The Rural Health Workforce

Data and Issues for Policymakers in:

Washington
Wyoming
Alaska
Montana
Idaho

Policy Brief Series

ISSUE #1: THE RURAL HEALTH WORKFORCE: CHALLENGES AND OPPORTUNITIES

ISSUE #2: THE RURAL HEALTH WORKFORCE IN THE WWAMI STATES: BY THE NUMBERS

ISSUE #3: BUILDING AND MAINTAINING THE RURAL HEALTH WORKFORCE: RESOURCES AND STRATEGIES

ISSUE #4: WHAT IS RURAL IN THE WWAMI STATES? WHY DEFINITIONS MATTER

ISSUE #5: HEALTH WORKFORCE ASSESSMENT: TOOLS FOR POLICYMAKERS AND PLANNERS

Susan M. Skillman, Davis G. Patterson, Denise M. Lishner, Mark P. Doescher, C. Holly A. Andrilla

WWAMI Rural Health Research Center
University of Washington
July 2013

ACKNOWLEDGEMENTS:

This series of policy briefs was produced with funding from the **Federal Office of Rural Health Policy (ORHP)** of the **Health Resources and Services Administration (HRSA)**, **U.S. Department of Health and Human Services** through the **WWAMI Rural Health Research Center** (grant 6 U1CRH03712-03-01).

Series design by **Alessandro Leveque** and **Martha Reeves**.

INTRODUCTION

This series of policy briefs describes characteristics of the rural health care workforce and factors affecting the delivery of health care in rural areas. The five briefs provide data on the numbers of health care professionals in Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI states) from available data sources, discuss the impacts of using differing definitions of *rural*, list state-level resources for WWAMI health workforce data, describe the foundations of health workforce assessment, and provide examples of national and regional resources to help ameliorate provider shortages in rural areas. The information included in this series will help guide policymakers and others in their efforts to strengthen the health workforce to better serve rural populations.

WWAMI RURAL HEALTH RESEARCH CENTER

University of Washington
Department of Family Medicine, Box 354982
Seattle, WA 98195-4982
Phone 206-685-0402
http://depts.washington.edu/uwrhrc/

RHRC
Rural Health Research & Policy Centers
Funded by the Federal Office of Rural Health Policy
www.ruralhealthresearch.org

Health Workforce Assessment: Tools for Policymakers and Planners

This brief offers a short primer on key health workforce assessment concepts, the use of workforce projections to examine policy scenarios, and data resources for the WWAMI states. These tools can help policymakers describe the status quo, identify clearly the factors that drive changes in the workforce over time, and understand the effects of policy decisions and changing environmental conditions.

HEALTH WORKFORCE SUPPLY, DEMAND, AND NEED

Workforce **supply** refers to the number of health care services that can be provided, **demand** refers to the number of services that the population is willing and able to pay for (regardless of whether services are necessary), and **need** refers to the number of services that are required for a population to achieve a desired level of health status.

Supply: Workforce supply is affected over time either by changes in the number of providers or changes in how health care services are provided. For example, an aging workforce decreases the supply of providers—and therefore reduces the supply of services—through deaths and retirements. Increases in productivity (the unit of output per unit of input) increase the workforce supply. An increase in the supply of services does not necessarily mean an increase in the number of persons providing those services. For example, new technology that allows each full-time equivalent provider, or FTE, to provide a greater number of patient services causes an increase in the total supply of services.

Demand: Demand is affected by factors such as population growth and aging (creating a higher total burden of disease and demand for health services), as well as changes in insurance coverage and the economic market for health care services.

Need: There may remain unmet need for health care services in a population even if its health workforce supply is adequate to meet the demand for services. For example, if all of the pharmacists in a remote rural area closed their local businesses to work in large pharmacies in the next large town, there would be no demand for pharmacists in the remote rural area (there would be no pharmacies to employ them and create a demand), but the population would have unmet local need for pharmacy services.

IDENTIFYING WORKFORCE SHORTAGES AND PROJECTING SUPPLY AND DEMAND

Projections of the future health care workforce help to estimate whether shortages or surpluses of specific health professions are likely to occur in the future. Such projections require data on supply and demand (and sometimes need) at a given point in time, as well as information about the rates at which supply and demand either have changed in the recent past or are likely to change in the future. Examples of factors that affect the supply and demand for health care, and in what way, are shown in Table 1.

