

The State of Allied Health in North Carolina

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The State of Allied Health in North Carolina

- **Purpose is to provide an overview of issues and opportunities for the allied health workforce in North Carolina**
- **Report presents data on:**
 - **The importance of allied health to the state's economy**
 - **Challenges confronting the workforce**
 - **Opportunities for future growth and collaboration**

Report summarizes 6 years of workforce studies that have been a collaborative effort of:



**Council for Allied Health
in North Carolina**



**North Carolina
Area Health
Education Centers
Program**



Why Should Policy Makers Care About Allied Health?

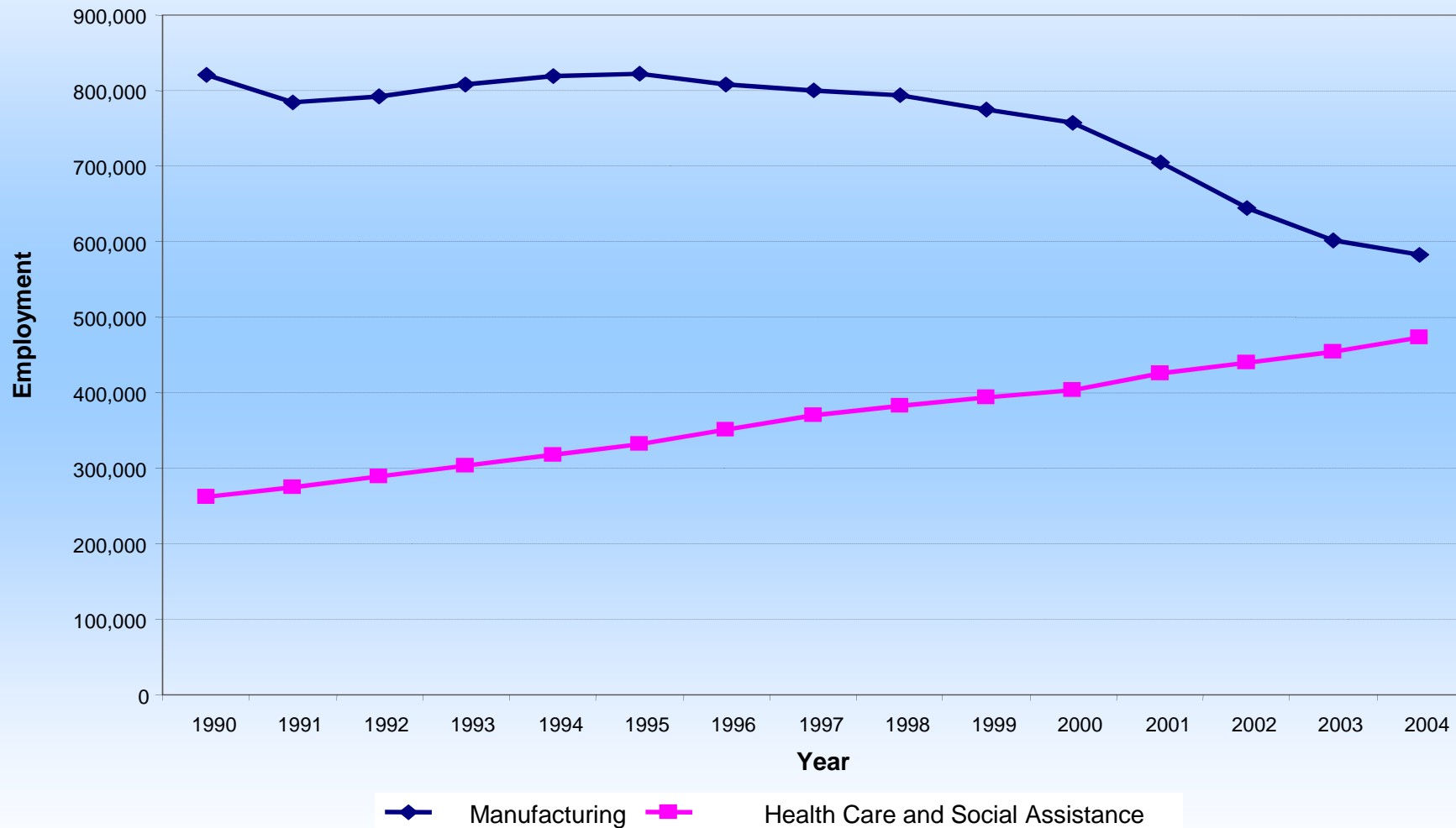
North Carolina's economy is in transition

- Major decline in manufacturing employment due to:
 - International competition
 - Increased use of technology and improved productivity in domestic manufacturing sector
 - Recent economic recession

But...

- Growth in service occupations, including health care

Manufacturing and Health Care and Social Assistance Employment, N.C., 1990-2004



Source: North Carolina Employment Security Commission. Employment and Wages by Industry. 1990-2004. URL: <http://eslmi23.esc.state.nc.us/ew/EWYear.asp?Report=1>. Accessed 4/26/05

