

Health Workforce Technical Assistance Center

# State Health Workforce Data Collection: Opportunities and Challenges

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[www.healthworkforce.unc.edu](http://www.healthworkforce.unc.edu)

# Where I'm Coming From

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## The North Carolina Health Professions Data System

<http://www.shepscenter.unc.edu/hp>

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

### Three main service lines:

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

# North Carolina HPDS

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- A collaboration between the Sheps Center, NC AHEC and the health professions licensing boards
- Data are provided ***voluntarily*** by the boards—no legislation, no appropriation
- Over 30 years of continuous, complete licensure (***not survey***) data

# North Carolina HPDS

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- Data housed at Sheps but remain property of licensing board, permission sought for each “new” use
- System is independent of government or 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.

# Why do state-based workforce planning?

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- States' role in ACA implementation – what are the implications for workforce?
- States vary from the national picture; there's local/regional variation
- Many policy levers are state-level (e.g., scope of practice)
- Decisions about whether to enact or change policies directed at training, recruiting, and retaining health professionals affect wide range of stakeholders, and are source of contentious debate

# What's your state asking?

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- Will we have enough of X professionals in the right specialties, employment settings and locations to meet future demand?
- Do we need a new school of pharmacy? Optometry?
- What's the distribution of CNMs, Ob/Gyns and FPs delivering babies?
- What is the age distribution of the current workforce?
- What is the current breakdown of ADN vs BSN nurses?

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**But how do we know,  
you might ask?**

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# Different Strokes for Different Folks

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- States collect data in different ways. Some don't collect or analyze any data beyond what's needed for regulation of licensure.
- Organizational structure of licensure boards differs from state to state
  - Independent entities
  - State Government – separate boards or under one umbrella
- Capacity of states to collect and analyze data differs
  - Funding sources, collaboration, analytic capabilities, stakeholder support



# Methods of Data Collection

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- **Licensure process:** Collect data through the initial application and subsequent license renewal forms
- **Surveys:** Comprehensive or sample survey; tied to licensure process or separate
- **Continuous Monitoring:** Start with complete roster of licensees, survey practices/licensees semi-annually, track newspapers for hirings/deaths/retirements/etc.
- **All Payer Data:** Use all payer claims database to enumerate the workforce and describe practice characteristics

# To Mandate or Not to Mandate...

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- Some states require, by statute, the collection of health workforce data
  - Various degrees of flexibility in how data are collected
- Some states do not require data collection
  - Need good relationships and the right people to make it happen and keep things going
- Challenges to legislation
  - Appropriations
  - Ability to ask the right questions to collect the best data
  - Stakeholder consensus, ability to remain objective

# What are the challenges to collecting and using data to inform policy?

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## Our work has identified some shared challenges:

- **Motivational** – Why do it? Convince policy-makers and funders that it's worth it to collect and analyze workforce data
- **Organizational** – How/where to set it up, what data to collect
- **Analytical** - How do you count/define/locate providers?
- **Financial** - Who pays? How do you sustain?

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# Motivational Challenges

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# Lessons Learned: Need to convince 'em of value of data to day job

