Assessing the Physician Workforce in the United States: National and State Initiatives

Pre-conference Session: Data
The Tenth International Medical Workforce Collaborative
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Overview of Presentation

- Current issues and concerns
- National data: the view from 30,000 feet
- State data collection and analysis: a more in depth understanding of state medical workforce issues
- Planning for the future
The Center for Health Workforce Studies at the University at Albany

- A center of the School of Public Health at New York’s State University at Albany
- Conducts studies of the supply, demand, use and education of the health workforce
- Committed to collecting and analyzing data to understand workforce dynamics and trends
- Goal to inform public policies, the health and education sectors and the public
Health Workforce Problems and Solutions

- Problems are defined as national in scope
- But the impacts are local (e.g. limited access to care in communities and facilities)
- States and institutions are left to find their own solutions

Source: Tom Ricketts, Sheps Center, UNC Chapel Hill
Inconvenient Truths vs. The Health Professions

- Inconvenient truths
  - The same work can be done by different professions
  - There are less expensive ways to educate health professionals
- The health professions
  - Practice acts
  - Professional identity
  - Credential creep

Source: Tom Ricketts, Sheps Center, UNC Chapel Hill
The missing data

- Regularly collected inventories that yield timely projections of supply and need

Source: Tom Ricketts, Sheps Center, UNC Chapel Hill

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The missing policy

- Support for independent, ongoing, longitudinal research capacity in health workforce.

- Yes, money.

Source: Tom Ricketts, Sheps Center, UNC Chapel Hill
First steps to wisdom

- How many practitioners are there?
- When do they enter and leave practice?
- Where do they practice?
- What do they practice?

Source: Tom Ricketts, Sheps Center, UNC Chapel Hill
The US Health Workforce Profile
US Health Workforce Profile

- Background data on population demographics and health status
- Health services infrastructure data, including employment by setting
- Supply, trend, educational pipeline and demographic characteristics data on more than 25 health professions
Percent of Population 65+, 2004

Source: U.S. Census Bureau.
Number of Cancer Deaths Per 100,000 population, 2002

Source: National Center for Health Statistics.

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Percentage Distribution of Employment in Health Services, 2004

- Hospitals, public and private: 41%
- Nursing and residential care facilities: 21%
- Offices of physicians: 16%
- Outpatient care centers: 3%
- Offices of other health practitioners: 4%
- Home health care services: 6%
- Offices of dentists: 6%
- Other ambulatory health care services: 2%
- Medical and diagnostic laboratories: 1%
- Outpatient care centers: 3%
- Offices of other health practitioners: 4%
- Home health care services: 6%
- Offices of dentists: 6%
- Other ambulatory health care services: 2%
- Medical and diagnostic laboratories: 1%

Primary Care Physicians per 100,000 Population

140 to 150 (1)
90 to 140 (7)
80 to 90 (13)
70 to 80 (16)
50 to 70 (14)

Source: American Medical Association; American Osteopathic Association; U.S. Census Bureau.

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Location of Medical School Attended by Physicians Currently Practicing, 2004

- In state: 29%
- Other state: 45%
- IMG: 26%

Source: American Medical Association; American Osteopathic Association.

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Total Medical School Graduates per 100,000 Population, 2004

Source: American Medical Association; American Osteopathic Association; U.S. Census Bureau.

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Race/Ethnicity of Medical School Degree Recipients and the Population, 2003-04

- **White**: Population - 72%, Medical school graduates - 68%
- **Black/African-American**: Population - 11%, Medical school graduates - 7%
- **Hispanic/Latino**: Population - 13%, Medical school graduates - 5%
- **Asian**: Population - 4%, Medical school graduates - 20%

Source: National Center for Education Statistics; U.S. Census Bureau.
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Physician Assistants per 100 Physicians, 2004

Source: American Academy of Physician Assistants; U.S. Census Bureau.