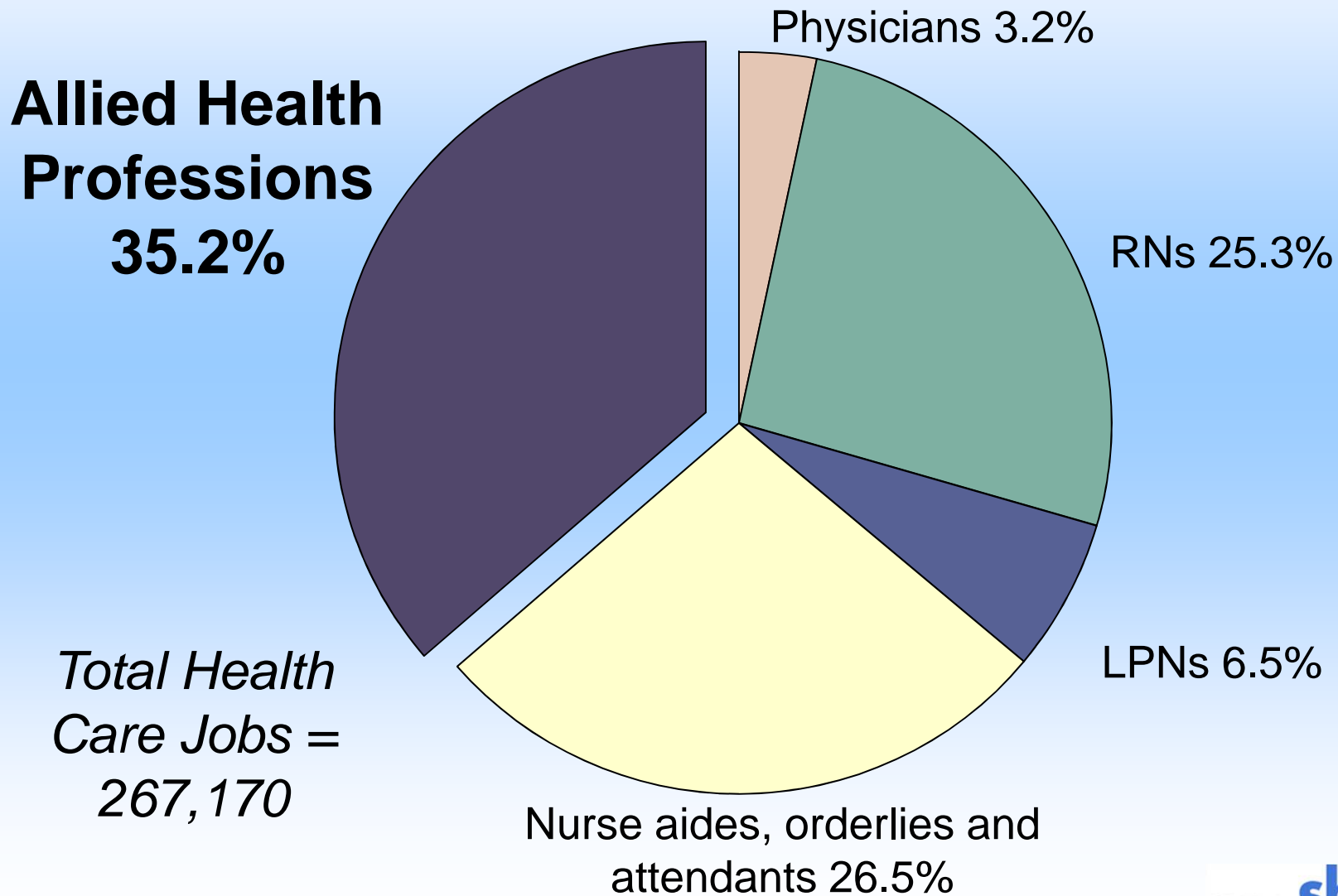
North Carolina's economy in transition

Selected Industry Sector	% of Total NC Employment	
	1990	2004
Manufacturing	26.6%	15.4%
Health Care and Social Assistance	8.5%	12.5%

Allied health driving growth in the larger health care sector

- Over **42%** of total job growth in the health care sector between 1999-2003 was due to growth of allied health jobs.
- Between 1999-2003, job growth in allied health outpaced growth in:
 - NC's total workforce **by 22.4%**
 - broader health care sector by **5.5%**.

Total Health Care Jobs in North Carolina, 2003



Source: US Bureau of Labor Statistics, Occupational Employment Statistics 2003.

Hourly and Annual Wages for Selected North Carolina Occupations (2003)

Occupation	Hourly Mean Wage	Annual Mean Wage
Physicians	\$73.55	\$152,978
RNs	\$23.50	\$48,870
LPNs	\$15.84	\$32,940
Nursing aides, orderlies, and attendants	\$9.00	\$18,716
Allied health professions	\$17.03	\$35,428
Other healthcare occupations	\$48.39	\$100,640
All Occupations (North Carolina)	\$16.17	\$33,630

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (2003). URL: <http://www.bls.gov/oes/>. Accessed 4/26/05.

