Final Report #145

Health Workforce Demand in Washington State: Employers' Current and Expected Needs for Home Care Aides, Medical Assistants, Nursing Assistants Certified, Licensed Practical Nurses, Associate's Degree Registered Nurses

July 2013

by

Lorella Palazzo, PhD Susan M. Skillman, MS Anne Basye, MA Caitlin C. Morrison, MPH

This study was funded through the American Recovery and Reinvestment Act via a grant from the U.S. Department of Labor to the Washington Health Care Worker Training Coalition. The coalition was led by the Workforce Training and Education Coordinating Board. Two thirds of the funding, or some 66%, comes from the U.S. Department of Labor through a \$5 million grant.



UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE DEPARTMENT OF FAMILY MEDICINE

ABOUT THE WORKFORCE CENTER

The WWAMI Center for Health Workforce Studies is located at the University of Washington Department of Family Medicine. The major goals of the Center are to conduct high-quality health workforce research; provide methodological expertise to local, state, regional, and national policymakers; build an accessible knowledge base on workforce methodology, issues, and findings; and provide wide dissemination of project results in easily understood and practical form to facilitate appropriate state and federal workforce policies.

The Center brings together researchers from medicine, nursing, dentistry, public health, the allied health professions, pharmacy, and social work to perform applied research on the distribution, supply, and requirements of health care providers, with emphasis on state workforce issues in underserved rural and urban areas of the WWAMI region. Workforce issues related to provider and patient diversity, provider clinical care and competence, and the cost and effectiveness of practice are emphasized.

The WWAMI Center for Health Workforce Studies and Rural Health Research Center Final Report Series is a means of distributing prepublication articles and other working papers to colleagues in the field. Your comments on these papers are welcome and should be addressed directly to the authors. Questions about the WWAMI Center for Health Workforce Studies should be addressed to:

Susan Skillman, MS, Deputy Director University of Washington Department of Family Medicine Box 354982 Seattle, WA 98195-4982 Phone: (206) 685-6679 Fax: (206) 616-4768 E-mail: chws@fammed.washington.edu Web site: http://depts.washington.edu/uwchws/

ABOUT THE AUTHORS

LORELLA PALAZZO, PhD, is a Research Scientist at the Center for Health Workforce Studies, Department of Family Medicine, University of Washington School of Medicine.

SUSAN M. SKILLMAN, MS, is the Deputy Director of the Center for Health Workforce Studies and the WWAMI Rural Health Research Center, Department of Family Medicine, University of Washington School of Medicine.

ANNE BASYE, MA, is a freelance editor/writer.

CAITLIN C. MORRISON, MPH, is a Research Scientist at the Center for Health Workforce Studies, Department of Family Medicine, University of Washington School of Medicine.

ACKNOWLEDGEMENTS

The authors would like to thank Jodi Perlmutter, Kelly Copp, Frank Kohel, and Mary Fusco of the Western Washington Area Health Education Center for managing all arrangements for the study's two employer forums and serving as facilitators. Thanks are also due to the other forum facilitators: Sue Dietz, Dan Ferguson, Corinne Corrigan, and Nico Patel. Thanks to Denise Lishner for her data collection assistance; Amanda Punsalan for her many contributions, including transcribing interviews; and Martha Reeves for her assistance, including report design and production. The authors also would like to thank Eleni Papadakis and Beth Meyer at the Washington State Workforce Training and Education Coordinating Board for providing the Center for Health Workforce Studies with the opportunity to conduct this study, and for their assistance in identifying and contacting employers as well as reviewing study findings. Finally, thanks to the many employers and stakeholders across Washington who took the time to discuss employment trends for these five occupations and attend the two study forums. Health Workforce Demand in Washington State: Employers' Current and Expected Needs for Home Care Aides, Medical Assistants, Nursing Assistants Certified, Licensed Practical Nurses, Associate's Degree Registered Nurses

> LORELLA PALAZZO, PhD SUSAN M. SKILLMAN, MS ANNE BASYE, MA CAITLIN C. MORRISON, MPH

CONTENTS

Executive Summary3
Introduction5
Methods 6
Findings
Findings by Occupation8
Home Care Aides9
Medical Assistants 12
Nursing Assistants Certified 15
Licensed Practical Nurses 19
Associate's Degree Registered Nurses 22
Cross-Cutting Issues25
Health Care Reform: The Patient Protection and Affordable Care Act and Changes in Health Care Financing and Delivery
Care Coordination and Related Functions and Roles25
Adoption and Use of Health Information Technology26
Partnerships with Local Education Institutions 27
Recruitment and Retention: Issues and Strategies
Employment Sectors
The Role of Geography 28
Summary of Key Findings
References
Appendix A. Methods

EXECUTIVE SUMMARY

INTRODUCTION

Little is known in Washington State about employer demand for five entry-level health care occupations:

- Home Care Aides
- Medical Assistants
- Nursing Assistants Certified
- Licensed Practical Nurses
- Associate's Degree Registered Nurses

This study provides a snapshot of current and expected demand for these key occupations in the state.

METHODS

Employers statewide and across industry sectors were contacted and asked about their current and future needs for the five occupations. Between April and July 2013, the study conducted interviews with Washington employers and stakeholders selected from each industry sector, a variety of employment settings, different service delivery types, and diverse locations. Interview findings were integrated with insights gathered at two invitational forums, one held in eastern and one in western Washington during May and June 2013. A total of 86 employers took part in this study.

KEY FINDINGS

Who employs home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree nurses now? In the future?

Many employers are re-examining how best to employ entry-level workers.

- Among these occupations, hospital employers are predominantly relying on care teams composed of registered nurses and nursing assistants certified. Ambulatory/outpatient care practices are employing more medical assistants than other entry-level occupations. Both trends are expected to strengthen in the near future.
- The long-term care/home care sector relies heavily on nursing assistants certified and home care aides, as well as some licensed practical nurses and registered nurses. This pattern seems stable, with the demand for nursing assistants certified and home care aides expected to grow. Changing patient/client needs, along with regulatory and reimbursement challenges, may shift how these occupations are deployed and in what numbers.
- Larger employers, especially hospitals, are employing fewer licensed practical nurses. The market for this occupation is becoming increasingly centered on select geographic and industry pockets.

What will employers need?

- Some employers expect higher patient volume and acuity, but are unsure about bringing on more workers, given financial pressures and uncertainty about upcoming changes in health care delivery systems.
- Some home care agencies and ambulatory/ outpatient care facilities that have been expanding expect to add staff, including these five occupations. More expensive training and a higher credentialing bar for some entry-level occupations are leading many employers to screen applicants more carefully.
- Many employers want applicants with "soft skills," such as customer service and communication skills and a commitment to caregiving.
- Experience is prized by smaller organizations that can least afford training, have limited staff, and need new employees to perform effectively shortly after being hired.
- Most employers need entry-level workers who are computer proficient, familiar with electronic health

records, and who are able to perform at the top of their training and scope of practice. Other specific needs vary by occupation and industry sector, as organizations rethink their staffing models and optimize their workforce to achieve both cost savings and good patient outcomes.

- Ambulatory/outpatient care employers need highly trained medical assistants, with skills that include delivering immunizations and performing blood draws, tasks more typically carried out by nursing staff in the past.
- Long-term care/home care employers need nursing assistants certified with upgraded skills and competencies to respond to patients' greater acuity. These employers also need home care aides and nursing assistants certified with specialized training in mental health, memory disorders, and emergency care.

How can existing problems be eased?

- Partnerships with local education institutions can be very effective. Many employers had strong ties to these assets and sought to expand them when possible. Online and in-house training help rural employers satisfy their demand for entry-level personnel, particularly home care aides, medical assistants, and nursing assistants certified.
- Strategies cited by employers to improve recruitment and retention of entry-level occupations included adequate pay and benefits, pathways for education and career advancement supported by internal opportunities, flexible scheduling, transferable education credits, tuition support, and loan repayment.

To what extent will these occupations be tapped for care coordination?

- Where a need for a distinct patient navigator or care coordinator role has been identified, there is no consensus on which, or how many, of these occupations should fill this role. Employers vary greatly on whether care coordination functions will be performed by an entry-level position, or will require advanced education and/or credentials.
- Employers that are anticipating the greatest need for care coordination services expressed concern about adequate reimbursement to cover the costs of providing these services.
- Very few organizations have current job openings for patient navigator or care coordinator positions. Many employers are waiting to assess the needed functions, staffing, education, and reimbursement structures that relate to care coordination roles.

Health Workforce Demand in Washington State: Employers' Current and Expected Needs for Home Care Aides, Medical Assistants, Nursing Assistants Certified, Licensed Practical Nurses, Associate's Degree Registered Nurses

> LORELLA PALAZZO, PhD SUSAN M. SKILLMAN, MS ANNE BASYE, MA CAITLIN C. MORRISON, MPH

INTRODUCTION

While recent research has produced information on workforce supply trends for several health professions in Washington State (e.g., primary care physicians, physician assistants, nurse practitioners, registered nurses, and licensed practical nurses¹⁻⁴), less is known about workforce demand, especially for five key entrylevel occupations:

- Home Care Aides (HCAs)
- Medical Assistants (MAs)
- Nursing Assistants Certified (NACs)
- Licensed Practical Nurses (LPNs)
- Associate's Degree Registered Nurses (ADNs)

This study provides a snapshot of current and expected employer demand for these occupations in the state.

Each of the occupations plays an essential role in the state's current health care delivery system, and their roles are evolving as state and national trends reshape health care distribution and financing as well as health workforce dynamics. Among those trends:

- Washington State's population is growing and aging: the overall population is expected to increase from 6.8 million in 2012 to 8.2 million by 2030,⁵ and the elderly population (age 65 and up) will double.⁶
- Chronic disease rates are increasing, imposing a heavier burden on health care delivery.⁷

- The health workforce is aging. For example, the average age of registered nurses and primary care physicians in Washington State is 48.5 years⁴ and 49.3 years¹ respectively. Retirement is expected to reduce markedly the available supply of workers over the next decades.
- The economic downturn threatens workforce education, as rising tuition rates put higher education out of reach for many students.⁸ Program capacity may also suffer under funding cuts.
- More access to care will be needed when the Patient Protection and Affordable Care Act (PPACA) is fully implemented in 2014.⁹
- New Washington State legislation affects training and certification for home care aides and credentialing of medical assistants.

Policymakers and educators need to anticipate how the demand for home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree registered nurses could change as they support employers preparing for industry transformations.

The key questions addressed in this study include:

- How will changes in the financing and organization of our health care system affect the demand for these five occupations?
- Who employs these occupations now? In the future?