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## Advanced Practice Nurses, 2004

<table>
<thead>
<tr>
<th>State</th>
<th>NPs per 100K</th>
<th>CRNAs per 100K</th>
<th>CNMs per 100K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>22.07</td>
<td>0.95</td>
<td>31.59</td>
</tr>
<tr>
<td>Alaska</td>
<td>129.68</td>
<td>7.78</td>
<td>38.14</td>
</tr>
<tr>
<td>Arizona</td>
<td>45.74</td>
<td>2.75</td>
<td>5.50</td>
</tr>
<tr>
<td>Arkansas</td>
<td>52.39</td>
<td>0.84</td>
<td>22.27</td>
</tr>
<tr>
<td>California</td>
<td>34.94</td>
<td>2.44</td>
<td>4.82</td>
</tr>
<tr>
<td>Colorado</td>
<td>50.40</td>
<td>4.93</td>
<td>13.71</td>
</tr>
<tr>
<td>Connecticut</td>
<td>73.78</td>
<td>4.28</td>
<td>12.84</td>
</tr>
<tr>
<td>Delaware</td>
<td>97.55</td>
<td>2.77</td>
<td>0.00</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>142.54</td>
<td>5.42</td>
<td>39.02</td>
</tr>
<tr>
<td>Florida</td>
<td>58.06</td>
<td>2.87</td>
<td>16.15</td>
</tr>
<tr>
<td>Georgia</td>
<td>35.82</td>
<td>3.73</td>
<td>15.57</td>
</tr>
<tr>
<td>Hawaii</td>
<td>31.67</td>
<td>2.85</td>
<td>0.87</td>
</tr>
<tr>
<td>Idaho</td>
<td>53.62</td>
<td>1.44</td>
<td>23.61</td>
</tr>
<tr>
<td>Illinois</td>
<td>19.83</td>
<td>2.31</td>
<td>0.00</td>
</tr>
<tr>
<td>Indiana</td>
<td>2.40</td>
<td>1.35</td>
<td>0.00</td>
</tr>
<tr>
<td>Iowa</td>
<td>49.45</td>
<td>2.03</td>
<td>13.20</td>
</tr>
<tr>
<td>Kansas</td>
<td>45.73</td>
<td>1.61</td>
<td>25.33</td>
</tr>
<tr>
<td>Kentucky</td>
<td>37.22</td>
<td>2.29</td>
<td>22.58</td>
</tr>
<tr>
<td>Louisiana</td>
<td>25.67</td>
<td>0.84</td>
<td>24.49</td>
</tr>
<tr>
<td>Maine</td>
<td>68.63</td>
<td>5.09</td>
<td>32.57</td>
</tr>
</tbody>
</table>
The North Carolina Health Professions Data System
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>New to File</th>
<th>Left File</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>16,392</td>
<td>1,681</td>
<td>1,304</td>
<td>16,769</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(status change 480 newly licensed 1,201)</td>
<td></td>
<td>Net gain 377</td>
</tr>
<tr>
<td>2002</td>
<td>16,769</td>
<td>1,563</td>
<td>1,242</td>
<td>17,090</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(status change 508 newly licensed 1,055)</td>
<td></td>
<td>Net gain 384</td>
</tr>
<tr>
<td>2003</td>
<td>17,090</td>
<td>1,413</td>
<td>1,154</td>
<td>17,349</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(status change 480 newly licensed 933)</td>
<td></td>
<td>Net gain 259</td>
</tr>
<tr>
<td>2004</td>
<td>17,349</td>
<td>1,550</td>
<td>1,004</td>
<td>17,895</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(status change 667 newly licensed 883)</td>
<td></td>
<td>Net gain 546</td>
</tr>
</tbody>
</table>

Source: NC Health Professions Data System, with data provided by the North Carolina Medical Board.

Note: Newly licensed physicians are those who are new to file with a license date in the current or previous year. Status change physicians are those who were licensed in NC in an earlier year but were either inactive or active out of state in the previous year.
Birth States of NC Physicians, 2003
n=17,315*

NC
3016
18%

NY
1498

PA
872

VA
614

SC
522

GA
434

OH
691

IL
450

Source: AMA Masterfile, December 31, 2003. Note: Birthplace was unknown for 476 physicians. Percentages are based on 16,839 physicians for whom birthplace data were available. 2,668 physicians practicing in NC were born outside of the U.S. (16% of total).
Where NC Physicians went to Medical School, 2003

n = 17,315

Source: AMA Masterfile, December 31, 2003. Note: 2,303 physicians practicing in NC went to medical schools outside the U.S. (13% of total).
Where NC Physicians Received Residency Training, 2003

n=17,315* Licensed North Carolina physicians

Source: AMA Masterfile, December 31, 2003. Note: Residency information was missing for 606 physicians. Percentages are based on 16,709 physicians for whom data were available.
Projections: Physicians