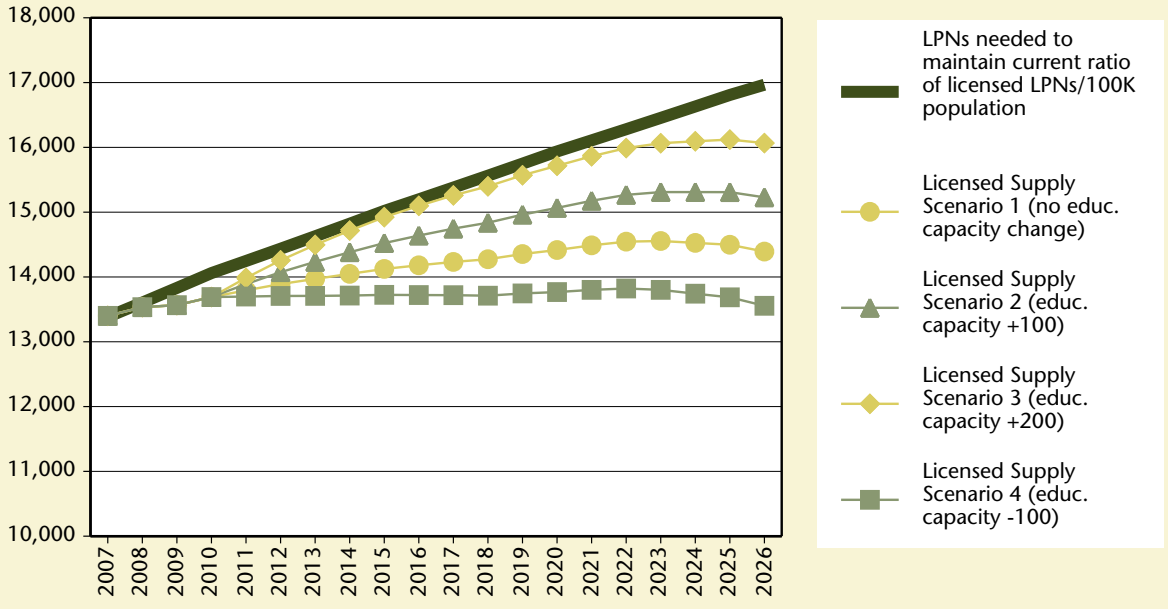
An example of supply and demand projections for licensed practical nurses (LPNs) in Washington State from 2007 to 2026 is shown in Figure 1.[1] These four supply projections present alternative education scenarios, ranging from a decline in educational output of 100 LPN program completions annually to an increase of 200 completions annually. The demand projection uses a benchmarking approach by estimating the number of LPNs needed to maintain the 2007 LPN-to-population ratio. It is instructive to note that none of the alternative LPN projection scenarios, even those that increase education output, produce adequate numbers of LPNs to reach in 2026 the same LPN-to-population ratio the state had in 2007.

Benchmarking analyses need to be interpreted with caution because meeting or exceeding an arbitrary demand benchmark does not necessarily reflect a truly adequate supply (and conversely, falling short of a benchmark does not necessarily reflect shortage). Benchmarks can be useful, however, as a way to assess whether the relationship between supply and demand is likely to improve or worsen over time compared with the status quo. These scenarios do not reflect potentially major changes in future demand for LPN services that may occur if health insurance coverage expands or if changes in elder-care settings lead to

Table 1: Factors Affecting Health Workforce Supply and Demand

Factor	Effect on Supply	Effect on Demand
Increases in health care educational capacity	+	
Population growth		+
Aging health care workforce	-	
Expanded insurance coverage		+
Increases in out-of-pocket health care expenses		-
Greater use of technology/Increased productivity	+	+ or -
Improvements in population health status		+ or -
Increased education requirements/lengthening training of health care providers	-	
New diagnostic & therapeutic options (e.g., new drug therapies)		+ or -
Migration of the health workforce into and out of a region	+ or -	
Changes in health care delivery systems (e.g., mandatory hospital nurse-to-patient ratios)		+ or -

Figure 1: Number of LPNs Required to Maintain the 2007 LPN-to-Population Ratio in Washington to 2026 Compared with Licensed LPN Supply in Scenarios 1-4



Data source: Skillman et al., 2009.[1]

lower staffing levels. This figure illustrates how making different assumptions can have significantly different effects on workforce projections.

Workforce projections can be useful for exploring how different policy scenarios affect the direction of rates of change in supply and demand, but they should be used cautiously. Projections covering shorter time periods are usually more accurate than more distant projections because of the large number of factors that can influence changes in supply and demand. There are few occasions where most of the data needed to make precise projections are available, including rural-specific data. Nonetheless, projections of workforce supply and demand can be important tools when deciding among different policy options for addressing health workforce issues for a given population or geographic area.

