AN ENVIRONMENTAL SCAN: DELAWARE’S HEALTHCARE WORKFORCE

Current and Projected
DE’s Healthcare Workforce

Acknowledgements

DE agencies, institutions and associations
- DHSS
- DOL
- University of DE
- DE Population Consortium
- DE Healthcare Association

US agencies and institutions
- HHS/HRSA; CMS; CDC; AHRQ
- US Census Bureau
- National Institutes of Health

Foundations, Journals, etc.
- Kaiser Family Foundation
- NEJM, JAMA, Health Affairs
- The Commonwealth Fund
DE’s Healthcare Workforce

It’s all about us: Delaware’s:
- Population
  - Demographics
  - Health status
- Healthcare delivery
  - Current
  - Evolving
- Healthcare workforce
  - Current
  - Future
What we learned: Now

- Delaware’s population grew by a larger percentage than did the U.S. population over the last two decades
  - 1990 to 2000
    - US: 13.2%
    - DE: 18.5%
  - 2000 to 2010
    - US: 9.7%
    - DE: 14.6%
What we learned: Now

- Delaware’s population grew by differing percentages across its counties
  - **1990 to 2000**
    - Kent County: 14.1%
    - New Castle County: 13.2%
    - Sussex County: 38.3%
  - **2000 to 2010**
    - Kent County: 28.1%
    - New Castle County: 7.6%
    - Sussex County: 25.9%
What we learned: Now

- Delaware’s 2010 population differed from that of the U.S. in its racial and ethnic distribution
  - Persons reporting 1 race
    - US White: 72.4%
    - DE White: 68.9%
    - US Black: 12.6%
    - DE Black: 21.4%
  - Persons reporting 2+ races
    - US: 2.9%
    - DE: 2.7%
  - Hispanic / Latino origin
    - US: 16.3%
    - DE: 8.2%

Source: US Census Bureau
Delaware’s 2006-2010 median household income exceeded that of the U.S.

- **US:** $51,914
- **DE:** $57,599

This difference is largely due to New Castle County’s median household income

- Kent County: $53,183
- **New Castle County:** $62,474
- Sussex County: $51,046

Source: US Census Bureau, American Community Survey
What we learned: Now

- The percentage of Delaware’s population living below poverty level, 2006-2010, was less than that of the U.S.
  - US: 13.8%
  - DE: 11.0%
- The percentage of each county’s population living below poverty level was also below that of the U.S.
  - Kent County: 12.5%
  - New Castle County: 10.3%
  - Sussex County: 11.7%

Source: US Census Bureau, American Community Survey
What we learned: Future

- The percent change in total population will be greater in Delaware’s region than in the US, and greater in its sub-region than in other regions

Source: US Census Bureau
What we learned: Future

- DE’s growth will not be uniform across age groups

Source: DE Population Consortium

Delaware’s Estimated Population by Age Group
2000 to 2040

Source: DE Population Consortium

Delaware Health Care Commission
The percentage of DE’s population which is age 65+ will be larger than that of the US in coming decades.

Source: US Census Bureau

Delaware Health Care Commission
What we learned: Future

- Delaware’s state ranking – based on percentage of population age 65+ - will move up over the years

<table>
<thead>
<tr>
<th>State</th>
<th>2000 Rank</th>
<th>2010 Rank</th>
<th>2030 Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>23</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>MD</td>
<td>41</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>NJ</td>
<td>18</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>PA</td>
<td>2</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>FL</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: US Census Bureau
Implications of an Older Population

- ~25% of Americans of any age have two or more chronic conditions
- 80% of adults 65+ have at least 1 chronic condition
- 50% of adults 65+ have 2+ chronic conditions

- Our increasingly older population will result in increasingly complex health care needs which will make care coordination increasingly critical.
Using diabetes as an example, based on current rates of disease and population projections, Delaware can expect:

- An increase of **26.6%** in the number of diabetics of any age, between 2009 and 2040 (from 71,696 in 2009 to 90,762 in 2040)
- An increase of **221%** in the number of diabetics age 65+, between 2009 and 2040 (from 21,045 in 2009 to 46,512 in 2040)
Implications of an Older Population

- **Challenges**
  - Sheer number of older Delawareans
  - Number of those with complex health conditions
  - Historic, disease-centric healthcare delivery system

- **How to address?**
  - Older population: Continuing fact of life
  - Prevention of complex health conditions
    - Good strategy for population overall
    - Less impact on older age group with those conditions already in place
  - Delivery system: Healthcare delivery system must change to accommodate
Healthcare Delivery System

- Change is already underway
  - Patient-centered medical homes
  - Accountable care organizations
  - Community health teams
  - Primary care / behavioral health integration
  - Home- and community-based care delivery

- Themes:
  - Emphasis on teams / coordination / smooth transitions
  - Need for robust health information exchange
Healthcare Delivery System

- Emphasis on teams / coordination / smooth transitions
  - Who will lead those teams?
  - Who are the team members?
- Need for robust health information exchange
  - Coordination relies on shared knowledge
  - Smooth transitions require point of care knowledge sharing
- Implications for workforce
  - Types of providers
  - Skill sets
Healthcare Workforce: PCPs

- Primary care providers (PCPs) key to success: Serve as care leaders / coordinators

- Primary care providers include:
  - Physicians
    - Family / general practitioners
    - Internists
    - OB/Gyns
    - Pediatricians
  - Non-physicians
    - Nurse Practitioners (varying disciplines/specialties)
    - Physician Assistants (under physician oversight)
How is Delaware doing on the primary care front?