The Spectrum of Allied Health Wages: North Carolina, 2003

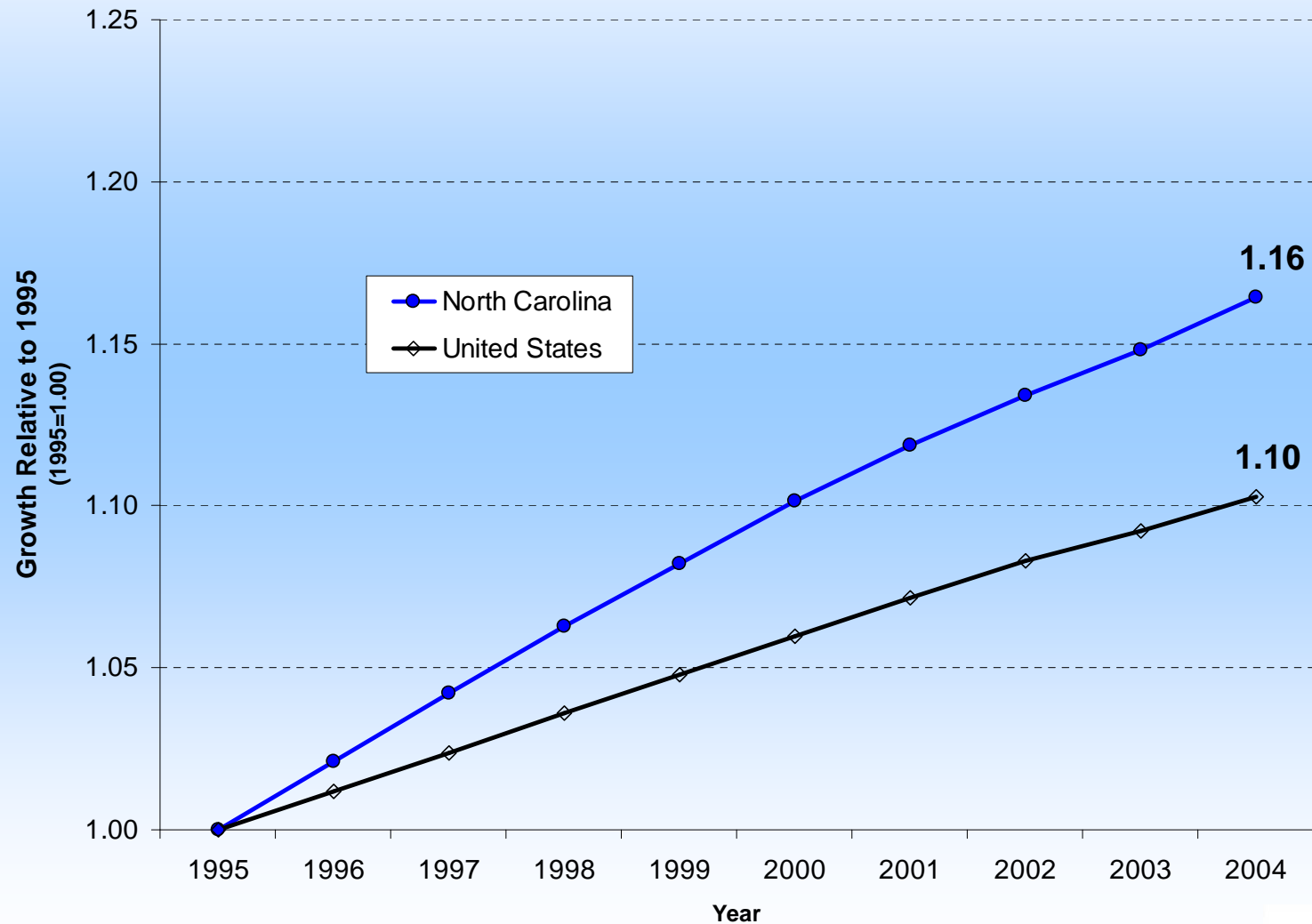
<i>LOWER-WAGE Allied Health Occupations</i>			
	Hourly Mean Wage	Annual Mean Wage	Employment
Pharmacy aides	\$9.22	\$19,170	1,040
Dietetic technicians	\$10.07	\$20,950	890
Psychiatric aides	\$10.20	\$21,210	2,000
<i>HIGHER-WAGE Allied Health Occupations</i>			
	Hourly Mean Wage	Annual Mean Wage	Employment
Physical therapists	\$29.36	\$61,080	3,430
Speech-language pathologists	\$29.40	\$61,160	2,930
Physician assistants	\$34.15	\$71,030	2,310

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics (2003). URL: <http://www.bls.gov/oes/>. Accessed 4/26/05.

Allied health jobs projected to grow

- Allied health jobs represent a stable and relatively profitable employment sector
 - Relatively less vulnerable to international competition
 - More resilient to economic recession
 - Not as susceptible to outsourcing trends seen in manufacturing and other sectors
- Allied health projected to add 28,570 jobs between 2000 and 2010—a 36% increase over 2000 employment.

Population Growth Relative to 1995, United States and North Carolina, 1995-2004



Sources: US Bureau of the Census;
North Carolina Office of State Planning

***The Challenge to Estimate
Allied Health
Workforce Supply***

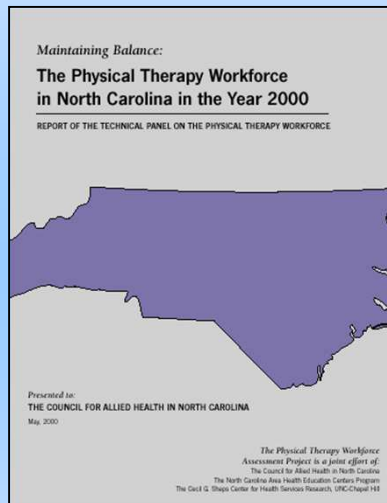
How Will We Know?

Policy makers continue to struggle to answer the key questions:

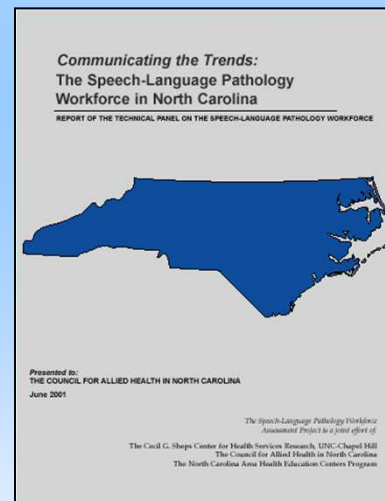
- How many allied health professionals are practicing in the state?
- Is NC producing too many, too few or the right number of professionals?
- Are the types and locations of educational programs appropriate?
- How will new technologies change the demand for certain skills within the allied health professions?
- Are changes in licensure/certification requirements, scope of practice regulations or practice acts needed?