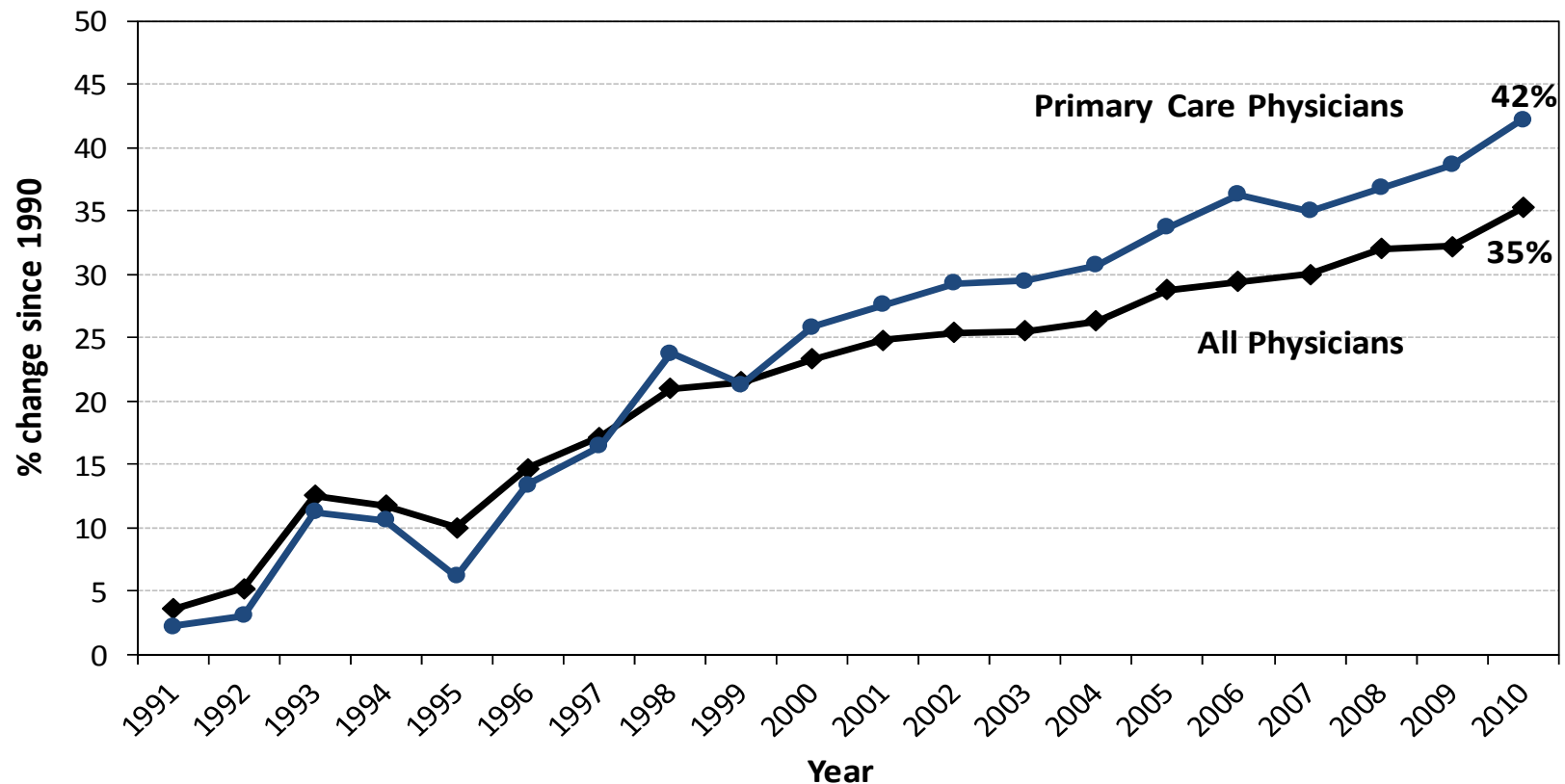
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## **Data-driven workforce analyses necessary to:**

- Monitor longitudinal trends in supply and distribution ...establish benchmarks. Are we worse or better off?
- Challenge anecdotal evidence
- Justify funding requests
- Evaluate success of existing programs
- Identify “uncomfortable truths”

