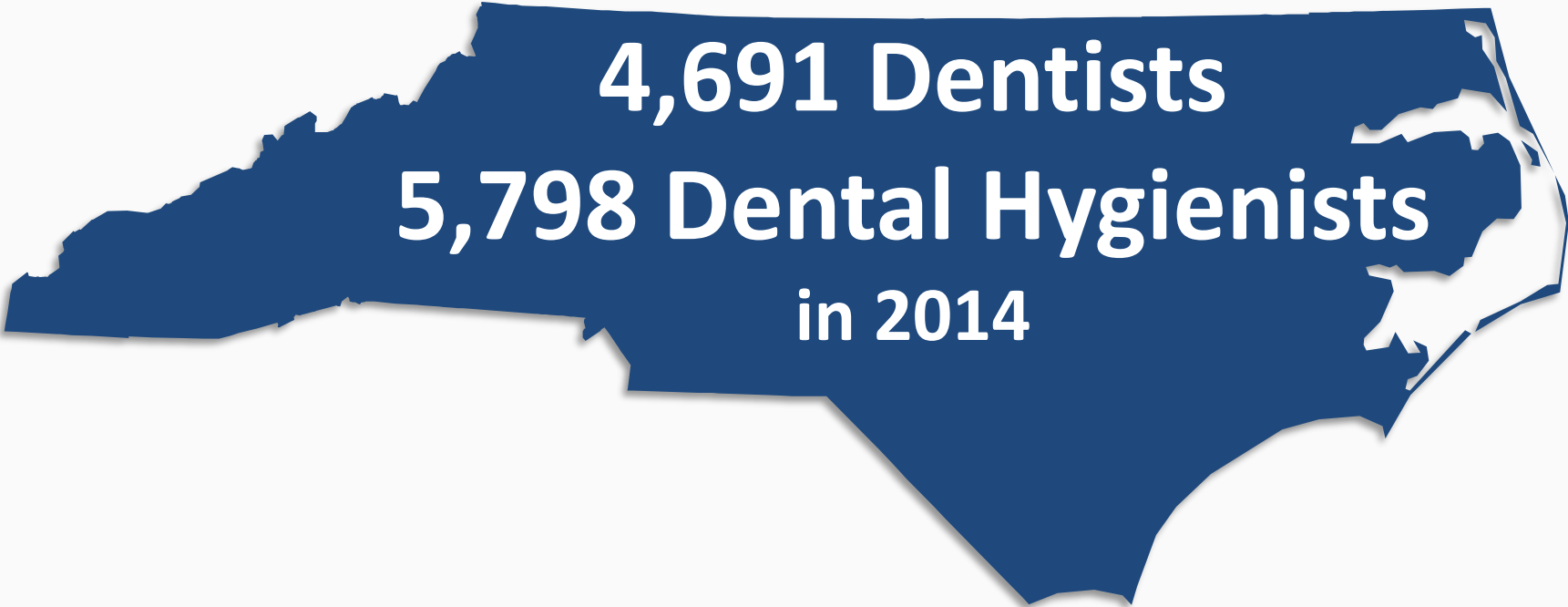
The Dental Workforce in NC



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How many dentists and dental hygienists work in NC?



4,691 Dentists
5,798 Dental Hygienists
in 2014

Sources: North Carolina Health Professions Data System, with data derived from the North Carolina Board of Dental Examiners, 2014. Data include all, active, in-state dentists and dental hygienists.

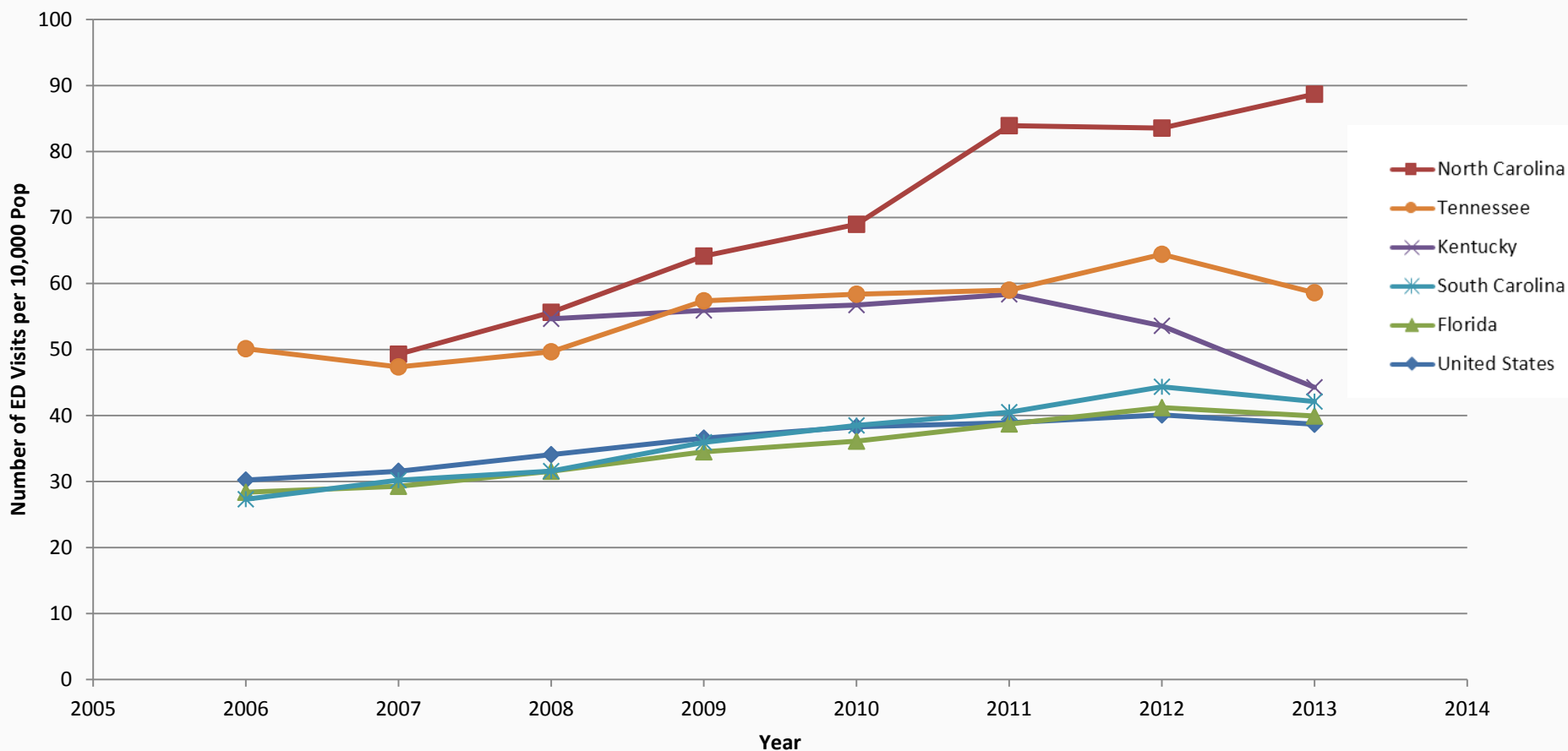
HRSA's NC workforce projections

- Dentist shortage will increase from 270 (2012) to 459 (2025)
- Dental hygienist surplus will increase to 858 (2025)

Source: Health Resources and Services Administration, 2015,
<http://bhpr.hrsa.gov/healthworkforce/supplydemand/dentistry/nationalstatelevelprojectionsdentists.pdf>

NC has high per capita rate and most rapid increase in ED visits for dental disorders

Emergency Department Visits for ICD-9-CM All-Listed Diagnosis Code 525.9, Dental Disorder Not Otherwise Specified, per 10,000 population



