



Wisconsin Health Care Workforce 2015 Report



Front cover photos courtesy of:
(l to r) Edgerton Hospital and Health Services; HSHS Sacred Heart Hospital, Eau Claire; Hudson Hospital & Clinics

About This Report

As a chief executive officer of a rural hospital and chair of the Wisconsin Hospital Association Council on Workforce Development, I am reminded daily of the critical importance a well-trained, well-staffed workforce has in delivering the high-quality, high-value health care for which Wisconsin is known. Wisconsin is the second most highly-rated state in the country based on the quality of its health care, according to the federal Agency for Healthcare Research and Quality (AHRQ). The impact our health care workforce has on the quality of our care is undeniable.



Nicole Clapp

Yet, those of us who work in health care recognize the workforce challenges hospitals face today. These challenges are presented in detail in this 2015 Wisconsin Health Care Workforce Report. This important and timely report includes suggestions and recommendations for improvements and modifications in the way hospitals, educators and policymakers address current as well as future challenges. For the first time, this report examines the urban versus non-urban differences in vacancy rates. Other areas of focus, such as continuing or changing trends in select vacancy rates, attempt to contextualize statewide trends within national trends. For example, much of the nursing workforce narrative has centered on an aging population and the impact this has on a continued shortage. However, a growing body of literature along with credible workforce experts have challenged this premise with discussions of a nursing workforce shortage that is decreasing, or perhaps that is even being eliminated. Such discussions are confusing to hospital leaders when we are not seeing this shortage in our own work environments. This report addresses these differing projections on the nursing workforce and makes specific recommendations. I encourage your thoughtful consideration of the information and recommendations in this report.

Finally, although the discussion of team-based care is not necessarily new, its relevance and the impact it has on the health care workforce could not be more timely. Critical to the successful integration of team-based care is a recognition and understanding not only of emerging roles in health care, but also the expanding responsibilities of established roles. Emerging roles, such as patient navigator and personal health coach, are increasingly viewed as integral in delivering high-quality care, and yet were unheard of only a few years ago. Likewise, expanded roles, such as advanced practice nurses providing hospitalist services, are allowing some Wisconsin hospitals a nimble response to a rapidly-changing health care environment.

In hospitals, as well as all delivery sectors of health care, workforce is vital to the care that we all strive to provide. It's quite simple really—a high-quality workforce ensures delivery of high-quality care.



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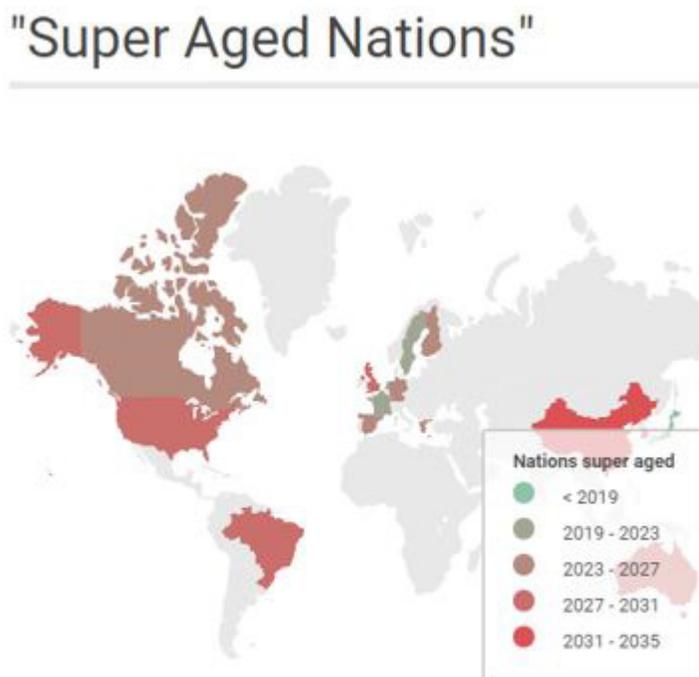
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2015 Workforce Trends

United States Population Demographics 2015

The aging United States workforce, which has also been called the Silver Tsunami¹, refers to the rise in the median age of the workforce to levels previously unseen. One of the biggest trends impacting the world today is the aging population. By 2020, for the first time in history, the number of older people will outnumber the number of children younger than five years of age worldwide. Japan and Germany are officially termed “super aged.” Four more countries—Greece, Finland, Spain and Canada—are expected to enter the super aged category by 2020. Figure 1 illustrates the countries entering this category by year. The United States is predicted to be “super aged” by 2030.

Figure 1



The United States, along with Brazil, United Kingdom, China, South Korea, Singapore and Australia will all become "super aged" by 2030. Japan and Germany are already "super aged".

The number of people older than 65 in the United States will double in the next 25 years, and the average life expectancy is expected to surpass 80 by 2030.

It is projected that by the year 2020, about 25 percent of the workforce will be comprised of older workers (ages 55 and over). While many factors contribute to the aging workforce, the Post-World War II baby boom created an unusually large birth cohort in the United States, resulting in a large aging population today. On January 1, 2011, the oldest members of the baby boom generation celebrated their 65th birthday. On that day, and on every day since, and for every day until the year 2030, 10,000 baby boomers will reach age 65.

10,000 BABY BOOMERS WILL
TURN 65 EVERY DAY
UNTIL 2030.

Wisconsin Population Demographics

Wisconsin is aging at a faster rate than other states on average. Couple this with a decreasing birth rate in the state and a clear antecedent for a workforce shortage is identified. This shortage is predicted to increase.