# Monitoring Trends: State Trends May Differ from National Ones

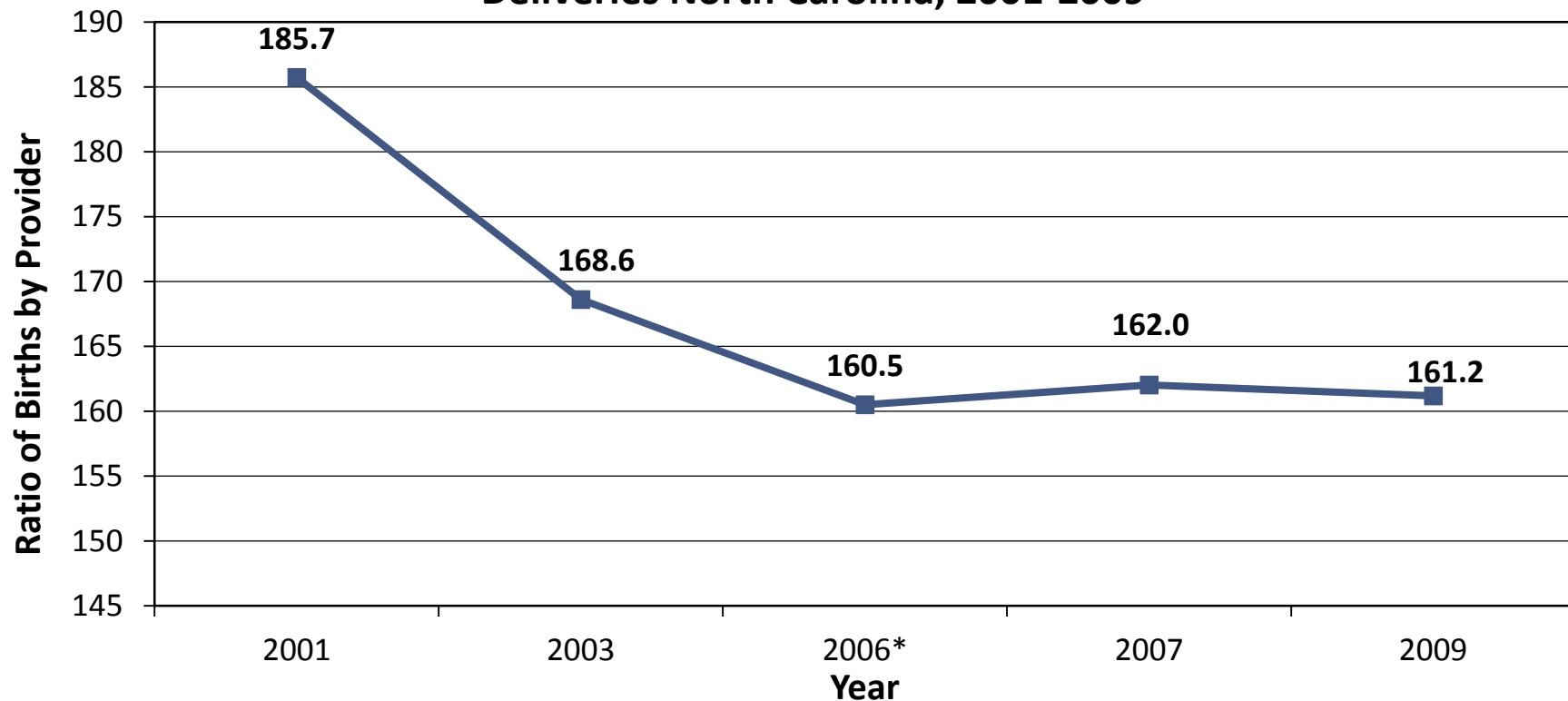
Percentage Growth Since 1990 of Physicians and Primary Care Physicians per 10,000 Population, North Carolina, 1991-2010



Sources: North Carolina Health Professions Data System with data derived from the North Carolina Medical Board, 1979 to 2010  
North Carolina Office of State Planning. Figures include all licensed, active, in-state, non-federal, non-resident-in-training physicians.

# Data Challenge Anecdotal Evidence

**Annual Number of Births per OB/GYN Providing Obstetric Deliveries North Carolina, 2001-2009**



\*2005 data contained a large percentage of missing values, therefore 2006 data were used.

Source: NC Health Professions Data System with data derived from the North Carolina Medical Board. Data are for active, in-state, non-federal, non-resident-in-training physicians licensed by the NC Medical Board as of October of each year. Data are self-reported at time of initial licensure and subsequent renewal.

# Justifying Funding Requests

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- **Dental school:** HPDS data instrumental in decision to build new dental school in eastern part of state
- **Pharmacy school:** HPDS data “saved” the state an estimated \$80 million by showing NC had more than adequate supply of pharmacists
- **Medical school and GME expansion:** HPDS data used to identify geographic and specialty areas in short supply



# Data Used for Evaluation: Medical Student Tracking

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- 1993: NC legislature expressed concern over primary care shortage
- Required four medical schools to develop programs to increase percentage of primary care graduates
- Set goal for UNC and ECU at 60%
- Set goal for Duke and Wake Forest at 50%
- Required that the Board of Governors track progress and report regularly to General Assembly