- What will employers need?
 - More/fewer/same number of workers?New/different skills/competencies?
- How hard is it to recruit workers in sufficient numbers/with the right skills? How can existing problems be eased?
- Will these occupations be tapped for new/emerging roles (such as patient care coordinator) or for expanded functions?

METHODS

Health care employers statewide and across industry sectors were contacted and asked about their current and anticipated demand for home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree registered nurses. For each employment sector we identified the most common employment settings for the five occupations, as follows:

- Inpatient care: acute care hospitals; mental/ behavioral health facilities.
- Ambulatory/outpatient care: urgent care/retail clinics, tribal clinics, Rural Health Clinics, Community Health Centers, ambulatory surgical centers/other outpatient clinics (including mental/behavioral health and chemical dependency), correctional facilities, school districts, and medical practices not otherwise categorized.
- Long-term care/home care: skilled nursing facilities, extended care facilities (including rehabilitation facilities and long-term critical care hospitals), home care/home health agencies (including Washington State Department of Social and Health Services as the employer of record for home care aides who work as individual providers), and assisted living facilities.



* Counties comprising WDAs: 1 = Clallam, Jefferson, Kitsap; 2 = Grays Harbor, Mason, Thurston, Pacific, Lewis; 3 = Whatcom, Skagit, Island, San Juan; 4 = Snohomish; 5 = King; 6 = Pierce; 7 = Wahkiakum, Cowlitz, Clark; 8 = Okanogan, Chelan, Douglas, Grant, Adams; 9 = Skamania, Klickitat, Yakima, Kittitas; 10 = Ferry, Stevens, Pend Oreille, Lincoln, Whitman, Walla Walla, Columbia, Garfield, Asotin; 11 = Benton, Franklin; 12 = Spokane. † Employers who provided data on multiple practice locations may appear more than once.

Source data:

1. Semi-structured interviews with key personnel knowledgeable about staffing issues. Interviews were conducted April-July 2013.

2. Employer forums held in May and June 2013.



Employers from across the state were selected to reflect regional differences in access to health care, health care workforce, and workforce education programs.

We used a two-pronged approach to data collection. Between April and July 2013, we conducted interviews with Washington employers and stakeholders selected from each industry sector, a variety of employment settings, many kinds of service delivery types, and diverse locations. Figure 1 shows the locations of the survey and forum participants and Figure 2 illustrates their diversity. Responses from many employer types enabled us to capture industry-wide trends as well as a diverse range of employers' needs and perspectives. Interview findings were integrated with insights gathered at two stakeholder forums in May and June 2013, one held near Spokane on the eastern side of the state and one south of Seattle on the western side of the state. A total of 86 employers participated in this study. (See Appendix A for a more detailed description of study methods.)

FINDINGS

Study findings are first discussed for each of the five occupations, followed by cross-cutting issues that surfaced from the interviews. Figure 3 summarizes demand findings for the five occupations, indicating whether employer demand is generally expected to grow, decline, or remain stable.

- Occupations	Industry Sectors		
	Inpatient Care	Ambulatory/ Outpatient Care	Long-Term Care/Home Care
Home care aides	NA	NA	<u>ተተ</u>
Medical assistants	NA*	^	NA†
Nursing assistants certified	*	↓	<u>ተተ</u>
Licensed practical nurses	$\mathbf{\Psi}\mathbf{\Phi}$	•	•
Associate's degree registered nurses	^	* *	•
* Medical assistants are infrequent in inpatient † Medical assistants are infrequent in long-term		gs	
Key:		3-	

FINDINGS BY OCCUPATION

This section illustrates employers' views and experiences with each of the five occupations and the various challenges that affect each position. Present roles and current and anticipated demand for home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree registered nurses depend on factors that include workforce supply, industry sector, geography, and regulations.

Each occupation is introduced by a short profile to provide helpful background and context for the study findings.

Home Care Aides

Home Care Aides Occupation Profile: Home care aides provide services that help people with disabilities and the elderly remain in their homes. They also work in assisted living facilities and adult family homes. Home care aides assist clients in activities of daily living (ADLs) such as cooking, cleaning, dressing, grooming, medication reminders, and transferring into and out of beds. Clients with physical disabilities, dementia, developmental disabilities, and mental illness may require other kinds of assistance in order to live independently.

Prior to 2011, home care workers who provided home care for Medicaid clients had fewer training requirements and less on-the-job support than workers in residential institutions. In 2011 the public voted into law Initiative 1163, mandating new training standards intended to better prepare home care aides to deliver top-quality assistance to Medicaid clients.¹⁰ The new requirements took effect January 7, 2012. According to rules under 18.88B RCW, a home care aide seeking certification must:

- Complete 75 hours of training using state-approved curriculum within 120 days of hire.
- Pass a state certification exam within 150 days of starting work.
- Complete a federal and a state background check.

More than 50,000 home care aides were estimated to be providing home care for Medicaid clients in Washington in 2010, and even more home care aides serve other populations.¹¹ Washington State Department of Social and Health Services serves as the employer of record for home care aides who work in clients' homes as individual providers and are paid directly by Medicaid. With over 32,000 home care aides registered as individual providers in 2010,¹¹ the Department for Social and Health Services is the largest employer of home care aides serving Medicaid clients in the state.

The need for home care aides will grow as the state's general population and its estimated home and community-based Medicaid client population increases. The physically demanding home care aide positions are typically low paid; many home care aides are part-time workers who receive few or no benefits.

The University of Washington Center for Health Workforce Studies estimated that Washington will need nearly 77,000 home care aides by 2030 to care for more than 88,000 Medicaid clients, a 56% increase over the next two decades.¹¹ The U.S. Bureau of Labor Statistics identified 1.878 million home care aides in the United States in 2010 and forecast a 70% increase in the number of positions, or 1.313 million jobs, between 2010 and 2020.¹²

Findings:

Employment Settings and Roles: Home care aides, as discussed with employers and stakeholders for this study, worked in home and community-based settings as individual providers of home care services, employees of home care and home health agencies, and workers in adult supported living settings. A sizeable proportion (estimated range 40%-70%) of the home care aides working as individual providers delivered care to their own ill or disabled family members.

Home care agencies deployed home care aides to help clients with activities of daily living. In assisted living facilities, home care aides had duties as care givers and personal care attendants, helping residents with their daily activities, serving meals, and doing laundry and housekeeping. Home care aides were not employed in skilled nursing facilities. Legislative Impacts on Home Care Aides: While the impact of health reform on home care aides is unclear, several employers expressed concern about how payment restructuring will affect the home care field through changes in Medicare and Medicaid reimbursement. Some employers who contract with the state talked about the effects of changes in Medicaid payment practices that have already taken place. For example, one employer commented that Medicaid now pays for smaller time units of caregiving than before, thereby affecting scheduling of home care aides, appropriate client coverage, and general work flow.

Many employers in this study described the training requirements as being onerous for themselves and their employees. Some employers noted that initial preparatory training for the position is no longer possible on the job under the new law, and worried that the current demands for formal training and certification may be preventing some candidates from joining the field. A Washington State Department of Social and Health Services representative acknowledged that the costs associated with training and certification may be a barrier for home care aides who assist their own family members as individual providers.

Some employers feared losing new hires who fail to complete training or pass the certification test within the required 120 days. Training can be expensive and difficult to access in rural areas: many rural employers commented on lack of access to both training and testing sites, although alternative solutions such as online and employer-sponsored on-site training were reported to be increasing. Home care aides who assist their own family members who are Medicaid clients face many of the same challenges.

Employers who were certified by the state to become trainers themselves fared better in terms of employee recruitment than those who relied on outside training sources.

A number of employers stated that because of the legal requirements for home care aide training, they would rather hire nursing assistants certified as home care workers because to hold that title the worker would have already completed training (although in at least one case, the facility's preference for nursing assistants certified was simply due to the availability of recent graduates of a school just across the street). Education and certification for nursing assistants certified can also be challenging in rural areas but are perceived to be less so than for home care aides.

While problems persist, some employers and stakeholders suggested that improvement is taking place as the workforce, employers, and the training and certification system become accustomed to the new law. The planned doubling of the number of languages in which the home care aide certification test will be offered (to 12 languages) should improve passing rates among home care workers who speak English as a second language. The required training is expected to create a pathway to other health care careers that can make the occupation more attractive to potential candidates. *Employment Sector:* Recruiting and retaining workers into the home care field presents similar challenges whether those workers are individual providers who assist clients other than their own family members, or are employed by facilities or home care agencies. Low pay, few benefits, training and certification requirements, and limited career options are common to many home care aides, regardless of employer. Aspects of the new law that are intended to alleviate some of these employment conditions may help to both attract and retain home care aides.

As reported by a Washington State Department of Social and Health Services spokesperson, the many individual providers under Medicaid contract who enter the home care workforce in order to care for a loved one may be less likely to stay in the field once their family's need is over. Home care aide turnover was reported to be an issue in employment settings outside of the state-run individual provider program, but less so for assisted living employers than for home care agencies.

A majority of employers in the long-term care/home care sector said that the training requirements for home care aides created recruitment difficulties in locations lacking easy access to training and testing sites, further restricting the pool of people willing to take a demanding and low-paying job. Costs associated with home care aide training and certification, such as for travel and administrative fees, were also reported to be a hurdle. But some employers expressed that they were adjusting to the requirements for training and certification of home care aides introduced by Initiative 1163.

Several employers mentioned training in memory disorders and mental and behavioral health as increasingly important for home care aides whether they worked in facilities or people's homes, and said that it should be made more readily available. Those seeking to hire home care aides with such specialized skills said that they faced significant recruitment problems.

Employers were most concerned with having an adequate supply of home care workers, but at least one large home care agency reported problems recruiting bilingual home care aides to work in areas with diverse populations. *Geography:* The distribution of demand for home care aides across the state follows closely to that of the Medicaid population that many of them serve, and to general population density.

Although employers across different regions shared similar concerns, their severity was exacerbated in less urbanized places, especially for employers seeking to hire trained and certified home care aides.

Those who employed home care aides needing to undergo the training and testing said that their employees had a difficult time accessing the necessary resources. Online training may be a solution for home care aides in rural areas, but despite reported efforts to advertise different training options, some employers appeared to not be aware of or have access to them. Rural employers that are state-certified to train their home care aide workforce faced somewhat fewer recruitment obstacles but still reported a scarcity of available testing sites.

