Future of Work in Health Care:  
Overview of Workforce Needs

Legislative Committee on Economic Development & International Relations  
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UW Center for Health Workforce Studies (CHWS)

• Established in 1998 in Department of Family Medicine, UW
• Multidisciplinary team of researchers
• Primarily funded by contracts and grants from state, federal, and private organizations
• Houses 2 of 9 Center grants funded by the Health Resources and Services Administration (HRSA) to address 1) the allied health workforce and 2) health equity and health workforce diversity

• **Mission:** To elevate the importance of workers in the delivery of health care in policy discussions, which we accomplish by:
  • Conducting health workforce research to inform health workforce planning and policy
  • Providing consultation to local, state, regional and national policy makers on health workforce issues
  • Developing and refining analytical methods for measuring health workforce supply and demand
UW Primary Care Innovation Lab (PCI-Lab)

• Established in 2015 in Department of Family Medicine, UW
• Multidisciplinary team of researchers
• Primarily funded by contracts and grants from federal agencies and private-public partnerships

• **Mission**: To accelerate design, implementation, and productive use of technology that has potential to improve primary care practice and patient health, which we accomplish by:
  • Engaging companies with cutting-edge technologies
  • Produce evidence at every step of product development
  • Disseminate evidence to stakeholders
Current & Projected Shortages in the Health Care Field
Overview of Healthcare Landscape

• **Call to Action**: Improve the healthcare system with “Quadruple Aim”
  1) Improve patient experience of care; 2) Improve population health; 3) Reduce per capita cost of care; 4) Improve provider work life

• **Actions**:
  • Expansion of health insurance coverage through age eligibility of dependents, Medicaid (e.g., Apple Health) & Marketplaces (e.g., WA Health Benefit Exchange)
  • Connect providers through new models of delivery (e.g., Accountable Care Organizations, Patient-Centered Medical Home Models, integration of care)
  • Drive toward value-based care (e.g., bundled payment, MIPS, APM)
  • Increase monitoring and engagement of patients through technologies (e.g., electronic health records, telehealth, mobile health, sensors)
Overview of Health Workforce Concerns

- Identify ways to **recruit** new workers to healthcare, **retain** existing workers, **increase productivity** and **improve distribution** of workers to meet increasing healthcare demand from aging demographic and health insurance expansion.

- **Train new and existing workers** to keep up with the changing needs of a population experiencing high disease burden (e.g., opioid use disorder and other behavioral health problems).

- Monitor and evaluate **evolving roles** and **emerging occupations** often operating within restricted budgets and scope of practice to meet the needs of new delivery and payment models.

- **Deploy and connect workers** in the community as care shifts away from hospital to keep elderly in their home.
Do we have a shortage? If so, where?

• Debatable whether we have a national physician or nursing shortage
Brief History of Physician & Nurse Workforce Projections

Weiner, 1994: 163K surplus (specialists)
Cooper 2000/02: 2020: 200K shortage (specialists)

1959 Bane Report: 1975: 40K shortage

1981 GME National Advisory Council:
1990: 70K surplus
2000: 145K surplus

1994 COGME:
2000: 80K surplus (specialists)
2020: 120K surplus (specialists)

2003 COGME:
2020: 85K shortage (mostly specialists)

2006 HRSA:
2020: 45K - 185K shortage (mostly specialists)

2010 AAMC:
2020: 91.5K shortage (~50% specialists)

2013 HRSA:
2020: 6.4K - 20.4K shortage

2015 AAMC:
2020: 46K - 90K shortage (~66% specialists)

2018 HRSA said:
2025: 23.6K shortage (primary care), BUT
No shortage w/ full use of NP/PA & delivery system changes

2018 AAMC:
2020: 20.5K shortage (~65% specialists)

2020: 145K surplus

Assumptions: Rapid HMO growth, reduction funds to medical schools, IMG admissions increase
Growing recognition of aging population
AAMC calls to increase med school enrollment by 30%, increase GME slots
ACA passes; GAO calls for HRSA projections
Recognition of increasing role of NP/PA
Assumes changing delivery system
Concern about aging population

2000s Nursing Projections:
2020: 500K – 1M RN shortage

2018 HRSA said:
2030: RN surplus except AK, CA, GA, NJ, SC, SD, TX
2018 Auerbach et al said:
2030: Variable picture around 9 Census regions

Expansion of medical schools, GME funding, IMG enrollment

Growing recognition of aging population
Assumptions: Rapid HMO growth, reduction funds to medical schools, IMG admissions increase
Do we have a shortage? If so, where?