The Allied Health Workforce Studies

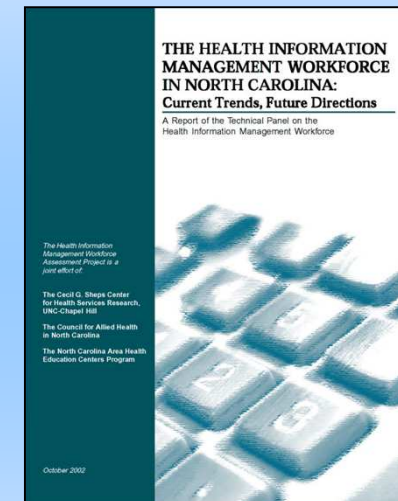
- Completed 6 workforce studies



Physical
Therapy
2000



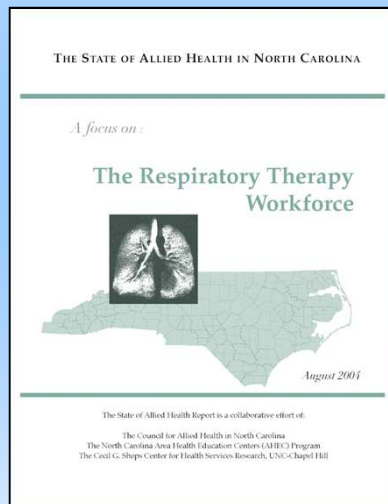
Speech-Language
Pathology
2001



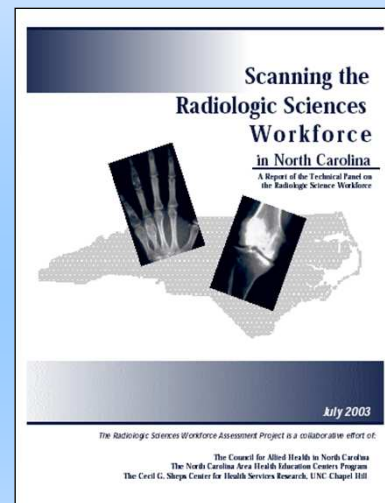
Health Information
Management
2002

The Allied Health Workforce Studies

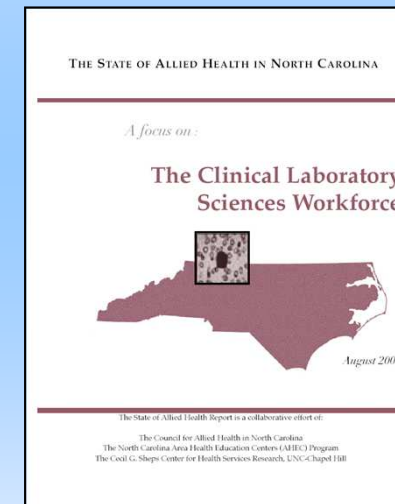
- Completed 6 workforce studies



Respiratory
Care
2004



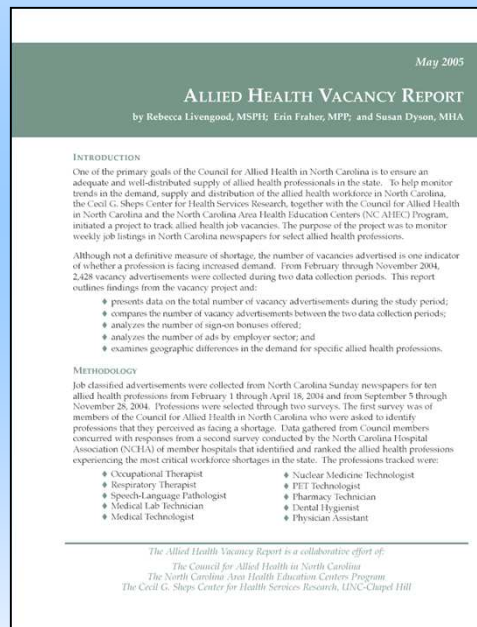
Radiological
Sciences
2003



Clinical Lab
Sciences
2004

The Allied Health Workforce Studies

- Vacancy report completed in 2005



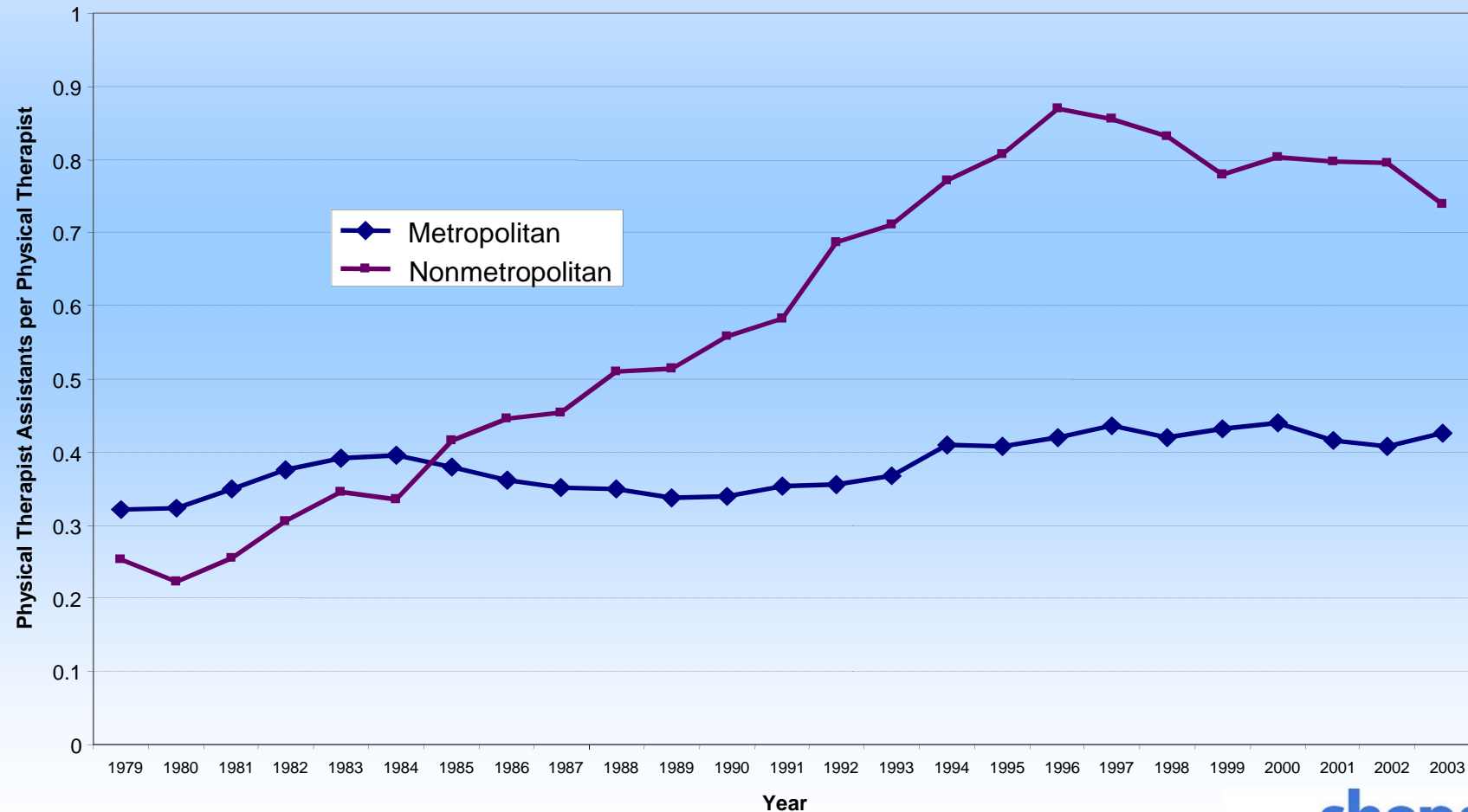
- What have we learned?