Demand Trend:

- Demand for home care aides is expected to grow nationwide and in Washington State.
- Home care aide is a high-turnover occupation and most employers are continually recruiting because client volumes and needs can be unpredictable and many home care clients need round-the-clock care, necessitating a well-staffed relief pool. In addition, some home care aides view the occupation as a first step onto the health workforce career ladder and quickly leave to pursue other health care careers (although this trend is not as clear as with nursing assistants certified). Many home care aides are individual providers who are trained and stay in the workforce only to care for their own family member who is a Medicaid client. The demand for home care aide training will continue to be high because of high turnover rates.

Medical Assistants

Medical Assistants Occupation Profile: Medical assistants typically work in ambulatory/outpatient care settings, although they are sometimes found in inpatient services as well. Under the supervision of licensed medical professionals, they carry out fundamental and clinical procedures, collect specimens, provide patient care, administer medications and intravenous injections, and perform hemodialysis functions and capillary, venous, or arterial invasive procedures for blood withdrawal. Under new legislation that went into effect in Washington July 1, 2013, there are four categories of medical assistants in the state:

- 1. Medical assistant-certified.
- 2. Medical assistant-hemodialysis technician.
- 3. Medical assistant-phlebotomist.
- 4. Medical assistant-registered.

The newly credentialed medical assistant profession replaces the former health care assistant professional, although active credential holders automatically transitioned to the new credential. The legislation recognized the importance of medical assistants and provides statutory support for their duties.

Under RCW 18.360, a medical assistant seeking certification must:

- Complete an accredited program that includes a minimum of 720 clock hours of training, including a clinical externship of no less than 160 hours, or a registered apprenticeship administered by a department of the state of Washington.
- Submit proof of military training or experience that satisfies the training or experience requirements.
- Pass a certification exam.

The U.S. Bureau of Labor Statistics identified 527,000 positions for medical assistants nationwide in 2010 and forecasts a 31% growth rate, or 162,900 additional positions, by 2020.¹³ In Washington State, the Employment Security Department estimates that demand for medical assistants will increase: 303 yearly job openings, on average, are projected between 2010 and 2015, corresponding to a 1.6% growth rate.¹⁴

Findings:

Employment Settings and Roles: The great majority of employers deployed medical assistants in medical ambulatory/outpatient care settings. The mental/ behavioral health field, long-term care facilities, and inpatient hospitals rarely employ medical assistants. Roles and functions of medical assistants, as described by employers interviewed for this study, spanned both clinical and administrative tasks. As an illustration, one employer praised profusely the versatility of the medical assistant role in staffing a small rural health clinic. Clinical duties were more prevalent, but even medical assistants assigned to clinical roles were reported by employers to be engaged in some administrative tasks in most practices.

Medical assistants were reported to give injections in practices that commonly administer immunizations, such as primary care, and may be asked to assist with lab work in small facilities with limited staff. Medical assistants were required to handle health information technology in virtually all practices already using electronic health records or other computerized systems. Some employers in the ambulatory/ outpatient care sector assigned medical assistants to care coordination functions, such as making hospital referrals. Community Health Centers most frequently used medical assistants for patient care coordination roles and were exploring new and expanded ways of deploying them in this area.

The New Medical Assistant Legislation: Employers expressed mixed reactions to the new state law establishing certification requirements for medical assistants. Acknowledgements that the law will help to protect patient safety by bringing much-needed criteria to a largely unregulated field were coupled with some anxiety about the change as well as some reports of the organizational challenges caused by adjusting to the new rules. For example, incumbent medical assistants who are not currently certified must be assessed for their readiness to pass the state certification exam, and some employers worry that not all members of their medical assistant workforce may be up to the task. Concerns were raised about the emergence of a two-tier system in which incumbent medical assistants could be found to be less prepared for the new standards than recent graduates.

Other employers, however, described only a few bumps in the road. Those with a health care assistant workforce reported a mostly smooth transition of this staff toward acquiring medical assistant credentials. In a number of facilities, currently employed, non-credentialed medical assistants have been applying in large numbers to be registered as health care assistants in order to be grandfathered into the new medical assistant profession.

Recruitment Issues: Few employers had difficulty recruiting sufficient numbers of medical assistant applicants, but many struggled to find candidates with adequate training, sufficient skills and/or experience, and certification credentials. Each of these problems was usually worse in rural and, especially, isolated communities.

Employers noted most often the uneven quality of medical assistant education programs. Some programs may be too short to provide sufficient grounding in all the components of the medical assistants' scope of practice, and not sufficiently selective in their admission practices. "We want [medical assistants] to come out of school being able to take vitals, [to have] that hands on with patients comfortably." One employer commented that new graduates seemed better prepared for front office (i.e., administrative) work than for back office (i.e., clinically oriented) tasks. Another concern was that online programs did not provide enough hands-on training. In general there was a stated preference for graduates of longer, more comprehensive community college programs over shorter, private, for-profit programs. But there are some indications that the perceived quality of medical assistants' preparation may be improving, at least in King County, as one Seattle employer commented: "The level of the MAs coming out of some of the schools now is much higher than it was in years past."

We want [medical assistants] to come out of school being able to take vitals, [to have] that hands on with patients comfortably.

Some remaining challenges included recruiting experienced medical assistants and medical assistants with bilingual skills to serve diverse populations.

Employment Sector: With rare exceptions, medical assistants were employed in medical offices and outpatient clinics, settings where demand for this occupation is projected to grow strongly. Medical assistants were deployed in clinical and administrative roles, with increasing requirements that they work to

the full extent of their practice scope and, when possible, take over some of the registered nurse functions. In Community Health Centers especially—but not exclusively—medical assistants were expected to be involved in new or newly expanded patient coordination tasks. To support the expansion of the medical assistant role, some employers have explored—and in one case already implemented—the creation of a career ladder within

their practice enabling medical assistants to progress from a junior Medical Assistant 1 position to a more experienced and broader Medical Assistant 2 role.

Geography: Medical assistants (or health care assistants who are being transitioned to the medical assistant profession) were employed by facilities of all sizes in every part of the state. Some recruitment challenges were also reported in all areas.

Employers in many small rural towns across the state reported having trouble finding certified medical assistants, especially experienced ones. One facility found recruiting certified medical assistants harder along the Oregon border, because Oregon residents who might make good medical assistants do not meet Washington new requirements. Some medical practices on the Olympic Peninsula that need medical assistants to administer immunizations have found that local education programs do not teach that particular skill, forcing them to look for applicants outside of their communities.

In urban areas around Puget Sound, some medical offices anticipated new challenges recruiting medical assistants once the new certification requirements went into effect, while a few large ambulatory/outpatient clinics with incumbent medical assistants expressed some worries that their long-term employees who were never formally trained might not qualify for certification. Many organizations on both sides of the Cascades have or project medical assistant vacancies. This increase in demand stems from anticipated growth in services, patient volumes, and population transitions. Growth is also anticipated as a result of health care reform.

Demand Trend:

• Employer consensus is that the demand for medical assistants in Washington will grow. Facilities that employ medical assistants, including the great majority of hospital-affiliated clinics, plan to continue and possibly increase their staffing. Some small practices currently rely on other workers, such as podiatry assistants, radiology techs, or even office staff to perform basic medical assistant functions, but expressed that they may consider hiring medical assistants to perform those tasks in the future

• The health reform law is expected to accelerate the ongoing trend away from inpatient and toward ambulatory/outpatient-based care delivery, where the pairing of a provider with a medical assistant working under the provider's license is a growing trend. The law's emphasis on primary care and cost containment, coupled with the projected influx of a newly insured patient population, will also fuel the demand for this occupation.

Nursing Assistants Certified

Nursing Assistants Certified Occupation Profile: Also known as certified nursing assistants, nursing assistants certified have basic training in patient care and use their skills in nursing homes, assisted living centers, ambulatory/outpatient care sites, and hospitals. Nursing assistants certified are supervised by registered nurses and in some circumstances* licensed practical nurses. At one end of their scope of practice, they may make beds and organize rooms; at the other, they may monitor vital signs, maintain medical documentation, or care for a catheter.

To become certified as a nursing assistant in the state of Washington, applicants must:

- Complete a minimum of 85 hours of training through a state approved program, including/or also 7 hours of HIV/AIDS training.
- Pass a competency exam.
- Join the Washington Nurse Aide Registry, so that prospective skilled nursing employers can check the nursing assistants certified's status during the hiring process.

Many nursing assistants certified begin employment as nursing assistants-registered (NAR). They can work as nursing assistants-registered in assisted living and skilled nursing units for four months while they complete an approved training program and take the certification test, but they cannot handle tasks for which they have not been trained.

Reliable estimates of the size of the nursing assistant certified workforce in Washington State are not available. (Licensed professionals, who must renew their state licenses regularly, can more easily be counted than can certified workers for whom there are not comparable records maintained by the state.) Nationwide, the U.S. Bureau of Labor Statistics identified 1,505,300 nursing aide, orderly and attendant positions in 2010 and forecast a 20% increase in the number of positions, or 302,000 jobs, between 2010 and 2020.¹⁵

* Under provisions of Washington Administrative Code 246-840-010.

Findings:

Employment Settings and Roles: Employers interviewed for this study reported employing nursing assistants certified in long-term care, home care, and inpatient settings, but less frequently in ambulatory/ outpatient facilities. One network of Community Health Centers is in the process of moving away from nursing assistants certified and toward medical assistants, reflecting an industry-wide preference for the broader scope of practice that medical assistants can bring to ambulatory/outpatient services. There are exceptions, however: one rural hospital deploys care teams composed of registered nurses and nursing assistants certified across both its inpatient and outpatient services to, in their view, preserve continuity and improve care coordination.

Employers reported that in most settings, nursing assistants certified are devoted to direct patient or client care (which often include assistance with activities of daily living, such as bathing and getting dressed), and with back office tasks (preparing for examination and taking the vital signs of ambulatory patients). Other functions performed as needed included translating for non-English speaking patients, performing general administrative duties, and helping with facility meals and housekeeping. Nursing assistants certified may be handling health information technology if electronic health records are in use. They also perform care coordination tasks that range from making referrals to keeping track of patient or client medications, particularly in long-term care facilities.

Hospitals use nursing assistants certified as part of their inpatient care teams, where they are paired with registered nurses and work under their supervision in medical-surgical and, sometimes, critical-care units. Some hospitals that are phasing out employment of licensed practical nurses found that pairing registered nurses with nursing assistants certified on inpatient floors was the most effective and efficient means of caring for their patients.