Age Distribution – 2000 and 2010

Age Cohort	State of Wisconsin		United States	
	2000	2010	2000	2010
Age 25 to 54	43.0%	40.8%	43.6%	41.2%
Age 16 to 64	64.4%	65.6%	64.8%	65.8%
Under 5	6.4%	6.3%	6.8%	6.5%
5 to 14	14.6%	13.1%	14.6%	13.3%
15 to 24	14.3%	13.8%	13.9%	14.1%
25 to 34	13.1%	12.7%	14.2%	13.3%
35 to 44	16.3%	12.8%	16.1%	13.3%
45 to 54	13.6%	15.4%	13.3%	14.6%
55 to 64	8.5%	12.3%	8.6%	11.8%
65 to 74	6.6%	7.0%	6.5%	7.0%
75 to 84	4.7%	4.5%	4.4%	4.2%
85 or More	1.8%	2.1%	1.5%	1.8%

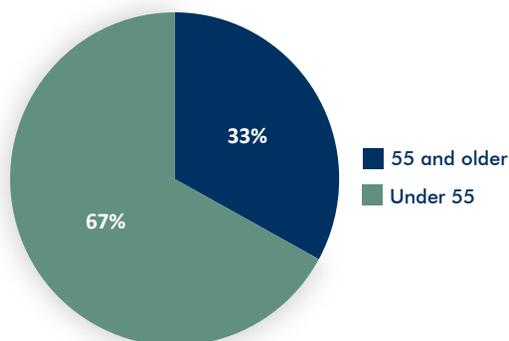
Data Source: U.S. Census Bureau, 2010 Summary File 1

As the population ages, their use of the health care system is expected to increase. It is important to note, however, that people with chronic illnesses and obesity-related conditions significantly impact the utilization of health care. Wisconsin is the 14th most overweight state in the country with 31.2 percent of the population being obese².

Wisconsin’s Aging Population and the Impact on Health Care Workforce: Health Care Workers Continue to “Age in Place”

Currently, many baby boomers are working into their 60s and beyond. In the Wisconsin nursing workforce, nearly 40 percent of RNs are over age 50 and more than 33 percent are older than 55.

2014 RN Age Distribution in Wisconsin



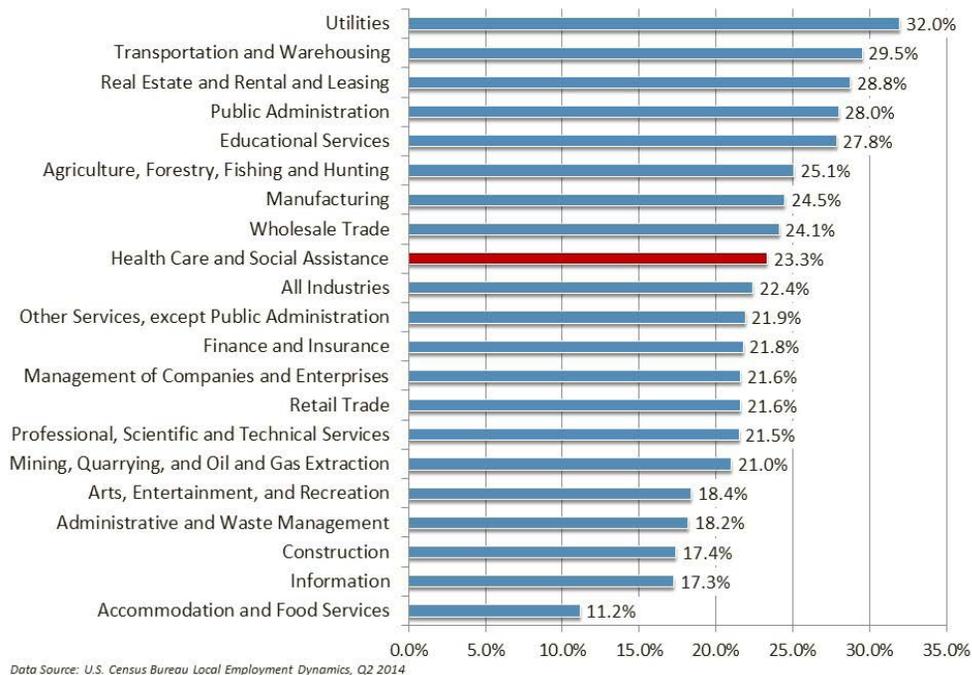
Source: 2014 Relicensure Survey

It appears that RNs are still not retiring at expected rates. In fact, the number of nurses 65 and older actually increased from 2012 to 2014, from 5,660 licensees (7.3 percent) to 5,865 (8.0 percent). Although many Wisconsin nurses are continuing to delay retirement, nearly all the boomer nurses will retire by 2030. Nationwide, annual retirements from the nursing workforce are projected to equal 80,000 nurses a year over the next decade, compared to 20,000 a year a decade ago. Applying the same projection formula, approximately 3,000 nurses per year will retire in Wisconsin over the coming decade.