North Carolina Dental Workforce Supply and Distribution

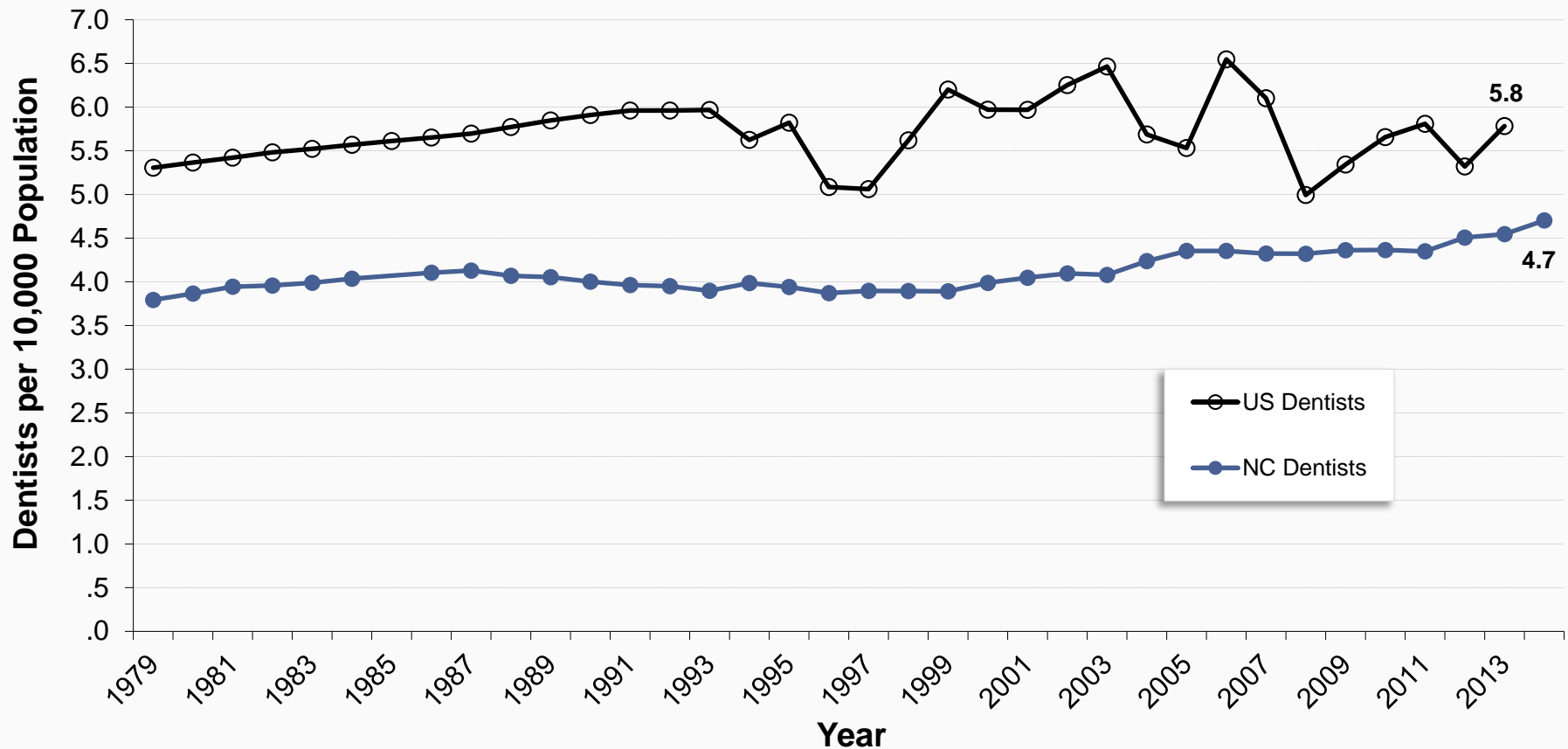


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NC has consistently lagged behind US in dentists per capita

Dentists per 10,000 Population,
US and NC, 1979 to 2014



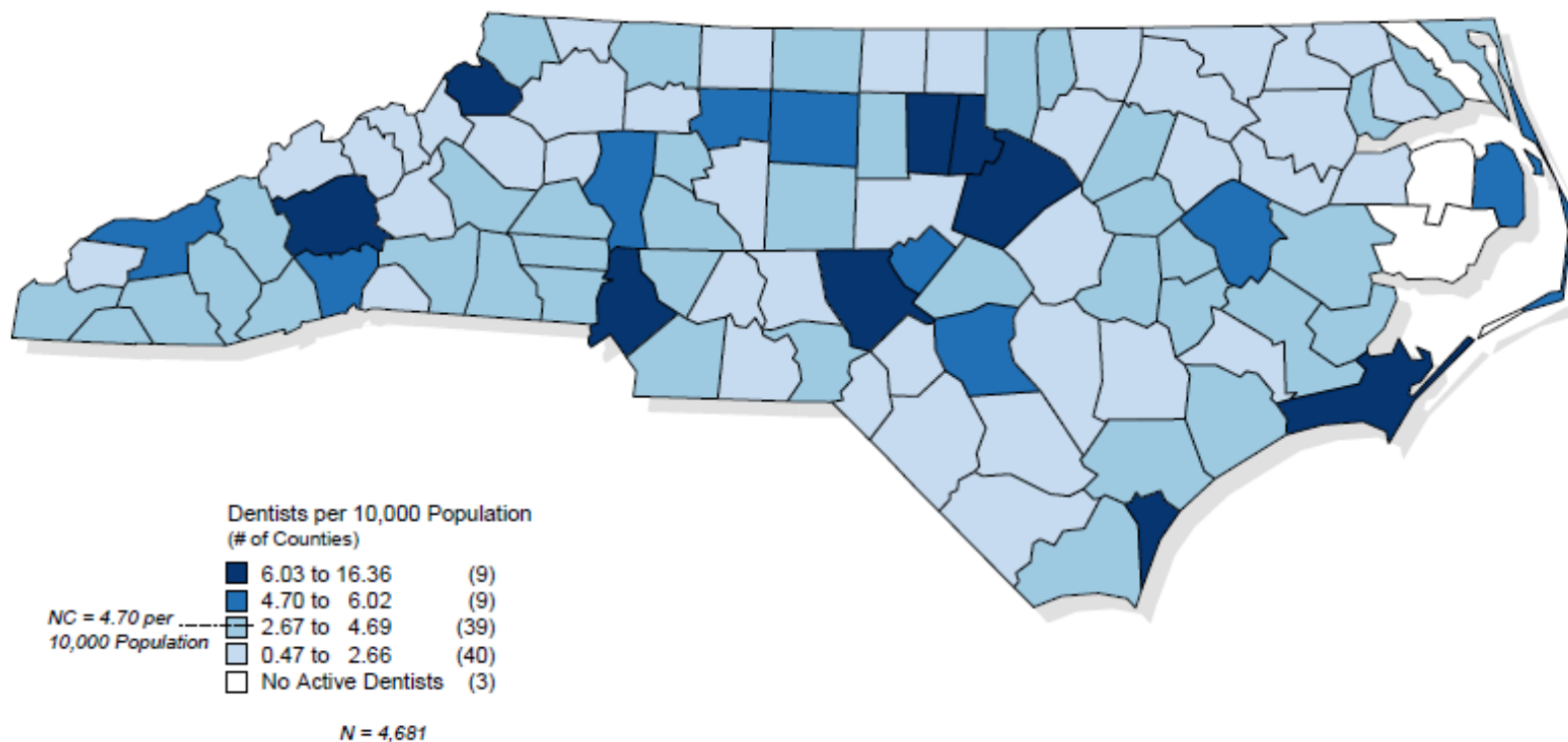
And has lagged behind most states as well...

Active Dentists per 10,000 Civilian Population

	1996		2000		2003		2007		2009		2011	
	Rank	Ratio	Rank	Ratio	Rank	Ratio	Rank	Ratio	Rank	Ratio	Rank	Ratio
United States		6.1		6.1		6.0		6.0		6.1		6.2
Top Ranked												
Massachusetts	4	8.1	2	8.1	2	8.2	1	8.2	1	8.4	1	8.6
Hawaii	1	8.9	1	8.2	1	8.2	2	8.1	5	7.7	5	7.9
New Jersey	5	8.1	4	7.9	3	7.9	3	8.1	2	8.1	2	8.3
New York	2	8.2	3	8.0	4	7.9	4	7.9	3	7.8	4	8.0
Bottom Ranked												
North Carolina	47	4.4	47	4.2	47	4.4	47	4.5	47	4.6	47	4.7
Alabama	46	4.4	46	4.3	45	4.4	48	4.4	48	4.4	48	4.4
Arkansas	48	4.1	48	4.0	48	4.1	49	4.1	50	4.0	49	4.2
Mississippi	49	4.0	49	3.9	50	4.0	50	4.1	49	4.1	50	4.2

NC's dentists are concentrated in one fifth of the state's counties

Dentists per 10,000 Population
North Carolina, 2014



Note: Data include active, instate dentists licensed in North Carolina as of October 31, 2014.

