Health Workforce Diversity and Allied Health in NC

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Council for Allied Health of North Carolina  
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NC Health Professions Data System (HPDS)

- Data for 19 health professions
- Derived from licensure files
  - Not a survey
  - Capture 100% of the workforce
  - Data voluntarily provided by boards, no mandate
- 30- years of data allow us to:
  - Monitor changes over time
  - Combine data on race/ethnicity with data on education and geographic characteristics
Data Definitions

- Race vs. ethnicity
- NCHPDS usage of the term allied health
Presentation Overview

• Where do the data come from and what are strengths/limitations?
• Diversity and emerging workforce shortages
• What does health workforce diversity currently look like in the state?
• How has workforce diversity changed over time?
• Where are NC’s diverse practitioners educated?
• Data reflections: What does it all mean?
Data Strengths

- We have data!
- Derived from licensure files—*not a survey*
- Sample=licensed, active, non-federal practitioners in NC
- 30- years of data allow us to:
  - Monitor changes over time
  - Combine data on race/ethnicity with data on education and geographic characteristics
- You, too, can access these data and have as much fun as we do crunching numbers
Data Challenges

- Data are self-reported
- Quality of race data variable over years, generally improved in recent years
- Race questions asked differently by different Boards
- Increasing number of health professionals fall into more than one category
- How do we know how we’re doing? National data are limited but we benchmark to:
  - Previous years
  - North Carolina’s population
Diversity and Workforce Shortages

• Emerging workforce shortages
• Are we adequately accessing a talented pool of workers?
• Is there upward education and job mobility?
• Transformed health care system emphasizes population health, reducing health disparities, and community-based models of care. Can we do this without increasing workforce diversity?
NC Employment Trends and Allied Health Professions
North Carolina Health Care Employment is Growing Rapidly

Total Employment in Manufacturing and Health Care and Social Assistance Employment in NC, 1999-2009

Health Care Jobs in NC, 2010

**Allied Health**: all health professionals except physicians, nurses, chiropractors, dentists, optometrists, pharmacists, podiatrists, nurse aides, orderlies, and attendants.

Other: chiropractors, dentists, optometrists, pharmacists, and podiatrists.

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**Figure 1. Health Care Jobs in North Carolina, 2010**

- **Allied Health Professions, 34%**
- **Physicians, 5%**
- **LPNs, 5%**
- **RNs, 24%**
- **Nurse aides, orderlies and attendants, 28%**
- **Other, 4%**

Total Allied Health Jobs = 129,920
Total Health Care Jobs = 376,930

And allied health is outpacing health care

Demand Side Data: Allied Health
Job Vacancy Tracking Reports

**Purpose:** Estimate workforce demand for selected allied health professions

**Method:** Monitor weekly job listings in newspaper and online sources

Conducted in partnership with:
- Council for Allied Health in NC
- AHEC

Funded by the NC Department of Commerce

Current funding provided by the North Carolina Department of Commerce.
Vacancy Data Showed High Demand for Therapy Professions and HIM

<table>
<thead>
<tr>
<th>Rank</th>
<th>Profession</th>
<th>Workforce Size</th>
<th>Vacant Positions</th>
<th>Vacancy Index</th>
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<tbody>
<tr>
<td>1</td>
<td>Occupational Therapy Assistant</td>
<td>880</td>
<td>102</td>
<td>11.6</td>
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<tr>
<td>2</td>
<td>Occupational Therapist</td>
<td>2,660</td>
<td>232</td>
<td>8.7</td>
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<tr>
<td>3</td>
<td>Physical Therapist Assistant</td>
<td>2,020</td>
<td>170</td>
<td>8.4</td>
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<tr>
<td>4</td>
<td>Physical Therapist</td>
<td>4,530</td>
<td>274</td>
<td>6.0</td>
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<tr>
<td>5</td>
<td>Speech Language Pathologist</td>
<td>3,630</td>
<td>202</td>
<td>5.6</td>
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<td>6</td>
<td>Health Information Management</td>
<td>5,110</td>
<td>202</td>
<td>4.0</td>
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<td>7</td>
<td>Clinical Laboratory Sciences</td>
<td>9,090</td>
<td>139</td>
<td>1.5</td>
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<tr>
<td>8</td>
<td>Medical Assistant</td>
<td>11,970</td>
<td>164</td>
<td>1.4</td>
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<tr>
<td>9</td>
<td>Imaging</td>
<td>9,680</td>
<td>68</td>
<td>0.7</td>
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<tr>
<td>10</td>
<td>Emergency Medical Services</td>
<td>8,940</td>
<td>46</td>
<td>0.5</td>
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</tbody>
</table>