Several projections during the past decade have alerted those in health care of this impending shortage, and that the shortages are likely to come in a huge “wave”; hence, this looming presence is titled the “silver tsunami.” However, there is reason to believe the shortage may not be as critical as some have warned. New forecasting models, including those from the U.S. Health Resources and Services Administration (HRSA), and research from leading

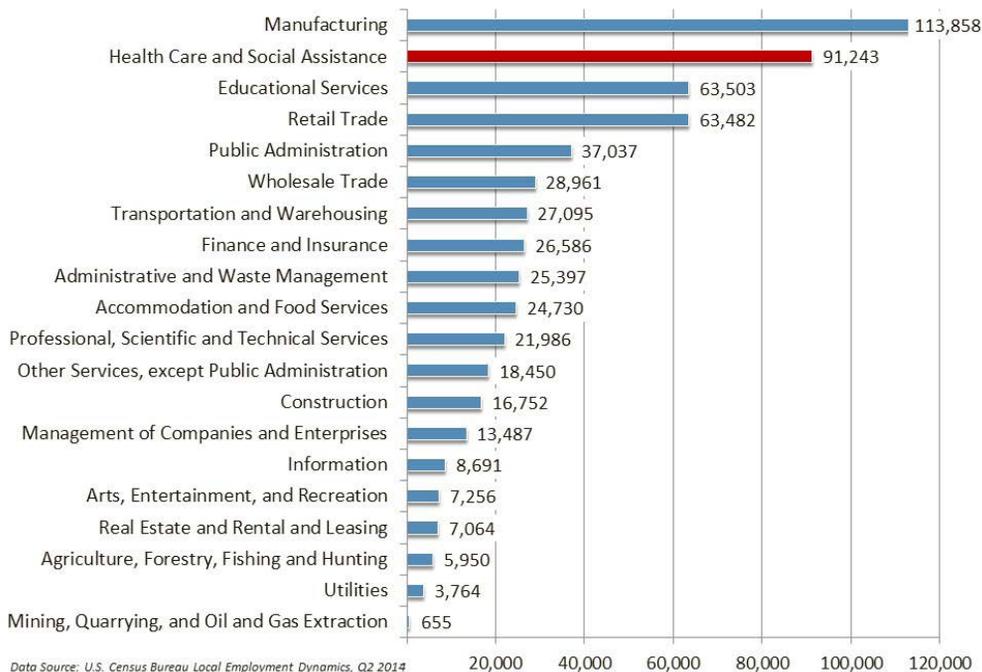
workforce experts^{3,4,5}, predict a surplus of nurses by 2025. Others, however, continue to take a more cautious approach and cite evidence of a continued shortage⁶. This conflicting information can be confusing for health care leaders, health care educators and policymakers. However, Wisconsin has already reached a critical level within many workforce sectors. According to the U.S. Census Bureau⁷, workers in the health care and social assistance sector rank as the 9th oldest sector with 23.3 percent age 55 and older.

Percent of Employees Age 55 and Over by Industry Sector



When adjusted for the *number* of jobs in the health care sector, the Wisconsin ranking for the oldest workforce jumps to 2nd, or the equivalent of 91,243 individuals. Due to the large numbers employed in health care in Wisconsin, it is clear this aging workforce demands attention in the state.

Number of Employees Age 55 and Over by Industry Sector

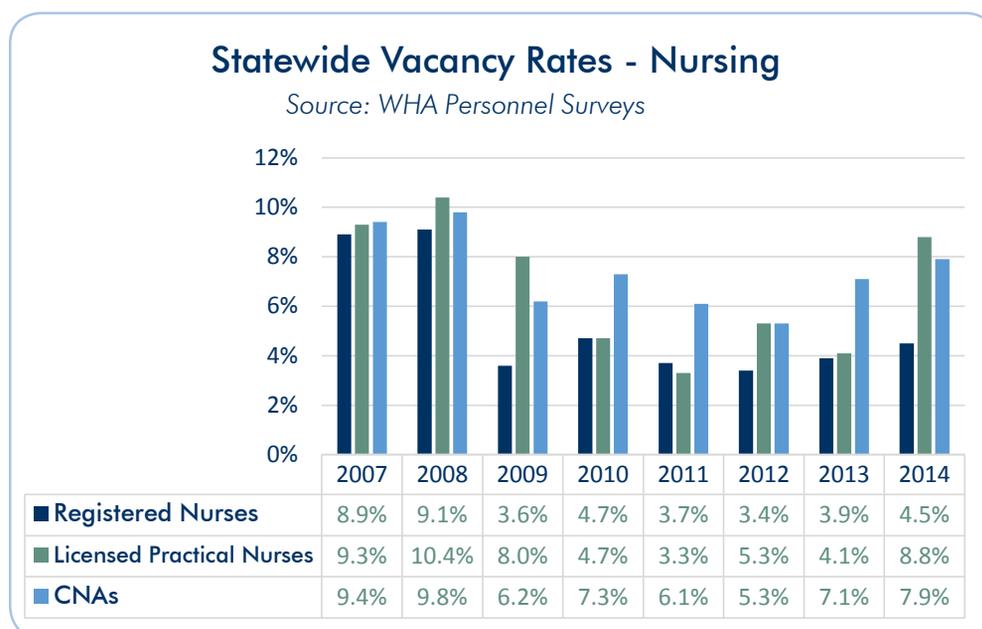


Current Data on Select Health Occupations in Wisconsin Hospitals

When evaluating the utility of the various workforce projections, Wisconsinites must consider both population and workforce demographics. Data from the 2014 WHA Personnel Survey revealed interesting results—both confirming a decrease in shortages in some occupations, as well as indicating a reversal of trends and an increased shortage in others.

