Health Workforce Planning in the WWAMI Region

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University of Washington
Health Workforce Planning in the WWAMI Region

- Changes in health workforce needs
- How health workforce planning happens
- What works and the available policy levers
- Information needed for health workforce planning
- Resources for health workforce planning and program implementation
The healthcare landscape is changing...

ACO
ACA
ACOs: Accountable Care Organizations
HIT
Telehealth
Bundled Payment
Teams

PCMH
Patient-Centered Interprofessional

EHR
Meaningful Use

Exchange

Value vs. volume

“Quality not quantity”

“Quality not quantity”
Health Care Policy Changes

- Are transforming the health care system
- Bringing more focus on “The Triple Aim”
  - Improve the overall health of the population being served
  - Improve the care experience, which goes beyond simply providing the right type of care
  - Provide the best care possible while lowering the per-capita costs of care over time
- Shifting from volume to value
Health Care Transformation Impact on the Health Workforce

More emphasis on:

- Effective teamwork and interprofessional teams
- Working to the top of one’s scope of practice (working with the skillsets the workforce is educated/trained to use)
- Providing evidence-based care (care and services with evidence of effectiveness)
- Using information to make care decisions (use of health information technology [HIT] to monitor patient needs and outcomes, populations health)
Workforce Challenges Across the Nation and in WWAMI States

- Workforce shortages and need for new ways of staffing
  - Primary care
  - Chronic and long term care
  - Certain specialties (generalist surgeons in rural, geriatrics…)
  - Behavioral/mental health
  - Oral health
- Maldistribution
  - Shortages of providers in rural areas, underserved populations
- Need for workforce diversity
- Need for effective teams
  - Inter-professional, inter-disciplinary and intra-professional
New* Roles/Functions

- Care coordination
- Care/case management
- Care transition management
- Patient navigation
- Health coaching
- Patient education
- Community health worker
- Community health team
- Community paramedicine

*or being discussed and deployed in new ways

Who Will Perform?

- Physicians/NPs/PAs
- RNs
- Pharmacists
- Licensed practical nurses
- Social workers
- Nurse assistants
- Medical assistants
- Home care aides
- EMTs/Paramedics
- Receptionists
- Family members
- Patients
- Others?

Occupations? Skills? Or Both?
Who Does Health Workforce Planning and How Do They Do It?
Health Workforce Development

*Occurs at many stages and in many places*

- Pre-education – exposure of youth to health careers
- New entrants
  - Education and training (colleges and universities, technical schools, clinical sites, etc.)
- Recruitment and retention
  - Especially challenging for rural and other underserved locations
- Continuing education
  - Critical for the existing workforce to acquire and hone skills and knowledge
State Health Workforce Planning: Steps

1. Build collaboration through partnerships and coalitions
2. Identify health workforce needs (data, analysis)
3. Set priorities and outcome measures
4. Understand resources
5. Develop and execute workplans
6. Identify and deploy policy levers

Steps are interconnected, forming a cycle of planning and execution.
Health Workforce Planning Partners

- Schools, Colleges, Universities, Training org.s
- Health care providers
  - Hospitals, clinics, long term care, other providers & delivery settings
- Departments of Health
- Departments of Labor/Employment
- Local/regional health care groups
  - E.g., Washington’s “Accountable Communities of Health”; workforce investment boards
- Licensing boards
- Labor unions
- Professional associations
- Health workforce researchers/analysts
- Area Health Education Centers (AHECs)
- etc

No single agency or organization has the authority or the ability to identify health workforce needs and deploy the resources to address them.
Growing the Health Workforce Can Take Time

Approximate Number of Years of Education Required to become a:

- Registered Nurse (RN) – associate degree
- Registered Nurse (RN) – baccalaureate degree
- Physician (pre-residency – not yet able to practice)
- Pharmacist
- Physician (post-residency)

Years of Post-Secondary Education:
1. Dispensing Optician
2. Medical Assistant
3. Nurse Aide
4. Licensed Practical Nurse (LPN)
5. Dental Hygienist
6. Physical Therapist
7. Optometrist
8. Dentist
9. 10

<table>
<thead>
<tr>
<th>Policy Levers</th>
<th>Health Workforce Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal/National level</td>
<td>Medicare and Medicaid reimbursement/policy</td>
</tr>
<tr>
<td></td>
<td>Support for education and training</td>
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<tr>
<td></td>
<td>National scholarship and loan repayment programs</td>
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<td></td>
<td>Accreditation and credentialing requirements</td>
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<td></td>
<td>Good planning data (Identify gaps, areas of greatest needs)</td>
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<td></td>
<td>Research and evaluation (to identify what works)</td>
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Policy Levers
Health Workforce Development

