

Workforce Planning in the New World

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FOR HEALTH SERVICES RESEARCH

Presentation Overview

- Workforce planning (WFP) the “traditional way” vs. service- and population-based perspectives
- Patient Centered Medical Homes and Accountable Care Organizations
- The State of the State
- What next?

WFP the traditional way: the critique

- Starts from professional, not population or health service perspective
- Generally not interdisciplinary
- Limited attention paid to largest segment of health workforce—direct care workers
- Reactive
- Counts noses
- Heavy reliance on market
- Lack of coordination
- Limited evaluation

WFP the traditional way: we're good at it!

- Well-established AHEC
- Strong public community college and university system
- History of collaboration and trust
- Better data and analytical capacity than most states
- Commitment to evidence-based decisions
- Strong base from which to move forward

Context

- Current health care spending not sustainable
- Budget constraints
- Demographic shifts
- Expanded coverage
- Lack of interest in primary care careers
- You know this story...

Health Reform and the New World

All about the redesign of *how* health care is delivered—
less emphasis on *who* delivers care:

- Patient Centered Medical Home
- Accountable Care Organizations
- Technology

Shift will require integrated, outcomes-based and proactive
workforce planning from a population health perspective

Exhibit A: The Latest and Greatest from the Dartmouth Atlas Project

- **Old school:** relationship of numbers of primary care docs to patient outcomes
- **New school:** emphasis on new models of care: inter-professional and integrated systems of care

“Our findings suggest that the nation's primary care deficit won't be solved by simply increasing access to primary care, either by boosting the number of primary care physicians in an area or by ensuring that most patients have better insurance coverage. Policy should also focus on improving the actual services primary care clinicians provide and making sure their efforts are coordinated with those of other providers, including specialists, nurses and hospitals.”

(Interview with David Goodman, Medical News Today, September 10, 2010
<http://www.medicalnewstoday.com/articles/200599.php>)

The Patient-Centered Medical Home

Defining Principles

- Patient has personal physician
- Physician-led “team practice”
- Patient care is:
 - Coordinated across medical sub-specialties, home health agencies and nursing homes
 - Integrated with community-based services
- Increased use of Health Information Technology (HIT)
- Data used for patient tracking, clinical monitoring, specialist follow up and population-based decision making
- Financial incentives

(Cassidy et al, *Health Affairs*, September 14, 2010)

Accountable Care Organizations

Defining principles

- Provider-led organizations with strong primary care base that are collectively accountable for quality and cost of care across the continuum for population of patients
- Emphasis on population-level performance improvement
- Wide range of provider organizations qualify as an ACO, including coordinated care arrangements between hospitals, physicians, and long-term care providers

Accountable Care Organizations & Patient Centered Medical Homes

Key characteristics

- Defined patient population
- Emphasis on primary care
- Care is integrated across systems, providers
- Payment incentives promote accountability for patient outcomes
- Designed to lower cost, increase quality

Workforce Planning in the New World

Who is on the PCMH Team?

Full implementation of PCMH model will require:

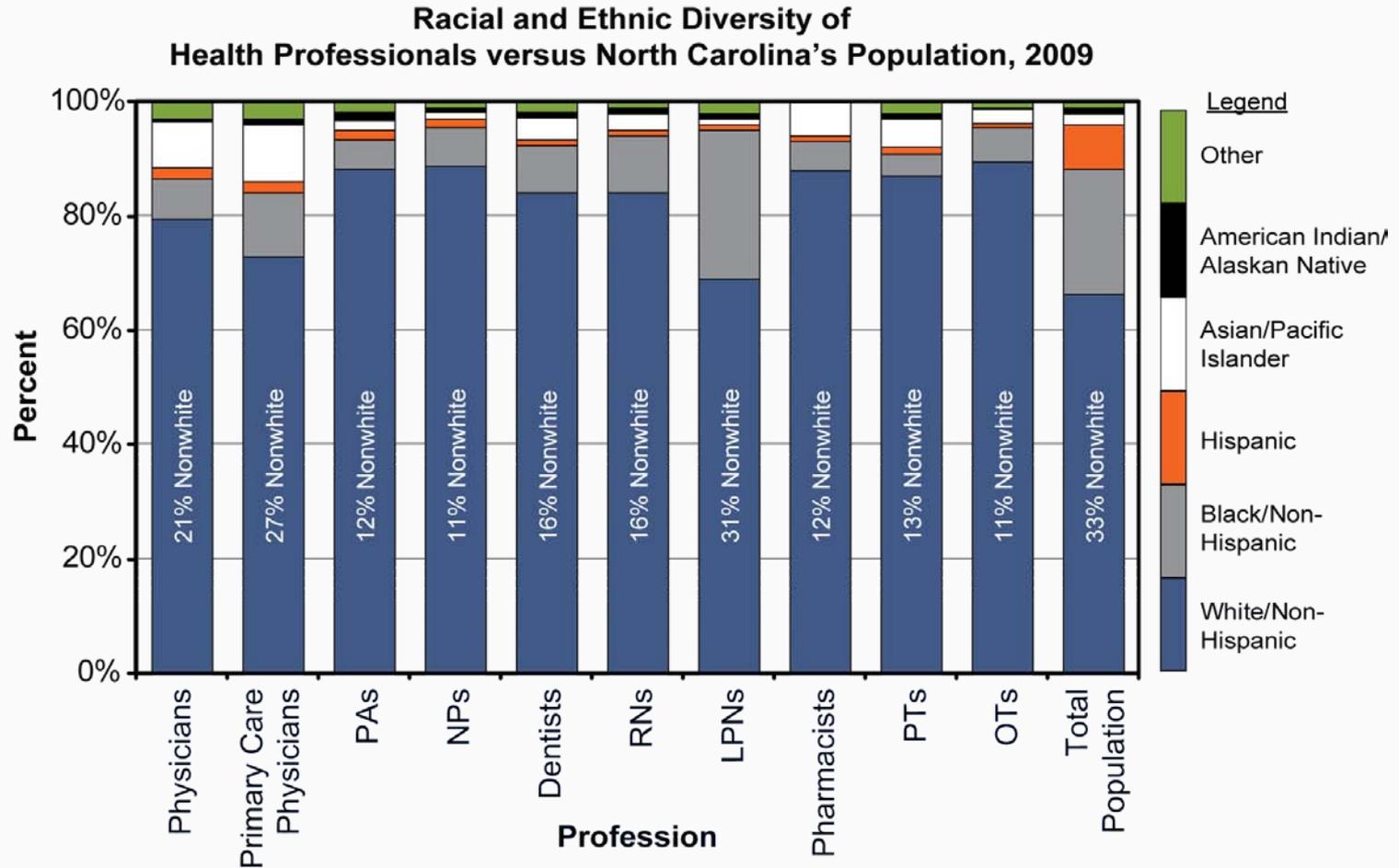
- A broader definition of the “primary care workforce”
- Interdisciplinary workforce planning for a range of licensed and unlicensed workers in health and community settings:
 - Skills and competencies required to function in PCMH
 - Types and numbers of providers needed
 - Where providers are needed
 - Different skill mix configurations in which they could be deployed

What Training is Required to Staff the Full Scope of PCMH Services?

Full implementation of PCMH model will require:

- Not only increasing supply of new workers but retooling/retraining existing workforce
- Identifying new health professional roles, certifications and training
- Developing new career pathways
- Increasing the racial/ethnic and linguistic diversity of the health professional workforce

The Uncomfortable Truth: Lack of Diversity in Most Health Professions in NC, 2009



Sources: NC Health Professions Data System with data derived from the following boards: NC State Board of Dental Examiners, NC Medical Board, NC Board of Pharmacy, NC Board of Physical Therapy Examiners, NC Board of Nursing and the NC Board of Occupational Therapy. Population data derived from Population Estimates, U.S. Census Bureau: State and County QuickFacts. Missing race data were excluded from this analysis.