Registered Nurses (RNs)

Perhaps due to the sheer number of nurses licensed in Wisconsin, increased focus is often given to the workforce issues of these more than 100,000 professionals, of which 33,349 work in hospitals. Recent publications and projection rates have suggested the nursing shortage might be easing in the United States within the next decade. Large increases in the number of new nursing graduates and a corresponding increase in first-time nursing license test takers are often cited as an important pipeline factor that will alleviate the shortage. In Wisconsin, the number of graduates from nursing schools has nearly doubled in the past decade. However, where Wisconsin nursing schools have much to celebrate in the number of new graduates they have produced, the combination of Wisconsin's aging workforce and aging population might result in a continuation of an inadequate supply of workers. WHA's Personnel Survey reveals for the first time in five years an RN hospital workforce vacancy rate of greater than four percent—a more than 15 percent increase from just one year earlier deserves special focus in 2016.



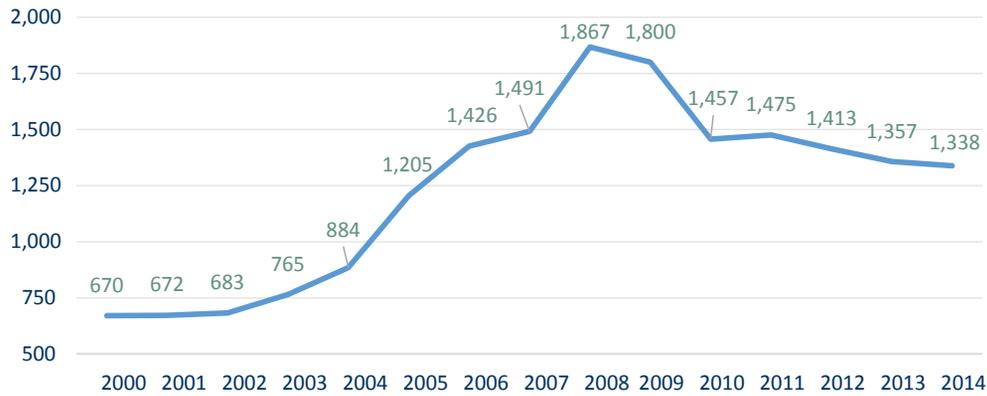
Licensed Practical Nurses (LPNs)

An even greater increase in vacancy rates was seen by licensed practical nurses (LPNs) working in hospitals in 2014. This vacancy rate of 8.8 percent is more than double what it was only one year earlier, and for the first time in over five years even surpasses the already concerning rate of CNA vacancies. Since the age of working LPNs in Wisconsin is greater than RNs (41.7 percent of LPNs are 55 and older versus 33.5 percent of RNs), it is reasonable to associate increased retirements among the LPN workforce with the increased vacancy rates. Also making up a large percent of Wisconsin's health care workforce at more than 10,000 strong, this dramatic shift in vacancy rates will surely capture the attention of educators, health care leaders and policymakers. Of special note is the fact that the number of newly-licensed LPNs in Wisconsin continues to decline at a dramatic rate.

After experiencing a near threefold increase in the number of LPNs between the years 2000 and 2008 (670 newly licensed LPNs in 2000 versus 1,867 per year in 2008), the number of new LPNs in the state began to decrease⁸. In 2014, the number of LPNs newly licensed in the state of Wisconsin represents a 28 percent decrease from the 2008 high. Although this serious pipeline issue should not be minimized, traditional educational preparation for LPNs ranges from 10-14 months, thereby allowing for a relatively nimble response by educational institutions in responding to this shortage.

Newly-Licensed LPNs in Wisconsin

Source: Wisconsin Department of Safety and Professional Services



Certified Nurse Aides (CNAs)

CNAs employed by hospitals continue to experience high vacancy rates in Wisconsin at 7.9 percent. There are similar pipeline issues to that of LPNs in that the number of CNAs certified in Wisconsin continues to decrease. According to the Wisconsin Department of Health Services, the number of new aides has decreased 18 percent since 2012, and the number of certification renewals has gone down 14 percent. Wisconsin hospitals are finding themselves competing with labor forces outside of health care for the entry-level position. Large retailers and restaurant chains are enticing workers with the promise of more pay and attractive benefits⁹. However, most do not offer the opportunities for professional advancement that are available in nursing. CNA experience is often a prerequisite for other formal health care education.

Pharmacists and Pharmacy Techs/Aides

The vacancy rates for both pharmacists and pharmacy techs who work in hospitals continue to decrease in Wisconsin. In 2013, the vacancy rate for pharmacists was relatively low in Wisconsin hospitals at 3.1 percent and dropped even lower in 2014 to 2.7 percent. The Medical College of Wisconsin announced in 2015 their plan to open a new school of pharmacy in 2017 or 2018, and it remains unclear how an increased number of pharmacist graduates in Wisconsin will impact the overall workforce. Pharmacy techs also experienced a decrease in vacancies in 2014.

