



Wisconsin's Health Care Workforce Report 2008

A report by the Wisconsin Hospital Association

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EXECUTIVE SUMMARY

Hospitals are available to deliver care 24 hours a day, 365 days a year. Staffing for that level of care is complex, even when there are sufficient numbers of skilled health care professionals available to cover every shift. Ensuring there is an adequate supply of health care professionals to meet the ever-increasing demand for medical services is a critical concern to hospitals.

The Wisconsin Hospital Association is in frequent communication with chief executive officers, human resources directors, nurse leaders and others who have their finger on the pulse of the health care workforce. Their insights, observations and experience in recruiting, training and retaining health care professionals, combined with respected sources of data, such as the Wisconsin Department of Workforce Development and the Wisconsin Department of Health Services, among others, were all used by WHA to produce this report.

Health care, which includes hospitals and nursing, residential and ambulatory care facilities, is the largest employer segment in Wisconsin, according to data collected by the Wisconsin Department of Workforce Development. It is also responsible for consistently creating new jobs. New jobs signal a growing industry, many employment opportunities, and tremendous potential for those entering the workforce or seeking new career options.

Vacancy rates are on the rise in many positions. This negative trend, coupled with predicted growth in new jobs and retirements, is cause for concern and action.

Key findings:

- Currently the largest *percentage* of vacancies and probably the most difficult to fill positions for hospitals are therapist positions—including physical therapists and occupational therapists and specialties within those groups.
- Pharmacist positions remain difficult to fill in Wisconsin hospitals. Increasing use of medications and the need for professional assistance with managing medication regimens increases the need for pharmacists, while the long educational timeline reduces supply.
- Certified nursing assistants (CNAs), who are important caregivers in Wisconsin hospitals, also account for a high percentage of vacancies.
- Registered nurse positions are clearly the largest and most visible number of vacancies for hospitals. This is because it is the largest occupational group and hospitals can have a large number of vacancies within this profession without creating a large percentage of vacancies.

Advanced practice nurses and physician assistants are well regarded by patients and are currently providing a rapidly increasing amount of health care in Wisconsin. Advanced practice providers are found in ambulatory care, convenient care clinics and hospitals. Without changes in educational capacity, clinical learning opportunities and preceptors, health care will be unable to meet the demand for these providers, creating a situation in which they are difficult to recruit and hire.

Ensuring an adequate and skilled health care workforce needs to be a Wisconsin goal. Achieving that goal requires a plan, a commitment and action.

MEETING TOMORROW'S WORKFORCE CHALLENGES TODAY

Hospitals are available to deliver care 24 hours a day, 365 days a year. Staffing for that level of care is complex even when there are a sufficient number of skilled health care professionals available to cover every shift. Over the past few years, ensuring that the supply of trained health care professionals meets the demand for their skills has become a major challenge to the health care industry.

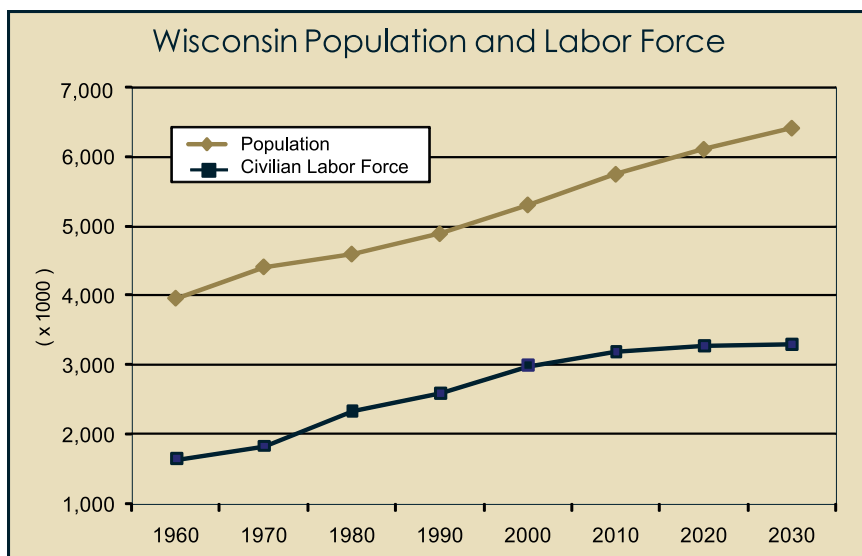
Every region of Wisconsin is experiencing a varying degree of shortages in the health care workforce. The aging Wisconsin population will require even more health care workers to be trained and available to provide care as older adults access the health care system more often than their younger counterparts.