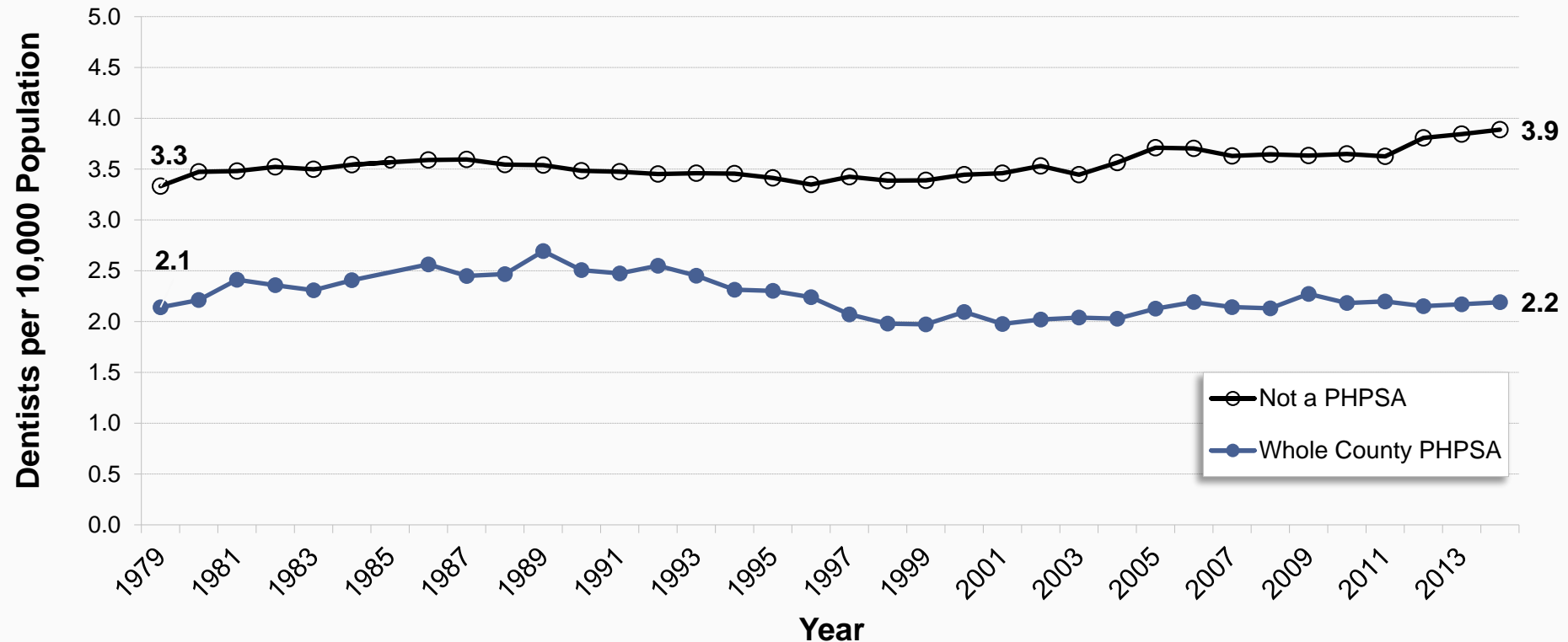
Source: North Carolina Health Professions Data System, with data derived from the North Carolina State Board of Dental Examiners, 2014.

Produced by: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.



... And the gap between NC's most underserved and not underserved counties has been slowly widening

**Dentists per 10,000 Population by Persistent Primary Care Health Professional Shortage Area (PHPSA) Status
North Carolina, 1979 to 2014**



1985 data are averaged between 1984 and 1986 due to missing data.

North Carolina population data are smoothed figures based on 1980, 1990, 2000 and 2010 Censuses. Source for Health Professional Shortage Areas: Area Health Resource File, HRSA, Department of Health and Human Services. 2015 Persistent HPSAs are those designated as HPSAs by HRSA in at least 6 of the 7 most recent HPSA designations (2008-2013, 2015).

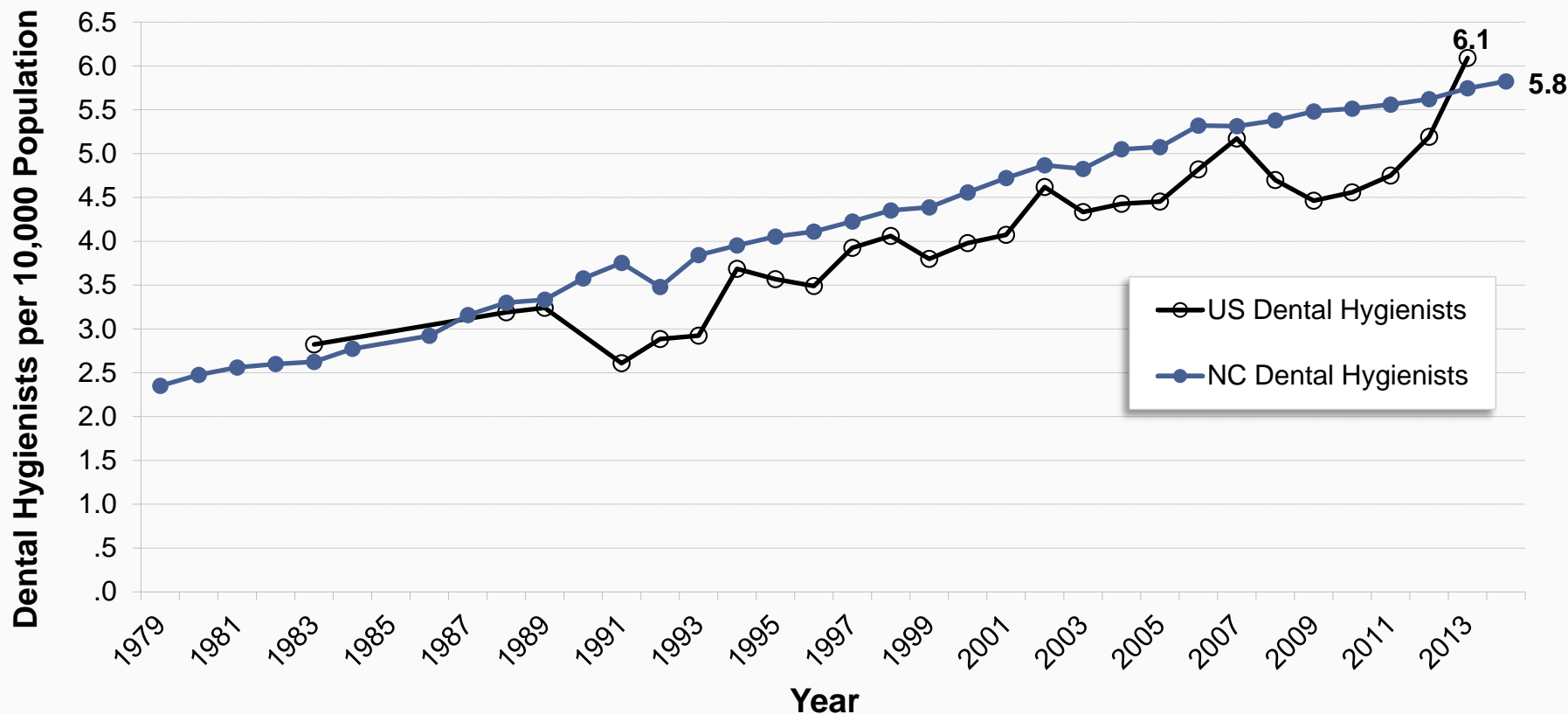
Sources: NC Health Professions Data System, 1979 to 2014 with data derived from the North Carolina State Board of Dental Examiners; HRSA, Bureau of Health Professions; US Bureau of the Census; Center for Disease Control; North Carolina Office of State Planning. Figures include all licensed active dentists practicing in NC as of Oct. 31 of each year.



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NC has seen consistent growth in dental hygienists

Dental Hygienists per 10,000 Population,
US and NC, 1979 to 2014



North Carolina population data are smoothed figures based on 1980, 1990, 2000 and 2010 Censuses.