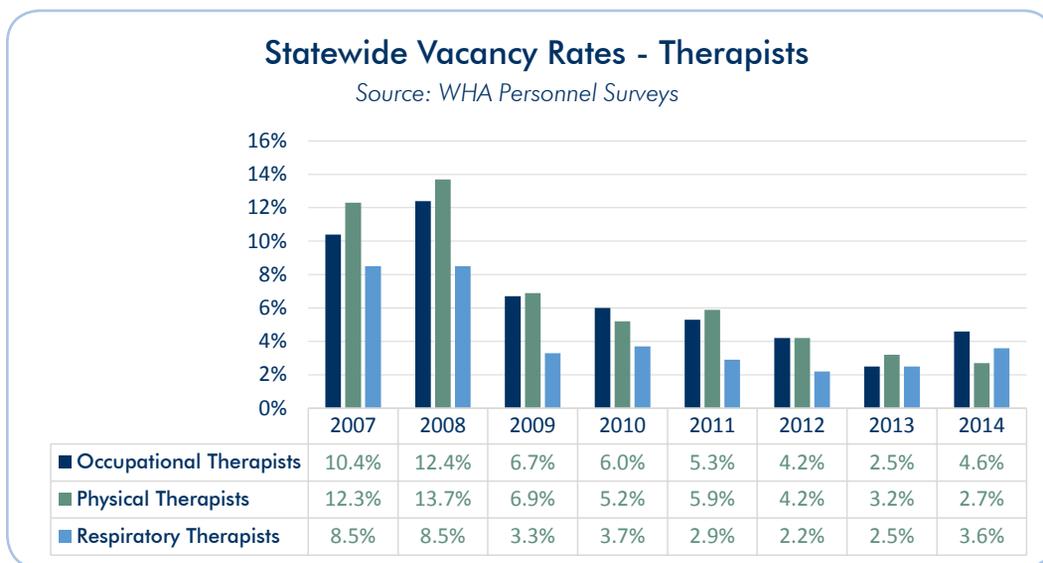
Statewide Vacancy Rates - Pharmacy

Source: WHA Personnel Surveys



Occupational Therapists (OTs), Physical Therapists (PTs) and Respiratory Therapists (RTs)

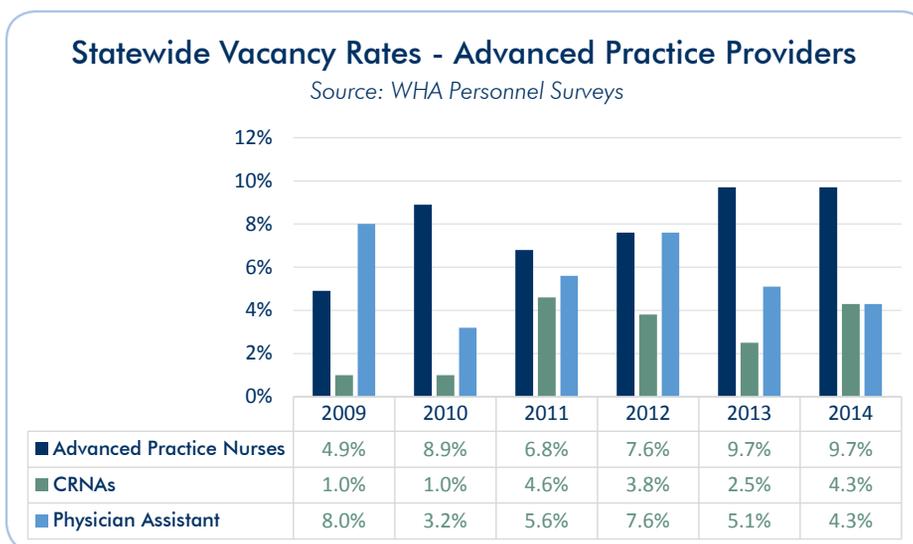
While the vacancy rate for hospital-based physical therapists declined slightly, the vacancy rate for occupational therapists nearly doubled, from a 2.5 percent vacancy rate in 2013 to a vacancy rate of 4.6 percent in 2014. Although this vacancy rate is not nearly as high as it was in 2008 (12.4 percent), it is the first time an increase in vacancy rates among OTs has occurred since 2008.



Advanced Practice Clinicians (APCs) and Their Impact on Team-Based Care

Interprofessional collaboration is not a new topic in health care, but with the renewed focus on team-based care as outlined by the Interprofessional Education Collaborative¹⁰ and the Health Resources and Services Administration (HRSA)¹¹, it seems inevitable that Wisconsin hospitals and health care leaders understand how the unique roles of advanced practice clinicians (APCs) on the team contribute to meeting the “triple aim.”¹² The increase in responsibility of some advanced practice nurses (APNs) will be discussed later in this report, but vacancy rates for both APNs and certified registered nurse anesthetists (CRNAs) remain as potential barriers for the full and successful integration of these team members into team-based care.

An important limitation to the WHA Personnel Survey of advanced practice nurses is that it does not single out three types of APNs, namely nurse practitioners (NP), certified nurse midwives (CNM) and clinical nurse specialists (CNS). CRNAs are the exception and have been surveyed since 2009. As each advanced practice specialist brings valuable and distinctively different practice to the team, determining the vacancy rates for each would assist in developing specific strategies for addressing health care workforce needs. Beginning in 2015, WHA will survey for all four main APN roles—NP, CNM, CNS and CRNA.