Workforce Planning Challenges Presented by PCMHs and ACOs

Full implementation of PCMH model will require:

- Shifting workforce planning away from specific health professional groups or employment sectors toward planning:
 - For health service needs of defined populations
 - By service area and/or patient pathway
- Evaluating cost and quality outcomes of different:
 - Models of care
 - Skill mix configurations

The State of the State: Health Services Provided in the Real (and Virtual) Patient Centered Medical Home

Primary care

Pharmacy

Nursing

Allied Health and the Direct Care

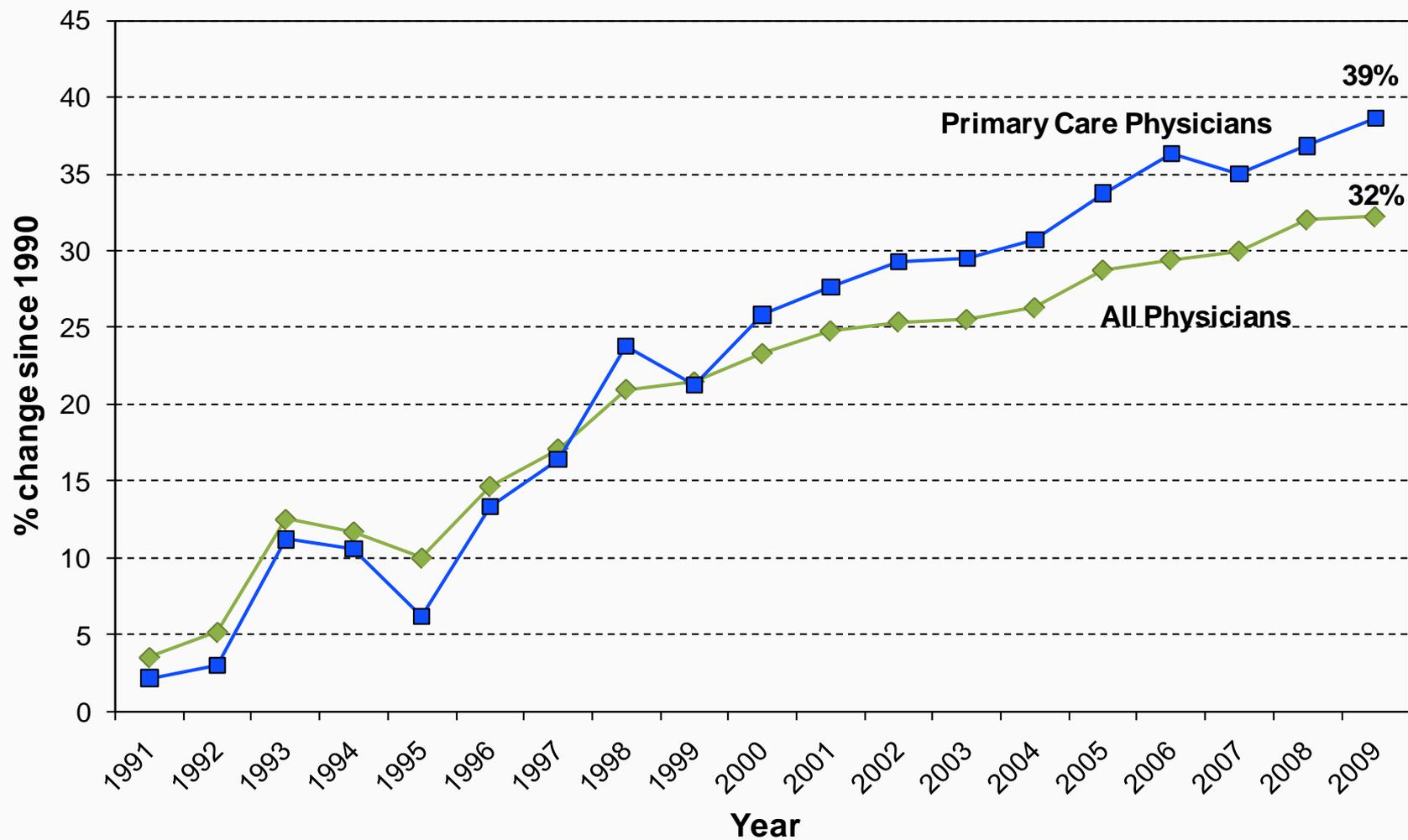
Mental health

Oral Health

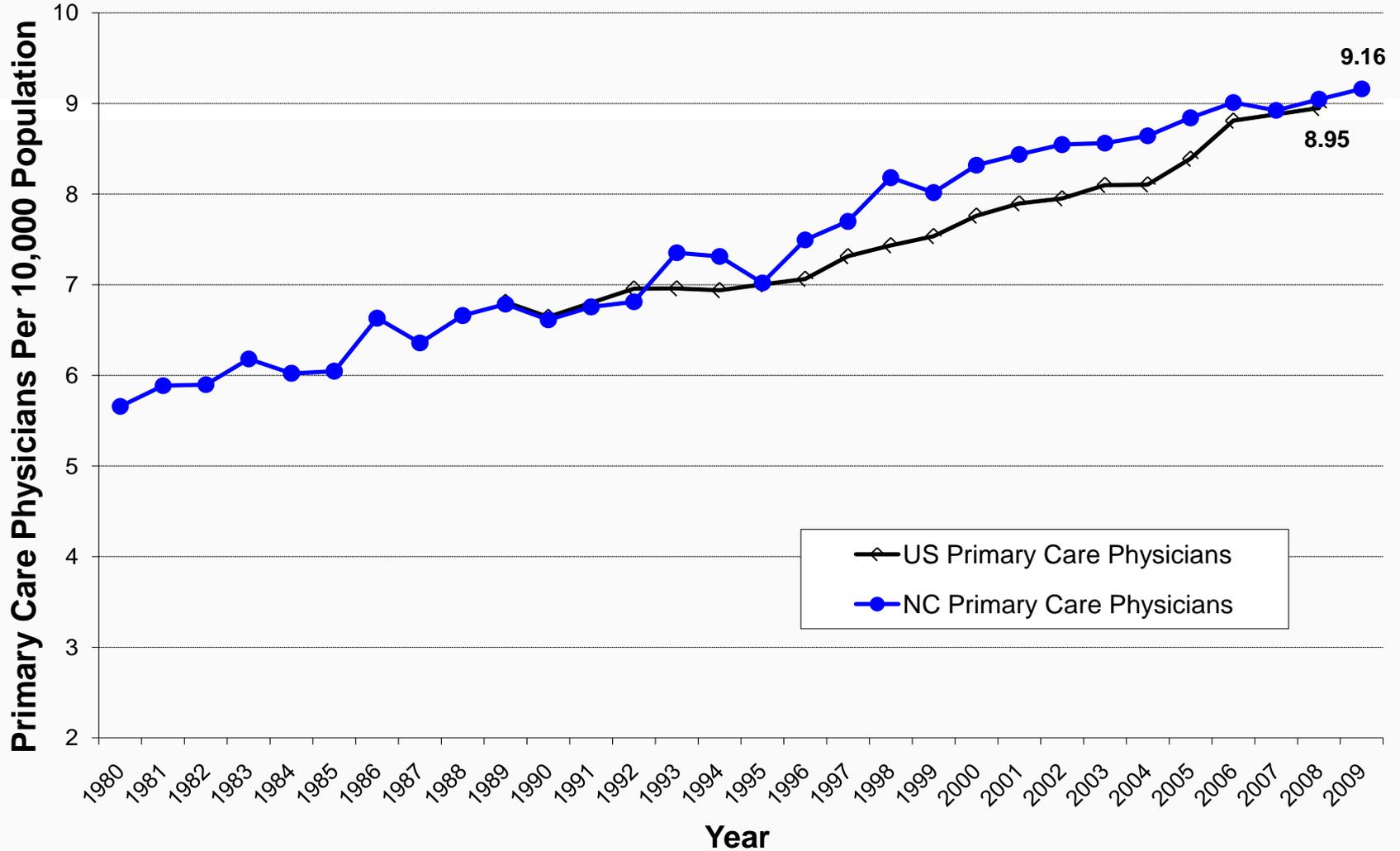
Surgical Services



Percentage Growth Since 1990 of Physicians and Primary Care Physicians per 10,000 Population, North Carolina, 1991-2009