The vacancy index is calculated by dividing the number of positions advertised by the profession’s total workforce size and multiplying by 100.

Sources: NC Health Professions Data System Allied Health Job Vacancy Tracking Project with funding provided by the North Carolina Department of Commerce. Job listings tracked from 9/18/11 to 11/26/11 (N=1599).
Now to workforce diversity...
Race/Ethnicity of Practitioners Falls Short of Matching Population Diversity

Diversity of North Carolina’s Population vs. Diversity of Selected Health Professions, 2009

- NC Population: 33% nonwhite
- Licensed Practical Nurses: 31% nonwhite
- Primary Care Physicians: 27% nonwhite
- Respiratory Therapists: 17% nonwhite
- Registered Nurses: 16% nonwhite
- Dentists: 16% nonwhite
- Pharmacists: 12% nonwhite
- Surgeons: 12% nonwhite
- Nurse Practitioners: 11% nonwhite
- Dental Hygienists: 6% nonwhite

Legend:
- Other/Multiracial
- Hispanic/Latino
- African American/Black
- Asian/Pacific Islander
- American Indian/Alaska Native
- White
NC Health Professions
Diversity Scorecard, 2009

Legend
White: Above state average
Dark Blue: Below state average
Light Blue: Equivalent to state average

<table>
<thead>
<tr>
<th></th>
<th>State</th>
<th>Licensed Practical Nurses</th>
<th>Primary Care Physicians</th>
<th>Respiratory Therapists</th>
<th>Dentists</th>
<th>Registered Nurses</th>
<th>Physician Assistants</th>
<th>Physical Therapist Assistants</th>
<th>Pharmacists</th>
<th>Surgeons</th>
<th>Nurse Practitioners</th>
<th>Occupational Therapy Assistants</th>
<th>Certified Nurse Midwives</th>
<th>CRNAs</th>
<th>Dental Hygienists</th>
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<tbody>
<tr>
<td>White</td>
<td>67%</td>
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<td>American Indian/Alaska Native</td>
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<td>Asian/Pacific Islander</td>
<td>2%</td>
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<td>African American/Black</td>
<td>21%</td>
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<tr>
<td>Hispanic/Latino</td>
<td>7%</td>
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<td>Multiracial/Other</td>
<td>2%</td>
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Therapist Professions in Allied Health Surprisingly Not Diverse

Allied Health Diversity vs. State Diversity, North Carolina, 2009

<table>
<thead>
<tr>
<th>Profession</th>
<th>NC Population</th>
<th>PT</th>
<th>PTA</th>
<th>OT</th>
<th>OTA</th>
<th>RT</th>
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<tbody>
<tr>
<td>White</td>
<td>67%</td>
<td>87%</td>
<td>88%</td>
<td>89%</td>
<td>89%</td>
<td>83%</td>
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<tr>
<td>Hispanic</td>
<td>13%</td>
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<tr>
<td>African American/Black</td>
<td>12%</td>
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<tr>
<td>Asian/Pacific Islander</td>
<td>11%</td>
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</tr>
<tr>
<td>Other/Multiracial</td>
<td>11%</td>
<td></td>
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</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>17%</td>
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</tbody>
</table>

n=9,045,705
n=4,738
n=2,183
n=2,343
n=1,057
n=3,828
Health Professions are Diversifying Over Time at Different Rates