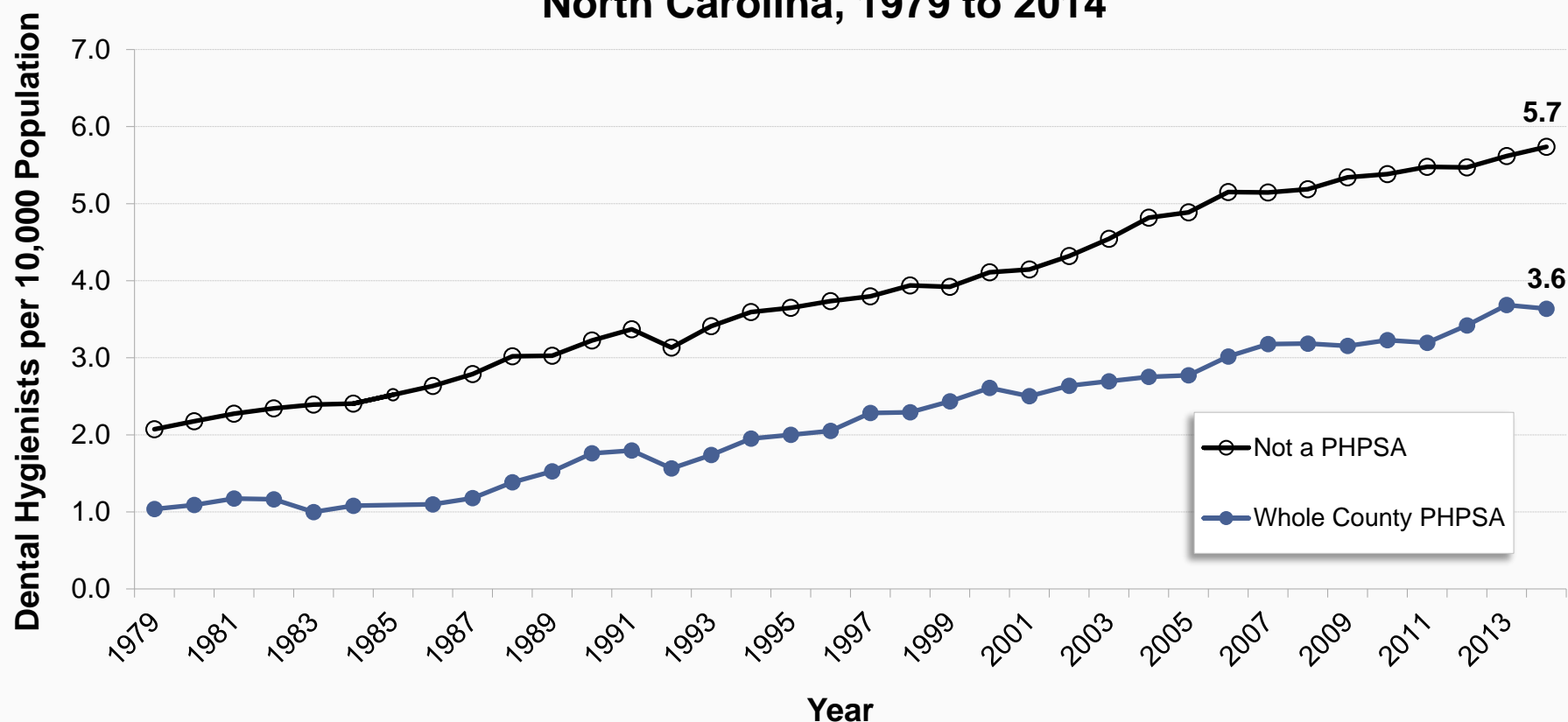
Sources: NC Health Professions Data System, 1979 to 2014 with data derived from the North Carolina State Board of Dental Examiners; HRSA, Bureau of Health Professions; US Bureau of the Census; Center for Disease Control; NC Office of State Planning. Figures include all licensed active dental hygienists practicing in NC as of Oct. 31 of each year.



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Unlike dentists, hygienists experienced some growth in supply in NC's most underserved counties

**Dental Hygienists per 10,000 Population by Persistent Health Professional Shortage Area (PHPSA) Status
North Carolina, 1979 to 2014**



North Carolina population data are smoothed figures based on 1980, 1990, 2000 and 2010 Censuses. Source for Health Professional Shortage Areas: Area Health Resource File, HRSA, Department of Health and Human Services. 2015 Persistent HPSAs are those designated as HPSAs by HRSA in at least 6 of the 7 most recent HPSA designations (2008-2013, 2015).

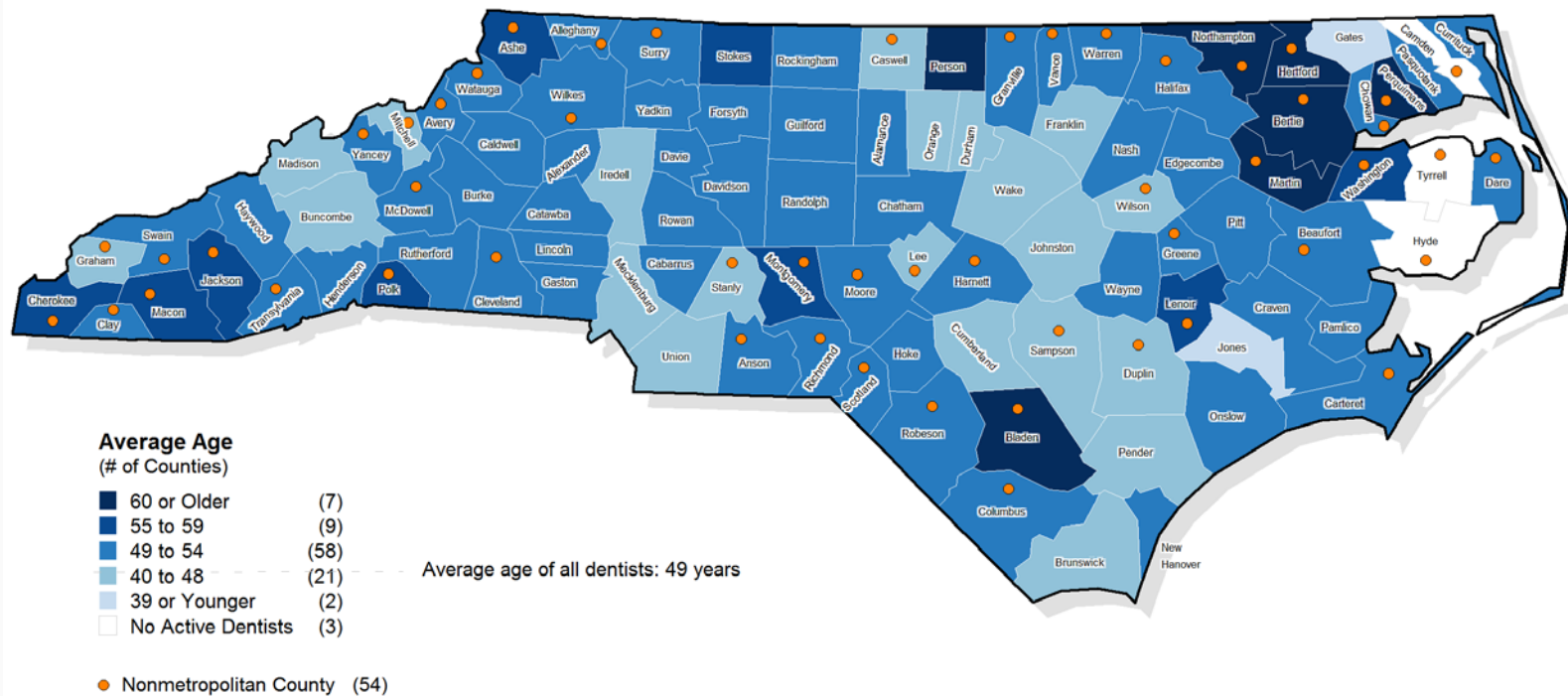
Sources: NC Health Professions Data System, 1979 to 2014 with data derived from the North Carolina State Board of Dental Examiners; HRSA, Bureau of Health Professions; US Bureau of the Census; Center for Disease Control; NC Office of State Planning. Figures include all licensed active dental hygienists practicing in NC as of Oct. 31 of each year.



Demographic Data

Rural, contiguous counties with older dentists are a concern

**Average Age of Dentists by County
North Carolina, 2014**



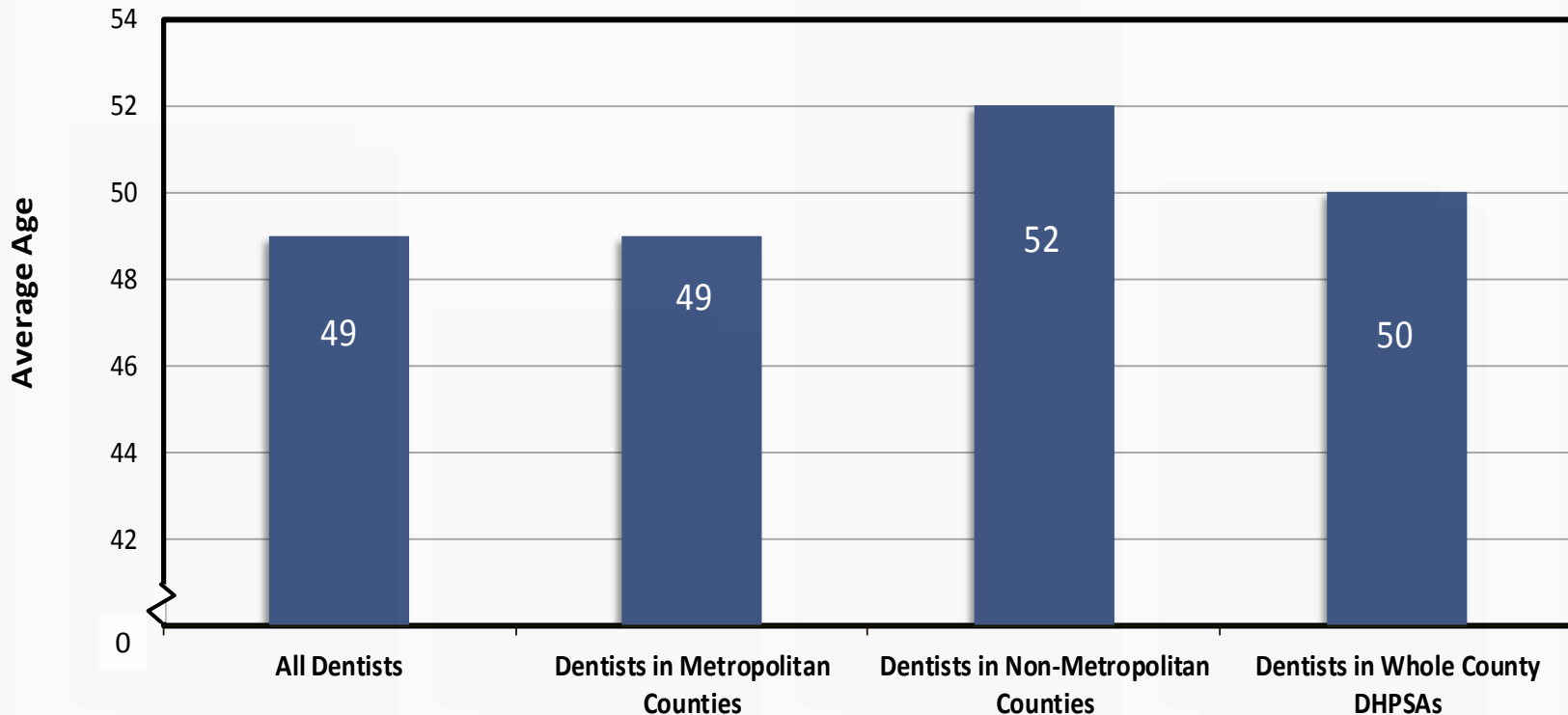
Source: North Carolina Health Professions Data System, with data derived from the North Carolina State Board of Dental Examiners, 2014.