Urban Versus Non-Urban Comparison of Select Workforce Vacancies

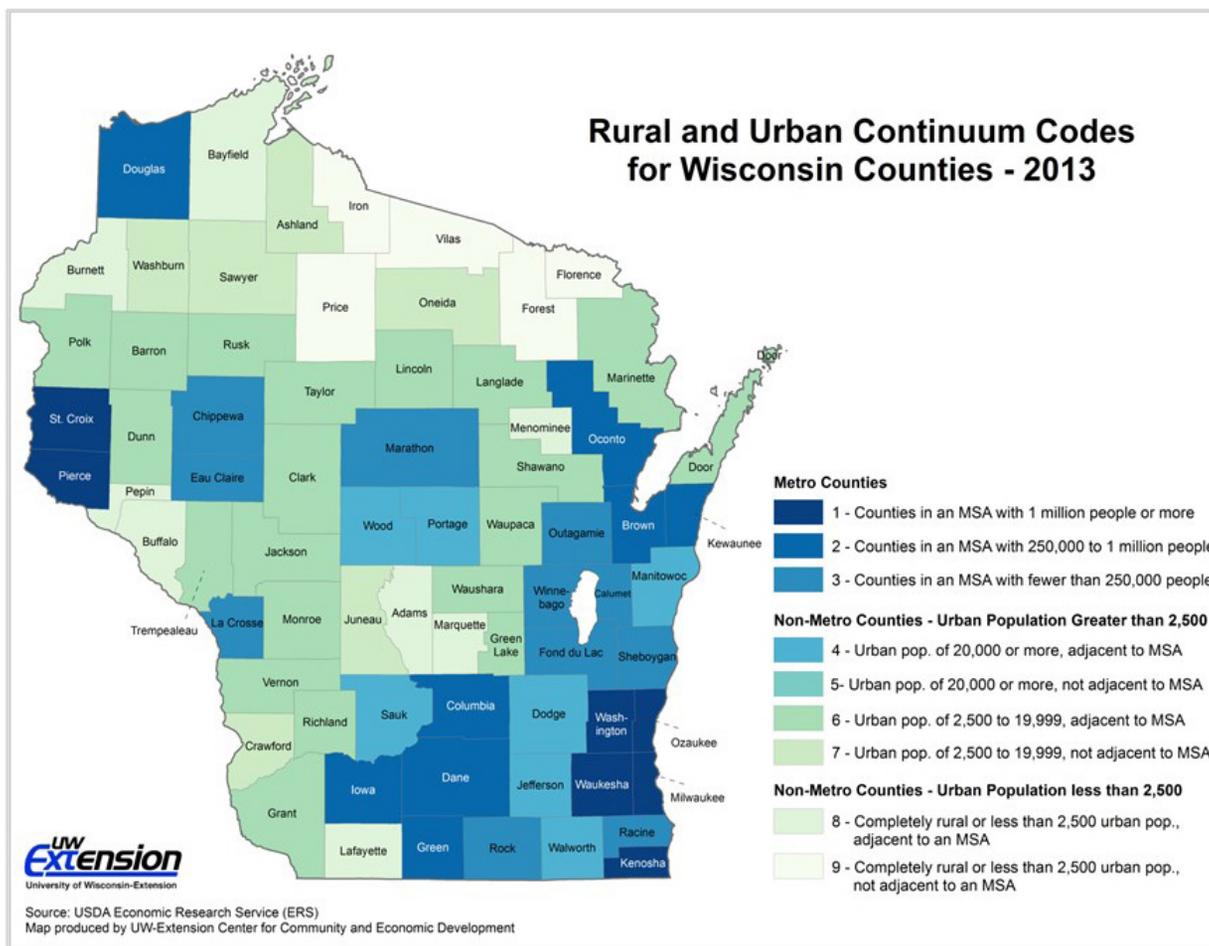
HRSA has long understood the unique challenges rural areas often face in developing health care workforce strategies with Health Professional Shortage Area (HPSA) designation being but one response to these challenges¹³. Likewise, Wisconsin health care leaders understand that at times hospitals in rural areas are disproportionately affected by workforce shortages. But the WHA Annual Personnel Survey also revealed there are shortages that are disproportionately higher in urban areas. By examining these urban versus non-urban differences in vacancy rates, health care leaders and policymakers can develop specific strategies for both pipeline as well as recruitment and retention approaches. For the purpose of this discussion, the definition created by the USDA Economic Research Services¹⁴ for rural and urban continuum codes will be used. Counties are categorized across a continuum of nine different population sizes. These Rural and Urban Continuum Codes (RUCCs) rank from 1 (counties with more than 1 million people) to 9 (counties that are completely rural with less than 2,500 and not adjacent to a metro area).

Understanding Change Across Wisconsin Rural-Urban Continuum Codes

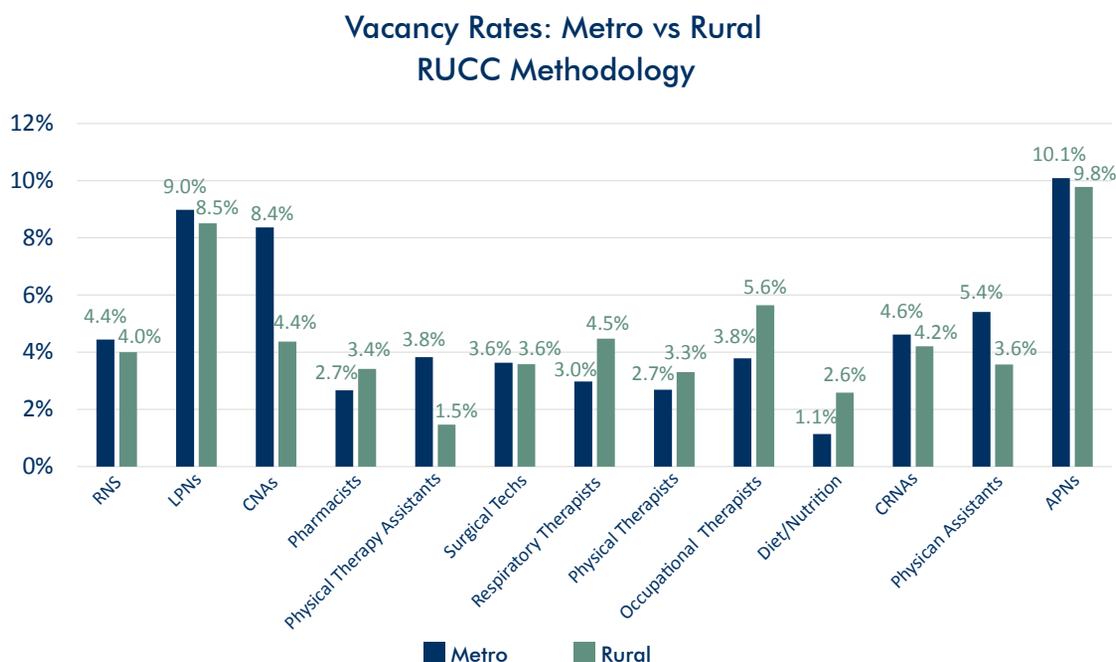
Code	Description
Metro Counties	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population
Non-Metro Counties	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban pop., adjacent to a metro area
9	Completely rural or less than 2,500 urban pop., not adjacent to a metro area