<table>
<thead>
<tr>
<th>State level</th>
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</thead>
<tbody>
<tr>
<td>Licensing and regulation of health professionals</td>
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<tr>
<td>Regulating health facilities</td>
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<tr>
<td>Regulating educational programs</td>
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<tr>
<td>Funding state colleges and universities</td>
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<tr>
<td>State funded scholarships and loan repayment</td>
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<tr>
<td>Medicaid reimbursement policies and regulation of private insurance</td>
</tr>
<tr>
<td>Good planning data (Identify gaps, areas of greatest needs)</td>
</tr>
<tr>
<td>Research and evaluation (to identify what works)</td>
</tr>
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Information for Health Workforce Planning

- Identify the policy question
- Get the data
- Do the analysis
- Disseminate and use the resulting information

The data are seldom perfect.
We leverage what’s available (state, federal data sets) to address the question being asked.
Examples of Recent Health Workforce Studies from WWAMI States
Physician Supply in the WWAMI States

Results of Recent Analyses

Susan Skillman, Deputy Director
Bert Stover, Research Scientist
University of Washington
Center for Health Workforce Studies and
WWAMI Area Health Education Center Program Office
WWAMI Physician Workforce Analyses

To inform AHECs and health workforce planning and policy in the WWAMI states with:

- Updates on the size and distribution of practicing physicians in the WWAMI states (2014)
- Basic demographic information about each state’s physician supply
- Descriptions of the specialty mix of each state’s physicians
- Education history (medical school and residency) of the physician supply, by specialty
Data Sources

American Medical Association Physician Masterfile
- Accessed April, 2014
- Allopathic and osteopathic physicians selected for analysis: with in-state practice address (or mail address when practice not available), age 74 or younger, provide direct patient care, and not a federal employee
- Assigned specialties using the AMA dataset’s “primary” and “secondary” specialty fields
  - primary specialty was reassigned to the secondary specialty for about 7% or less of cases when the secondary specialty suggested the physician was likely to practice more specialized medicine than indicated by the primary specialty
- Grouped into “Generalists” (family medicine/general practice, general internal medicine and general pediatrics specialties), “Specialists” (general surgery, obstetrics-gynecology and other surgery), and “Other Specialists”.

State Population Data
- Claritas - 2014 population data with ZIP codes cross-referenced to counties

Rural-Urban Classification
- Rural Urban Commuting Area (RUCA) taxonomy
## Introduction: The WWAMI States

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>6,971,406</td>
<td>10.2%</td>
<td>71,362</td>
<td>98</td>
</tr>
<tr>
<td>Wyoming</td>
<td>582,658</td>
<td>69.7%</td>
<td>97,818</td>
<td>6</td>
</tr>
<tr>
<td>Alaska</td>
<td>735,132</td>
<td>32.5%</td>
<td>663,300</td>
<td>1</td>
</tr>
<tr>
<td>Montana</td>
<td>1,015,165</td>
<td>64.6%</td>
<td>147,164</td>
<td>7</td>
</tr>
<tr>
<td>Idaho</td>
<td>1,612,136</td>
<td>33.8%</td>
<td>83,642</td>
<td>19</td>
</tr>
</tbody>
</table>

*USDA ERS, county level rural definition
Physicians in WWAMI States: Numbers in 2014 Providing Direct Patient Care

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>15,421</td>
</tr>
<tr>
<td>ID</td>
<td>2,668</td>
</tr>
<tr>
<td>MT</td>
<td>2,045</td>
</tr>
<tr>
<td>AK</td>
<td>1,474</td>
</tr>
<tr>
<td>WY</td>
<td>376</td>
</tr>
</tbody>
</table>

The pie chart illustrates the distribution of physicians across the WWAMI (Washington, Idaho, Montana, and Wyoming) states, with Washington having the largest number of physicians at 15,421.
Physician Supply in WWAMI States

Total, Practicing and Generalist Physicians per 100,000 Population, 2014

Data from AMA Physician Masterfile, 2014
Physician Supply in WWAMI States
Physicians per 100,000 Population in Rural Areas, 2014

- WA: 117 (All Practicing), 57 (Generalists)
- WY: 146 (All Practicing), 57 (Generalists)
- AK: 126 (All Practicing), 71 (Generalists)
- MT: 157 (All Practicing), 68 (Generalists)
- ID: 117 (All Practicing), 56 (Generalists)
Physician Supply in WWAMI States

Generalists: % Female

- WA: 46.6%
- WY: 33.0%
- AK: 50.1%
- MT: 38.2%
- ID: 32.7%

Generalists: Mean Age (years)