Rural/Urban Disparities

- There are persistent disparities between rural and urban areas in the supply of allied health workers. For example:
 - In 2000, areas not designated as health professional shortage areas (HPSAs) had 4 times as many PTs as whole county HPSAs
 - In 2001, rural areas had 2.5 SLPs per 10,000 population compared to 4.3 in urban areas
 - In 2003, one NC county (Hyde) did not have a radiologic technologist.
 - In 2004, 13 counties did not have a respiratory therapist; 10 of these were rural and 7 were in the northeastern region of the state.

There is a greater reliance on assistive personnel in rural areas

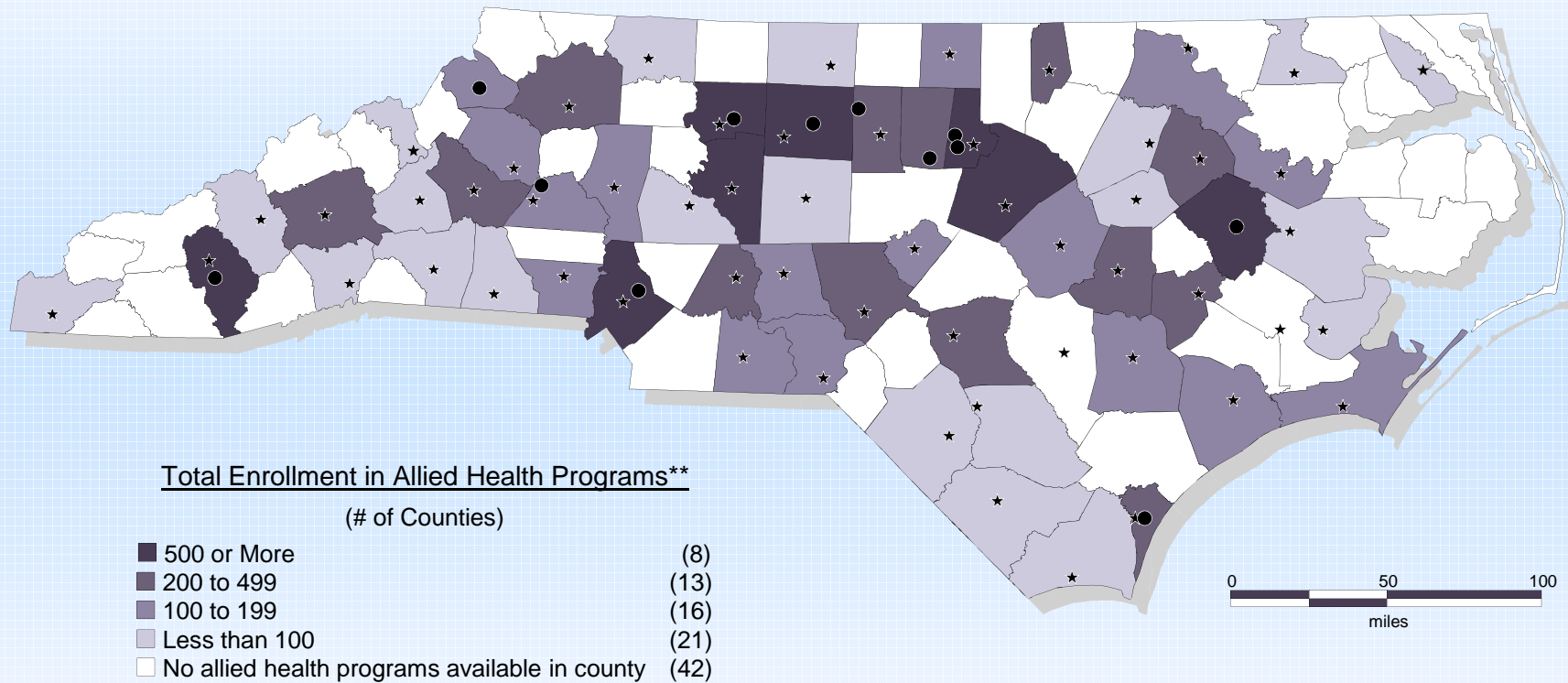
Physical Therapist Assistants per Physical Therapist, North Carolina, 1979-2003



Allied health workers cluster near training institutions. Retention of students is high

Percent of Students Remaining Instate After Graduating from a North Carolina Educational Program, Select Allied Health Professions	
	% of Students Remaining Instate After Graduation
Health Information Technology	86
Radiologic Technology/Medical Imaging	84
Health Information Administration	77
Radiation Therapy	76
Physical Therapist Assistant	75
Nuclear Medicine Technology	75
Speech-Language Pathology	69
Physical Therapy	54
Source: Allied Health Workforce Reports	

Location of Allied Health Programs* and Total Enrollment in Allied Health Programs, North Carolina Community Colleges and University Programs, 2004



Source: North Carolina Community College System, 2004; University Programs, 2005.
Produced By: The North Carolina Health Professions Data System, Cecil G. Sheps
Center for Health Services Research, The University of North Carolina at Chapel Hill.