# North Carolina Medical Students: Retention of Graduates in Primary Care After Five Years

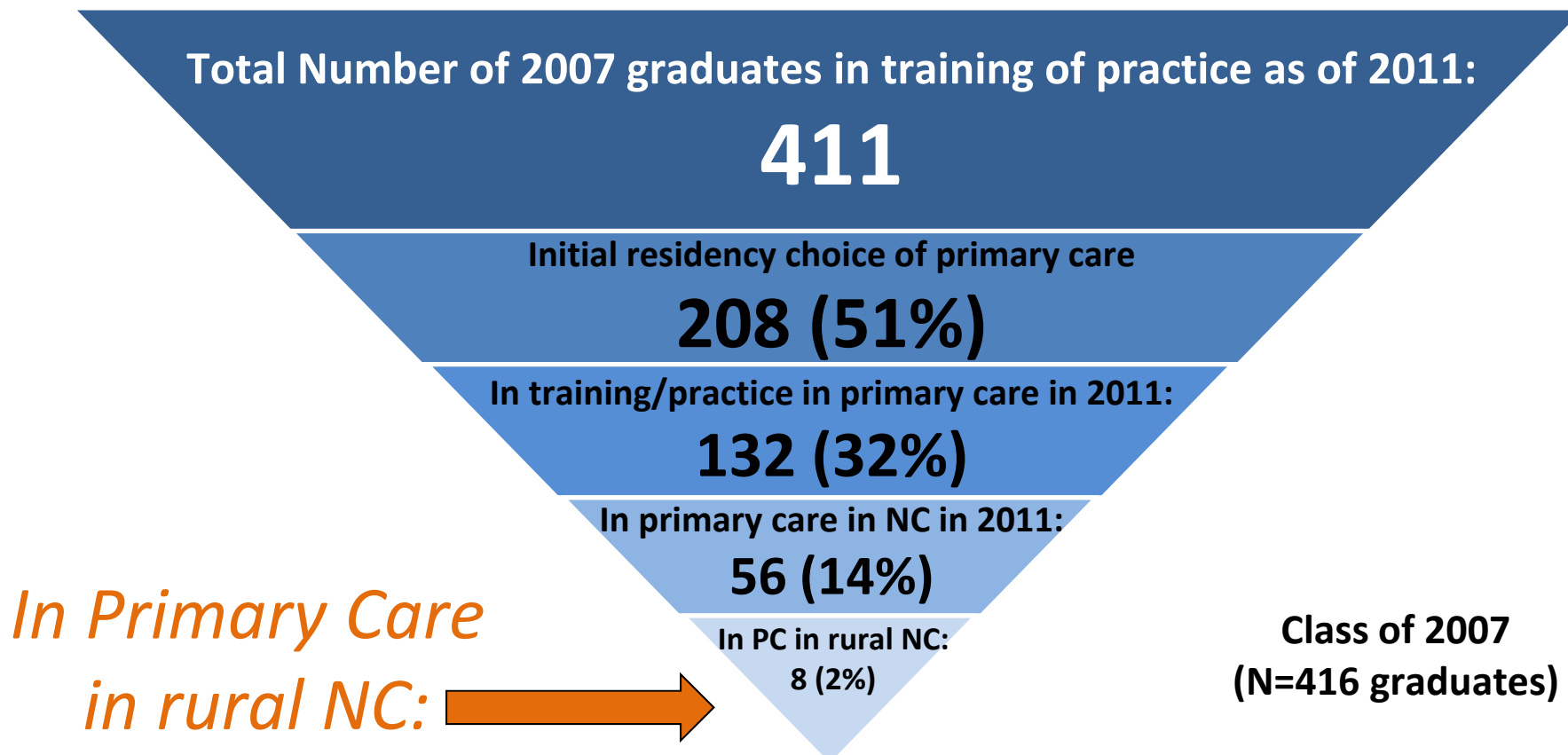
## What is Class of 2007 Doing in 2012?

School	2007 Graduates	% in Primary Care (Anywhere in US)	% in Primary Care (in NC)
Duke	91	25%	7%
ECU	60	48%	28%
UNC-Chapel Hill	155	35%	16%
Wake Forest	105	25%	8%
<b>Total</b>	<b>411</b>	<b>32%</b>	<b>14%</b>

Source: North Carolina Health Professions Data System with data derived from the Duke Office of Medical Education, UNC-CH Office of Student Affairs, ECU Office of Medical Education, Wake Forest University SOM Office of Student Affairs, Association of American Medical Colleges, and the NC Medical Board, 2012.