- WA: 50.4 years
- WY: 49.9 years
- AK: 51.0 years
- MT: 51.2 years
- ID: 49.8 years
Physician Supply in WWAMI States
Washington

Generalists per 100,000 by county

1 county lacking generalist physicians
Physician Supply in WWAMI States

Wyoming

Generalists per 100,000 by county

Generalist physicians providing direct patient care, per 100,000 population

% of generalists age 55 or older

Generalist physicians age 55 or older providing direct patient care

No counties lacking generalist physicians
Physician Supply in WWAMI States
Alaska

Generalists per 100,000 by county

Nearly one third of Alaska’s boroughs had no generalist physicians
Physician Supply in WWAMI States
Montana

Generalists per 100,000 by county

Generalists age 55 or older

17 counties with no generalist physicians
Physician Supply in WWAMI States
Idaho

Generalists per 100,000 by county

% of generalists age 55 or older

4 counties with no generalist physicians
Generalist Physicians’ Education History:
(A) % Graduating from UW School of Medicine

- WA: 18.4%
- WY: 6.3%
- AK: 13.7%
- MT: 16.3%
- ID: 13.4%

Graduated from UW SOM
Generalist Physicians’ Education History:
(B) % Graduating from UW SOM, Residency in-State

<table>
<thead>
<tr>
<th>State</th>
<th>Graduated from UW SOM</th>
<th>Completed a Residency in-state</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>18.4%</td>
<td>38.2%</td>
</tr>
<tr>
<td>WY</td>
<td>6.3%</td>
<td>26.3%</td>
</tr>
<tr>
<td>AK</td>
<td>13.7%</td>
<td>13.6%</td>
</tr>
<tr>
<td>MT</td>
<td>7.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>ID</td>
<td>13.4%</td>
<td>18.5%</td>
</tr>
</tbody>
</table>
Generalist Physicians’ Education History: (C) % UW SOM, Residency in-State, Residency in WWAMI

- **WA**: 38.2% Graduated from UW SOM, 39.3% Completed a Residency in-state, 18.4% Completed a residency in a WWAMI State
- **WY**: 26.3% Graduated from UW SOM, 31.3% Completed a Residency in-state, 6.3% Completed a residency in a WWAMI State
- **AK**: 26.2% Graduated from UW SOM, 27.3% Completed a Residency in-state, 13.7% Completed a residency in a WWAMI State
- **MT**: 27.3% Graduated from UW SOM, 26.2% Completed a Residency in-state, 7.7% Completed a residency in a WWAMI State
- **ID**: 32.0% Graduated from UW SOM, 18.5% Completed a Residency in-state, 13.4% Completed a residency in a WWAMI State

Legend:
- Blue: Graduated from UW SOM
- Red: Completed a Residency in-state
- Pink: Completed a residency in a WWAMI State
Generalist Physicians’ Education History:
In-State Residency Completion -
All Generalists Compared with Younger Cohorts

<table>
<thead>
<tr>
<th>State</th>
<th>All Generalists</th>
<th>Generalists graduating 2000-on</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>38.2%</td>
<td>49.6%</td>
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<tr>
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<td>20.2%</td>
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<tr>
<td>ID</td>
<td>18.5%</td>
<td>27.2%</td>
</tr>
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</table>
Take-Aways

• The physician workforces in the WWAMI states appear relatively similar in spite of the differences among the states.

• Location of medical school is very important for growing physician supply

• Residencies are also key – with more in WWAMI:
  • we’re likely to retain more of our WWAMI medical school graduates
  • AND attract more graduates from the other medical schools that have been contributing to our supply for many years.
Washington Employers’
Current and Expected Demand for Five Health Care Occupations:
Findings from a Qualitative Study

Lorella Palazzo, PhD, Research Scientist
Susan M. Skillman, MS, Deputy Director
University of Washington Center for Health Workforce Studies
July, 2013

Question: Is the demand for certain entry level health care occupations changing?
How should our education and training institutions respond to changes in demand?
Example: Observed trend in supply of Licensed Practical Nurses (LPNs)

Number of LPNs with Washington Licenses and Washington Addresses* from 1999 to 2013

* Ages 18 through 75.

Figure 3. Estimated Demand Findings by Occupation and Industry Sectors

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Industry Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inpatient Care</td>
</tr>
<tr>
<td>Home care aides</td>
<td>NA</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>NA*</td>
</tr>
<tr>
<td>Nursing assistants certified</td>
<td>◆◆</td>
</tr>
<tr>
<td>Licensed practical nurses</td>
<td>↓↓</td>
</tr>
<tr>
<td>Associate's degree registered nurses</td>
<td>↑</td>
</tr>
</tbody>
</table>

* Medical assistants are infrequent in inpatient settings
† Medical assistants are infrequent in long-term care/home care settings

Key:

↑↑ = demand expected to grow (two arrows indicate strong trend).
↓↓ = demand expected to decline (two arrows indicate strong trend).
◆ = demand expected to remain stable (two diamonds indicate strong trend).