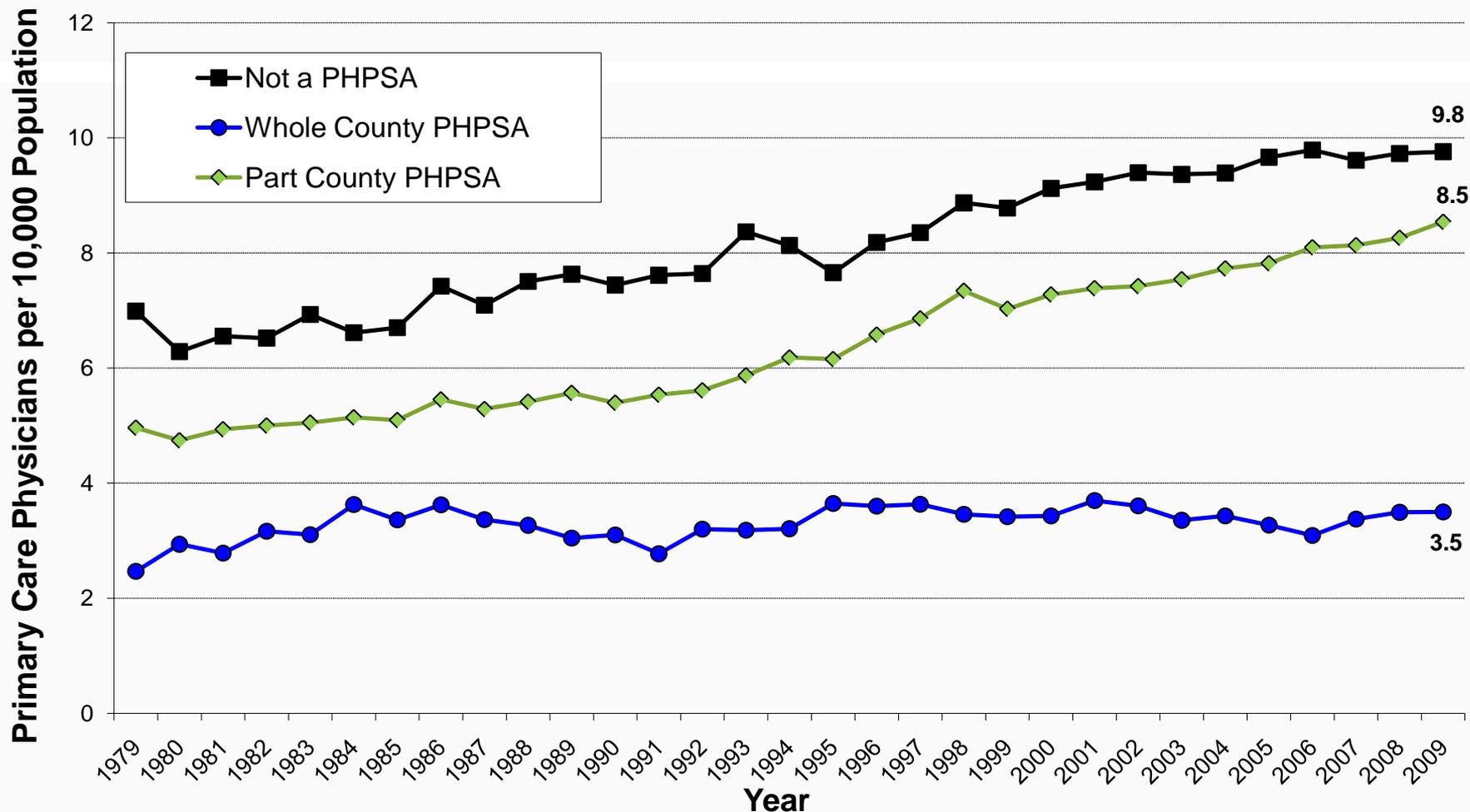


Primary Care Physicians per 10,000 Population, US and NC, 1980 to 2009



Sources: North Carolina Health Professions Data System, 1979 to 2009; US profession data is from HRSA, Bureau of Health Professions and the AMA Masterfile; US Census Bureau; North Carolina Office of State Planning. Figures include all licensed, active, in-state, non-federal, non-resident-in-training primary care physicians. Population data are smoothed figures based on 1980, 1990 and 2000 Censuses.

Primary Care Physicians per 10,000 Population by Persistent Health Professional Shortage Area (PHPSA) Status, North Carolina, 1979 to 2009



Notes: Figures include all active, in-state, nonfederal, non-resident-in-training physicians licensed as of October 31st of the respective year.

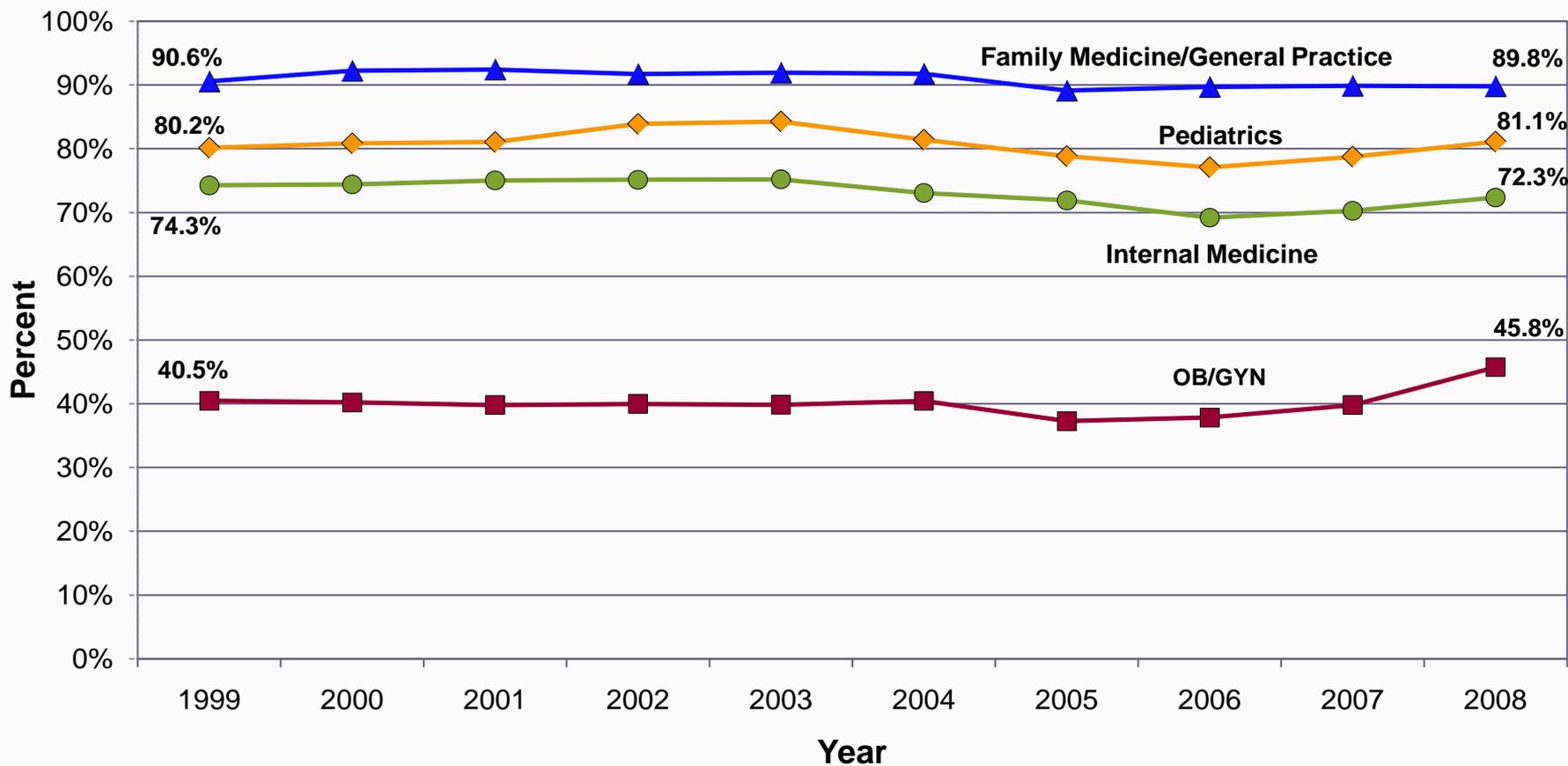
Primary care physicians include those indicating a primary specialty of family practice, general practice, internal medicine, Ob/Gyn or pediatrics.

Persistent HPSAs are those designated as HPSAs by HRSA from 1999 through 2005, or in 6 of the last 7 releases of HPSA definitions.

Sources: North Carolina Health Professions Data System, 1979 to 2009; North Carolina Office of State Planning; North Carolina State Data Center, Office of State Budget and Management; Area Resource File, HRSA, Department of Health and Human Services, 2006.

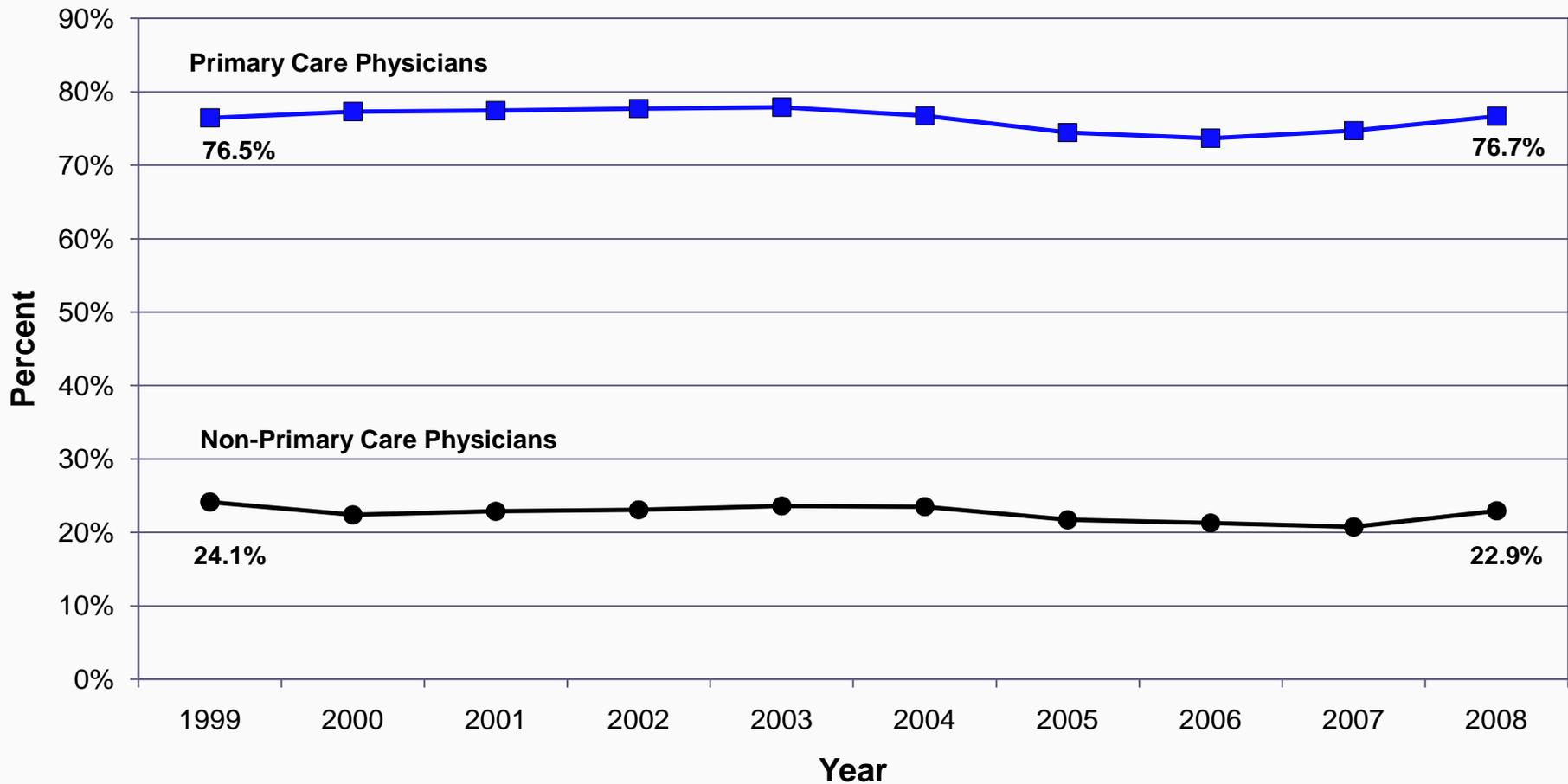
Who's in PC and how much primary care do they report providing?