Note: Data include dentists actively practicing in North Carolina as of October 31, 2014. "Core Based Statistical Area" (CBSA) is the US Census Bureau and Office of management and Budget collective term for Metropolitan and Micropolitan Statistical Areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs, effective March 2013.

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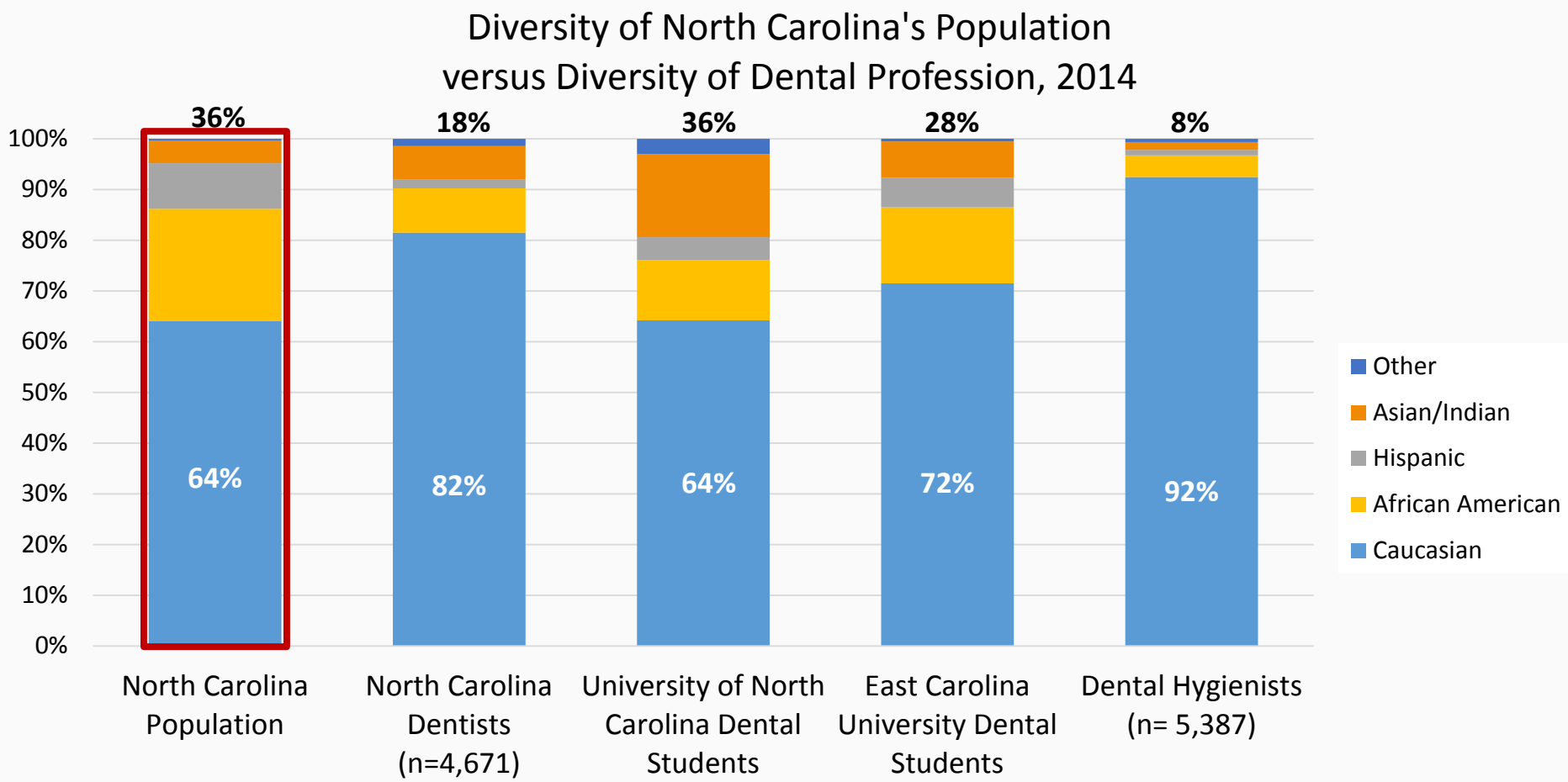
North Carolina's dental workforce is graying

Average Age of NC Dentists by Region, 2014



8 counties in NC have dentists whose average age is 60 years or older

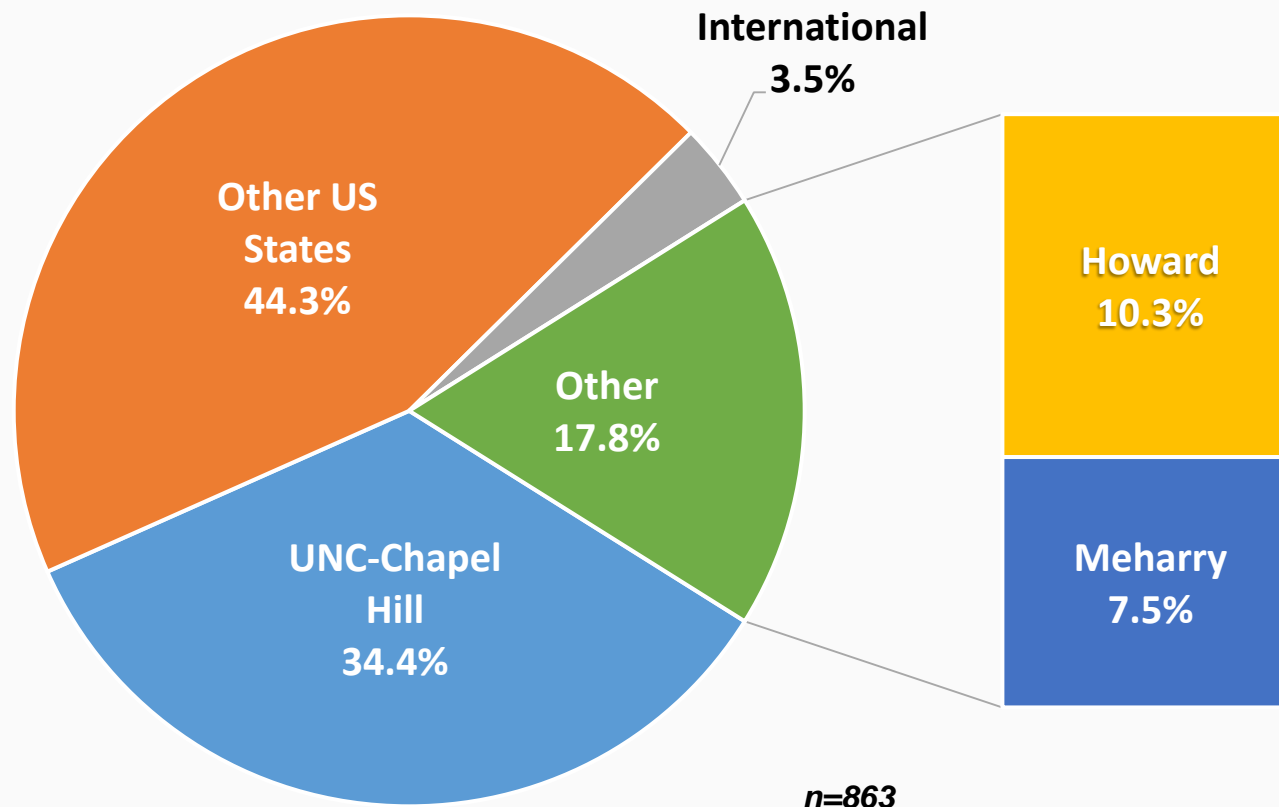
Race/Ethnicity of dentist and dental hygienist workforce falls short of matching population diversity



Source: North Carolina Health Professions Data System with data derived from the North Carolina State Board of Dental Examiners, 2014. Data include active, in-state dentists and dental hygienists as of October 31. 10 dentists and 411 dental hygienists missing race information were omitted from analyses. Population data from US Census. Student data from University of North Carolina at Chapel Hill and East Carolina University for the graduating classes of 2015-2019.