Who Are Our Federal Partners for Health Workforce Planning?
Federal Partners

Health Resources and Services Administration
US Department of Health and Human Services

Bureau of Health Workforce

Area Health Education Centers
UCSF Health Workforce Research Center (Long-Term Care)
SUNY Center for Health Workforce Studies (Oral Health)
UNC Health Workforce Research Center (Flexible & Novel Use of Health Workers)
GW Health Workforce Research Center (Flexible & Novel Use of Health Workers)

National Center for Health Workforce Analysis

GW Health Workforce Research Center (Flexible & Novel Use of Health Workers)

Office of Rural Health Policy

UW Center for Health Workforce Center (Allied Health)
WWAMI Rural Health Research Center (Workforce)
HRSA Health Workforce Research Centers

- Funding from National Center for Health Workforce Analysis (NCHWA) in HRSA Bureau of Health Workforce beginning in 2013
- Five centers around country working collaboratively on policy-relevant health workforce research questions
  - Focus areas: allied health, long-term care, oral health, flexible and novel use of workers
  - Future 6th center: behavioral health
- Each center conducts 3 to 4 studies per year over 3 to 4 years
  - In addition, one rapid response request per year
Example Studies

- **UW**: “Pathways for Military Veterans to Enter Allied Health Careers”
- **UCSF**: “Entry and Exit of Workers in Long-Term Care”
- **GW**: “Do Years of Experience with Electronic Health Records Matter for Productivity in Community Health Centers?”
- **SUNY**: “A Study of the Dental Assistant Workforce in the US”
- **UNC**: “Making Use of Workforce Projections to Inform the Graduate Medical Education Policy Debate in US”
HRSA Rural Health Research Centers

- Funding from The Office of Rural Health Policy in HRSA initiated in 1988
- Seven centers around the country working collaboratively on policy-relevant rural health research questions
  - Focus areas: workforce, financing, quality
  - University of Washington RHRC focus on workforce
    - Works in close collaboration with UW Center for Health Workforce Studies
- Each center conducts ~4 studies per year over 4 years
HRSA’s Area Health Education Center (AHEC) Program

AHECs “enhance access to high quality, culturally competent health care through academic-community partnerships to ultimately improve the distribution, diversity, and supply of the primary care health professions workforce who serve in rural and underserved health care delivery sites.”

Awardees subcontract with community-based AHEC centers in one or more regions of a state.
Area Health Education Centers (AHECs) in WWAMI States

**WWAMI AHEC (at UW SOM)**
- Centers: W WA AHEC, AHEC E WA, ID AHEC, WY AHEC

**Montana AHEC (MSU)**
- Centers: North Central MT, Western MT, South Central MT, North Eastern MT, Eastern MT

**Alaska AHEC (U of A)**
- Centers: NW AK, Interior AK, South Central AK, SE AK, Yukon Kuskokwim
Examples of AHEC Activities in WWAMI States

- Technical assistance to rural communities regarding recruitment and retention
- Outreach to veterans and service members leaving the military with healthcare experience to provide them with information about pathways to civilian careers and promote working in rural and underserved parts of Washington
- Support “R/UOP” by recruiting rural and underserved physician instructors, matching students with placement sites and physicians that complement student’s academic interests and goals, and helping with housing arrangements.
- Orientation to Health Careers and Health Career Camps: Introduces middle-school and high-school students to a variety of healthcare occupations.
- Support statewide telehealth development activities.
- And much more
Other Federal Partners

Department of Labor
  - Employment & Training Administration
    - Office of Workforce Investment
      - Division of Workforce Investment Act
      - Adult Services and Workforce Systems
  - Bureau of Labor Statistics
  - Office of Workforce Investment

Department of Commerce
  - Census Bureau
    - Current Population Survey
  - American Community Survey
Other Federal Partners (cont.)

- Workforce Investment and Opportunities Act of 2014 (formerly Workforce Investment Act)
  - Funded by Dept. of Labor with partnership with Dept. of Education and Dept. Health and Human Services
  - Supports regional Workforce Investment Boards
    - Partnerships between states, local areas, businesses and workers to identify job opportunities and solutions

- Data from Bureau of Labor Statistics and Census Bureau
  - Partnerships to collect large national surveys such as American Community Survey and Current Population Survey
  - Data leveraged in several studies conducted by health workforce research centers
Contact Information

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http://depts.washington.edu/uwchws/