Percentage of Total Clinical Care Hours Spent in Primary Care 1999-2008

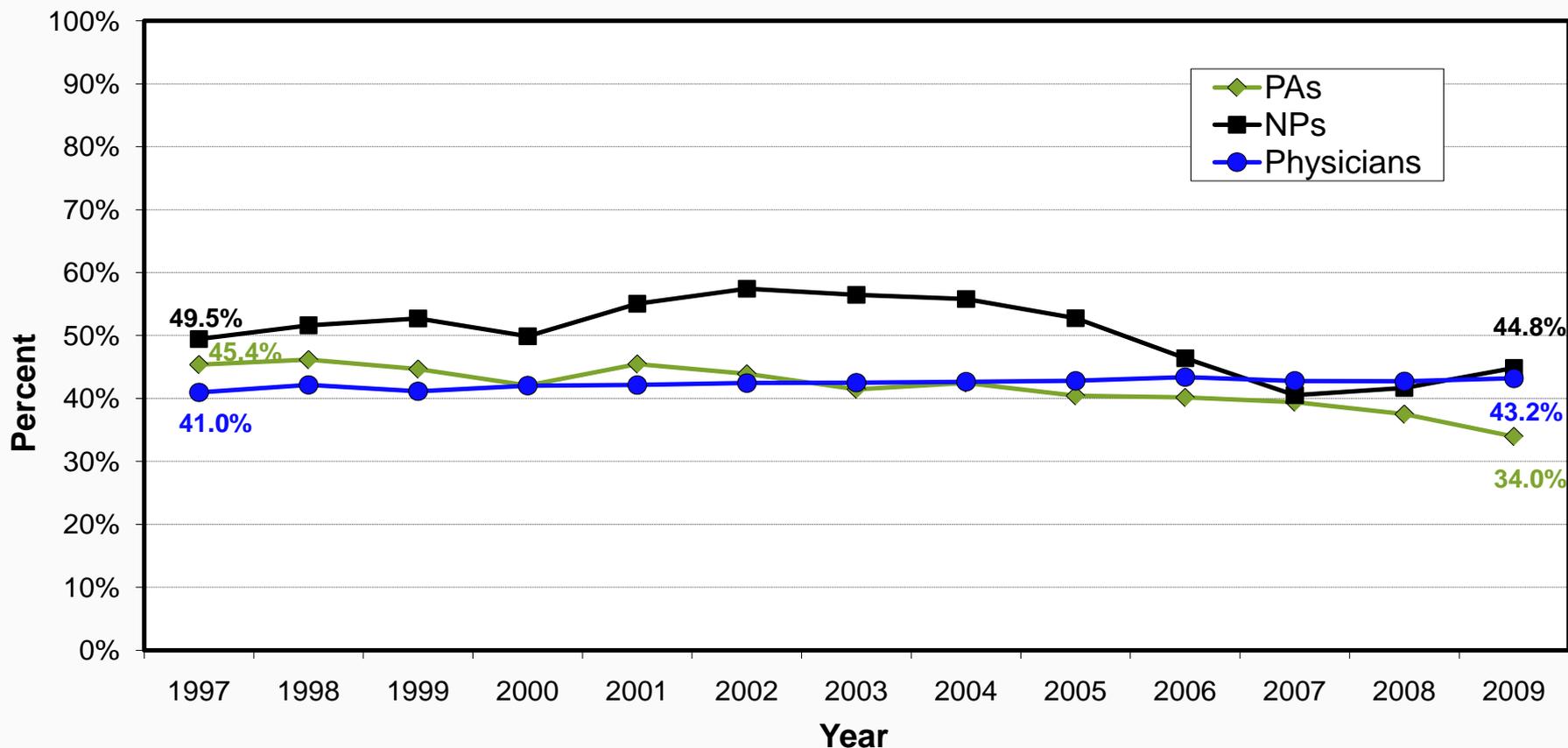


But, specialists also provide primary care

Percentage of Total Clinical Care Hours Spent in Primary Care
1999-2008



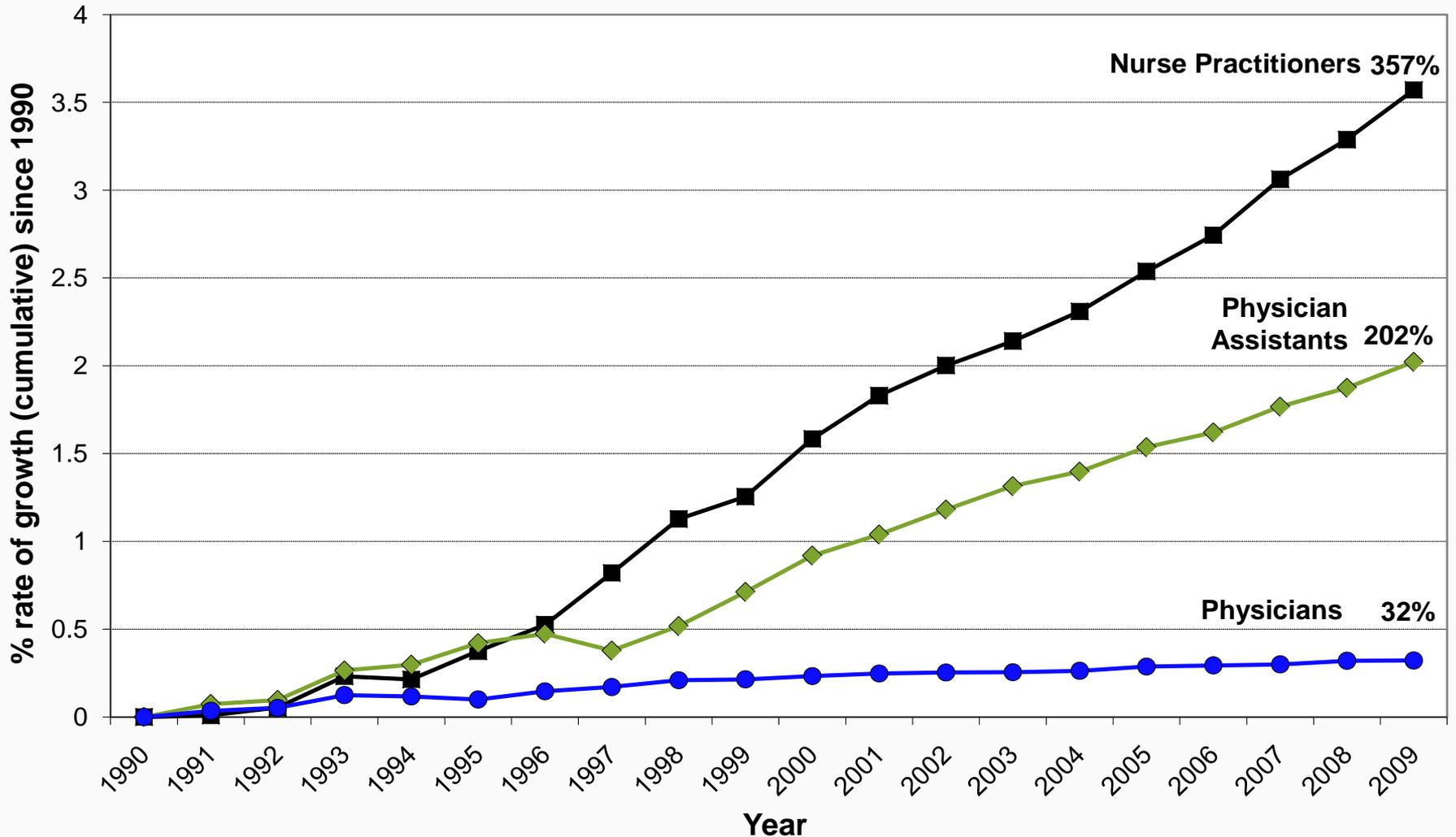
Percent of Physicians, PAs and NPs Indicating a Primary Care Specialty, North Carolina, 1997-2009



Notes: Data include active, in-state NPs (through 2007) and PAs, and active, in-state, non-federal, non-resident-in-training physicians indicating a primary specialty of family practice, general practice, internal medicine, Ob/Gyn, or pediatrics, who were licensed in NC as of October 31 of the respective year. Data from 2008 included active, instate NPs where the primary supervisor specialty includes family practice, general practice, internal medicine, ob/gyn, or pediatrics, and include active, instate PAs where primary area of interest includes family practice, general practice, internal medicine, ob/gyn, or pediatrics.