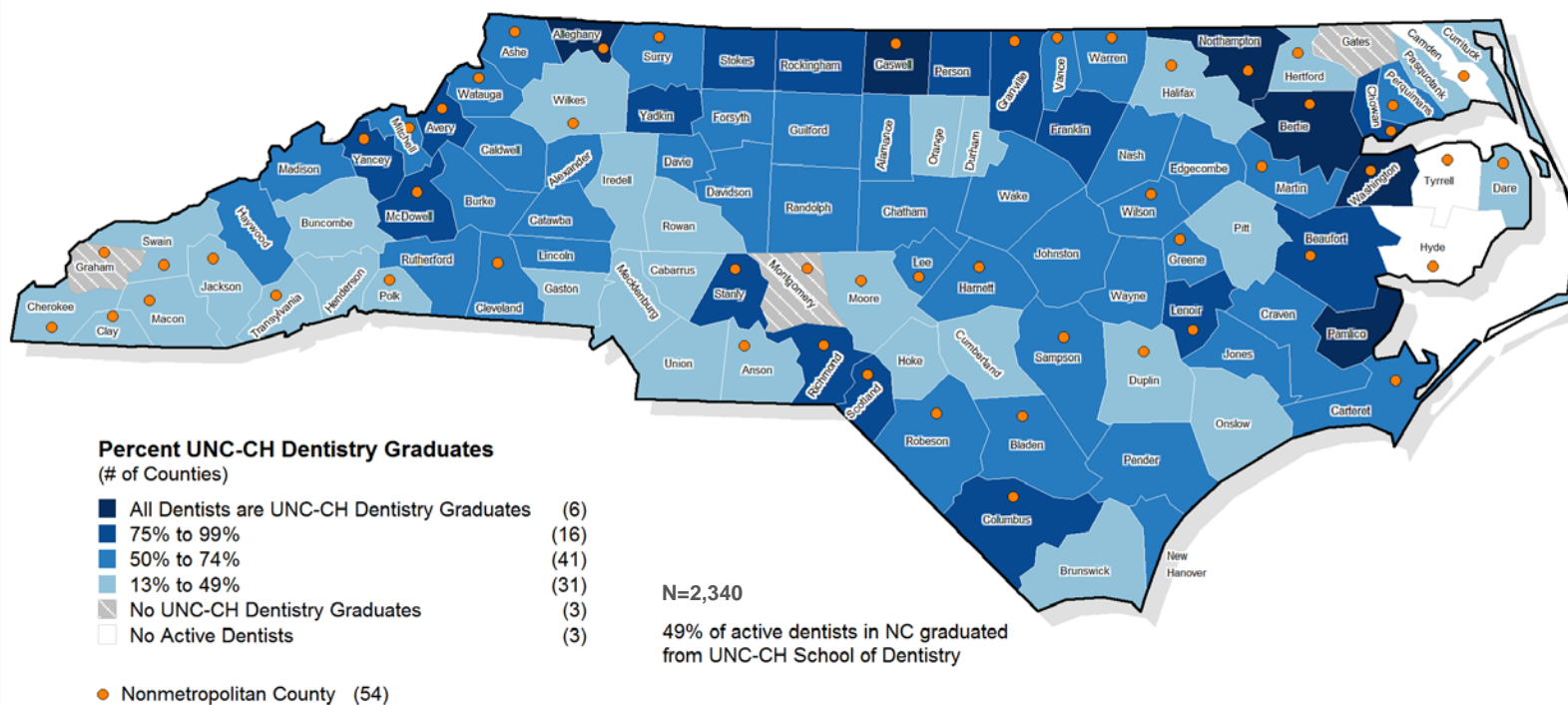
Most of NC's non-white dentists are educated out of state

**Non-White Dentists by School
North Carolina, 2014**



Half of NC's dentist workforce graduated from UNC

Percent of Dentists Who Graduated From UNC-Chapel Hill School of Dentistry North Carolina, 2014



Source: North Carolina Health Professions Data System, with data derived from the North Carolina State Board of Dental Examiners, 2014.

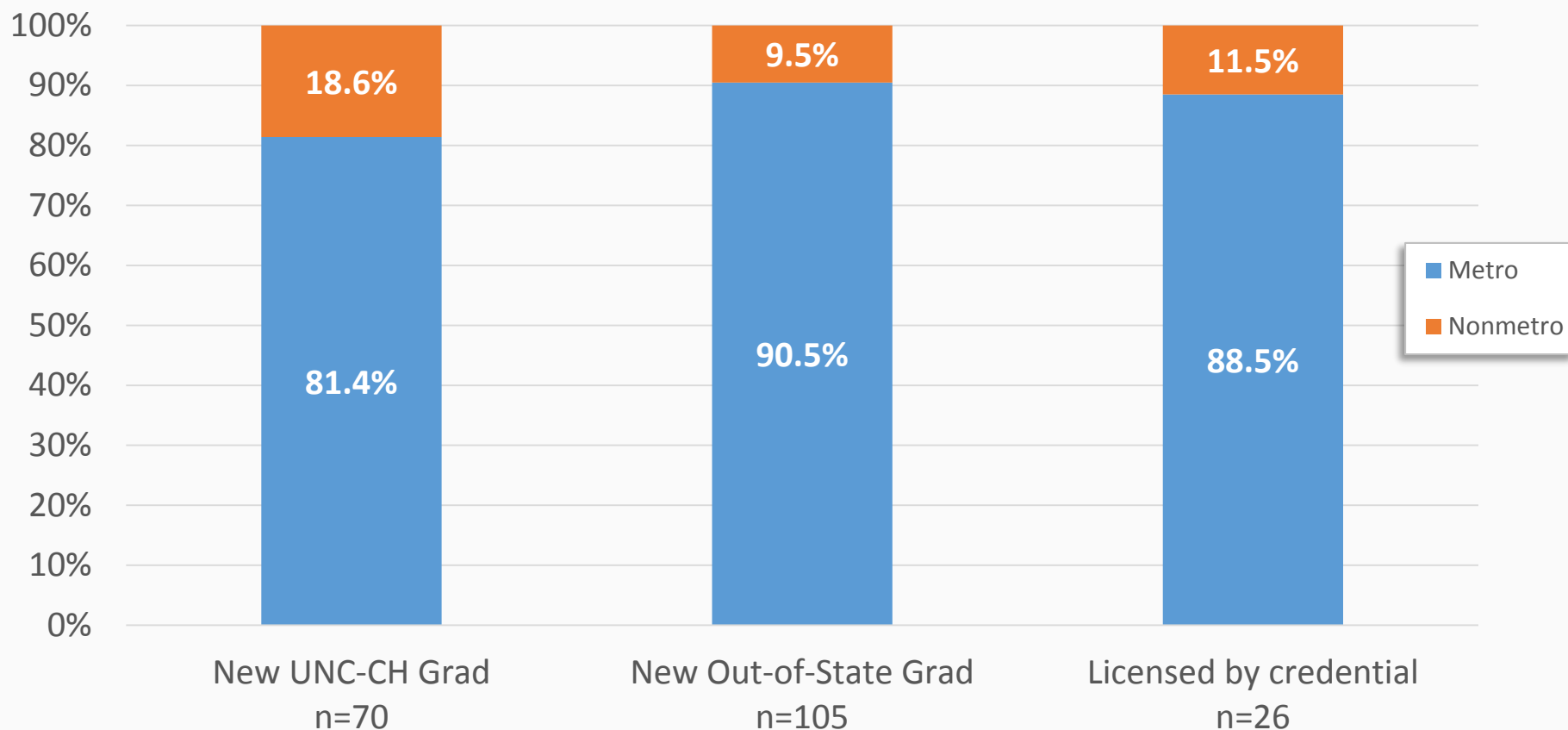
Note: Data include dentists actively practicing in North Carolina as of October 31, 2014. "Core Based Statistical Area" (CBSA) is the US Census Bureau and Office of management and Budget collective term for Metropolitan and Micropolitan Statistical Areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs, effective March 2013.

