Data Update: Allied Health Vacancies and Health Workforce Diversity in NC

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Program on Health Workforce Research and Policy

Turning Point Regional Allied Health Roundtable Meeting
24 October 2012
Presentation Overview

- Brief intro to the North Carolina Health Professions Data System (NC HPDS)
- Review of the 2011 NC Allied Health Vacancy Report
- Review of the state of NC Health Workforce Diversity (2009 data)
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
Area L 2011 HPDS Databook Page
### Area L Snapshot: 2011 HPDS Data Book Page

#### Other Health Professionals

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiropractors</td>
<td>26</td>
</tr>
<tr>
<td>Occupational Therapists</td>
<td>35</td>
</tr>
<tr>
<td>Occupational Therapy Assistants</td>
<td>25</td>
</tr>
<tr>
<td>Optometrists</td>
<td>44</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>232</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>100</td>
</tr>
<tr>
<td>Physical Therapist Assistants</td>
<td>125</td>
</tr>
<tr>
<td>Physician Assistants</td>
<td>97</td>
</tr>
<tr>
<td>Podiatrists</td>
<td>6</td>
</tr>
<tr>
<td>Practicing Psychologists</td>
<td>18</td>
</tr>
<tr>
<td>Psychological Associates</td>
<td>24</td>
</tr>
<tr>
<td>Respiratory Therapists</td>
<td>129</td>
</tr>
</tbody>
</table>

#### Dentists and Dental Hygienists

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentists</td>
<td>86</td>
</tr>
<tr>
<td>Dental Hygienists</td>
<td>123</td>
</tr>
</tbody>
</table>
## Area L Snapshot: Unemployment Rate, August 2012

<table>
<thead>
<tr>
<th>Location</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina Average</td>
<td>9.7%</td>
</tr>
<tr>
<td>Area L Average</td>
<td>13.2%</td>
</tr>
<tr>
<td>Edgecombe County</td>
<td>14.5%</td>
</tr>
<tr>
<td>Halifax County</td>
<td>13.9%</td>
</tr>
<tr>
<td>Nash County</td>
<td>12.0%</td>
</tr>
<tr>
<td>Northampton County</td>
<td>12.3%</td>
</tr>
<tr>
<td>Wilson County</td>
<td>13.1%</td>
</tr>
</tbody>
</table>

North Carolina Health Care Employment is Growing Rapidly

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

And allied health is outpacing health care

Figure 2.
Percent Growth in NC Employment Relative to 2000

Health Care Jobs in NC, 2011

**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%**
- **RN, 24%**
- **Nurse aides, orderlies and attendants, 28%**
- **Other, 4%**

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

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

Methodology

- Council members surveyed in September 2011
- Final list included 10 professions
- Ads collected over 10-weeks *(September 18 – November 26, 2011)*
- Vacancy information analyzed to determine demand by profession, region, and employment setting

Sources: NC Health Professions Data System Allied Health Job Vacancy Tracking Project with funding provided by the North Carolina Department of Commerce.
# 10 Professions Monitored

Clinical laboratory science professions added since last report. CLS had been tracked in reports from 2004-2006

<table>
<thead>
<tr>
<th>Professions Tracked for the March 2012 Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Laboratory Sciences</td>
</tr>
<tr>
<td>Emergency Medical Services</td>
</tr>
<tr>
<td>Health Information Management/Technology</td>
</tr>
<tr>
<td>Imaging (PET, MRI, CT)</td>
</tr>
<tr>
<td>Medical Assistants</td>
</tr>
<tr>
<td>Occupational Therapy Assistants</td>
</tr>
<tr>
<td>Occupational Therapists</td>
</tr>
<tr>
<td>Physical Therapists</td>
</tr>
<tr>
<td>Physical Therapist Assistants</td>
</tr>
<tr>
<td>Speech-Language Pathologists</td>
</tr>
</tbody>
</table>
## Hospital Systems and HIM Professional Orgs Were Added to Online Sources

**Online Sources**

<table>
<thead>
<tr>
<th>Online Sources</th>
<th>Print Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance for Healthcare Careers</td>
<td>Asheville Citizen Times</td>
</tr>
<tr>
<td>AHIMA</td>
<td>Charlotte Observer</td>
</tr>
<tr>
<td>American Speech-Language Hearing Assn</td>
<td>Fayetteville Observer</td>
</tr>
<tr>
<td>Carolinas HealthCare System</td>
<td>Greensboro News &amp; Record</td>
</tr>
<tr>
<td>Cone Health</td>
<td>Raleigh News &amp; Observer</td>
</tr>
<tr>
<td>Duke University Health System</td>
<td>Rocky Mount Telegram</td>
</tr>
<tr>
<td>HIMSS</td>
<td>The Daily Reflector</td>
</tr>
<tr>
<td>Indeed.com</td>
<td>Wilmington Star News</td>
</tr>
<tr>
<td>NC Occupational Therapy Association</td>
<td>Wilson Daily Times</td>
</tr>
<tr>
<td></td>
<td>Winston Salem Journal</td>
</tr>
</tbody>
</table>