Source: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the NC Medical Board. Chart prepared on 07/07/2010.

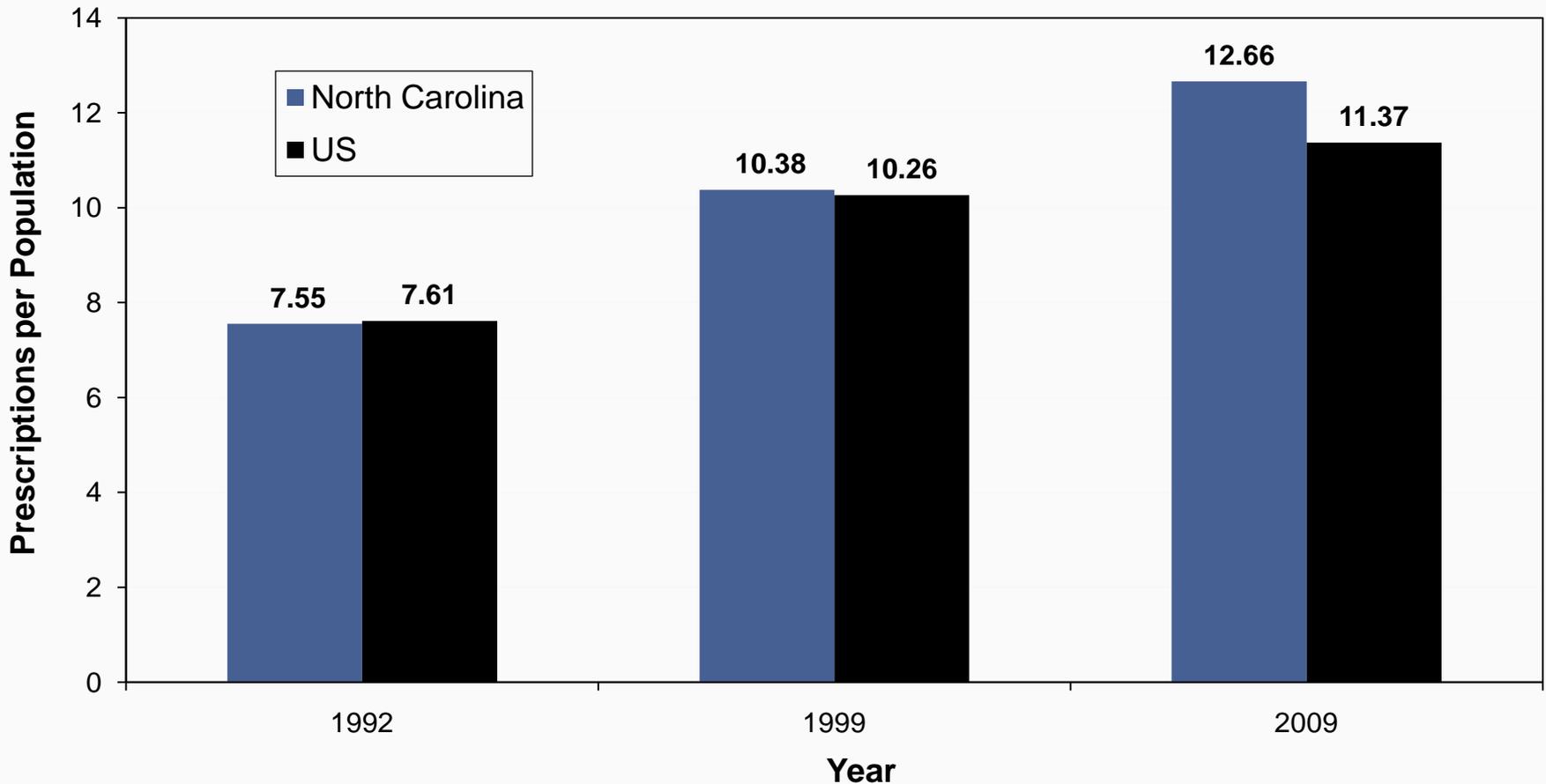
Growth of Practitioners per 10,000 Population Relative to 1990



Pharmacists in the Patient Centered Medical Home

- Most office visits involve medications for chronic conditions
- Requires assessment of medication effectiveness, cost of therapy and patient adherence to medication regimes
- Evolving role for pharmacists in medication management in the PCMH
- **Bad news:** Payment for clinical role is lacking
- **Good news:** Pharmacist workforce in balance at present

Annual Retail Prescriptions Dispensed per Population, US and NC 1991-2009



Source: 2008-2009 data - Xponent™, January 2008- December 2009, IMS Health Incorporated. All Rights Reserved. Data from 1992-2000 NC prescription data are from IMS Health (*Retail Method of Payment*) and include retail dispensed prescriptions only. Data do not include prescriptions dispensed at hospitals, clinics, long term care facilities or mail order operations. Data include new prescriptions and refills dispensed. US data from IMS Health as reported in HRSA, 2000.

Nurses Play Key Role in PCMH

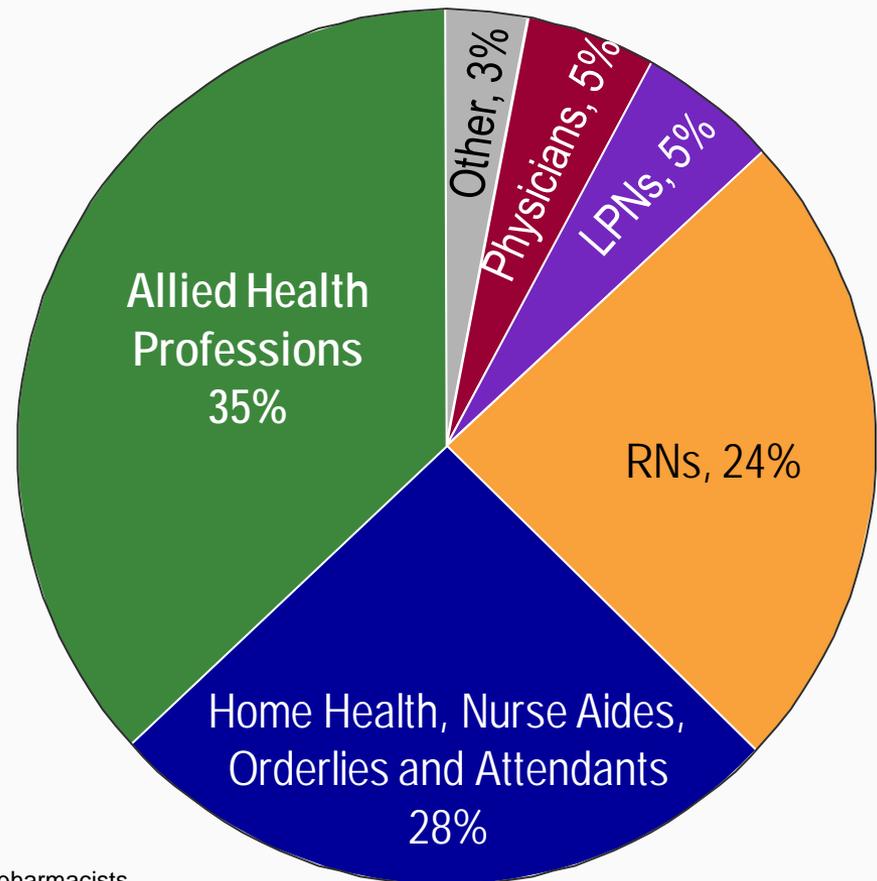
- Workforce in balance at present, but likely to change
- Many, many new models of care in education and practice
- Areas of concern in nursing
 - Transition to practice
 - Education: faculty shortages, pay discrepancies, retooling faculty
 - Refreshing nurses re-entering workforce
 - Lack of diversity in the workforce

Source: Foundation for Nursing Excellence

Allied Health in the PCMH

- More workforce planning for physicians, nurses, physician assistants and pharmacists
- 1 in 3 health professionals is in allied health
- Between 1999 and 2009 total employment increased 2.5% while allied health jobs grew by 67.3%.

Percentage of Healthcare Jobs, 2009



Note: "Other healthcare occupations" includes: chiropractors, dentists, optometrists, and pharmacists.

Source: North Carolina Health Professions Data System with data derived from the U.S. Bureau of Labor Statistics, Occupational Employment Statistics (2009). URL: <http://www.bls.gov/oes/>, accessed 6/1/10.