Employment Sector: Demand for nursing assistants certified seems mostly stable in inpatient care units. Typically, nursing assistants certified work under registered nurse supervision in medical-surgical departments and sometimes in critical care and the

emergency department. In some inpatient care settings, employers reported that nursing assistants certified act as unit secretaries. pairing administrative and clinical duties. Some employers made specific reference to the effectiveness of acute care teams made up of registered nurses and nursing assistants certified, citing it as an important reason why licensed practical nurses are now infrequent in inpatient positions. Several employers in this sector had nursing assistant certified vacancies, but reported low turnover and few problems recruiting. Some stated that recruiting issues had more to do with finding candidates with the right experience and skills to interact with patients and

their families than with having sufficient technically competent applicants. Others found that nursing assistant certified applicants with a long-term care background may be ill prepared for inpatient roles, and suggested that inpatient hospitals could collaborate with skilled nursing facilities to develop a nursing assistant certified workforce that can succeed in both settings.

Employers in the long-term care/home care sector employ nursing assistants certified extensively.

Most skilled nursing institutions have nursing assistants certified on staff and continue to recruit them heavily. Nursing assistants certified in these settings do nearly all the basic patient care and handling (e.g., moving, turning, lifting), which may put them at risk for injuries—one reason why skilled nursing employers reported vacancies in nursing assistant certified positions. But as patients in skilled nursing facilities have more care needs than in the past due to the trend toward shorter hospital stays, nursing assistants certified may need to learn new skills to handle the higher patient acuity. One employer suggested that this may lead to the employment of entry-level workers

We don't normally terminate or have people leave dissatisfied they move on to bigger and better things...CNAs want to go to LPNs and become RNs for double the pay.

other than nursing assistants certified to perform some routine functions such as feeding patients or helping them dress. This would free nursing assistants certified to focus on clinical tasks under their scope such as monitoring vital signs or caring for a catheter.

Turnover for this occupation appears to be lower in skilled nursing than in assisted living or home care organizations.

Many skilled nursing employers prefer to hire nursing assistants certified with experience, but most will hire recent nursing assistants certified graduates either by necessity, because they further train new graduates in house, or because they have good relationships with education programs that give them first pick of the best students.

Due to the generally autonomous nature of the work, home health agencies that offer nursing services do not normally hire new nursing assistant certified graduates to work unsupervised in the patient's home. Turnover among nursing assistants certified seems to be relatively low in home health agencies.

Nursing assistants certified are often employed in substantial numbers in assisted living, where turnover is quite high, mostly attributed to low pay for a hard job and, in rural areas, to lack of training options to further their skills and to lengthy commutes: *"We don't normally terminate or have people leave dissatisfied they move on to bigger and better things...CNAs want to go to LPNs and become RNs for double the pay."* Part-time work and lack of benefits also undermine retention.

Most assisted living employers will hire new nursing assistant certified graduates, although most cite a need for these employees to have more training and skills that include CPR, first aid, HIV, mental health, and dementia. The ability to handle clients with developmental and memory disorders is in especially high demand, and some institutions with the resources offer internal or online training in these skills, or fund attendance to classroom-based courses.

In both the skilled nursing and assisted living fields, advancement opportunities for nursing assistants certified appear limited. In this study there were rare cases of nursing assistants certified who were administrators, and where they occurred, the employees had usually been with the facility many years.

Home care agencies stated a preference for nursing assistants certified over home care aides for entrylevel positions because nursing assistants certified that perform home care aide duties are exempt from home care aide training requirements: *"We do love NACs because we don't have to worry about the training process. If NACs apply, we get pretty excited!"* Under some circumstances, nursing assistants certified working for home care agencies provide nursedelegated duties (e.g., bandage changing, administering diabetic injections, using a special lift chair) under registered nurse supervision.

The nursing assistant certified workforce may be less stable and more prone to turnover in home care because nursing assistants certified that are hired as home care aides receive low pay and are likely to leave for more remunerative positions. Nursing assistants certified are recruited heavily, but not always successfully, by home care employers that complain of a limited applicant pool.

While most employers expressed that they favored medical assistants in ambulatory/outpatient care settings, some nursing assistants certified were also on staff in ambulatory/outpatient care practices. Nursing assistants certified were most often utilized in a clinical capacity similar to that of medical assistants-preparing patients for examination and taking vital signs, for example-although the nursing assistant certified scope of practice is more limited (which is reportedly one reason why many employers prefer hiring medical assistants rather than nursing assistants certified). There were some exceptions to the pattern: a network of rural health clinics reported using its nursing assistants certified almost exclusively for administrative functions (e.g., medical records), while the one nursing assistant certified employed in a privately owned medical practice had the role of patient services coordinator. A small minority of ambulatory/ outpatient care employers had current vacancies for nursing assistants certified.

Geography: Roughly half the employers surveyed along the I-5 corridor employed nursing assistants certified and did so in either acute care or long-term care/home care jobs. At least one home care services provider with multiple sites employed nursing assistants certified at most of its locations.

Two long-term care/home care employers on the Olympic Peninsula had nursing assistants certified on

staff and tended to hire from the community, a common trend in small towns.

On the east side of the Cascades, nursing assistants certified were typically on the staff of small and medium-sized hospitals, as well as assisted living and skilled nursing facilities. Some ambulatory/outpatient care settings also employed nursing assistants certified, but one network of Community Health Centers plans to phase them out of employment in favor of medical assistants. Skilled nursing facilities had more nursing assistants certified on staff than any other employer type and tended to recruit from the community whenever possible. Inpatient hospitals and affiliated clinics had little trouble attracting nursing assistants certified. Long-term care/home care employers experiencing recruitment problems fared better if they had connections to nursing assistant certified training programs or offered training themselves. Some facilities close to Idaho were successful in drawing applicants from across the border by offering higher pay.

Demand Trend:

- The overall trend for nursing assistants certified seems to be moving away from ambulatory/ outpatient care, with a stable presence of this occupation in acute care settings, and a growing demand in long-term care and home care. Longterm care and home care employers are hiring nursing assistants certified and anticipate continuing to do so at a sustained pace. Several reported that they would rather have nursing assistants certified than home care aides in caregiving roles open to both occupations, in order to avoid the reported challenges of complying with the home care aide training and certification requirements introduced by Initiative 1163. Many employers in this sector struggle to fill their nursing assistant certified vacancies and retain current employees.
- The skills and training needed in the nursing assistant certified workforce can vary by employer and available applicant pool. Experience and adequate computer skills are required of those applying for hospital-based jobs.

Inpatient care employers need nursing assistants certified with training and skills that prepare them for the demands and fast pace of the acute care unit. They tend to prefer nursing assistants certified with inpatient experience and may be reluctant to hire those with only a long-term care/home care sector background. There are reports that some nursing assistant certified programs have begun offering specialized training in acute care skills to support placement in inpatient units.

Providers of assisted living and skilled-nursing services need nursing assistants certified with upgraded competencies and skills more focused on direct patient care.

• High turnover is a common problem with employment of nursing assistants certified in longterm care/home care facilities, although less so in skilled nursing than assisted living and home care. Employers in skilled nursing, assisted living, and home care reported losing nursing assistants certified to higher paying positions at nearby hospitals and other facilities, though hospitals that recruit nursing assistants certified from the long-term care/home care sector noted that the transition to working in inpatient care settings, with its much different pace, may be difficult.

Some employers were proud of their good retention rates for this occupation and cited strategies for their success. One assisted living facility, for example, described a careful screening and hiring process that includes telling employees that they are joining a family, followed by extensive onboarding and inhouse certification training classes, if needed. • Nursing assistants certified use their occupation as a springboard to career advancement. Some employers reported encouraging career moves for nursing assistants certified through internal ladders or other forms of support. In the long-term care/ home care sector there were very few cases of nursing assistants certified who had experienced internal advancement and moved into administrative roles after being with the same facility many years. A common path for the nursing assistants certified in this sector seeking to advance their career is leaving to pursue nursing education.

The transition from an entry-level position to pursuing a nursing career may not be easy, however, and nursing assistants certified entering nursing degree programs may need a good deal of support to succeed.

• Recruitment and turnover for nursing assistants certified are a problem for rural long-term care and home care employers, stemming from low pay and lack of access to nursing assistant certified training. Some providers of assisted living and skilled-nursing services offer classes themselves if training is unavailable in their community.

In contrast, recruitment and turnover issues hardly exist in rural and urban hospitals because these are considered to be the highest paying and most satisfying employment sites available to nursing assistants certified.

Licensed Practical Nurses

Licensed Practical Nurses Occupation Profile: Licensed practical nurses care for a variety of patients under the supervision of doctors or registered nurses and work in many different settings.

At the top of their scope of practice, licensed practical nurses conduct simple assessments, pass some medications, do some patient charting, and administer IV medications and fluids under supervision. At the other end of their scope they handle basic patient care such as toileting, feeding, dressing, and changing bed linens. In some circumstances, licensed practical nurses are allowed to delegate certain tasks to nursing assistants certified.*

To become credentialed as a licensed practical nurse in Washington State, applicants must:

- Complete a Washington State Nursing program.
- Take and pass the National Council Licensure Examination for Practical Nurses (NCLEX-PN).
- Pass a background check.

Traditionally an entry point for many individuals into professional nursing, licensed practical nurses with licenses in Washington have been declining in number since 2008, when 13,751 licensed practical nurses with Washington home addresses were licensed in Washington. In 2013, 14% fewer (11,823) were estimated to be in the Washington State workforce.¹⁶ The national trend appears different from Washington's. The U.S. Bureau of Labor Statistics identified 752,300 licensed practical nurse positions in 2010 and forecast a 22% increase in the number of positions, or 168,500 jobs, between 2010 and 2020.¹⁷

* Under provision of Washington Administrative Code 246-840-010.

Findings:

Employment Settings and Roles: Over half of the employers surveyed said that they had licensed practical nurses on staff. Despite a trend toward fewer licensed practical nurse licenses in Washington State, these entry-level workers are still relevant and sought after in rural areas, long-term care/home care (especially skilled nursing facilities), and in the mental health/chemical dependency field. Licensed practical nurses were also deployed in inpatient units and in ambulatory/outpatient care settings, including school districts, primary care and specialty clinics, Community Health Centers, and correctional facilities.

Most employers of licensed practical nurses deploy them for clinical functions and direct patient care, but some ambulatory/outpatient care practices also rely on them for administrative, health information technology-related, and care coordination tasks.

Recruitment Issues: Licensed practical nurses in many organizations are legacy employees whose positions will not be filled when they become vacant. However, employers that report they would hire licensed

practical nurses said that few apply for open nursing positions ("We could hire an LPN—we just never had one apply"), perhaps because new graduates of licensed practical nurse programs move on quickly to other nursing degrees. The experience of at least one employer in the mental health field suggests that some licensed practical nurse education programs may not be providing enough capacity to meet current and future student demand.