**Sources added since October 2011 report**

Sources: NC Health Professions Data System Allied Health Job Vacancy Tracking Project with 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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Occupational Therapy Assistant</td>
<td>880</td>
<td>102</td>
<td>11.6</td>
</tr>
<tr>
<td>2</td>
<td>Occupational Therapist</td>
<td>2,660</td>
<td>232</td>
<td>8.7</td>
</tr>
<tr>
<td>3</td>
<td>Physical Therapist Assistant</td>
<td>2,020</td>
<td>170</td>
<td>8.4</td>
</tr>
<tr>
<td>4</td>
<td>Physical Therapist</td>
<td>4,530</td>
<td>274</td>
<td>6.0</td>
</tr>
<tr>
<td>5</td>
<td>Speech Language Pathologist</td>
<td>3,630</td>
<td>202</td>
<td>5.6</td>
</tr>
<tr>
<td>6</td>
<td>Health Information Management</td>
<td>5,110</td>
<td>202</td>
<td>4.0</td>
</tr>
<tr>
<td>7</td>
<td>Clinical Laboratory Sciences</td>
<td>9,090</td>
<td>139</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td>Medical Assistant</td>
<td>11,970</td>
<td>164</td>
<td>1.4</td>
</tr>
<tr>
<td>9</td>
<td>Imaging</td>
<td>9,680</td>
<td>68</td>
<td>0.7</td>
</tr>
<tr>
<td>10</td>
<td>Emergency Medical Services</td>
<td>8,940</td>
<td>46</td>
<td>0.5</td>
</tr>
</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).
Hospitals, long-term care facilities, and practices accounted for almost 80% of all vacancies.

<table>
<thead>
<tr>
<th>Employment Setting</th>
<th>Percentage of Total Vacancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>37%</td>
</tr>
<tr>
<td>Long-term care facility</td>
<td>21%</td>
</tr>
<tr>
<td>Practice</td>
<td>20%</td>
</tr>
<tr>
<td>Home health</td>
<td>8%</td>
</tr>
<tr>
<td>School</td>
<td>7%</td>
</tr>
<tr>
<td>Government</td>
<td>2%</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>2%</td>
</tr>
<tr>
<td>Staffing</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

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).
Greensboro and Southern Regional AHECs had the Greatest Regional Demand

Allied Health Job Vacancy Advertisements per 10,000 Population
by AHEC Region, North Carolina, Fall 2011

NC average is 1.7 vacancies per 10,000 population

Sources:
- NC Health Professions Data System, with funding provided by the North Carolina Department of Commerce. Job listings tracked from 9/18/11 to 11/26/11 (N=1599).
### Allied Health Job Vacancy Ads per 10,000 Pop by AHEC Region, NC

<table>
<thead>
<tr>
<th>AHEC</th>
<th>Allied Health Vacancy Report Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May-05</td>
</tr>
<tr>
<td>Area L</td>
<td>4.6</td>
</tr>
<tr>
<td>Charlotte</td>
<td>2.2</td>
</tr>
<tr>
<td>Eastern</td>
<td>2.0</td>
</tr>
<tr>
<td>Greensboro</td>
<td>3.4</td>
</tr>
<tr>
<td>Mountain</td>
<td>2.0</td>
</tr>
<tr>
<td>Northwest</td>
<td>2.4</td>
</tr>
<tr>
<td>South East (Coastal)</td>
<td>3.0</td>
</tr>
<tr>
<td>Southern Regional</td>
<td>1.9</td>
</tr>
<tr>
<td>Wake</td>
<td>2.7</td>
</tr>
</tbody>
</table>
What does this mean for Area L?

- Allied health is a job creator.
- The demand is there... How to get people into the pipeline?
- Number of allied health vacancies in Area L have been decreasing over time... Why?
- Do these data reflect Area L’s experience?
Now to workforce diversity...
Diversity in the Health Workforce

- Emerging workforce shortages...are we adequately accessing a talented pool of workers?

- Transformed health care system emphasizes population health, reducing health disparities, and community-based models of care.
  - Can we do this without increasing 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
- Licensed Practical Nurses
- Primary Care Physicians
- Respiratory Therapists
- Registered Nurses
- Dentists
- Pharmacists
- Surgeons
- Nurse Practitioners
- Dental Hygienists

- % nonwhite
- Other/Multiracial
- Hispanic/Latino
- African American/Black
- Asian/Pacific Islander
- American Indian/Alaska Native
- White
Therapist Professions in Allied Health Surprisingly Not Diverse