Source: USDA Economic Research Service

The map below shows the distribution of these RUCCS in Wisconsin.



When vacancy rates for metro (RUCC 1-3) versus rural (RUCC 4-9) are compared, a few occupations stand out.



OT, RT and Pharmacist Vacancy Comparisons Between Urban and Non-Urban Areas of the State

Both occupational therapists (OTs) and respiratory therapists (RTs) have higher vacancy rates in non-urban areas (OT 5.6 percent, RT 4.5 percent) when compared to urban areas (OT 3.8 percent, RT 3.0 percent). Pharmacists also have higher vacancy rates in non-urban (3.4 percent) versus urban areas (2.7 percent). But as noted previously in this report, pharmacy vacancy rates are low overall in Wisconsin.

CNA Urban to Non-Urban Comparisons

The vacancy rate for CNAs continues to be high statewide at 7.9 percent. But when the vacancy rates for urban versus non-urban hospitals are compared, the associated rates are very different. Urban settings have nearly twice the vacancy rate for CNAs (8.4 percent) than do rural settings (4.4 percent). CNAs are considered to be entry-level positions, and as previously mentioned in this report, many competing employers that tend to be concentrated in the urban setting are vying with hospitals for these scarce workers.

Emerging Roles and Trends in Health Care Workforce

Team-Based Care and the Utilization of Both Emerging Roles and Expanded Responsibilities

New models of team-based care are an effective way to promote coordinated care and to respond to existing workforce shortages and demographic changes. Team-based care remains front and center as an effective and value-driven approach to addressing health care workforce needs. Wisconsin hospitals continue to form patient care teams that are effective in recognizing the value the individual and shared contributions each member brings to the team. A cornerstone of this transformed health system is a new level of collaboration across the health professions, including physicians, nurses, social workers, physician assistants, pharmacists, medical assistants and others. Consistent with the World Health Organization’s definition of team-based care¹⁵, Wisconsin hospitals that engage in team-based care can provide comprehensive health services to individuals, families, and/or their communities by at least two health professionals who work collaboratively along with patients, family caregivers and community service providers on shared goals within and across settings to achieve care that is safe, effective, patient-centered, timely, efficient and equitable.

Emerging Roles for Teams

In response to the transformative changes to Wisconsin's health care delivery system, new care models that are predicated on value-based reimbursement aim to reduce costs and improve care while also expanding coverage. In the current era of this health care transformation, considerable discussion has focused on the politics, benefits, challenges and costs of health care reform. But one of the biggest areas of change involves the health care workforce. Employment in health care is growing, and traditional work roles are evolving along with the emergence of new roles. The Affordable Care Act (ACA) is often cited as the primary driver of these changes, but an improving economy, clinician shortages and retirements, an aging population that requires more and different kinds of care, market and regulatory pressures to contain costs while improving quality, and new models of person-centered care all contribute to this evolution in how health care is delivered.

As a component so dominant that it expends more than half the budget of nearly every hospital system in Wisconsin¹⁶, the workforce is central to meeting the objectives and challenges listed above. The roles of health care workers must evolve for Wisconsin health care systems to achieve the three major objectives driving the change in health care today: improving quality, containing costs and expanding coverage. Meeting these objectives will require not only expanded roles and responsibilities for established occupations, but also roles that were not even envisioned a few years ago. Emerging titles such as patient navigator, care manager, community health worker and health coach are increasingly being identified as important members of the health care team. A 2014 national survey of 323 clinical and human resources leaders from health care¹⁷ found that health care employment advertisements and internal job postings today include many jobs that did not exist a few years ago. Key findings of this survey include:

- Approximately 86 percent of survey respondents say they are aware of the growing need for new types of health care workers.
- Survey response on planning for new roles was strongest for ICD-10 coders, a position critical to proper documentation and reimbursement for the mandated change from ICD-9 to ICD-10. Forty-four percent of respondents say they are currently recruiting or planning to recruit for this position.
- Care coordinator, a key position for improving patient satisfaction and care quality, rated as the second most sought-after new position. Forty-one percent of respondents are currently recruiting or planning to recruit for care coordinators.
- New leadership roles trail recruitment numbers for new staff worker roles. Eleven to 16 percent of survey respondents are currently recruiting for or plan to recruit for one or more of the new leadership positions.
- Among emerging leadership roles, chief experience officer drew the largest response, with 16 percent of respondents currently recruiting or planning to recruit.
- Expanding need for telehealth services was clearly reflected by survey respondents, with nearly one-fourth recruiting or planning to recruit telehealth-trained physicians and 21 percent seeking or planning to seek telehealth-trained RNs.
- Respondents stated strongly the reasons new roles are important, including improving patient-care quality, reducing errors and readmissions, improving patient satisfaction and accommodating new value-based reimbursement structures that provide incentives.