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New UNC-CH grads more likely to practice in rural areas

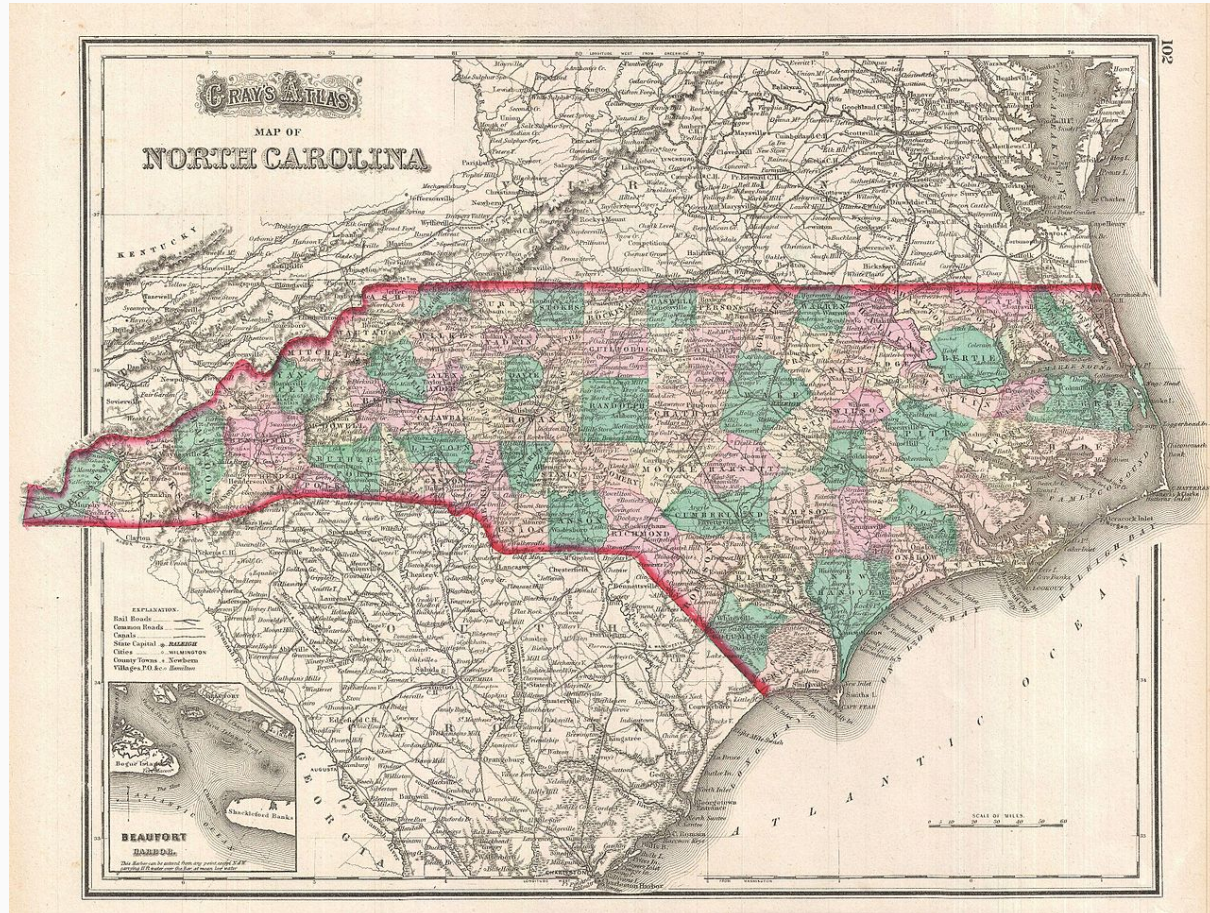
Practice Location of Newly Licensed Dentists, North Carolina, 2014



A Menu of Oral Health Workforce Policy Options



What workforce initiatives are underway in NC?



Education & Loan Repayment

- Education
 - Admissions (rural backgrounds, diversity)
 - Learning opportunities in rural/underserved communities
- Loan Repayment
 - State and Federal Programs



Medicaid Dental Benefits in NC

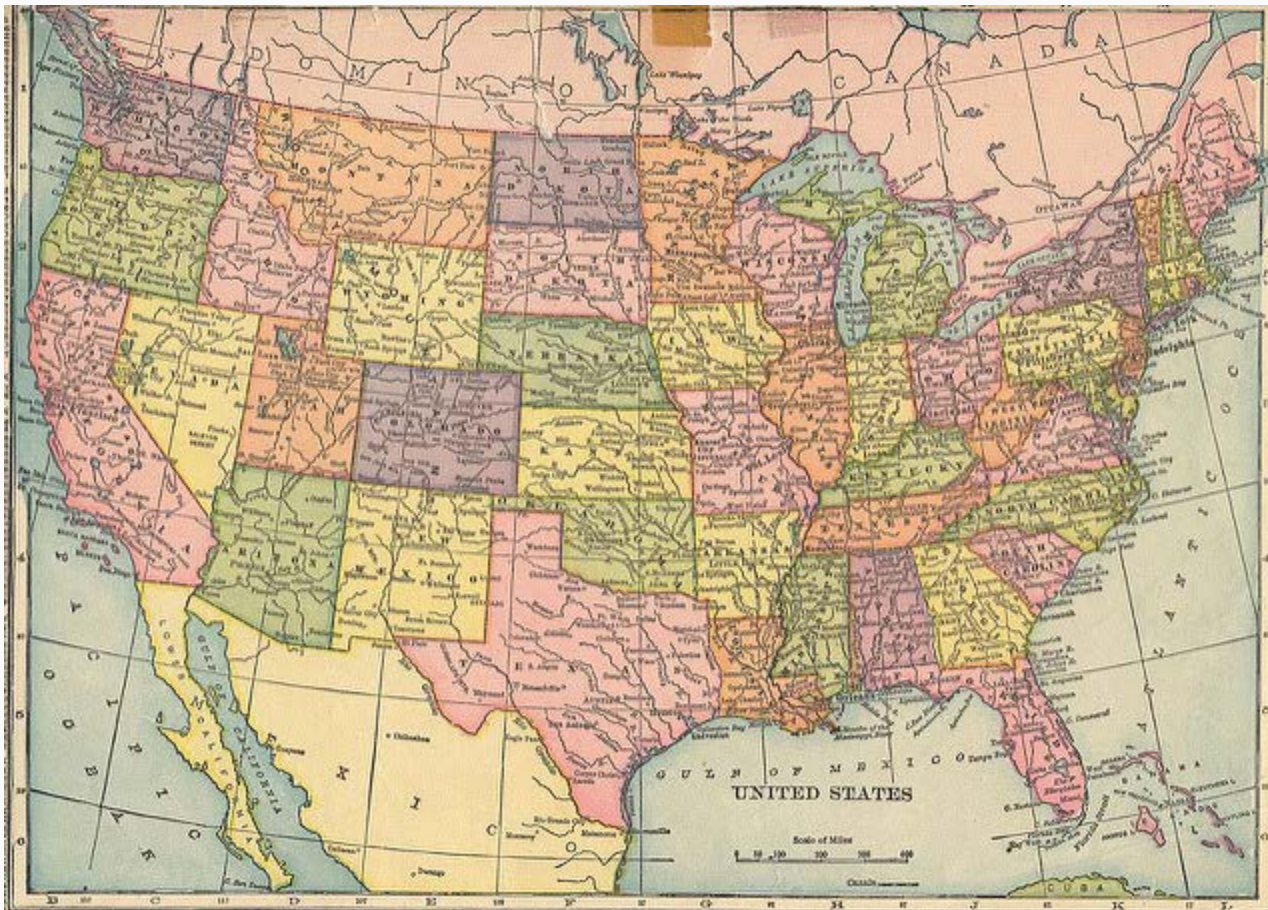
- NC is one of 15 states where Medicaid offers adults “extensive” dental benefits¹

But...

- In 2012, fewer than 50% of NC’s dentists accepted Medicaid patients²
- Just a quarter were ‘significant providers,’ billing \$10,000 or more²

1. Chazin S. Dental Coverage and Access for Adults in Medicaid: Opportunities for States. Center for Healthcare Strategies, Inc. Powerpoint presented February 17, 2015. Accessed 16 Sept 2016 from: http://www.chcs.org/media/Dental-Coverage-and-Access-for-Adults-in-Medicaid-Opportunities-for-States_Final_4-20-2015_revised.pdf
2. Casey MW. The State of Medicaid and SHIP Dental Services in North Carolina. Powerpoint presented on December 14, 2012 at the Taskforce on Children’s Preventive Oral Health Services, NCIOM. Accessed 16 September 2016 from: http://www.nciom.org/wp-content/uploads/2012/11/OH_Casey_12-14-12.pdf

What are other states doing to build their oral health workforce?