Allied Health Professions Growing Fast, Even During the Recession

Professions in therapeutic, diagnostic and pharmacy services are increasing:

Profession	Percent Increase, 2001-2009
Occupational Therapy Aides	157%
Pharmacy Technicians	105%
Physical Therapist Assistants	94%
Medical Sonographers	88%
Occupational Therapists	82%
Radiologic Techs	67%
Physical Therapists	50%

North Carolina's Fastest Growing Health Occupations: Percent Change in Employment, 2006-2016

Overall Rank	Rank w/in Health Prof.	Occupation	Projected Openings	% change
2	1	Social and Human Service Assistants	8,340	66.4
3	2	Mental Health Counselors	1,080	53.1
4	3	Mental Health & Substance Abuse Social Workers	1,830	53.0
6	4	Medical Assistants	4,630	49.2
7	5	Substance Abuse & Behavioral Disorder Counselors	560	47.9
8	6	Physical Therapist Assistants	970	47.7
14	7	Pharmacy Technicians	4,070	42.0
16	9	Physician Assistants	1,230	41.1
18	9	Psychiatric Aides	190	39.3
21	10	Home Health Aides	27,860	38.6
22	11	Physical Therapists	1,580	38.2
25	12	Dental Hygienists	1,780	37.1

What went
through the mind
of the person
who slipped on
the platform?

The floor.

Last year 77 people fell on our platforms.
Don't let this trip be your last.



SOUTH WEST TRAINS



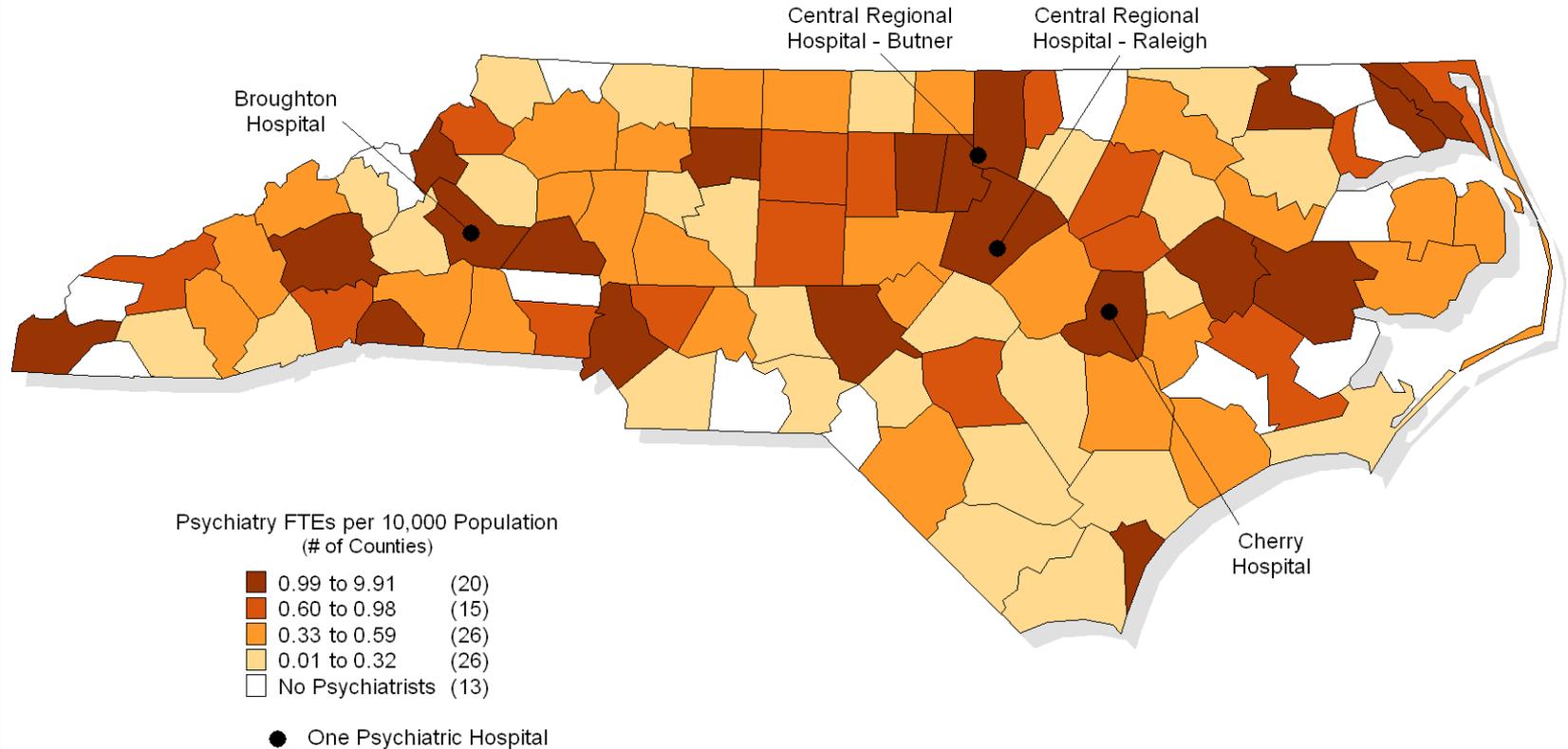
“Reattaching the Head to the Body”

Role of mental health providers in the PCMH?

- 70% of all primary care visits have psychosocial drivers
- 50% of all mental health care is done by PCPs
- 67% of all psychoactive drugs prescribed by PCPs
- Depressed patients use 3 times more healthcare services
- Depressed patients have 7 times more emergency visits
- Depression is associated with longer hospital stays

Regina Dickens. “From Fragmentation to Integration: Promoting Primary Care and Mental Health Collaboration through ICARE. July 2010. <http://www.icarenc.org/images/pdf/Integrated%20Care.pdf>

Psychiatrist Full-Time Equivalents per 10,000 Population North Carolina, 2008

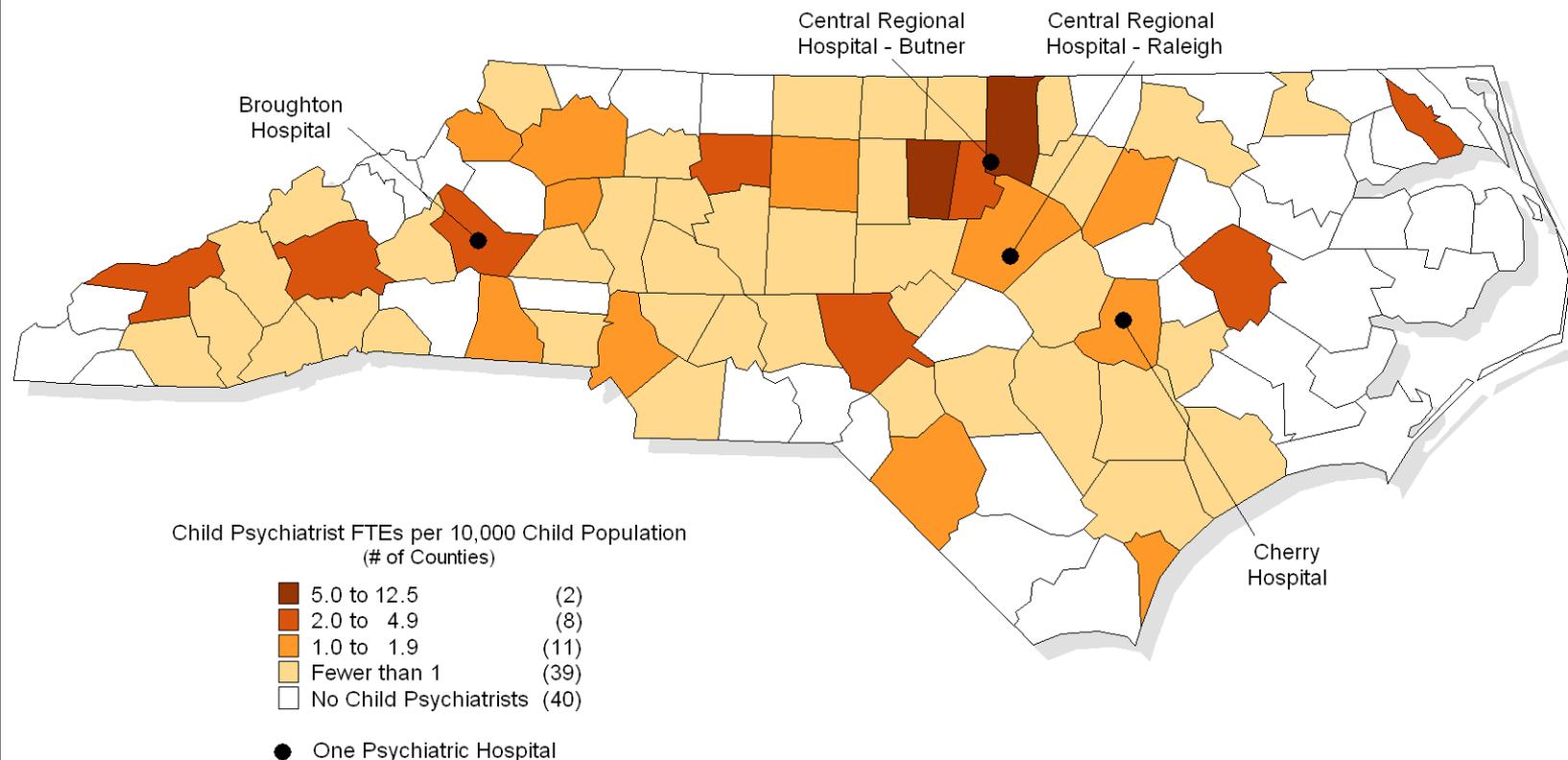


Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Source: North Carolina Health Professions Data System, with data derived from the North Carolina Medical Board, 2008; LINC, 2010; NC DHHS, MHDDSAS, 2010.