*Locations of community colleges and universities are mapped to the zip code centroid.
**Enrollment of each community college is mapped to the county where the community college is located. Sampson CC and Craven CC have allied health programs, but no students enrolled for past three years. Enrollment data were unavailable for programs at Lenoir-Rhyne College in Catawba County.

What Have We Learned?

- Educational programs face serious challenges:
 - Too few applicants
 - Too few ***qualified*** applicants
 - Attrition
 - Faculty shortages
 - Lack of clinical placements

Ratio of Applications to Capacity of Programs, ASAHP Survey, 2004

Programs with Fewer Applicants than Slots

Health Information Management and Rehabilitation
Counseling

Programs with only 1-2 applicants per slot

Respiratory Therapist, Medical Technology, Occupational
Therapy, Speech-Language Pathology/Aud.,
Cytotechnology, Respiratory Therapy Technician

Programs with more than 2 applicants per slot

Dietetics, Diagnostic Medical Sonography, Physical Therapy,
Nuclear Medicine Technology, Dental Hygiene,
Radiography, Physician Assistant

Ratio of Enrollment to Capacity of Programs, ASAHP Survey, 2004

Programs with Fewer than Half Slots Filled

Health Information Management, Rehabilitation Counseling

Programs under 90% Capacity

Cytotechnology, Speech-Language Pathology/Aud., Medical Technology, Occupational Therapy, Respiratory Therapist, Dental Hygiene, Nuclear Medicine Technology, Diagnostic Medical Sonography, Physical Therapy

Programs at or above Capacity

Physician Assistant, Respiratory Therapy Technician, Radiography, Radiation Therapy Technology, Dietetics

Attrition

- Community college attrition rates vary from 0-80%
- High degree of variability in attrition rates between educational programs and types of allied health training programs:
 - 10% for medical technologist versus 47% for medical laboratory technician
 - 30% for respiratory therapy programs
 - 13-23% for radiation therapy and 22% for radiologic technology programs

Why Such High Attrition Rates?

- Academic underpreparedness
- Motivation and commitment issues
- Students unprepared for reality of working with body fluids, night and weekend work and physical demands
- Financial difficulties
- NC community college system developing consistent definition of attrition and has identified “model” programs to identify factors that lead to a greater than 70% retention rate.

Faculty Recruitment and Retention

- Faculty salaries cannot compete with clinical salaries and increasing accreditation standards require faculty to have advanced degree. Some faculty prefer to return to clinical practice or retire.
- Faculty shortages constrict future supply by reducing number of individuals able to teach courses and supervise clinical placements:
 - Almost two-thirds of respiratory programs and one-third of medical laboratory programs couldn't find enough individuals to supervise clinical rotations
 - Nearly half of respiratory therapy programs and one-third of medical technologist programs couldn't find enough faculty to teach coursework.

Clinical Placements

- Lack of clinical sites is chief complaint of some educational institutions but not all sites being used....better communication is needed between educational institutions and employers.
- Clinical education is expensive. National: average cost **to student** of in-state two-year associate degree in allied health = \$5,000, average cost **to community college** = \$35,000 (AMA).
- North Carolina State Board of Community Colleges has asked legislature (H.B. 573) to declare allied health programs high cost.

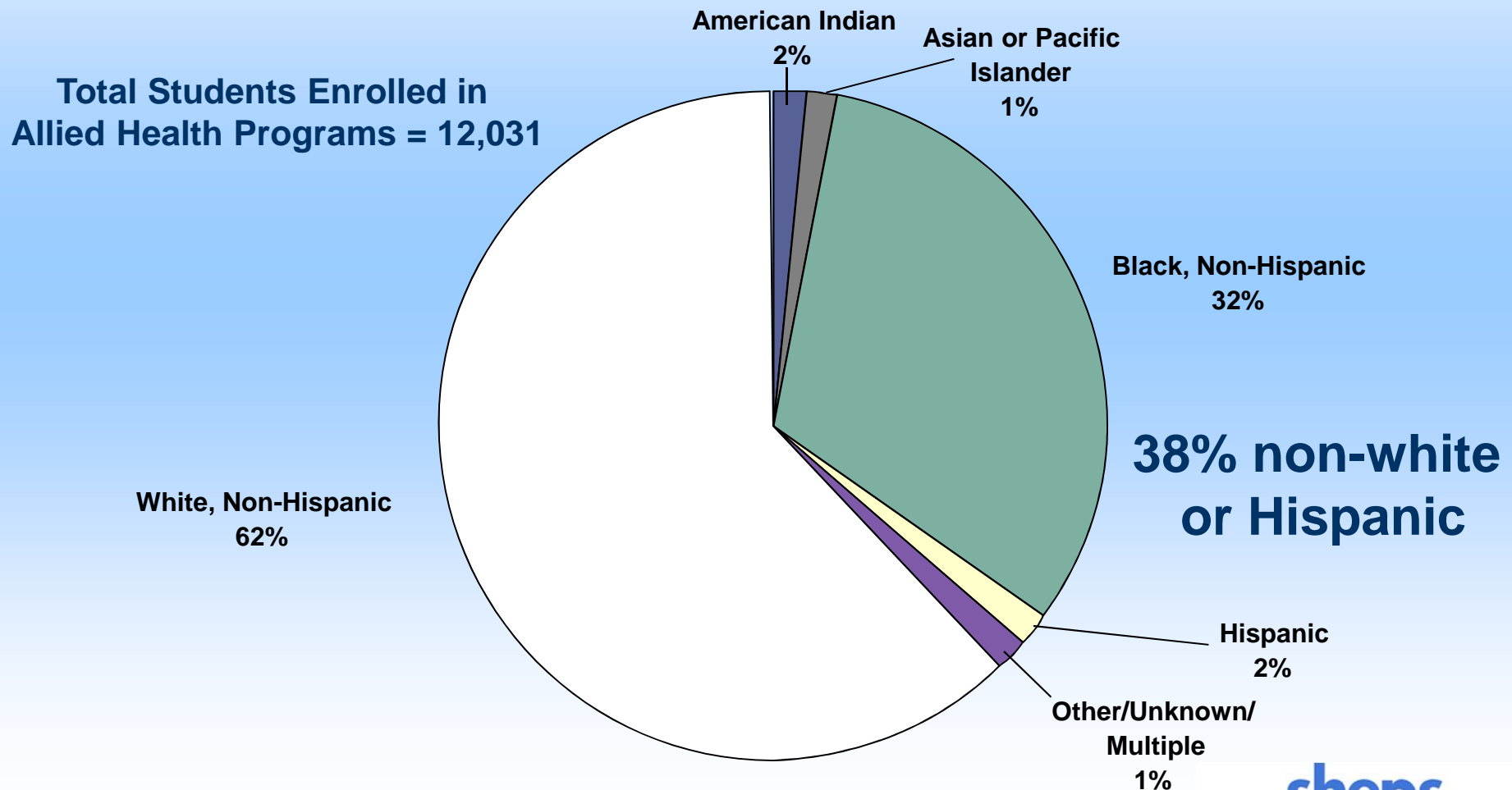
Diversity in the Allied Health Professions