# North Carolina Medical Students: Retention of Graduates in PC in Rural NC After Five Years

## NC Medical Students: Retention in Primary Care in NC's Rural Counties



Source: North Carolina Health Professions Data System with data derived from the Duke Office of Medical Education, UNC-CH Office of Student Affairs, ECU Office of Medical Education, Wake Forest University SOM Office of Student Affairs, Association of American Medical Colleges, and the NC Medical Board, 2012.

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# Organizational Challenges

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# Key Organizational Challenges

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- Licensure body does not see data collection as their role
- Licensure body lacks staff able to undertake data collection
- Organization of licensure body: housed within government versus as independent entity?
- Do you legislate this?

# Key Organizational Challenges

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- Can highlight underlying turf issues between existing organizations
- Where are data housed?
- How to protect confidentiality?  
Who can access data and for what purpose?
- How to protect data objectivity?  
Data must be reliable and objective

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# Analytical Challenges

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# Analytic Challenges

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## Defining

- Active versus inactive practice
- Head count versus full-time equivalents

## Locating

- Locating docs – they are a mobile group with multiple practice locations; practice vs. home address

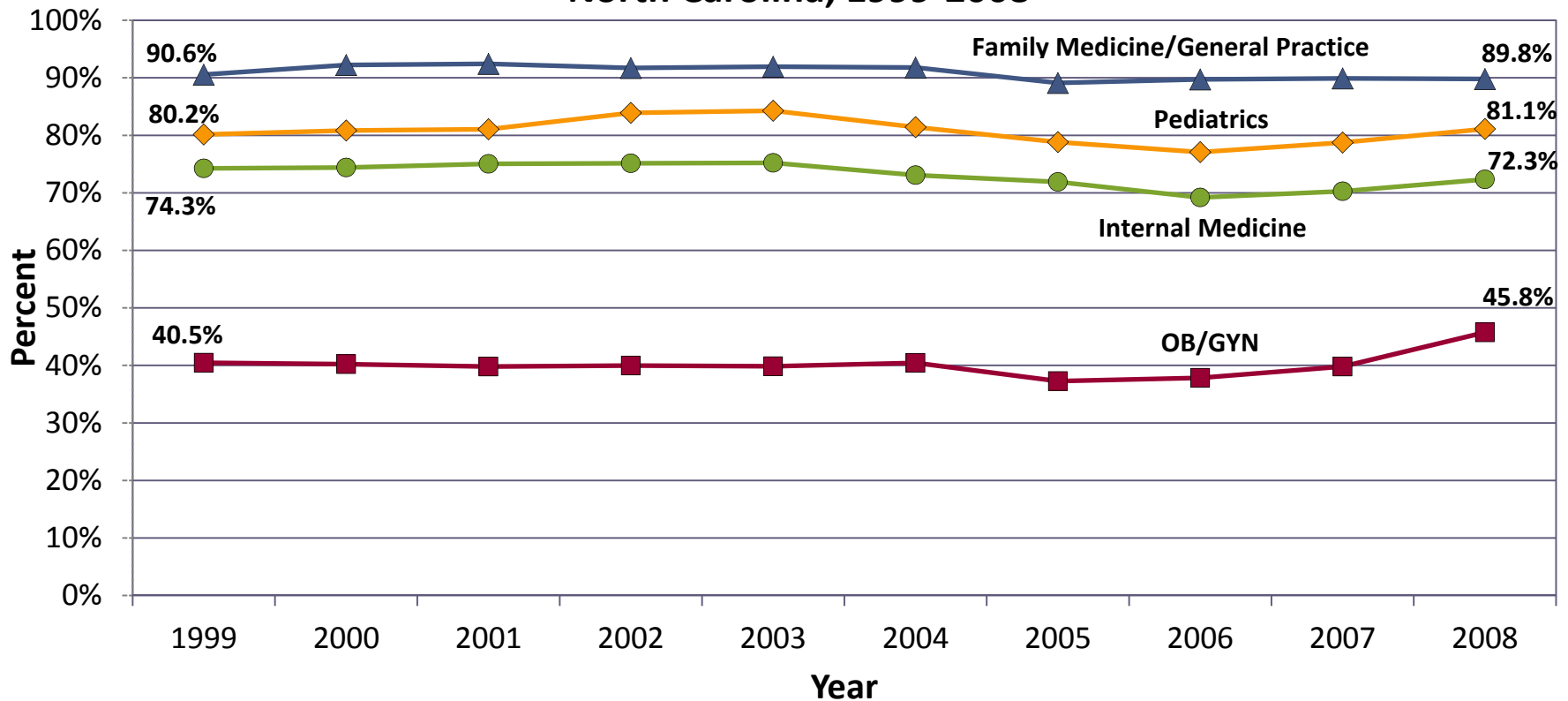
## Describing

- Self-reported specialty: who's in primary care anyway?



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

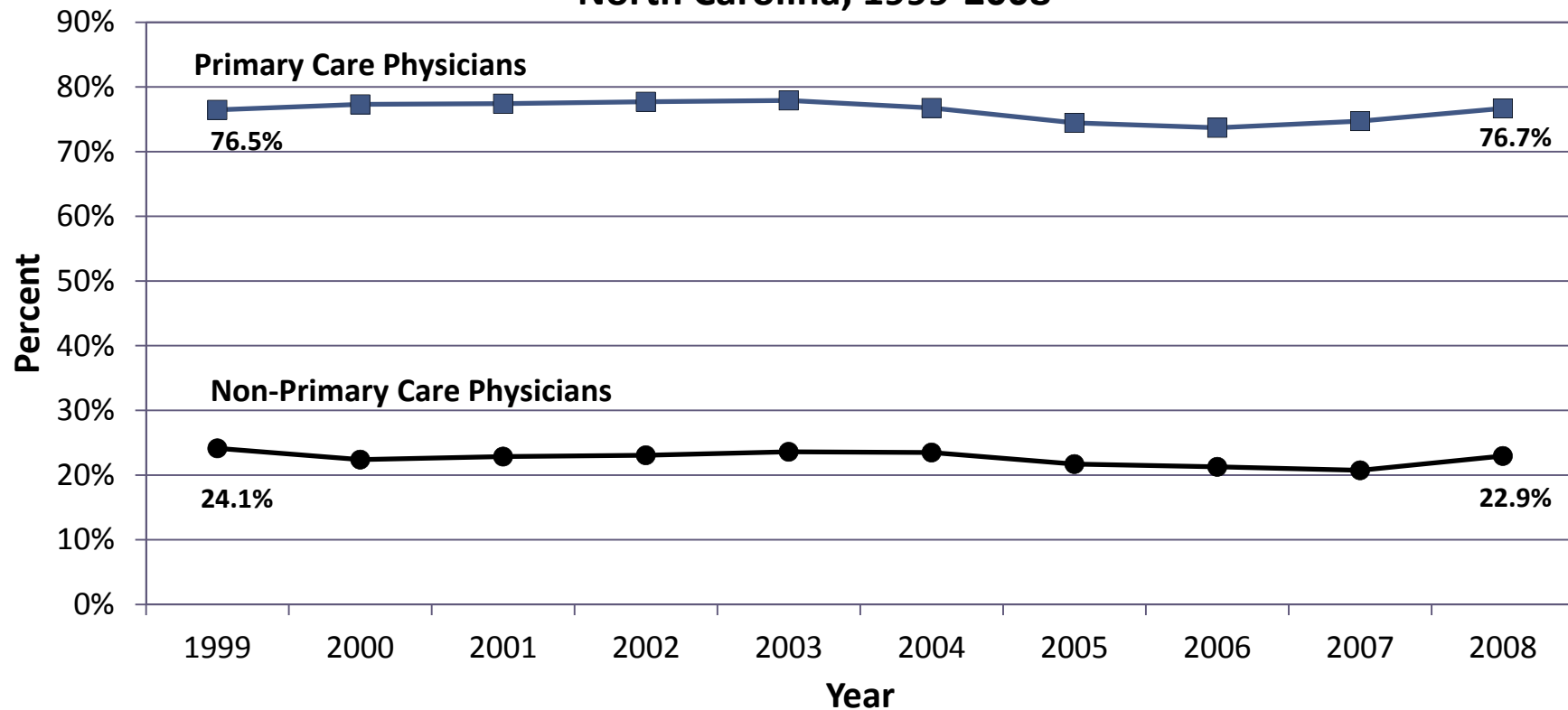
Percentage of Total Clinical Care Hours Spent in Primary Care  
North Carolina, 1999-2008



Source: NC Health Professions Data System with data derived from the North Carolina Medical Board. Data are for active, in-state, non-federal, non-resident-in-training physicians licensed by the NC Medical Board as of October of each year. Data are self-reported at time of initial licensure and subsequent renewal.