- Baseline, not age-adjusted
- Baseline
- Medical Grads + 30%
- Recruitment + 15%

Year: 2005 to 2029
Projections: All Practitioners

Year

Baseline (High)
Baseline (Low)
NPC Educ + 15%
2006 Profile
of New York State Physicians
The Supply and Distribution of Physicians in NY, 2005

- Data drawn from the 2004-06 Physician Re-registration Survey
- 84% survey response rate
- Based on survey responses, it is estimated that there were:
  - 77,471 licensed physicians
  - 61,931 active physicians
Overall Growth in NY Physician Supply

- Between 2001 and 2005, FTE active patient care physicians per capita grew by 5%.
- Not all specialties experienced growth over that time period.
  - General surgeons declined by 14%.
  - Ob/Gyns and psychiatrists declined slightly by 1%.
There Was Wide Regional Variation in Physician Distribution

- Ratio of FTE physicians per capita highest in Long Island (323) and lowest in the Mohawk Valley (150)

- Some regions saw declines in physicians per capita between 2001 and 2005
  - Overall decline – Western NY & Finger Lakes
  - Decline in primary care physicians – North Country
  - Decline in non-primary care physicians – Mohawk Valley
Per Capita FTE Physician Supply and Change 2001 – 2005

<table>
<thead>
<tr>
<th>Region</th>
<th>Supply</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital District</td>
<td>248</td>
<td>15%</td>
</tr>
<tr>
<td>Central NY</td>
<td>230</td>
<td>5%</td>
</tr>
<tr>
<td>Finger Lakes</td>
<td>227</td>
<td>-8%</td>
</tr>
<tr>
<td>Hudson Valley</td>
<td>291</td>
<td>9%</td>
</tr>
<tr>
<td>Long Island</td>
<td>323</td>
<td>19%</td>
</tr>
<tr>
<td>Mohawk Valley</td>
<td>150</td>
<td>0%</td>
</tr>
<tr>
<td>NYC</td>
<td>311</td>
<td>2%</td>
</tr>
<tr>
<td>North Country</td>
<td>173</td>
<td>3%</td>
</tr>
<tr>
<td>Southern Tier</td>
<td>245</td>
<td>1%</td>
</tr>
<tr>
<td>Western NY</td>
<td>204</td>
<td>-11%</td>
</tr>
</tbody>
</table>

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Characteristics of Active Physicians in New York

- Average age 51
- Nearly 30% women
- 35% International Medical Graduates
- Nearly 30% reported primary care specialties
- More than a third worked in a group practice
- Plans to reduce hours or retire varied by specialty
  - General surgeons, ob-gyns and neurologists were most likely to report plans to reduce hours and retire

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New York’s Physicians are not Representative of Its Population

Percent URM of Active Patient Care Physicians in New York by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>NY URM Physicians</th>
<th>NY URM Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>7%</td>
<td>28%</td>
</tr>
<tr>
<td>2000</td>
<td>8%</td>
<td>33%</td>
</tr>
<tr>
<td>2004</td>
<td>9%</td>
<td>34%</td>
</tr>
</tbody>
</table>

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Characteristics of URM Physicians in New York

- Half were younger than 45 years of age compared to 38% of non-URM physicians
- 44% were women compared to 27% of non-URM physicians
- More likely to report a primary care specialty
- More likely to practice in hospitals and clinics
- More likely to serve Medicaid patients
- For those in NYC, more likely to practice in primary care shortage areas
Looking Ahead....

There is fragmented and limited national focus on health workforce policy

- An increasing number of states want better data and information to inform policy decisions, but resources are limited

  - But do they ask the right questions?

- Workforce researchers may need to focus on new important questions:

  - Given the needs of the population, what is the right mix of skills and services?

  - How can we support the development and effective use of interdisciplinary teams?