- In 2003, 31% of North Carolinians identified themselves as non-white or hispanic
- Most associations and credentialing entities do not collect data on racial and ethnic diversity
- Data from licensure files indicate the workforce is not as diverse as the population:

Profession	% non-white,
Dental Hygienists	5%
Physical Therapists	6%
Physical Therapist Asst.	9%

But student body is increasingly diverse

Allied Health Students Enrolled in North Carolina Community Colleges by Race and Ethnicity, 2003-04



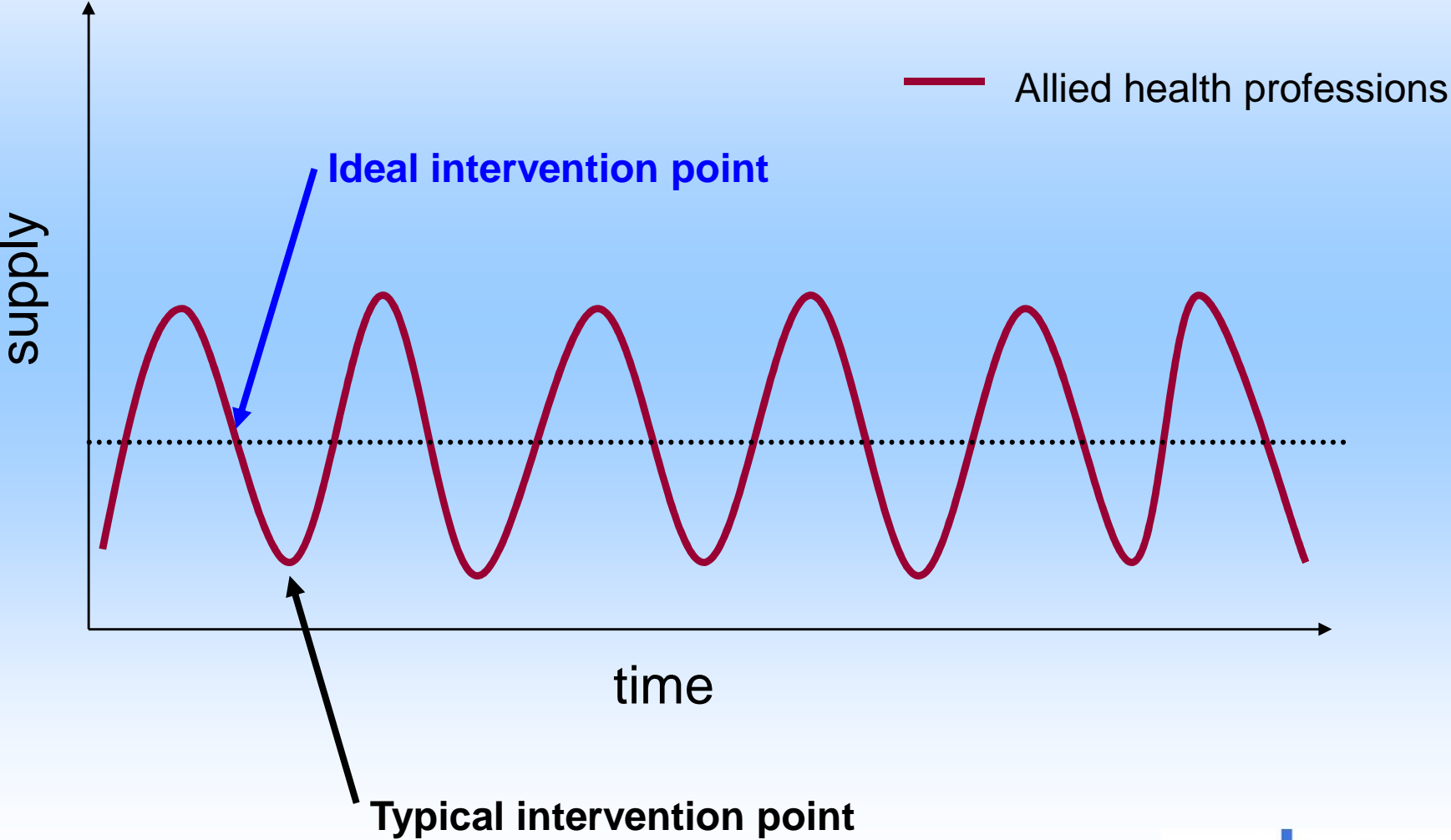
Source: PARE, NCCCS, 04/26/05, data exclude students in Nursing, Nursing Assistant, Practical Nursing and Veterinary Medical Technology