# But, specialists also provide primary care

**Percentage of Total Clinical Care Hours Spent in Primary Care  
North Carolina, 1999-2008**



Source: NC Health Professions Data System with data derived from the North Carolina Medical Board. Data are for active, in-state, non-federal, non-resident-in-training physicians licensed by the NC Medical Board as of October of each year. Data are self-reported at time of initial licensure and subsequent renewal.

# Let's not forget allied health

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- Difficulty: Many allied health professions are not licensed
- Must rely on other data sources and methods for analysis
- Examples of work we've done, data we've used
  - Allied Health Job Vacancy Tracking Project – *job ads*
  - NC Hospital Workforce Trend Analysis – *hosp assoc data*
  - State of Allied Health Brief – *BLS, ESC*
  - State of Allied Health: A Focus on the Clinical Laboratory Sciences Workforce – *prof assoc data*

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# Financial Challenges

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# Funding: Where Do States Get Money to Support Increased Data Collection?

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- Start up costs: separate, new and shiny entity versus embedding data collection in existing entity
- Cost of maintaining system to ensure longitudinal data
- Who bears the costs? The licensure body?  
The tax-payer? AHEC? Private foundations?  
Professional associations?
- Staffing: need data management, analytic, cartographic, policy analysis, writing, presentation skills, etc.

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# If I might make some suggestions...

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# Suggestions: Data Collection

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Have a  
clear idea who will:



# Suggestions: Data collection

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Have a clear idea what the policy questions are in the short-, medium- and long-terms. These can help guide your efforts, as well as help sell the idea of collecting data.

Find ideas and additional info at

<http://www.shepscenter.unc.edu/product/program-on-health-workforce-nursing-data-system-briefs-for-robert-wood-johnson-foundations-interdisciplinary-nursing-quality-research-initiative-inqri/>



# Suggestions: Dissemination

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- Remain objective
  - People must trust your data, so the data collectors, analysts and reporters must be objective. Let other individuals and organizations interpret the data for advocacy/other purposes.
  - *Repeat after me: “**THE DATA ARE THE DATA.**”*
- Know thy audience
  - Who are the key stakeholders?
- Write short, easy-to-read briefs and use lots of graphics
  - Some folks love maps. Some love tables. Some have trouble interpreting data. Make it easy for them.

# Suggestions: Dissemination

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## **Before you release your findings:**

- Run a draft by select stakeholders.  
Does it pass the sniff test?
- Give stakeholders a heads up  
if the findings will affect them.

# Who Uses Data & For What Purposes?

## Government

- Policy Decisions
- Allocate funding
- Program planning
- Evaluation
- HPSA analysis
- Grant proposals

## Workforce Policy

- Evaluation
- Program planning
- Policy analysis
- Regulatory questions
- Grant proposals
- Pipeline and diversity

## Education, Research

- Planning for new schools
- Planning for new programs
- Pipeline and diversity
- Evaluation
- Research projects
- Grant proposals

## Funders

- Program planning
- Allocate funding
- Evaluation

## National Organizations

- National policy
- Evaluation
- Dissemination
- Improve data quality

## Professional Associations

- Advocacy, Membership
- Policy analysis
- Program planning
- Grant proposals

## Other

News stories; class projects; locational analysis; loan repayment; court cases; advertise seminars

# And finally, from a selfish standpoint..

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- We're very interested in knowing what you're doing in your state. Are there other barriers/issues you face?
- Are you looking for more information? Contact us to see how we can help. We're happy to chat.

# Questions?

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Health Workforce Technical Assistance Center

[www.HealthWorkforceTA.org](http://www.HealthWorkforceTA.org)