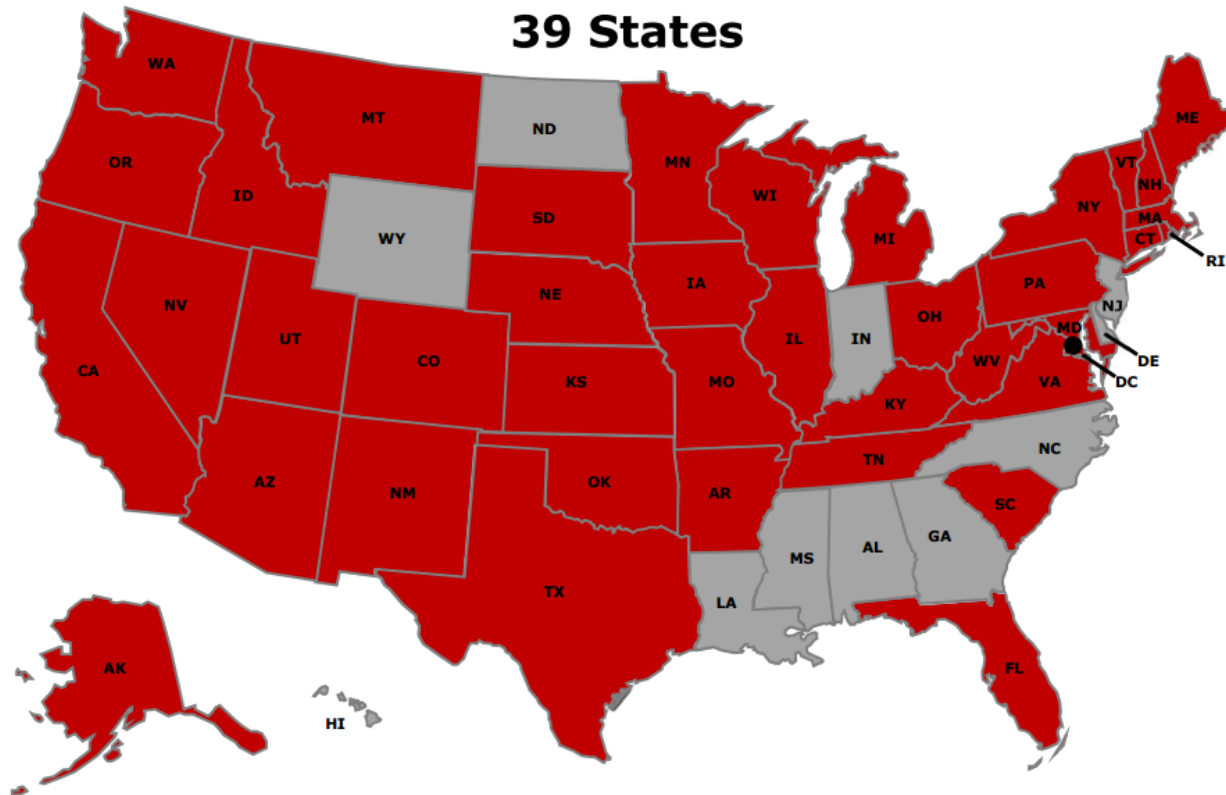


Dental Hygienists

- “Direct access” hygienists assess and treat patients without specific authorization/ presence of a dentist on-site
- State laws vary regarding where hygienists can practice independently and what services they can provide¹
 - E.g. screening, oral prophylaxis, fluoride, sealants
- States where hygienists practice independently in public health settings have more FQHCs that deliver dental services²

States with “Direct Access” Dental Hygienists

Direct Access 2016 39 States



The American Dental Hygienists' Association (ADHA) defines direct access as the ability of a dental hygienist to initiate treatment based on their assessment of a patient's needs without the specific authorization of a dentist, treat the patient without the presence of a dentist, and maintain a provider-patient relationship (ADHA Policy Manual, 13-15).



■ States that permit direct access to dental hygienists

Revised April 2016
www.adha.org

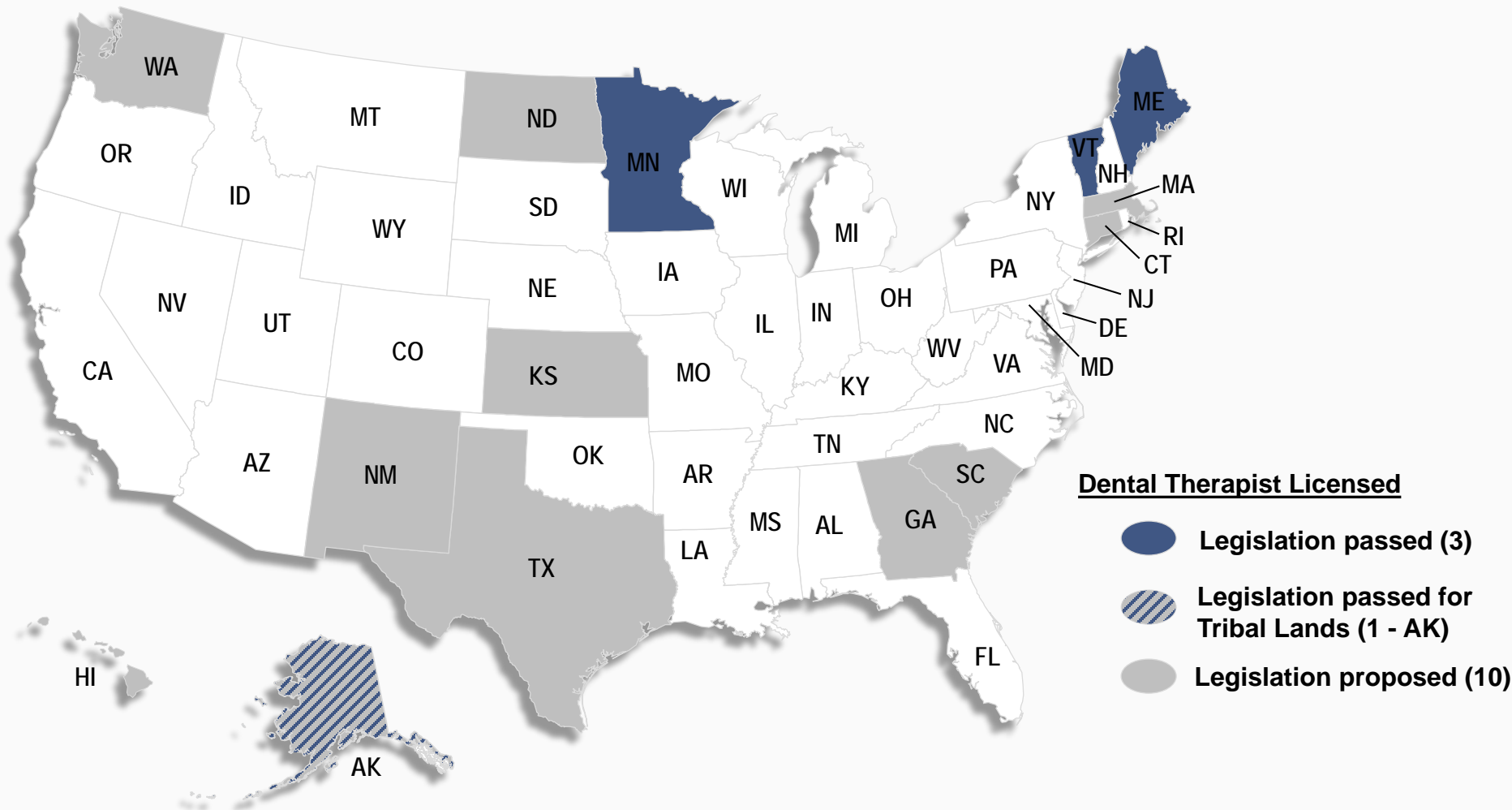


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Dental Therapists

- Provide preventive and restorative care
 - Oral exams, restorations, simple extractions, x-rays, place crowns, etc.
 - Refer more complicated services to dentist
- Long history in New Zealand, Australia, UK
- Licensed in MN, ME, VT and AK (for AK Native pop.)
- MN Dept. of Health Evaluation:
 - “Preliminary findings suggest that dental therapists may reduce emergency room (ER) use by expanding capacity at dental clinics serving vulnerable populations.”¹

States with dental therapist licensure & where licensure proposed



Integrating Oral Health Care into Primary Care

- Train primary care team & designate someone responsible for oral health
 - Physician, NP/PA, Nurse, LPN, Medical Assistant
- Screen for oral health risk & examine mouth
- Oral hygiene training and patient referral
- Apply fluoride varnish
- In NC, “Into the Mouths of Babes” & Carolina Dental Home Program, both for kids

Questions?

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