Employment Sector: There seems to be a consensus that licensed practical nurses are being phased out of hospitals, particularly (but not exclusively) those that are part of large urban facilities, and many hospital systems have laid off licensed practical nurse staff in recent years. One hospital-based employer provided a possible rationale for this shift, explaining that due to their more limited scope, licensed practical nurses were not as useful as registered nurses in the inpatient units, and were more expensive than medical assistants in the outpatient clinics.

Inpatient mental health services employ licensed practical nurses, although not in large numbers.

School districts, correctional facilities, and other ambulatory/outpatient care practices employ licensed practical nurses consistently, but the numbers are usually small relative to other entry-level occupations.

An exception is the state's correctional system, where licensed practical nurses are the most numerous clinical occupation, second only to registered nurses. In ambulatory/outpatient care, the demand for licensed practical nurses seems to be diminishing, with some outpatient locations planning to replace them with registered nurses in roles requiring a nursing license. Some small medical practices surveyed were still looking to fill licensed practical nurse vacancies. Where employed in ambulatory/ outpatient care settings, licensed practical nurses were relied on for their long experience and the diverse tasks they could perform

under their scope of practice. This ability to be a sort of "jack-of-all-trades" was especially useful in small practices and rural facilities.

Outpatient mental health facilities employed licensed practical nurses for tasks including dealing with pharmacies and prescription paperwork, coordinating blood work, and supervisory duties. At least one mental health provider was recruiting for licensed practical nurse roles, but commented on how hard it was to find applicants with experience in psychiatric care.

Some observe that the long-term/home care sector is the one niche where licensed practical nurses retain the most value, given their scope of practice and skills. Providers of skilled nursing services, assisted living facilities, and (in smaller numbers) home care/home health agencies have licensed practical nurses on staff in mostly clinical nursing positions and sometimes performing patient navigator roles.

Licensed practical nurses were an especially substantial presence in skilled nursing facilities. One such employer described a great deal of success with having licensed practical nurses on staff: *"I have had my LPNs and master level nurses and some of my LPNs put those MA [master's level] nurses to shame. Depends on attitude, their willingness to learn and continue to grow. Couple that with a few years' experience and*

you have a top-notch nurse. "Others remarked that the right "fit" for the position mattered more than whether applicants for nursing positions were registered nurses or licensed practical nurses.

These views were by no means universal: some employers expressed a need for more registered

> nurses in nursing homes to replace licensed practical nurses as they age out of their current roles. Others considered the long-term care/home care sector's ongoing reliance on licensed practical nurses to be part of a repeating cycle in which a preference for the broader registered nurse scope of practice and skillset alternates with that for the lower-cost licensed practical nurses. "They have tried for years to phase out LPNs...Every 10 years or so, [they say] 'we're going to go all RN.' Then that gets too expensive and they add back NACs and LPNs."

Geography: The trend toward phasing licensed practical nurses

out of many inpatient and some ambulatory/outpatient settings is reportedly stronger in urban areas of the state, but remains decidedly mixed. In southeastern Washington, one medical center debated whether or not to fill a recent licensed practical nurse vacancy, while another clinic with no licensed practical nurses on staff was looking to hire one. In contrast, licensed practical nurses were employed at extended care facilities and home care agencies in the Tri-Cities and the Spokane area, confirming that the long-term care/home care sector remains a viable employment niche for this occupation.

West of the Cascades, a few large inpatient and outpatient employers in King County have licensed practical nurses on their staff, but in varying numbers, and some are no longer hiring this occupation. Other ambulatory/outpatient practices and mental health facilities along the I-5 corridor employ some licensed practical nurses and are recruiting. In this area licensed practical nurses are employed in skilled nursing and home care agencies as well.

In rural Washington, some small, hospital-based systems employ and recruit licensed practical nurses, mostly in clinics and rarely in inpatient roles. In rural places both east and west of the mountains, and on the Olympic peninsula, small medical practices,

They have tried for years to phase out LPNs...Every 10 years or so, [they say] 'we're going to go all RN.' Then that gets too expensive and they add back NACs and LPNs. Rural Health Clinics, and school districts also employ licensed practical nurses, as do skilled nursing facilities.

Demand Trend:

• The demand trend for licensed practical nurses is far from clear. Workforce supply statistics suggest a diminishing role for licensed practical nurses in the state's health care industry, and employers overall had few licensed practical nurse vacancies. However, some employers who still recruited licensed practical nurses reported having a hard time filling their open positions, indicating that overall low supply numbers may be contributing to the perception of a shrinking need for this occupation.

Many employers said that they did not have licensed practical nurses on staff and had no plans to hire them. Some employed a small number of licensed practical nurses who had been with them for many years, but were not anticipating any new hires.

Outside of the long-term/home care sector, employers reported employing smaller numbers of licensed practical nurses than other types of clinical occupations such as medical assistants, nursing assistants certified, and associate's degree registered nurses. Long-term care/home care organizations reported an increased need for nursing skills but often expressed no preference for registered nurses over licensed practical nurses and more commonly employed licensed practical nurses to fulfill that need. Overall, the demand for licensed practical nurses is expected to continue in the long-term care/home care sector, where they can aspire to achieving leadership roles, such as supervisors and administrators.

Most employers agreed that licensed practical nurses were being phased out of hospitals, particularly large urban facilities. In these settings, their scope of practice is considered inefficient because it is more limited than that of registered nurses.

• Licensed practical nurses' ongoing viability, where employed, may be attributed to their lower pay rate in settings such as school districts that are under severe budgetary constraints and have limited ability to pay registered nurse salaries. A school district employer commented: "If a student has a health condition with a physician order, the District tends to hire LPNs to come in since they are less expensive. The last time we hired an additional BSN was in 2000." Associate's Degree Registered Nurses Occupation Profile: Associate's degree registered nurses work across the health care delivery spectrum, including hospitals, skilled nursing homes, and ambulatory/outpatient care settings. Associate's degree registered nurses are involved in all aspects of patient care, including administering injections and medication, developing patient care plans, maintaining medical documentation, and interacting with doctors regarding patients. Associate's degree registered nurses also supervise nursing assistants certified and licensed practical nurses.

To become licensed as a registered nurse in the state of Washington (whether educated at the diploma, associate's degree or bachelor's degree levels), applicants must:

- Graduate from an approved nursing program.
- Pass the National Council Licensure Examination for Registered Nurses (NCLEX).

In 2008, slightly over half of all registered nurses in the United States had associate's degrees or nursing diplomas (15.5% diplomas and 36.2% associate's degrees).¹⁸ The Institute of Medicine's *Future of Nursing* report¹⁹ recommends that the proportion of nurses with baccalaureate degrees be increased to 80% by 2020.

Nationwide, the U.S. Bureau of Labor Statistics identified 2,737,400 jobs for all registered nurses in 2010 and forecast a 26% increase in the number of positions, or 711,900 between 2010 and 2020.²⁰

Findings:

Employment Settings and Roles: Associate's degree registered nurses in Washington are currently employed across inpatient care, ambulatory/outpatient care, and long-term care/home care settings.

Associate's degree registered nurses, as described by employers interviewed for this study, are usually a substantial proportion of the overall registered nurse staff in small and medium-sized facilities and in rural places. Large urban systems employ associate's degree registered nurses as well, but in diminishing numbers as their preference shifts toward hiring bachelor's degree registered nurses and/or encouraging associate's degree registered nurse employees to progress to the bachelor's level. Associate's degree registered nurses and bachelor's degree registered nurses often work side by side, and some employers were unable to distinguish between the two when they provided current employment and future demand information.

A number of facilities stated that they considered associate's degree registered nurses' education and skillset appropriate for most clinical nursing positions, though bachelor's degree registered nurses were frequently favored for specialty, administrative, and leadership roles.

Even employers who employ associate's degree registered nurses now and who plan to continue to do

so in the future maintain that the industry as a whole is moving toward hiring predominantly bachelor's degree registered nurses, often citing the Institute of Medicine's *Future of Nursing* report as one important reason for this trend. Some employers said that any future shortages of registered nurses could affect this tendency, as in past shortages that led employers to seek out available registered nurses regardless of education.

Employment Sector: The demand for associate's degree registered nurses is declining in many inpatient hospitals, where a preference for bachelor's degree registered nurses is taking hold. Some of the strategies cited for encouraging more bachelor's level registered nurses among the workforce include hiring only bachelor's degree registered nurses, hiring associate's degree registered nurses only on condition that they attain a bachelor's degree in nursing within a certain time period, and offering internal ladders and related help such as tuition assistance programs to support achieving that goal. Washington's Center for Nursing and the Washington Nursing Action Coalition, with support from the Robert Wood Johnson Foundation, are working with employers across the state to identify ways to encourage associate's degree registered nurses under their employ to attain nursing bachelor's degrees. These trends seem stronger in urban areas, but are not unique to them. Some small- to medium-sized facilities in Central Washington are taking steps to achieve the 80% proportion of bachelor's degree registered nurses on their staff that is recommended by the Institute of Medicine report. However, other rural hospitals said that they did not plan to change how they staffed their registered nurse positions and continued to recruit associate's degree registered nurses.

Most privately owned medical practices, Community Health Centers, and Rural Health Clinics in this study employed associate's degree registered nurses. However, some of these settings have been looking to expand how they utilize their medical assistants, therefore shifting their registered nurses staff away from tasks such as administering immunization, and toward functions that only registered nurses can perform, such as triaging patients. This move away from registered nurses could have an effect on demand, although this is likely balanced out by the majority of employers of associate's degree registered nurses who plan to continue to hire this occupation. For example, a few rural primary care practices planned to increase their number of providers and will need more registered nurses (likely associate's degree registered nurses, as is often the case in rural Washington). Specialty practices were likely to have registered nurses on staff, as were some outpatient clinics in hospital-based systems, though it was unclear whether these were associate's degree or bachelor's degree registered nurses.

Registered nurses are an important presence in longterm care/home care, but employers did not often distinguish between associate's degree registered nurses and bachelor's degree registered nurses, stating sometimes that they did not favor one over the other, and that they preferred a mix in other cases. Registered nurses were relied upon to generate care plans something licensed practical nurses cannot do—and tended to occupy care coordination or supervisory roles. At least one employer—a skilled nursing facility—mentioned the challenge of maintaining safe nurse staffing ratios, given the greater demands posed by growing patient acuity.

Geography: There is clear variability in employer demand for associate's degree registered nurses across the state, influenced by factors that can include distance from bachelor's nursing programs, whether the available hiring pool is limited to or extends beyond the local community, or pay differentials between associate's degree registered nurses and bachelor's degree registered nurses in certain roles and facilities. Most geographic differences seem to fall along the rural/urban dimension, rather than reflecting regional variations. Employer size and population base also play a role: larger organizations or those based in denser population areas on both sides of the Cascades share similarities, with a trend toward hiring fewer associate's degree registered nurses, while they differ markedly from smaller providers and Critical Access Hospitals.