• Debatable whether we have a national physician or nursing shortage

• Where shortages may exist:
  • In rural and underserved communities
  • For primary care and long-term care settings
  • With skills and training in behavioral health
  • Shortage of “low-skilled” workers
Recent Headlines

Health & Science
The disabled and the elderly are facing a big problem: Not enough aides

Forbes
The Shortage Of Home Care Workers: Worse Than You Think

Mental health care appointments often come with a long wait. 3 ways to cope while help is delayed
Occupations within Healthcare Industry, 2017 (n=16,523,690)

- **Healthcare Practitioners & Technical Occupations**: 40%
  - Examples: Physicians, Dentists, Pharmacists, Therapists, Physician Assistants, Nurses
    - APRN
    - RN
    - LPN/LVN

- **Healthcare Support Occupations**: 21%
  - Examples: Nursing Assistants, Home Health Aides, OT/PT Assistants, Medical Assistants, Pharmacy Aides, Dental Assistants

- **Non Direct Care Occupations**: 39%
  - Examples: Home/Personal Care Aides, Community Health Workers, Social Workers, Administrative/Financial/Management, Grounds/Maintenance, Food Preparation
Issue #1: Defining Need is Difficult

• Challenges
  • Projections of need focus on provider-to-patient ratios, which does not equate to access or quality
  • Limited discussion around available providers to fill the gap (e.g., Health Professional Shortage Areas designation focused only on few professions)
  • Insufficient data: 2+ year lags, poor geographic detail, limited availability for non-licensed professionals, and lack of information related to roles

• Approaches
  • Consider all members of the “care team” including patient at the center
  • Seek multiple perspectives, sources, and approaches to assess need
  • Use rapid and novel data collection methods such as WA Sentinel Network
Washington’s Health Workforce Sentinel Network

Industry Sentinels
- Employer/workforce input:
  - Changes in needed skills and roles
  - New workforce demand signals
  - Review results to identify actionable findings

Data Hub
- Web-based data collection and analysis
- Rapid dissemination on the Workforce Board website:
  - Recent results from industry
  - Trends
  - Relevant health workforce data from other sources

Education/Training & Policy Stakeholders
- Review and respond to actionable information emerging from the Data Hub and Health Workforce Council
- Address emerging skills needs
- Identify emerging roles
- Respond to increases and decreases in demand for specific occupations

Feedback to industry and data/information system

http://wasentinelnetwork.org/
Issue #2: Recruitment & Developing Pipeline

• Challenges
  • Access to providers significantly varies by patient geography (e.g., rural) and insurance type (e.g., Medicaid and uninsured)
  • While healthcare jobs have been a “job engine” for the economy and are among the fastest growing, healthcare will likely face increasing competition for low-skilled workers from hospitality, retail, and other service sectors.
Occupations Projected with Highest Percent Change of Employment, 2016-2026

Healthcare jobs dominate list of fastest growing occupations, and most require less than a Bachelor’s degree to enter.

Source: https://www.bls.gov/ooh/fastest-growing.htm
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• Approaches
  • Introduce students to wide range of healthcare careers early (K-12) through mentorship and experiential learning
  • Recruit students from rural and underserved communities
  • Provide training opportunities in rural and underserved communities
  • Expand healthcare apprenticeships especially in primary care and long-term care
Issue #3: Retention

• Challenges
  • High turnover especially in long-term care in part due to disability and tough work environment
  • Unclear career pathways especially for low-skilled workers
  • Low pay in part due to limited leverage to negotiate higher reimbursement rate

• Approaches
  • Clarify benefits/advantages of working in healthcare
  • Develop career advancement opportunities with clear pathways and training support
  • Provide security net (e.g., insurance, food support, transportation) especially for part-time workers and “gig” workers
Impacts of Innovation and Technologies
What Technologies Look Promising?

- Artificial Intelligence & predictive analytics to assist patient-provider communications
  - Chatbots to facilitate patient intake
  - Listening devices to scribe clinical notes
  - Diagnosis and treatment decision support tools

- Point of Care Technologies
  - Handheld ultrasounds
  - New diagnostic tests (including genetic testing) delivered at home or in provider office

- Remote patient monitoring
  - Telehealth
  - Sensor devices & internet of things
  - Mobile health apps
Issue #4: Technological Disruption

• Challenges
  • Limited input from providers in development of health tech
  • Technology often negatively impacts productivity upon adoption\textsuperscript{7,8,9}
  • Unclear reimbursement strategy to support integration of tech
Issue #4: Technological Disruption

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  • Unclear reimbursement strategy to support integration of tech

• Approaches
  • Develop stronger evidence before introducing technology into clinical workflow to better identify what support (financially and personnel) are needed\textsuperscript{10}
  • Provide forums for providers to engage with tech companies at early stages of development
  • Identify training needs to not only prepare workers for current technologies but to help develop next generation of technologies\textsuperscript{11}
Closing Thoughts

• Build workforce that matches patients’ needs
  • Focus less on headcounts
• Take a wider view of who works in healthcare
  • Focus less on siloed occupations and more on the team
• Clarify and plan for career pathways in healthcare
  • Including support for training and other social assistance
• Engage healthcare workers in development of future technologies
References (1)


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Thank you!

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