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

<table>
<thead>
<tr>
<th>Profession</th>
<th>%nonwhite</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>87%</td>
</tr>
<tr>
<td>PTA</td>
<td>88%</td>
</tr>
<tr>
<td>OT</td>
<td>89%</td>
</tr>
<tr>
<td>OTA</td>
<td>89%</td>
</tr>
<tr>
<td>RT</td>
<td>83%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Profession</th>
<th>%nonwhite</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC POPULATION</td>
<td>67%</td>
</tr>
<tr>
<td>PT</td>
<td>13%</td>
</tr>
<tr>
<td>PTA</td>
<td>12%</td>
</tr>
<tr>
<td>OT</td>
<td>11%</td>
</tr>
<tr>
<td>OTA</td>
<td>11%</td>
</tr>
<tr>
<td>RT</td>
<td>17%</td>
</tr>
</tbody>
</table>

- Red: Other/Multiracial
- Yellow: Hispanic
- Green: African American/Black
- Purple: Asian/Pacific Islander
- Orange: American Indian/Alaska Native
- Blue: White

n=9,045,705 for NC POPULATION, n=4,738 for PT, n=2,183 for PTA, n=2,343 for OT, n=1,057 for OTA, n=3,828 for RT
Area L: more diverse population, less diverse health professions

NC and Area L Population Diversity vs Area L Nursing and Allied Health Diversity, 2009

- Population:
  - North Carolina: 9,045,705
  - Area L: 297,894

- Workforce:
  - Nursing: 3,194
  - Allied Health: 498

- Diversity Categories:
  - Multiracial/Other
  - Hispanic/Latino
  - Asian/Pacific Islander
  - American Indian/Alaska Native
  - African American/black
  - White

- Percentages:
  - Population:
    - North Carolina:
      - Multiracial/Other: 1.6%
      - Hispanic/Latino: 7.0%
      - Asian/Pacific Islander: 1.9%
      - American Indian/Alaska Native: 1.1%
      - African American/black: 20.9%
      - White: 67.4%
    - Area L:
      - Multiracial/Other: 1.2%
      - Hispanic/Latino: 4.6%
      - Asian/Pacific Islander: 0.6%
      - American Indian/Alaska Native: 0.8%
      - African American/black: 20.7%
      - White: 48.1%

  - Workforce:
    - Nursing:
      - Multiracial/Other: 0.6%
      - Hispanic/Latino: 0.8%
      - Asian/Pacific Islander: 0.9%
      - American Indian/Alaska Native: 0.6%
      - African American/black: 20.7%
      - White: 76.3%
    - Allied Health:
      - Multiracial/Other: 0.6%
      - Hispanic/Latino: 1.0%
      - Asian/Pacific Islander: 1.2%
      - American Indian/Alaska Native: 0.6%
      - African American/black: 12.4%
      - White: 84.7%
Area L: more diverse population, less diverse health professions

NC and Area L Population Diversity vs Area L Nursing and Allied Health Diversity, 2009

- **Population**
  - North Carolina: 67.4%
  - Area L: 48.1%

- **Workforce**
  - Nursing: 76.3%
  - Allied Health: 84.7%

Legend:
- Multiracial/Other
- Hispanic/Latino
- Asian/Pacific Islander
- American Indian/Alaska Native
- African American/black
- White

Sample sizes:
- North Carolina: 9,045,705
- Area L: 297,894
- Nursing: 3,194
- Allied Health: 498
Area L: more diverse population, less diverse health professions

**NC and Area L Population Diversity vs Area L Nursing and Allied Health Diversity, 2009**

- **Population**
  - North Carolina: 9,045,705
  - Area L: 297,894

- **Workforce**
  - Nursing: 3,194
  - Allied Health: 498

**Categories and Proportions**
- Multiracial/Other
- Hispanic/Latino
- Asian/Pacific Islander
- American Indian/Alaska Native
- African American/black
- White

**Proportions**
- North Carolina:
  - Population: 67.4%
  - Workforce: 84.7%
- Area L:
  - Population: 48.1%
  - Workforce: 76.3%
- Nursing:
  - Workforce: 20.7%
- Allied Health:
  - Workforce: 12.4%
Health Professions are Diversifying Over Time at Different Rates

Figure 2. Change in Nonwhite Diversity of Selected Health Professions in North Carolina: 1994-2009
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
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: 10%
- Other NC schools: 16%
- Out of state: 7%

n=73
About 1 in 3 American Indian/Alaskan Native Health Care Practitioners are in Robeson County


AIAN Providers = 1,358
AIAN Population = 97,830
AIAN Population : AIAN Providers = 72:1
About Half of African American Practitioners are in Urban Areas but are Largest Percent of Non-White Workforce in Northeastern and Southeastern Counties


- Mecklenburg: 245,628 (1)
- 25,000 to 165,505: 16
- 15,000 to 25,000: 18
- 5,000 to 15,000: 29
- 1 to 5,000: 36
- No Black Population: 0

Af Am/Black Providers = 17,905
Af Am/Black Population = 1,894,014
Af Am/Black Population : Af Am/Black Providers = 105.8
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

- Lack of diversity among allied health professions, particularly among OTAs and PTAs
- In Area L has higher percentage of African American population relative to state, but hasn’t achieved parity in the allied health workforce
- 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
How will Area L use these data?
Questions?

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