Across multiple sources, Delaware found to exceed national median of primary care physicians (combined) per 100,000 population

<table>
<thead>
<tr>
<th>Type of PCP</th>
<th>Nat’l Median</th>
<th>DE</th>
</tr>
</thead>
<tbody>
<tr>
<td>All PCPs (combined)</td>
<td>54.6</td>
<td>78.3 - 84.0</td>
</tr>
<tr>
<td>Family / General Practitioners</td>
<td>33.8</td>
<td>31.6 – 34.5</td>
</tr>
<tr>
<td>Internists</td>
<td>11.1</td>
<td>25.7</td>
</tr>
<tr>
<td>OB/Gyns</td>
<td>3.4</td>
<td>9.5 – 10.5</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>4.3</td>
<td>17.3 – 18.0</td>
</tr>
</tbody>
</table>

Sources: HRSA; UD; DE Population Consortium
There are differences in the number of primary care physicians per 100,000 population across Delaware’s counties.

**All primary care physicians**
- **Nat’l Median:** 54.6
- **Kent County:** 50.6 – 57.2
- **New Castle County:** 94.9 – 95.4
- **Sussex County:** 66.2 – 75.4

**Family / General Practitioners**
- **Nat’l Median:** 33.8
- **Kent County:** 19.7 – 24.4
- **New Castle County:** 35.2 – 41.5
- **Sussex County:** 27.4 – 33.1

Sources: HRSA; UD; DE Population Consortium
Healthcare Workforce: Physicians

- **Internists**
  - Nat’l Median: 11.1
  - Kent County: 15.4 – 17.7
  - New Castle County: 26.9 – 30.7
  - Sussex County: 22.8 – 30.6

- **OB/Gyns**
  - Nat’l Median: 3.4
  - Kent County: 5.9 – 7.7
  - New Castle County: 10.0 – 13.1
  - Sussex County: 8.7 – 9.5

Sources: HRSA; UD; DE Population Consortium
Pediatricians

- Nat’l Median: 4.3
- Kent County: 10.3 – 13.1
- New Castle County: 22.8 – 23.3
- Sussex County: 7.9 – 10.3

Sources: HRSA; UD; DE Population Consortium
The number of Delaware non-physician primary care providers per 100,000 exceeded that of the U.S.

- **Nurse practitioners**
  - US: 57.8
  - DE: 79.4

- **Physician assistants**
  - US: 27.0
  - DE: 32.9

Source: Kaiser Family Foundation, State Health Facts; 2010 and 2011 data
Some areas in DE – and some types of PCPs - already lag behind U.S. medians.

Contributing factor to multiple areas in DE being designated as:
- Health professional shortage areas (HPSAs) or
- Medically-underserved areas (MUAs) or
- Medically-underserved populations (MUPs)

Designation is complex; additional factors include:
- An area’s need for primary care services – e.g., does need exceed capacity of existing providers (even if it appears there are “enough”)?
- Are primary care providers in contiguous areas over-utilized, located at some distance, or otherwise inaccessible to population under consideration?
Implications of PCP Workforce

- Designations are important; e.g., play a role in:
  - Establishment / expansion of FQHCs
  - Attracting physicians under visa and scholarship / loan repayment programs
  - Qualifying physicians for supplemental reimbursement

- However, even with these compensatory efforts:
  - Low PCP supply likely diminishes DE’s ability to:
    - Adequately manage existing healthcare needs and
    - Position itself to ideally manage future healthcare needs
Healthcare Workforce: Non-PCPs

- PCPs are not the only healthcare providers Delawareans do – and will – need
- Others include:
  - Physician specialists (e.g., cardiology, endocrinology, psychiatry)
  - Nurses (registered nurses, licensed practical nurses, certified nursing assistants)
  - Therapists (physical therapy, occupational therapy, speech-language pathology, respiratory therapy)
  - Pharmacists (clinical pharmacists, pharmacy technicians)
  - Others (dietitians, social workers, laboratory technologists, radiology technicians)
Healthcare Workforce: Non-PCPs

Distribution of DE physician specialists across specialties mirrors that of the US:

Source: Kaiser Family Foundation: State Health Facts. “Other” includes allergy/immunology, dermatology, geriatrics, etc.
Non-physicians:

- Per DDOL, occupational group with highest projected job growth by 2018: Health Care and Social Assistance: 13,500 additional jobs
- Within that group, two occupations with greatest projected growth:
  - Registered nurses: 266 jobs per year
  - Aides/orderlies/attendants: 135 jobs per year
Other healthcare occupations with “excellent” projected growth (i.e., >14 jobs per year, 2008 - 2018) per DDOL:

- Licensed Practical / Vocational Nurse (500+ jobs)
- Certified Nursing Assistant (1300+ jobs)
- Dental Hygienists (140+ jobs)
- Dental Assistants (200+ jobs)
- Home Health Aides (300+ jobs)
- Medical / Health Services / Practice Manager (200+ jobs)
- Medical Assistants (350+ jobs)
- Pharmacy Technician (400+ jobs)
- Physical Therapist (150+ jobs)
- Radiological Technologist / Technician (190+ jobs)
Questions which arise:

- In the context of a changing healthcare delivery system, are the DDOL (or other) projections still on-target?

- Where will we find the people to fill available jobs, whatever the projected number is?

- How will we assure the healthcare workforce is ready to engage in effective health information exchange?
Next steps

- Develop workforce initiatives around:
  - Patient-centered medical home model
  - Community-based long-term care model

- Determine:
  - How many of what kinds of healthcare workers can serve what number of people?
  - How will practices / teams need to be configured to appropriately serve different communities?
  - How can existing (and developing) technologies be leveraged to assure care is coordinated and transitions are seamless?
  - How do the existing workforce need projections change under these delivery models?
  - How do we go about training, educating, recruiting and retaining an adequate healthcare workforce?
Healthcare Workforce: Overall

- It will “take a village”: A committed, collaborative village
- Ideas, input, questions and comments are welcome