Rural employers are likely to hire associate's degree registered nurses for most nursing positions. While these employers may or may not express a preference for associate's degree registered nurses. their employment market may limit their access to bachelor's degree registered nurses, and they may be committed to hiring from local communities where most registered nurses have associate's degrees. However, even in small rural hospitals, bachelor's degree registered nurses tend to be preferred for specialty roles. Career ladders or organizational support for further education—particularly for associate's degree registered nurses to attain bachelor's degrees-are also scarcer in rural areas, although there are exceptions. For example, a rural employer in the northeast part of the state encouraged its nursing staff to participate in distance learning programs to advance their nursing education.

Such associate's degree-to-bachelor's degree educational and career ladders tend to be more common in large urban institutions, where the preference for bachelor's degree registered nurses is more widespread and pursuing an advanced degree may be a condition of employment for associate's degree registered nurses.

Demand Trend:

- Most employers who use associate's degree registered nurses now will continue to do so.
- Overall demand for associate's degree registered nurses in the state can be expected to increase moderately. The moderate demand growth for associate's degree registered nurses will likely not be uniform across sectors. Some inpatient care facilities, but not others, are showing a preference for bachelor's degree registered nurses. Some ambulatory/outpatient care employers who favor medical assistants in ambulatory/outpatient care roles are no longer hiring registered nurses or are planning to let their registered nurse staff dwindle by attrition. But others are still looking to fill registered nurse vacancies. In the long-term care/home care

sector, a need may be emerging for larger numbers of registered nurses relative to licensed practical nurses. One urban hospital described a high registered nurse turnover rate, but it is unclear whether retention of registered nurse staff is a widespread problem.

Employers in general continue to recruit registered nurses (especially for on-call duties, per diem positions, and less desirable shifts), despite easing of earlier shortages and reports of registered nurses without jobs. However, some employers fear a new looming shortage as many of today's registered nurses begin retiring soon, and this could also increase the demand for associate's degree registered nurses.

Demand for specialty nurses can increase the market for associate's degree registered nurses. In the highly sought-after specialties, experience is usually considered more important than length of education alone. Specialty nurses, especially those with a psychiatric background or experience in the operating room, obstetrics, or intensive care, are frequently hard to find. There are reports of hospitals relying again on travel nursing to fill these roles, as they did during earlier nursing shortages.

Years of training may differentiate whether bachelor's degree or associate's degree registered nurses are tapped for patient navigator roles, especially when handling the needs of complex or high-risk patients and populations. Some employers believe that the role requires advanced critical thinking and problem-solving skills, which are thought to be harder to acquire from an associate's degree nursing program.

CROSS-CUTTING ISSUES

Health Care Reform: The Patient Protection and Affordable Care Act (PPACA) and Changes in Health Care Financing and Delivery

Many employers expressed uncertainty about the content and effects of the federal Patient Protection and Affordable Care Act. When asked about the law's ramifications, especially for workforce demand, health care industry representatives were generally hesitant to offer projections. Comments such as "I don't know," "It's hard to say," and "We'll have to wait and see" were widespread.

Exceptions were facilities interviewed for this study that relied heavily on Medicare and Medicaid payments, where good patient outcomes are understood to be linked to reimbursement. From hospitals to Community Health Centers, many of these facilities are focusing on stepped-up care coordination efforts to deliver more efficient and effective care to high-risk patients, and bring costs and clinical outcomes in line with more stringent reimbursement rules. Community Health Centers and other organizations that anticipate an increase in patients due to expanded access to insurance coverage for Washington's residents are preparing "because [they] have to" due to their safety net role and commitment to serving all patients who seek care. Long-term care/home care settings such as skilled-nursing facilities talked about courting closer partnerships with nearby hospitals to ensure that rehospitalizations are prevented. In most cases, the workforce implications of system changes brought on by the health reform law had yet to be worked out.

Still, among most respondents, little advance planning for workforce demand changes appears to be taking place. Some employers who expect growing workforce demand as a result of greater service utilization potentially enabled by the health reform anticipate a gradual rise that may not be truly visible until at least 2015. Some others, however, expect a rapid "explosion" of ambulatory/outpatient care and consequent demand for personnel to work in those settings.

Across all sectors, employers seemed to expect that payment reform will mean a requirement to do more with less, which will affect their staffing decisions. This was especially true in long-term care facilities. Several employers noted that hospital stays have shortened in recent years, and nursing homes and skilled nursing facilities (where patients who are not yet ready to be moved home are being discharged for rehabilitation) are caring for patients with greater medical needs than in the past. The occupations and skillsets needed to staff these facilities will likely change as a result.

Care Coordination and Related Functions and Roles

The need for effective coordination of patient care across health services, pivotal to the system transformation now underway, will likely expand as the Patient Protection and Affordable Care Act and related reform measures go into full effect. Coordination ensures that information is shared among the people, and across the functions and sites, that deliver care in order to serve patients' needs and preferences as they interact with a complex system. The intended effects include higher patient satisfaction, better health outcomes, and cost savings. The goals of these efforts seem clear, but the functions and tasks comprising patient care coordination—and who should perform them—are less definite.

Descriptions of what constitutes care coordination seem as diverse as types of health care practices. Asked about care coordination in their organizations, respondents in this study cited many coordination functions:

- Insurance and/or provider referrals.
- Appointment scheduling/follow-up.
- Working with family members (cited as particularly important in long-term care settings).
- Helping patients manage different providers/services/ medications.
- Tracking high-risk patients, including updating metrics and preparing reports on populations such as diabetics.

Some employers differentiated health coaching tasks (e.g., helping clients and patients adopt healthy behaviors) from care coordination functions while others did not. The spectrum of roles and occupations involved in care coordination appears equally diverse: case manager, referral coordinator, and patient navigator, are but a few designations. One mental health services organization delivers all its care using a team model that includes multiple treatment coordinators on each team. Other organizations also have adopted interdisciplinary teams as the fulcrum of their care coordination efforts. Front office staff-from clinic manager to billing specialists and receptionistsmay engage in care coordination by trying to steer patients toward appropriate resources within the health care system as well as the community at large.

Community health workers—volunteer or salaried have been tapped for such outreach functions as providing diabetes education and promulgating healthy lifestyle principles. Some rural clinic workers seek to reach migrant workers through "pre-medical" wellness community outreach. Other practices divide functions among multiple staff members. Some employers have created and staffed patient care coordination positions but have yet to finalize the official title or job description.

Depending on health care sector, employment setting, and type of care provided, a clinical background may or may not be required to perform care coordination functions. As mentioned by employers and stakeholders, all of the occupations targeted in this report can be found in formal or informal patient care coordination roles. Home care aides, for example, were reported to engage in routine but informal and often unrecognized care coordination functions. Often the person who tends most closely to his/her client's daily needs, the home care aide is likely to help with medication reminders, alert providers or family members when something is amiss, and arrange transportation to the next doctor's appointment. Among the employers interviewed for this study, medical assistants and registered nurses are being tapped for coordination roles in ambulatory/ outpatient care, registered nurses in inpatient care, and licensed practical nurses and registered nurses (and to a somewhat lesser extent nursing assistants certified) in long-term care and home care settings. Regardless of the official title, several interviewees reported that the professional responsible for care coordination tended to have many years of experience, often within the particular setting.

Some employers reported long-term use of care coordinators of varying types. In one case, a patient navigator role was in place that used one or more persons coordinating services across clinics and settings for high-risk populations such as diabetics. Other organizations have deployed patient navigators in dedicated roles to assist cancer patients, either in the context of their medical services or to help navigate community resources. At least one urban hospitalbased system reported finding that care coordination efforts that encourage patients to stay healthy and avoid unnecessary services result in more efficient resource utilization. One rural long-term care/home care employer noted that in their community a patient's family used to take on care coordination, but as the community has changed, the responsibility has fallen more on the care providers.

Adoption and Use of Health Information Technology (HIT)

Providers are in varying stages of navigating the transition to use of electronic medical records and health information technology within their practices. In order to better understand the workforce impact, employers were asked about their adoption of health information technology and its use by entry-level workers. Except in some of the smallest offices, electronic health records are widely in use. Other computerized systems to support care delivery vary across clinical settings and can range from specialized systems for medication management to fully electronic charting, electronic referrals, and insurance billing.

Most workers in these five occupations handle some aspect of health information technology. The assumption that younger health care professionals have an easier ability to adapt to technology was a pervasive concept among the interviewed employers. Medical assistants and registered nurses were most likely to have both front office and clinical duties requiring health information technology skills. Nursing assistants certified working in inpatient units are increasingly required to have the skills to use computerized systems. In fact, computer proficiency is one area where some employers considered nursing assistant certified education to be deficient. Employers did not cite computer-based tasks and related required competencies for home care aides at this time. Employees engaged in care coordination, regardless of occupational background, routinely were reported to use electronic health records and other forms of health information technology.

As a result, employers consider general computer proficiency an essential skill for new hires. One hospital-based rural employer preparing to adopt a health information technology system anticipated screening for electronic health records experience among its new applicants. A busy Community Health Center in a metropolitan area complained that specific training in electronic health records is difficult to find among most graduates of medical assistant programs. While many employers have provided on-the-job health information technology training for entry-level employees, doing so is difficult for organizations with limited staff or high patient volumes.

Even where health care workers receive training in an educational setting, the system they trained on may not be the one used in the clinic (electronic health records training simulators are reportedly not readily available). While having some health information technology training prior to employment is better than having none, training a new graduate to use an unfamiliar electronic health records system on the job puts an additional burden on the employer.

Partnerships with Local Education Institutions

Many employers look to partnerships with local education institutions as important tools for ensuring the availability of employees in sufficient numbers and with the skills they need. These partnerships take place in both urban and rural areas and can take various

forms. Health care facilities may host clinical rotations or externships for nursing or medical assistant students; a facility staff member may serve as an instructor at a nearby education program or sit on its advisory board. Local education programs are also relied upon to help employees obtain continuing education required by credentialing rules and acquire needed specialized skills in areas such as dementia, developmental disorders, and mental health.

Employers who reported partnerships with educational institutions said that they benefitted from gaining access to pools of potential applicants. Success with these relationships seemed to influence their assessment of what workforce demand challenges may lay ahead.