Figure 2. Change in Nonwhite Diversity of Selected Health Professions in North Carolina: 1994-2009
Many Community Colleges Contribute to Non-White RTs in the State

Percent Non-White Respiratory Therapists from NC Schools, 2009

- Durham Technical CC: 15.8%
- Central Piedmont CC: 13.0%
- Fayetteville Technical CC: 13.0%
- Robeson CC: 11.5%
- Sandhills CC: 9.7%
- Pitt CC: 8.1%
- Edgecombe CC: 7.1%
- Forsyth Technical CC: 6.4%
- Catawba Valley CC: 5.9%
- Carteret CC: 4.1%
- Southwestern CC: 2.3%
- Lenoir CC: 1.5%
- Stanley Technical CC: 1.0%
- Rockingham CC: 0.5%
- Unknown: 0.3%

n=393

Many Community Colleges Contribute to Non-White RTs in the State
Robeson County Community College Provides More Than Half of All American Indian RTs

NC American Indian Respiratory Therapists (RT) by school, 2009

- Robeson County CC: 56%
- Sandhills CC: 11%
- Fayetteville Technical CC: 16%
- Other NC schools: 10%
- Out of state: 7%
- Other: 11%

n=73
Respiratory Therapists Have a Higher Ratio of American Indians than Whites

Respiratory Therapists per 10,000 Pop of Same Race/Ethnicity, North Carolina, 2009

- American Indian/Alaska Native: 7
- White: 5
- North Carolina: 4
- Asian/Pacific Islander: 3
- African American/Black: 2
- Hispanic/Latino: 1

Ratio per 10,000 Pop, Same Race/Ethnicity
Where Do Our Non-White Health Care Practitioners Practice?

- Geographically concentrated with nearly half located in Mecklenburg, Wake, Durham, Guilford, Forsyth, Pitt and Cumberland counties
- About four out of five (79%) are located in metropolitan counties
About 1 in 3 American Indian/Alaskan Native Health Care Practitioners are in Robeson County

American Indian/Alaskan Native (AIAN) Population and Healthcare Providers, 
North Carolina, 2009

Robeson

AIAN Population
(# of Counties)

46,064 (1)
1,500 to 3,602 (10)
500 to 1,499 (17)
100 to 499 (41)
1 to 99 (29)

No AIAN Population (2)

AIAN Providers = 1,358
AIAN Population = 97,830
AIAN Population : AIAN Providers = 72:1

1 Dot = 1 AIAN Provider
About half of African American practitioners are in urban areas but are the largest percent of non-white workforce in northeastern and southeastern counties.
About Half of Hispanic/Latino Practitioners are in Urban Areas but These Areas Still Fall Short of Achieving Parity with Population

Hispanic/Latino Population and Healthcare Providers, North Carolina, 2009

Hispanic/Latino Population
(# of Counties)

- 25,000 to 86,700 (5)
- 10,000 to 24,999 (11)
- 5,000 to 9,999 (16)
- 1,000 to 4,999 (34)
- 1 to 999 (34)
- No Hispanic Population (0)

1 Dot = 1 Hispanic Provider

Hispanic/Latino Providers = 1,815
Hispanic/Latino Population = 633,220
Hispanic/Latino Population : Hispanic/Latino Providers = 348.1
Diversity Reflections

- From the NC HPDS data, we can summarize four main points:
  - The racial/ethnic diversity of North Carolina’s health care professionals falls short of matching state population diversity.
  - North Carolina’s health professions are diversifying slowly over time and at different rates.
  - There are differences in racial/ethnic group representation among North Carolina’s health professions.
  - North Carolina’s nonwhite racial/ethnic health care practitioners cluster regionally.
Diversity Reflections

• Lack of diversity among allied health professions, particularly among OTAs and PTAs

• Why have health professions diversified at different rates?
  – LPNs are most diverse
  – Why haven’t allied health professions diversified as quickly?
    – Slower to diversify—dental hygienists

• Economic development issue—entry-level jobs on the career ladder
Questions?

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