Future of Work in Health Care:
Overview of Workforce Needs

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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

Expansion of medical schools, GME funding, IMG enrollment

1959 Bane Report: 1975: 40K shortage


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

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

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

Weiner, 1994: 163K surplus (specialists)

Cooper 2000/02: 2020: 200K shortage (specialists)

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


2010 AAMC: 2025: 46K – 90K shortage (~66% specialists)

2013 HRSA: 2020: 46K - 90K shortage

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

2018 HRSA: 2025: 46K – 90K shortage (~66% specialists)

2018 AAMC: 2030: 48.6K – 122K shortage (~65% specialists)

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

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

Celebrating 20 years of research excellence
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: Home/Personal Care Aides, Community Health Workers, Social Workers, Administrative/Financial/Management, Grounds/Maintenance, Food Preparation

- Non Direct Care Occupations: 39%
  - Examples: Nursing Assistants, Home Health Aides, OT/PT Assistants, Medical Assistants, Pharmacy Aides, Dental Assistants
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 ³
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 \(^3\)
  • **Unclear career pathways** especially for low-skilled workers \(^4\)
  • **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 \(^5\)
  • Provide security net (e.g., insurance, food support, transportation) especially for part-time workers and “gig” workers \(^6\)
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 (2)


Thank you!

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