Some employers proposed that another kind of partnership—one developed between health care organizations—could facilitate employees' movement and transferring of skills and training acquired in one organization to the other. This would help both employees, who would have access to a wider career path, and employers, who would benefit from the accrual of skills in the available workforce. Stated barriers to implementing a similar model included competitive market pressures and possible reticence to sharing proprietary organizational information.

Most employers expressed education needs that went beyond each of the five occupations' education requirements. For example, having a more sophisticated general education background was considered desirable by many employers. At least one thought that education in population health would help entry-level workers better understand their jobs as part of a continuum of care, rather than episodic caredelivery events.

We're looking for folks who can not only do the right technical skill but also treat the patient or their family member in a respectful, customer-oriented way.

Recruitment and Retention: Issues and Strategies

Most health care employers face challenges in recruiting and retaining entry-level workers, but some locations and employment settings can exacerbate the situation. Turnover is high in the twelve correctional facilities that make up the state's prison system. Practices in small or isolated rural communities also face special problems attracting and retaining a health workforce that fits their needs.

> For the occupations with low salaries, making the job more attractive to prospective employees is far from mysterious. Most employers agree that adequate pay and benefits are essential. Other valuable recruitment and retention tools reported by a number of employers include opportunities for professional development and learning new skills; having a path for moving up an established career ladder; being able to transfer education credits statewide; and flexible scheduling, tuition

support, and loan repayment programs that facilitate education. Although employees may leave to pursue professional advancement, some employers supported their employees' professional growth and accepted the turnover.

Careful hiring practices were cited as possible remedies to recruitment and turnover challenges: "We're looking for folks who can not only do the right technical skill but also treat the patient or their family member in a respectful, customer-oriented way." "[It] really goes back to people's ability to apply critical thinking skills and the ability to handle change. ... health care is not a great vocation for folks that want things to be the same over and over again." Employers also said that efforts to develop better supervisors and leaders in health care organizations could help improve employee retention. Long-term care institutions noted that high retention rates were often associated with such intangibles as a family environment, valuing employees' "soft skills," and varying employees' tasks to keep the work interesting. Larger organizations, despite citing turnover as a problem, seemed to understand and expect that lower-paid workers such as nursing assistants certified will move on either to become nurses or go to higher paying positions. Smaller facilities experienced more severe disruption from the rapid turnover of employees.

Employers acknowledged that a diverse workforce is needed to mirror the state's population and deliver high-quality, culturally sensitive care. Some look for bilingual proficiency in new applicants. Others mentioned the importance of not just retaining but helping frontline workers from ethnic and cultural minorities advance, in order to change the workforce complexion at all organizational levels.

Employment Sectors

Organization size and resources affected how inpatient

care, ambulatory/outpatient care, and long-term care/home care employers deployed their entry-level workers and what tasks they performed. Versatility and being able to wear many different hats are at a premium in small settings. Nursing personnel in some of the smallest rural hospitals may be asked to alternate work on the hospital floor, the emergency department, or swing skilled nursing beds. In small ambulatory/outpatient care and long-term care/home care facilities, patient care coordination functions may be performed by different staff members based on availability

and need. Larger organizations were more likely to define specific roles for their staff and to deploy specific occupations to cover those roles. For example, larger hospital-based systems mostly relied on medical assistants only (rather than nursing assistants certified or licensed practical nurses) to fill entry-level positions in their outpatient clinics, but did not report utilizing medical assistants in their inpatient units.

Employee turnover seemed higher in larger organizations than in smaller practices, but large employers, particularly urban ones, cited few problems recruiting applicants and usually filled their open positions quickly. Long-term care/home care facilities may be an exception to this pattern—many employers in this sector indicated that they struggled with recruitment and turnover issues, although the ensuing organizational disruption had greater affect on smaller facilities.

Larger and better-resourced employers tended to facilitate—and sometimes require—their entry-level employees' career advancement or pursuit of further education and training. In contrast, some smaller

[It] really goes back to people's ability to apply critical thinking skills and the ability to handle change. ...health care is not a great vocation for folks that want things to be the same over and over again.

organizations mentioned encouraging those goals, but said they were unable to allocate funds to support them.

The patient population served also affected employers' staffing choices and challenges, regardless of industry sector. A majority of employers stressed the importance of excellent caregiving skills for their employees, but this was especially important for those addressing the needs of vulnerable populations such as the elderly and the mentally disabled. Patient diversity led many employers to seek bilingual and culturally sensitive applicants, while facilities serving rural populations

preferred local applicants with close ties to the community. The limited patient base available to some rural facilities also tends to limit their resources, as does dependence on state and federal reimbursement structures, which in turn affects current and expected workforce demand.

The Role of Geography

The main geographic differences uncovered from this study relate to rural-urban issues of access to the workforce pool, education resources, and reimbursement. These rural-urban differences were consistent among employers across the state.

Access to Employees: Recruiting and retaining employees with desired skills in sufficient numbers ranks high on the list of rural employers' concerns. Rural practices said that they preferred to hire personnel from within their communities whenever possible. But small communities offer a limited applicant pool for entry-level positions, a situation that some fear could worsen as some of these communities suffer population loss. Facilities in remote places cite few recruitment amenities ("We don't have a Costco"), low wages, and long commuting distances from larger population centers as obstacles to recruiting already-trained and certified personnel from outside the community. For example, one outpatient clinic that hired a medical assistant from a nearby town after a long search still defines its staffing situation as "unstable" for fear that the new recruit will eventually tire of the commute and leave the job. A remote school district was also afraid of losing the last in a succession of school nurses due to commuting distance.

Reimbursement levels are not enough to have sufficient staff in place.

Because rural employers are often not in close proximity to education programs, their access to workforce supply is limited, creating another barrier to fulfilling demand for entry-level workers. On the plus side, rural employers who draw most of their entrylevel workforce locally report a good deal of employee longevity, citing examples of staff with as many as 30 years of tenure.

Access to Training: Many long-term care/home care sector employers in rural areas said that they were affected by a lack of accessible education programs for nursing assistants certified and home care aides, who make up the bulk of their employees. To be certified, nursing assistants and home care aides must fulfill state-mandated training requirements within strict time limits after they are hired. Yet access to training and testing sites is reportedly problematic in many rural places. Some employers have overcome these barriers by offering training or continued education in house, particularly in rural areas where this strategy helped address nursing assistants certified shortages and comply with the new home care aides training requirements.

Difficulty accessing education is also responsible, in part, for the way rural employers staff their registered nursing positions. While other factors are at play, a lack of four-year nursing degree programs in rural communities means that associate's degree registered nurses continue to be a large percentage of the available applicant pool. That may be about to change, as more colleges are now offering distance-learning opportunities.

Access to Reimbursement: With the already-existing pressures to provide quality care more efficiently, some rural employers were especially concerned about funding sources for some of the new care coordination tasks and roles that are emphasized in the approaching health care system overhaul.

Because rural facilities are disproportionately dependent on Medicare and Medicaid reimbursement, which typically reimburse at lower rates than commercial insurance, they are especially vulnerable to rising costs and/or changes in federal and state payments flows and rates: "*Reimbursement levels are not enough to have sufficient staff in place.*" "I don't see how we could survive...without the Rural Health Clinic designation...we're in a very old building. We're tight, we're cramped, we have no space...but it allows us to treat all the kids. If they took that designation away, I'm afraid we'd be in a different situation."

I don't see how we could survive...without the Rural Health Clinic designation...we're in a very old building. We're tight, we're cramped, we have no space...but it allows us to treat all the kids. If they took that designation away, I'm afraid we'd be in a different situation.

SUMMARY OF KEY FINDINGS

Who employs home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree registered nurses now? In the future?

Many employers are re-examining how best to employ entry-level workers.

- Among these occupations, hospital employers are predominantly relying on care teams composed of registered nurses and nursing assistants certified. Ambulatory/outpatient care practices are employing more medical assistants than other entry-level occupations. Both trends are expected to strengthen in the near future.
- The long-term care/home care sector relies heavily on nursing assistants certified and home care aides, as well as some licensed practical nurses and registered nurses. This pattern seems stable, with the demand for nursing assistants certified and home care aides expected to grow. Changing patient/ client needs, however, along with regulatory and reimbursement challenges, may shift how these occupations are deployed, and in what numbers.
- Larger employers, especially hospitals, are employing fewer licensed practical nurses. The market for this occupation is becoming increasingly centered on select geographic and industry pockets.

What will employers need?

- Some employers expect higher patient volume and acuity, but are unsure about bringing on more workers, given financial pressures and uncertainty about how they will be affected by changes in health care delivery systems.
- Some home care agencies and ambulatory/outpatient care facilities that have been expanding expect to add staff, including these five occupations.
- More expensive training and a higher credentialing bar for some entry-level occupations are leading many employers to screen applicants more carefully.
- Many employers look for applicants with "soft skills," such as strong customer service and communication skills and a commitment to caregiving.

- Experience is prized by smaller organizations that can least afford training, have limited staff, and need new employees to perform effectively shortly after being hired.
- Most employers need entry-level workers who are computer proficient, familiar with electronic health records, and able to perform at the top of their training and scope of practice. Other specific needs vary by occupation and industry sector, as organizations rethink their staffing models and optimize their workforce to achieve both cost savings and good patient outcomes.
 - Ambulatory/outpatient care employers need highly trained medical assistants, with skills that include delivering immunizations and performing blood draws, tasks more typically carried out by nursing staff in the past.
 - Long-term care/home care employers need nursing assistants certified with upgraded skills and competencies to respond to patients' greater acuity. These employers also need home care aides and nursing assistants certified with specialized training in mental health, memory disorders, and emergency care.

How can existing problems be eased?

- Partnerships with local education institutions can be very effective. Many employers maintained strong ties to these assets and sought to expand them when possible. Online and in-house training solutions help rural employers satisfy their demand for entry-level personnel, particularly home care aides, medical assistants, and nursing assistants certified.
- Employers cited a number of strategies to improve recruitment and retention of entry-level occupations. They include not only adequate pay and benefits, but also pathways for education and career advancement supported by internal opportunities, flexible scheduling, transferable education credits, tuition support, and loan repayment programs.

To what extent will these occupations be tapped for care coordination?

• Where a need for a distinct patient navigator or care coordinator position has been identified, there is no consensus on which, or how many, of these

occupations should fill this role. Employers vary greatly on whether care coordination functions will be performed by an entry-level position or will require advanced education and/or credentials.

- Employers that are anticipating the greatest need for care coordination services expressed concern about adequate reimbursement to cover the costs of providing these services.
- Very few organizations have current job openings for patient navigator or care coordinator positions. Many employers are waiting to assess the needed functions, staffing, education, and reimbursement structures that relate to care coordination roles.