***What role does the Council
play in addressing allied
health workforce issues?***

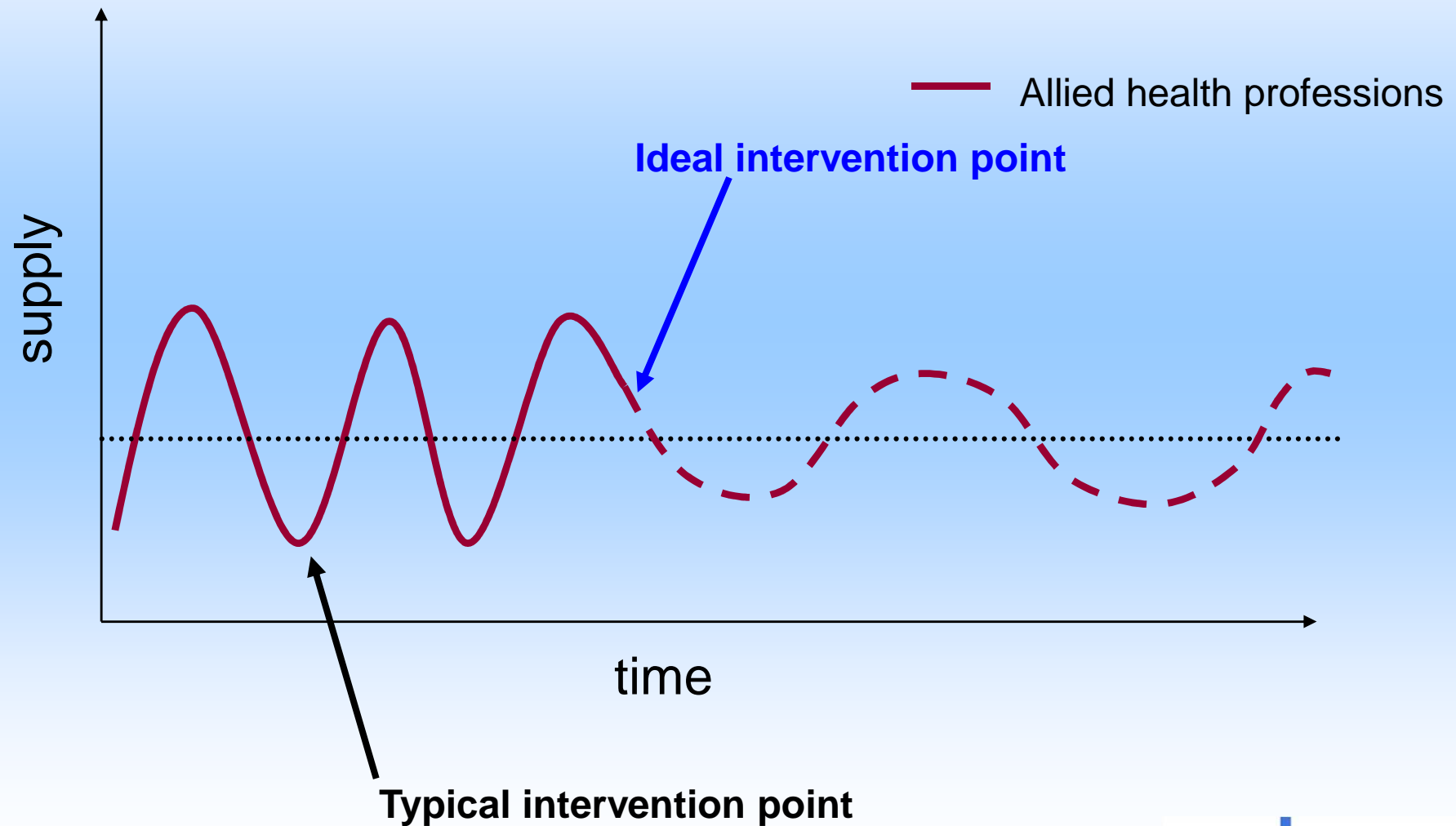
The Council's Role

- **Council plays role as neutral convener to develop, nurture and sustain solid partnerships with employers, practitioners and educators to solve local/regional/state workforce shortages**
- **Council needed to support data collection and ongoing workforce surveillance**

Current Allied Health Supply Cycle



Ideal Allied Health Supply Cycle



The Council's Role

Council plays role in disseminating health workforce findings to:

- **The UNC Board of Governors and the North Carolina Community College System to assist in educational program planning efforts and initiatives**
- **AHECs and Regional Workforce Planning Groups**
 - **In collaborative workforce planning initiatives involving educators, employers, local workforce development boards**

The Council's Role

- **Workforce data provide objective information for discussions of difficult professional issues to facilitate communication among disparate groups:**
 - **Between competing HIM credentialing organizations about development of minimum educational qualifications**
 - **Between SLP licensure board and school employers about differences in licensing requirements**

Results and Outcomes of the Reports: **Increased Attention to Allied Health Workforce Issues**

■ **Press**

- **Brought exposure to the allied health professions**
- **Featured in local, state and national publications (newspapers, magazines, newsletters)**

■ **Technical Assistance**

- **To other states and/or organizations to assess allied health trends**

Future Role of Council?

- Increased partnering with workforce development boards to transition displaced workers into allied health professions.