STATE RESOURCES FOR HEALTH WORKFORCE INFORMATION

Measuring workforce supply, demand, and need, and creating projections, depend on reliable and available data.

Although national data resources exist for some professions, such as physicians and nurses, much health workforce policymaking and planning occur at the state level, and state-specific resources provide important information about the health workforce in individual states. The box on the next page provides website contact information for some of these resources in the WWAMI states.

LITERATURE CITED

1. Skillman SM, Andrilla CHA, Patterson DG, Thomas A, Tieman L. *Washington State Licensed Practical Nurse Supply and Demand Projections: 2007-2026*. Final Report #129. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2009.

State Resources for Health Workforce Data

The **University of Washington** offers three sources of health workforce information on the WWAMI states:

Rural Health Research Center
http://depts.washington.edu/uwrhrc/

Center for Health Workforce Studies
http://depts.washington.edu/uwchws/

Center for Health Workforce Studies, Regional Information Center
http://depts.washington.edu/wwamiric/

WASHINGTON

- **Washington State Office of Community and Rural Health**
  http://www.doh.wa.gov/hsqa/ocrh/
- **Eastern Washington Area Health Education Center**
  http://spokane.wsu.edu/researchoutreach/ahec/
- **Western Washington Area Health Education Center**
  http://www.wwahec.org/
- **Washington Center for Nursing**
  http://www.wacenterfornursing.org/
- **State of Washington Employment Security Department**
  http://www.esd.wa.gov/
- **Health Work Force Institute, Washington State Hospital Association**
  http://www.hwfi.org/page.cfm

WYOMING

- **Wyoming State Office of Rural Health**
  http://wdh.state.wy.us/familyhealth/rural/index.html
- **Wyoming Area Health Education Center**
  http://uwadmnweb.uwyo.edu/AHEC/
- **Wyoming Health Resource Network, Inc.**
  http://www.whrn.org/
- **Wyoming Healthcare Commission**
  http://www.wyominghealthcarecommission.org/
- **Wyoming Department of Employment**
  http://doe.wyo.gov/Pages/default.aspx

ALASKA

- **Alaska Office of Rural Health**
  http://www.hss.state.ak.us/dhcs/healthplanning/ruralhealth/default.htm
- **Alaska Institute for Circumpolar Health Studies**
  http://www.ichs.uaa.alaska.edu/
- **Alaska Center for Rural Health/Area Health Education Center**
  http://acrh-ahec.uaa.alaska.edu/
- **Alaska Health and Social Services**
  http://health.hss.state.ak.us/
- **Alaska Division of Occupational Licensing**
  http://www.dced.state.ak.us/occ/home.htm
- **Alaska Department of Labor and Workforce Development – Workforce Info**
  http://almis.labor.state.ak.us/
- **Alaska State Hospital and Nursing Home Association – Workforce Development**
  http://www.ashnha.com/programs.php

MONTANA

- **Montana Office of Rural Health and Area Health Education Center**
  http://healthinfo.montana.edu/
- **Montana Public Health Training Institute**
  http://www.dphhs.mt.gov/PHSD/MPHTI/mphti-index.shtml
- **Montana Department of Public Health and Human Services – Public Health Workforce Development Survey**
  http://www.dphhs.mt.gov/
- **Montana Department of Labor and Industry – Research and Analysis Bureau**
  http://www.ourfactsyourfuture.mt.gov/
- **Montana Council on Data and Information Systems**
  http://www.mtha.org/whomha4.htm
- **Montana Health Research and Education Foundation**
  http://www.mtha.org/mhref1.htm

IDAHO

- **Idaho Office of Rural Health and Primary Care**
  http://www.healthandwelfare.idaho.gov/
- **Idaho Area Health Education Center**
  http://www.idahoahec.org/index.html
- **Idaho Department of Labor**
  http://labor.idaho.gov/
- **Idaho Alliance of Leaders in Nursing**
  http://www.nurseleaders.org/
- **Idaho Primary Care Association**
  http://idahopca.org/
- **Idaho Department of Health and Welfare**
  http://healthandwelfare.idaho.gov/

Suggested Citation

Skillman SM, Patterson DG, Lishner DM, Doescher MP, Andrilla CHA. *The Rural Health Workforce: Data and Issues for Policymakers in Washington, Wyoming, Alaska, Montana, Idaho. Issue #5: Health Workforce Assessment: Tools for Policymakers and Planners*. Policy Brief #146.5. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; 2013.