*Psychiatrists include active, in-state, nonfederal, non-resident-in-training physicians who indicate a primary specialty of psychiatry, child psychiatry, psychoanalysis, psychosomatic medicine, addiction/chemical dependency, forensic psychiatry, or geriatric psychiatry, and secondary specialties in psychiatry, child psychiatry and forensic psychiatry.

Child Psychiatrist Full-Time Equivalents per 10,000 Child Population North Carolina, 2008



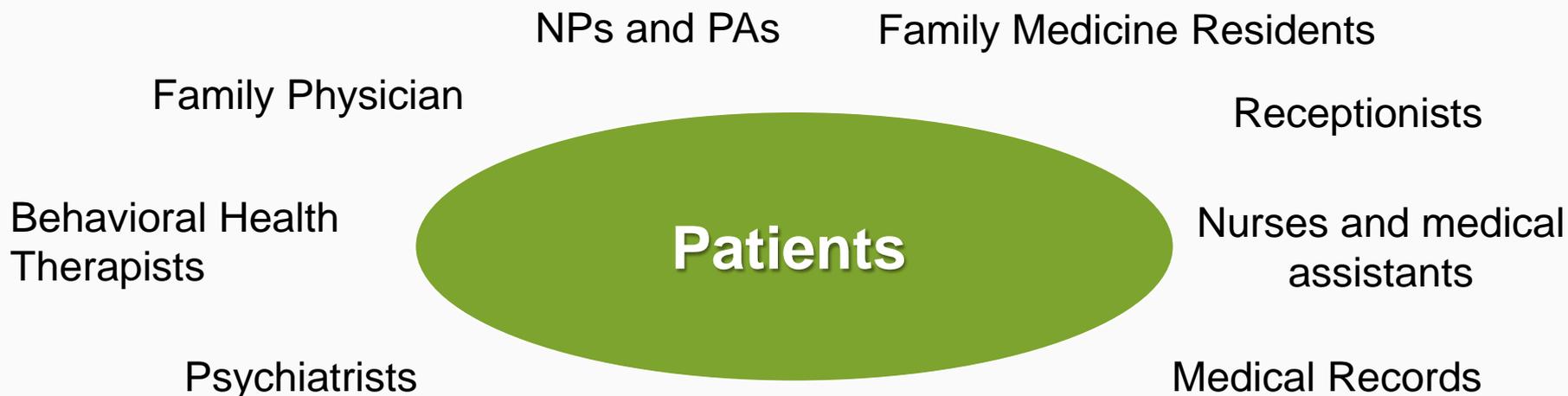
*Child Psychiatrists include active, in-state, nonfederal, non-resident-in-training physicians who indicate a primary or secondary specialty of child psychiatry. Child population includes children 18 and under.

Produced by: North Carolina Health Professions Data System, Cecil G. 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 North Carolina Medical Board, 2004-2008; LINC, 2010; NC DHHS, MHDDSAS, 2010.

New Models of Care: ICARE

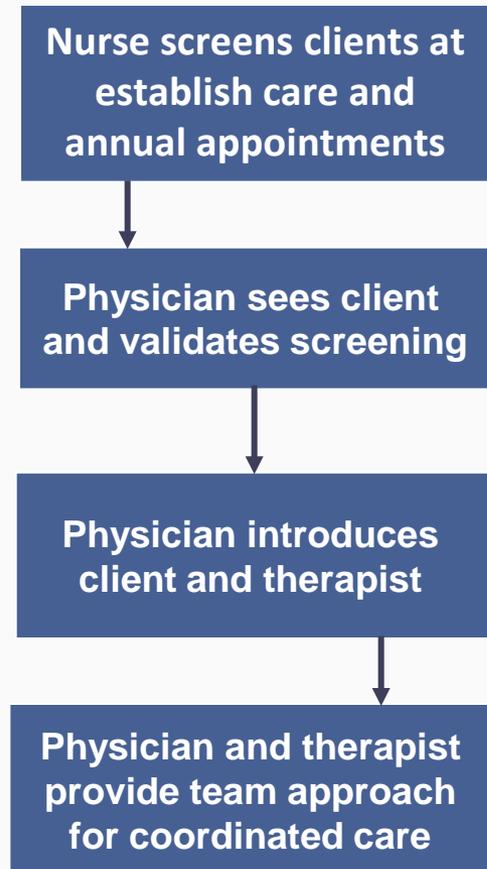
ON-SITE Integrated Care Team



All supported by common chart, documentation standards, billing procedures, and clinic management system

Regina Dickens. "From Fragmentation to Integration: Promoting Primary Care and Mental Health Collaboration through ICARE." July 2010. <http://www.icarenc.org/images/pdf/Integrated%20Care.pdf>

ICARE: Patient Pathway toward Integrated Care

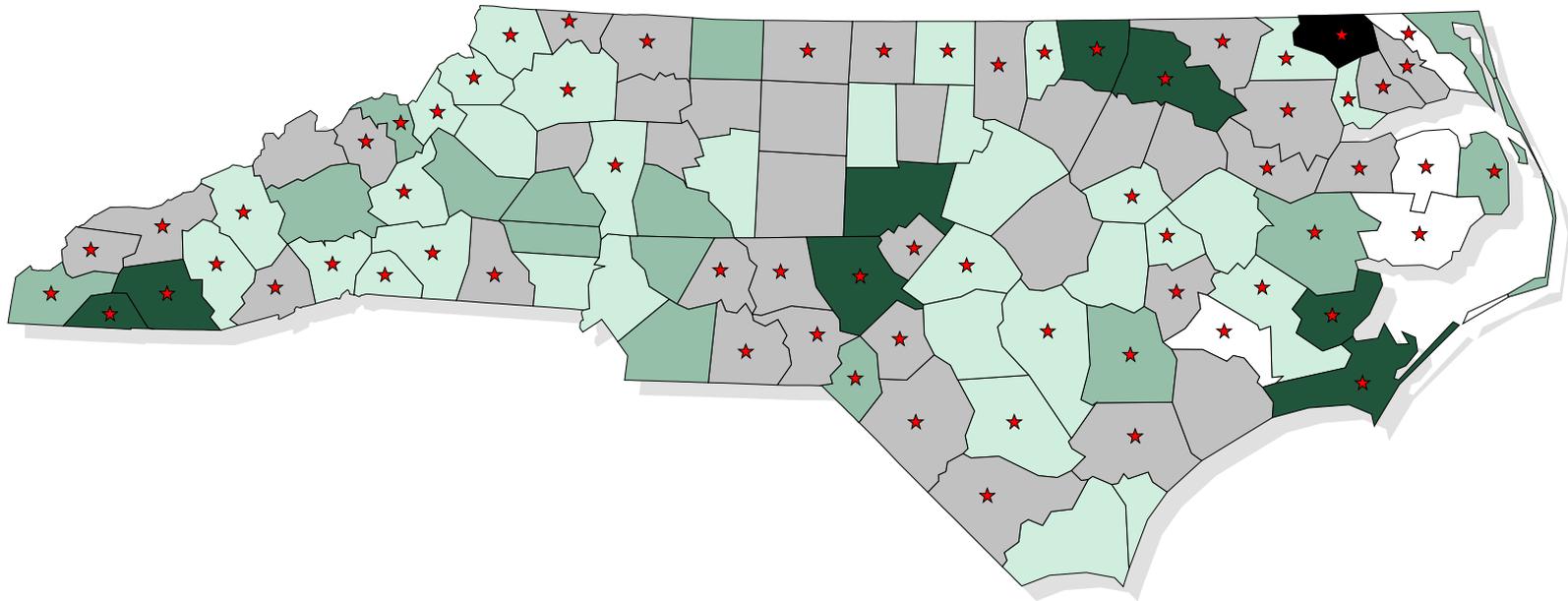


Behavioral Health Services integrated with Primary Health Care:

- Screening
- Assessment
- Brief supportive counseling
- Therapy
- Case management
- Medication monitoring
- Coordinated team care

Is Oral Health Part of the PCMH?

Change in Dentists per 10,000 Population North Carolina, 1997-2007



★ Nonmetropolitan County

Source: North Carolina Health Professions Data System, with data derived from the NC State Board of Dental Examiners, 2007.