Despite the high level of awareness of these new roles, the survey also revealed a significant difference from the percentages of those who say their organizations are actively preparing for this need. While 86 percent said they are aware of the general need, only 41 percent said they are currently recruiting or planning to recruit care coordinators, one of the highest rates for staff positions, and a low of 11 percent are recruiting or planning to recruit for chief clinical transformation officers. The variance between knowledge of this looming challenge and preparation for coping with it is notable. Hospitals, health systems and other health facilities are facing unprecedented challenges in the current era of transformation to meet varied, competing demands that all require significant time and resources. These demands include operational, compliance, quality, patient care, patient satisfaction, patient safety, transitioning from volume- to value-based care, integrating new care models, implementing new technology and, of course, managing health care professionals, which alone consumes more than one half of the health care enterprise budget. In the face of these many and conflicting demands, health care providers do not appear to be prepared for the workforce changes that are upon them. The challenge of developing the future health care workforce has not yet been adequately

embraced. Providers may need to engage expertise in health care workforce management that targets recruitment and training in new and emerging clinical, nonclinical and leadership roles.

Existing Roles with Expanded Responsibilities

For many of the same reasons behind the emergence of new roles, many existing roles are now experiencing a need for expanded responsibilities. For example, the role of the advanced practice nurse is now being expanded to include the responsibility of providing hospitalist coverage in some Wisconsin hospitals. Total cost of care and bundled reimbursement models are also lending to the increased responsibility of emergency medicine personnel such as emergency medical technicians and paramedics. Some Wisconsin hospitals are piloting the use of paramedics in the community as a method of containing cost while still providing quality care. These new and innovative approaches to health care delivery deserve attention in the coming months and years.

WHA Summary and Recommendations

Summary

Employment by Wisconsin hospitals remains strong. More than 107,000 individuals work in a Wisconsin hospital. In the future, Wisconsin health systems will be serving an aging population that will have higher incidences of aging-related conditions, as well as a growing population across the lifespan with chronic conditions. Rural areas in our state are aging at faster rates than our urban and suburban areas. In addition to these shifting dynamics, the health care workforce is also aging. The health care workforce in Wisconsin must be prepared to meet the increasingly complex medical needs of this state's residents and be able to meet those needs across the rural-urban continuum. Health care professionals must be prepared to deliver care that is preventive and longitudinal, smoothly transitions across care settings, and is outcomes-based. This will require that all parts of the delivery system become more adept at population health management, team-based care, quality improvement, and are able to use the technology available to make that happen. Developing effective workforce strategies will require finding new ways to deliver care more efficiently, capitalizing on emerging roles, along with being able to educate, recruit and retain health care professionals.

Recommendations

Employers

- A continued focus on the delivery of high-quality, high-value, safe and accessible care should be the impetus for the consideration of more fully developing integrated health care teams.
- Hospitals will need to consider emerging roles and the actual associated recruitment plans.
- Although the vacancy rate for RNs has dropped, the vacancy rate for advanced practice nurses has remained high. A culture of supporting continuing education for not only nurses, but all health care workers, will better position hospitals to meet the ever increasingly complex needs of the patients and communities they serve.
- The number of LPNs employed by Wisconsin hospitals increased in 2015, reversing a long-standing trend of decreased employment in the inpatient setting. Coupled with a particularly older workforce and a dramatically increasing vacancy rate, LPN workforce issues are once again demanding the attention of hospitals and other health care employers.

Educators

- Emerging titles, such as patient navigator, care manager, community health worker and health coach, are being identified as important members of the health care team. Both the educational preparation as well as the specific job responsibilities of these roles vary. Educational facilities should partner with employers in determining the need for, along with the essential preparation for these emerging health care roles. Only then can Wisconsin's fine educational institutions do what they do so well—design and deliver curriculum to prepare individuals interested in working in these roles.
- Many educational institutions value and give academic credit for real-life work experience and other competencies. Competency-based education allows for a quicker transition into a new career for many displaced workers and those with other health care backgrounds.

- Educators should focus on health care occupations with long-standing shortages such as CNAs and advance practice providers. Explore how new responsibilities for existing roles, such as nurse practitioners working as hospitalists, impact instructional design and delivery.

Policymakers

- Policymakers should understand how regulatory issues such as billing and reimbursement impact multiple members of a team-based care system in delivering high-quality care. An adequately staffed, trained and coordinated workforce should remain a focus for Wisconsin policymakers. To achieve high-quality, patient centered care, the workforce must include enough clinicians with essential core competencies to meet the vast needs of Wisconsin residents.
- Professional organizations and other key stakeholder groups that represent those who care for patients should define these core competencies, and organizations that deliver care should ensure their clinicians have those skills. Policymakers should seek to identify, and then remove, statutory and regulatory barriers in this process.
- Scopes of practice and professional rules and regulations are critical to the professions for which they are associated. These guiding principles are necessary to define roles, guide practice, and to safeguard the public. However, the same principles can, at times, pose as barriers to increased responsibility within roles, as well as the development of emerging roles. 21st century health care continues to change rapidly, and the ability of hospitals to respond with innovative workforce approaches should be encouraged.

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