REFERENCES

1. Skillman SM, Fordyce MA, Yen W, Mounts T. Washington State Primary Care Provider Survey, 2011-2012: Summary of Findings. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2012.

2. Skillman SM, Andrilla CHA. *Washington State Data Snapshot: Advanced Registered Nurse Practitioners (ARNPs).* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2013.

3. Skillman SM, Andrilla CHA. *Washington State Data Snapshot: Licensed Practical Nurses (LPNs)*. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2013.

4. Skillman SM, Andrilla CHA. *Washington State Data Snapshot: Registered Nurses (RNs).* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2013.

5. Washington State Department of Transportation. Population growth in relation to the state's counties. 2012. http://www.wsdot.wa.gov/planning/wtp/ datalibrary/population/PopGrowthCounty.htm. Accessed June 30, 2013.

6. Washington State Office of Financial Management. 2012 population trends. 2012. http://www.ofm.wa.gov/pop/april1/poptrends.pdf. Accessed June 30, 2013.

7. Washington State Department of Health. The health of Washington State, 2007. http://www. doh.wa.gov/hws/TOC2007.shtm. Accessed June 30, 2013.

8. Washington State Budget and Policy Center. Declining support for education threatens economic growth. http://budgetandpolicy.org/reports/decliningsupport-for-education-threatens-economic-growth/. Accessed June 30, 2013.

9. U.S. Department of Health and Human Services. Affordable Care Act state by state: Washington. http://www.hhs.gov/healthcare/facts/bystate/ wa.html. Accessed June 30, 2013.

10. Washington State Department of Health. Home care aide. http://www.doh. wa.gov/LicensesPermitsandCertificates/ ProfessionsNewReneworUpdate/HomeCareAide. aspx. Accessed July 29, 2013. 11. Skillman SM, Basye A. *Policy Brief: Home Care Aides in Washington State: Current Supply and Future Demand.* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2011.

12. Bureau of Labor Statistics. Occupational outlook handbook: home and personal care aides. Washington, DC: U.S. Department of Labor; 2012. http://www.bls. gov/ooh/healthcare/home-health-and-personal-careaides.htm. Accessed June 30, 2013.

13. Bureau of Labor Statistics. Occupational outlook handbook: medical assistants. Washington, DC: U.S. Department of Labor; 2012. http://www.bls.gov/ooh/ healthcare/medical-assistants.htm. Accessed June 30, 2013.

14. Workforce Training and Education Coordinating Board. Washington career bridge. Job details: medical assistants. 2013. http://www.careerbridge.wa.gov/ Detail_Occupation.aspx?soc=319092&txt=medical assistant. Accessed June 30, 2013.

 Bureau of Labor Statistics. Occupational outlook handbook: nursing aides, orderlies, and attendants. Washington, DC: U.S. Department of Labor;
2012. http://www.bls.gov/ooh/healthcare/nursingassistants.htm. Accessed June 30, 2013.

16. Skillman SM, Andrilla CHA. *Washington State Data Snapshot: Licensed Practical Nurses (LPNs)*. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; 2013.

17. Bureau of Labor Statistics. Occupational outlook handbook: licensed practical and licensed vocational nurses. Washington, DC: U.S. Department of Labor; 2012. http://www.bls.gov/ooh/healthcare/licensedpractical-and-licensed-vocational-nurses.htm. Accessed July 11, 2013.

18. Health Resources and Services Administration. The registered nurse population. Findings from the 2008 National Sample Survey of Registered Nurses. Washington, DC: U.S. Department of Health and Human Services; 2010. http://bhpr.hrsa. gov/healthworkforce/rnsurveys/rnsurveyfinal.pdf. Accessed July 22, 2013.

19. Institute of Medicine. The future of nursing: leading change, advancing health. Washington, DC: National Academies Press; 2011. http://www.iom.edu/ Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx. Accessed June 30, 2013. 20. Bureau of Labor Statistics. Occupational outlook handbook: home and personal care aides. Washington, DC: U.S. Department of Labor; 2012. http://www.bls.gov/ooh/healthcare/registered-nurses. htm. Accessed July 11, 2013.

APPENDIX A: METHODS

Between April and July 2013, Washington health care employers were contacted statewide and across industry sectors and asked about their current and anticipated demand for five key occupations: home care aides, medical assistants, nursing assistants certified, licensed practical nurses, and associate's degree registered nurses. Employers' views were collected using a two-pronged qualitative approach: 1) semi-structured phone interviews guided by a common set of questions to focus and direct conversations; 2) two invitational forums to review and discuss preliminary interview results with employers and stakeholders and gather additional information to complement interview findings.

Employers to be contacted for interviews were selected from a list assembled by the researchers from a variety of web-based sources, such as facilities and provider listings available on state association websites (for example, the Washington Hospital Association*) and from the Washington State Department of Health.† This resulted in a listing of well over 1,000 health care organizations reflecting a variety of employment sites across industry sectors statewide. They included:

- Inpatient care: acute care hospitals; mental/ behavioral health facilities.
- Ambulatory/outpatient care: urgent care /retail clinics; tribal clinics; Rural Health Clinics; Community Health Centers; ambulatory surgical centers /other outpatient clinics (including mental/ behavioral health and chemical dependency); correctional facilities; school districts, and medical practices not otherwise categorized.
- Long-term care/home care: skilled nursing facilities; extended care facilities (including rehabilitation facilities and long-term critical care hospitals); home care/home health agencies; and assisted living facilities.

Sample selection was driven by the study's goals of capturing both geographic variation and breadth of employment settings for the five occupations. Organizations included in the sampling frame were purposefully stratified by Workforce Development Area (WDA), industry sector, and setting/facility type, and assigned random numbers. Fifty-three employers were selected at first. Because of the initially low interview response rate, the process was repeated multiple times, aiming to obtain the desired target of 75 employer interviews. Another 300 employers were randomly chosen and mailed letters describing the study and inviting participation. In addition to using the sampling technique just described, employers were contacted based on referrals and existing industry contacts.

Stakeholders with relevant knowledge and expertise were also contacted for interviews. Employers and key informants were contacted up to three times via e-mail and/or by phone. Once contacted, those willing to participate were posed a set of questions informed by the study's aims. Each interview lasted between approximately 15 and 40 minutes. In all, 75 employers were interviewed for this study. Interview notes and transcripts were analyzed for themes salient to employers' current and projected workforce demand in different parts of the health care industry and the state.

Preliminary interview findings were validated by being presented and discussed at two forums: one on May 31, 2013, near Spokane Valley, in Eastern Washington, and the other on June 3, 2013, in Sea-Tac, in Western Washington. The forums were organized by the Western Washington Area Health Education Center through a sub-contract to the University of Washington Center for Health Workforce Studies.

Forum participants included industry hiring experts and other relevant stakeholders. This brought the total number of employers participating in this study to 86. Forum attendees were asked to react to the initial interview results and share their knowledge and experience in the course of facilitated group discussions. Key themes that emerged from these exchanges were collected, summarized, and integrated with interview responses to generate this report's findings.

^{*} Washington State Hospital Association. Membership listing (alphabetically). http://www.wsha.org/0111.cfm. Accessed July 15, 2013.

[†] Washington State Department of Health. Home page. http://www.doh.wa.gov/. Accessed July 15, 2013.

RELATED RESOURCES FROM THE WWAMI CENTER FOR HEALTH WORKFORCE STUDIES AND THE RURAL HEALTH RESEARCH CENTER

ARTICLES

Skillman SM, Andrilla CHA, Patterson DG, Tieman L, Doescher MP. The licensed practical nurse workforce in the United States: one state's experience. *Cah Sociol Demogr Med.* Apr-Jun 2010;50(2):179-212.

Skillman SM, Doescher MP, Mouradian WE, Brunson DK. The challenge to delivering oral health services in rural America. *J Public Health Dent.* Jun 2010;70(S1):S49-S57.

Skillman SM, Palazzo L, Hart LG, Keepnews D. The characteristics of registered nurses whose licenses expire: Why they leave nursing and implications for retention and re-entry. *Nurs Econ.* May-Jun 2010;28(3):181-189.

Patterson DG, Baldwin LM, Olsen PM. Supports and obstacles in the medical school application process for American Indians and Alaska Natives. *J Health Care Poor Underserved*. May 2009;20(2):308-329.

REPORTS

Skillman SM, Andrilla CHA. *Washington State data snapshot: Advanced registered nurse practitioners (ARNPs).* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Apr 2013.

Skillman SM, Andrilla CHA. *Washington State data snapshot: Licensed practical nurses (LPNs).* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Apr 2013.

Skillman SM, Andrilla CHA. *Washington State data snapshot: Registered nurses (RNs)*. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Apr 2013.

Patterson DG, Skillman SM. *National Consensus Conference on Community Paramedicine: Summary of an expert meeting*. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Feb 2013.

Patterson DG, Longenecker R, Schmitz D, Phillips RL Jr, Skillman SM, Doescher MP. *Policy brief: Rural residency training for family medicine physicians: Graduate early-career outcomes, 2008-2012.* Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Jan 2013. Skillman SM, Keppel GA, Patterson DG, Doescher MP. *The contributions of community colleges to the education of allied health professionals in rural areas of the United States.* Final Report #136. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Oct 2012.

Skillman SM, Palazzo L, Doescher MP, Butterfield P. *Characteristics of rural RNs who live and work in different communities*. Final Report #133. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Sep 2012.

Matthews B, Mounts T. *Policy brief: Washington State primary care workforce: Summary of physician focus group findings*. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Aug 2012.

Skillman SM, Fordyce MA, Yen W, Mounts T. Washington State primary care provider survey, 2011-2012: Summary of findings. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Aug 2012.

Skillman SM, Kaplan L, Fordyce MA, McMenamin PD, Doescher MP. Understanding advanced practice registered nurse distribution in urban and rural areas of the United States using National Provider Identifier data. Final Report #137. Seattle, WA: WWAMI Rural Health Research Center, University of Washington; Apr 2012.

Skillman SM, Andrilla CHA, Tieman L, McCook AU. *Washington State registered nurse supply and demand projections: 2011-2031.* Final Report #134. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Dec 2011.

Skillman SM, Basye A. *Policy brief: Home care aides in Washington State: Current supply and future demand.* Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Jan 2011.

Skillman SM, Andrilla CHA, Alves-Dunkerson JA, Comenduley M, Yi J, Doescher MP. *Washington State's oral health workforce*. Final Report #130. Seattle, WA: WWAMI Center for Health Workforce Studies, University of Washington; Nov 2009.

For a complete list of publications by the Center for Health Workforce Studies, visit http://depts.washington.edu/uwchws/.

mar CFP:cjan2013:m:p 8/19/13