Produced by: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

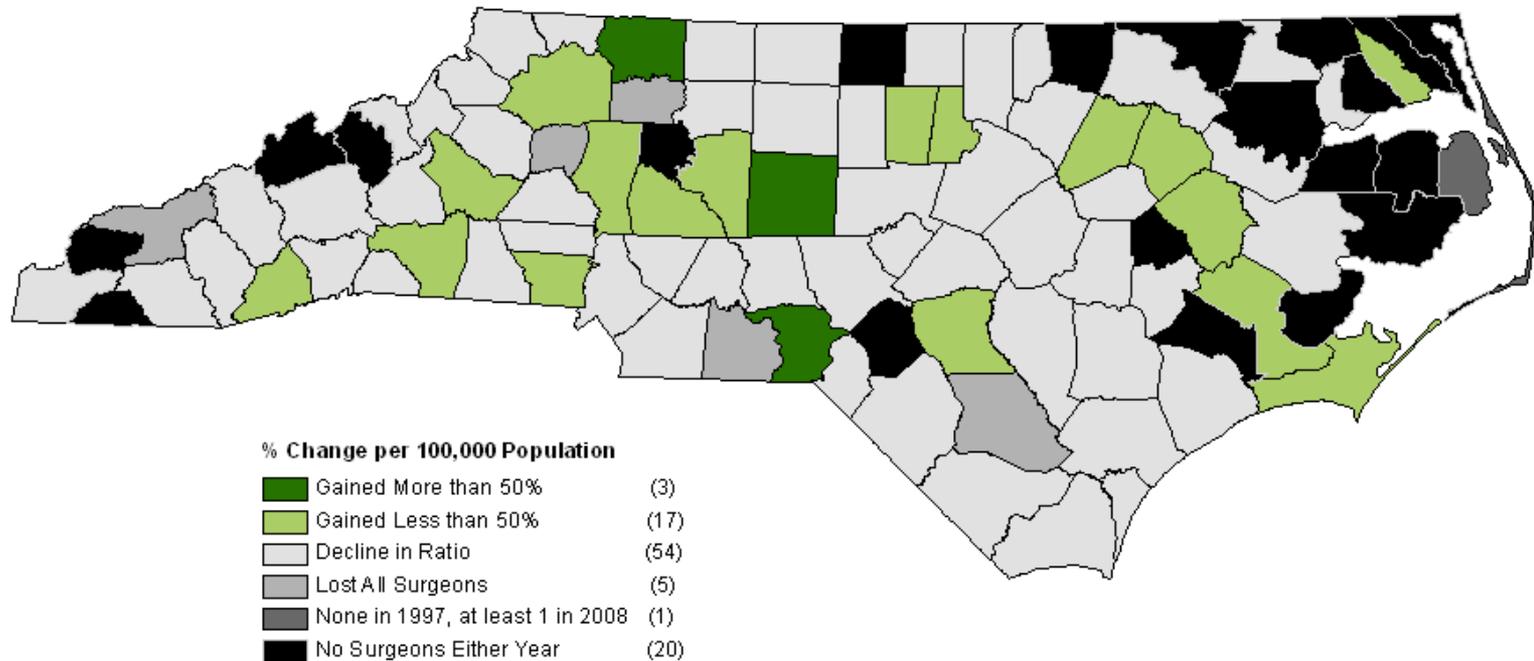
*Data include active, in-state dentists.

New Models of Care in Oral Health

- National discussion of mid-level providers
- Mobile clinics
- Rural teaching clinics at East Carolina University
- Dental varnishing in primary care practices
- Head Start Dental Home Initiative

Are Surgery Services Part of the PCMH?

Percent Change in Ratio of General Surgeons to Population 1997 - 2008 North Carolina



Notes: General Surgery includes Abdominal Surgery, Bariatric Surgery, Critical Care Surgery, General Surgery, Hand Surgery, Maxillofacial Surgery, Oral Surgery, Pediatric Surgery, Oncology Surgery, Traumatic Surgery, Abdominal Organ Transplantation, Vascular Surgery, and Cardiovascular Surgery.

Source: North Carolina Medical Board physician licensure data, 1997 - 2008; and 2010 Area Resource File for population data.

Produced by the Cecil G. Sheps Center for Health Services Research, UNC-CH, August 3, 2010.

What is Relationship of Surgery Services to the PCMH?

- Patient pathways into surgical care affect survivorship
- Need to manage care of post-surgical cancer patient in the PCMH
- Lack of coordination of care between primary care physicians and surgeons (Miller H., Center for Healthcare Quality & Payment Reform 2009)
 - Still FFS reimbursement for face-to-face consultation and procedures only—email coordination not reimbursable
 - Bonus (shared savings) needed for better quality and cost savings
- Surgeons are providing primary care: 30.6% of visits to surgical specialist offices were for a known patient with a known problem requiring routine or preventive care (Source: Valderas et al, Ann Fam Med, 2009)

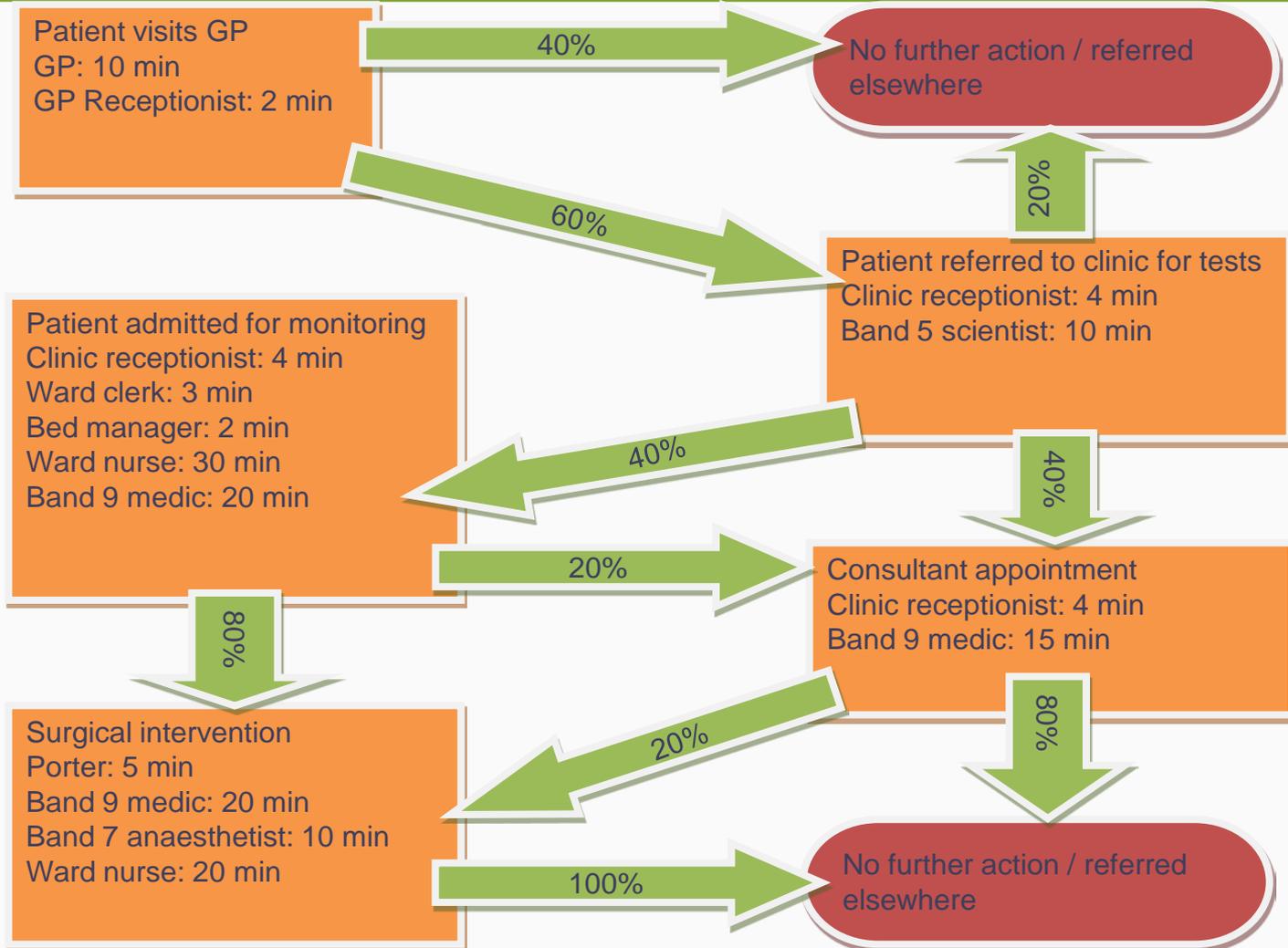
Bringing Workforce Planning into the New World: How Do We Get There from Here?

- Starting from strong base
- Move from provider-level to practice and system-level workforce analyses
- Use more qualitative data
- Make better use of the “policy laboratory” created by Community Care of North Carolina and other innovative care models
- Position ourselves to seek funding opportunities that:
 - Link workforce supply to payment policy, cost and quality outcomes
 - Identify new and emerging health professional roles
 - Build on history of trust and collaboration

Bringing Workforce Planning into the New World: How Do We Get There from Here?

- Modeling and workforce planning in North Carolina needs to be:
 - Interdisciplinary
 - More focused on the direct care and allied health workforces
 - Proactive
 - More than a “counting noses” activity: need better understanding of actual activities, skills and competencies of providers and health needs of population
- Can we actually operationalize this approach?

Well, it's been done before. Primary Care Workforce Modeling in the National Health Service



Questions?

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