SHARPENING YOUR TOOLS TO SUPPORT EFFECTIVE WORKFORCE PLANNING AND ANALYSIS

National Governors Association
Center for Best Practices
Learning from Each Other: The Roles of States in Transforming their Health Systems
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**BACKGROUND**

- The Office for Healthcare Workforce Analysis and Planning in South Carolina
  - Established 2009 within the SC AHEC program office
  - Grant funded for start-up

- SC has long history of data collection on health professions through the license renewal process
  - Boards collected data on paper since 1970s
  - Records went electronic in early 1990’s
  - State Office of Research and Statistics = central data repository
  - ‘Umbrella’ board now coordinates data collection across multiple licensing boards
VALUABLE PROVIDER DATA SOURCES

- **AAMC** - Association of American Medical Colleges
  - State Physician Workforce Data Book
  - State Physician Specialty Data Book

- **ACGME** – Accreditation Council for Graduate Medical Education
  - Physician residency program #s and types

- **IPEDs** – Integrated Postsecondary Education Data System
  - Tracking education pipelines

- **BLS/LMI** – Bureau of Labor Statistics & state Labor Market Information offices
  - Growth estimates for occupational groups
TURNING DATA INTO KNOWLEDGE

South Carolina Health Professions Data Book selected as a “best state agency publication” of 2012
TURNING DATA INTO KNOWLEDGE
PEDIATRIC PHYSICIANS IN SOUTH CAROLINA

Pediatric Physicians in South Carolina by Primary Practice Location

- 1 Dot = 1 Pediatric Physician
- Total Number of Pediatric Physicians in South Carolina = 731
- Rural counties are those with a population density of 155 or fewer persons per square mile, based on 2010 census counts.

Concentration of Pediatric Physicians Per 10,000 Population

Counties in SC range from a low of 0 to a high of 4.3 Pediatric Physicians per 10,000 county residents:

- 0.1 to 0.9 (3)
- 1.0 to 2.9 (17)
- 3.0 to 4.3 (3)

Note: The ( ) shows the total number of counties with this range.

This information is based on all Pediatric Physicians with an active license to practice and a practice location in South Carolina as reported during the license renewal period ending 06/30/2011. Locations plotted here are the primary practice zip code locations. Dots are randomly placed within the zip code area and may not represent the street location of the practice. This map was created by the Office for Healthcare Workforce Analysis and Planning, South Carolina.
TURNING DATA INTO KNOWLEDGE

Table 1. Top 10 Fastest Growing Healthcare Occupations by Estimated Annual Openings

<table>
<thead>
<tr>
<th>Occupational Title</th>
<th>Employment</th>
<th></th>
<th>Total % Change</th>
<th>Average Annual Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual 2008</td>
<td>Estimated 2018</td>
<td>Total Change</td>
<td></td>
</tr>
<tr>
<td>1) Registered Nurses</td>
<td>38,401</td>
<td>48,021</td>
<td>9,620</td>
<td>25%</td>
</tr>
<tr>
<td>2) Nursing, Psychiatric, and Home Health Aides</td>
<td>31,632</td>
<td>39,207</td>
<td>7,575</td>
<td>24%</td>
</tr>
<tr>
<td>3) Nursing Aides, Orderlies, and Attendants</td>
<td>20,094</td>
<td>23,395</td>
<td>3,301</td>
<td>16%</td>
</tr>
<tr>
<td>4) Licensed Practical / Vocational Nurses</td>
<td>9,955</td>
<td>11,851</td>
<td>1,896</td>
<td>19%</td>
</tr>
<tr>
<td>5) Pharmacy Technicians</td>
<td>5,494</td>
<td>7,631</td>
<td>2,137</td>
<td>39%</td>
</tr>
<tr>
<td>6) Medical Assistants</td>
<td>7,099</td>
<td>9,484</td>
<td>2,385</td>
<td>34%</td>
</tr>
<tr>
<td>7) Pharmacists</td>
<td>4,419</td>
<td>5,476</td>
<td>1,057</td>
<td>24%</td>
</tr>
<tr>
<td>8) Dental Assistants</td>
<td>3,247</td>
<td>4,446</td>
<td>1,199</td>
<td>37%</td>
</tr>
<tr>
<td>9) Dental Hygienists</td>
<td>2,599</td>
<td>3,578</td>
<td>979</td>
<td>38%</td>
</tr>
<tr>
<td>10) Physicians and Surgeons, All Other</td>
<td>2,877</td>
<td>3,523</td>
<td>646</td>
<td>22%</td>
</tr>
</tbody>
</table>

Note: The group "Physicians and Surgeons, All Other" contains the following job titles: Allergists and immunologists, Dermatologists, Hospitalists, Neurologists, Nuclear Medicine Physicians, Ophthalmologists, Pathologists, Physical Medicine and Rehabilitation Physicians, Preventive Medicine Physicians, Radiologists, Sports Medicine Physicians, and Urologists

Data Source: BLS Occupational Projections 2008 – 2018 (State-level data)
Data Sources: IPEDs SC Medical School graduates
First year enrollees collected from the schools directly
TURNING DATA INTO KNOWLEDGE

**Physician Retention Rates by Education Location**

<table>
<thead>
<tr>
<th>Education and Location</th>
<th>Practicing in SC</th>
<th>Practicing Elsewhere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians active in the U.S. who graduated from medical school in SC</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Physicians active in the U.S. who completed residency training in SC</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td>Physicians active in the U.S. who did both medical school and residency in SC</td>
<td>77%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Data source: 2011 State Physician Workforce Data Book, AAMC; AMA Masterfile as of Dec. 31, 2010

Data Source: AAMC 2011 State Physician Workforce Data Book
Turning Data into Knowledge

Data Elements

Physician specialty by practice location + DHHS data on poor birth outcomes by location

Physician practice location showing where specialists do not practice

Projected med school grads
# of available residency slots
Historical retention of residents by subspecialty
Availability of primary care physicians, NPs, and PAs in rural and underserved areas

Policy Issues

New telemedicine program to reduce low birth weight among rural babies

General legislation to expand support of and reimbursement for telehealth services

Task Force recommendations for more focused Medicaid funding of GME
ESTIMATING SUPPLY AND DEMAND - RNs

Scenario: Increase new RN production in SC by 5% each year beginning in 2018

Data Required: RNs holding an active license to practice in 2006, 2008, 2010 RNs in the workforce by age in 2008 RN graduation state and year RN NCLEX pass rate BLS occupational growth rate forecast 2008-2018
Please visit our website for more ideas –

www.OfficeForHealthcareWorkforce.org

Thank You.