Hospitals employ workers in many job types and are constantly seeking employees who can replace retiring workers and fill new positions. Advancements in technology also require hospitals to train or recruit employees with the skills necessary to implement new medical and information services. Growth in technology, new medical advancements, and the aging of not only the general population, but also of health care workers themselves, makes it imperative that steps are taken today to ensure an adequate workforce for tomorrow.

Wisconsin Population and Workforce

According to the latest census figures, Wisconsin's population is now 5,675,000, up 5.7 percent since 2000. Wisconsin's total workforce is growing less rapidly than its total population. The fact that increasing numbers of Wisconsin's population are retired means fewer people are available to work—a situation that makes it more difficult for service industries like health care to find and employ a large number of people.

Greater demand for skills and fewer people available will create great opportunities for people looking for positions. New jobs and job options will be available. For employers, the outlook is not as promising. Employers will have to work hard to attract an adequate workforce as they will be competing with others for relatively fewer workers.



Workers newly entering the workforce have different expectations of their work life than those retiring. Employers are making adjustments for generational differences in work habits and skill sets between retiring workers and those that are new to the workforce. Retiring workers are, generally speaking, more likely to work long hours, sometimes sacrificing family time for job expectations. Watching the last generation influenced the newest job entrants, who are more committed to quality of non-work life. New workers are often less interested in working long hours, want control over schedules, expect fewer shift rotations and are likely

to want to work fewer hours than the worker they are replacing. The effect is that it may take more than one person to replace a retiring worker.

Technology is changing the nature of many health care jobs. Electronic medical records, increasing reliance on complex diagnostic procedures, and enhanced sophistication of even basic equipment like temperature monitoring and infusion pumps mean that workers must be comfortable in an electronic, technology-driven environment. It is no longer sensible to ask if health care is high tech or high touch; today workers must be comfortable and skilled in both realms. Patients want and need committed, caring empathetic caregivers who make appropriate and skillful use of high technology, which is the hallmark of the United State's health care delivery system.

"The aging of the state's population will have two conflicting effects on the labor market. On one hand, there will be an increased demand for health care and social assistance services, which will generate new employment opportunities for the workers in the state. On the other hand, these employment opportunities may go unfilled as employers struggle to find qualified workers to fill the jobs vacated by retiring baby boomers." - OEA, 2008, p3.

The good news is that health care careers are attractive.

They offer good salaries and benefits, a stable work environment, are unlikely to be downsized or moved out of state, and it is one career that offers a person an opportunity to make a lasting difference in other's lives.

THE HEALTH CARE WORKFORCE IN WISCONSIN

The health care industry in Wisconsin included 286,560 jobs in 2006. This included positions in ambulatory care facilities, hospitals, nursing homes and residential care facilities.

Estimated Jobs	2006
Ambulatory Health Care Services	104,150
Hospitals	113,010
Nursing and Residential Care Facilities	69,400
Total	286,560

The Department of Workforce Development, Office of Economic Advisors (OEA) examines Wisconsin's employment environment and makes projections over 10-year segments 2006 -2016. The newest release of workforce data reports that health care (hospitals, nursing and residential facilities, and ambulatory care) is the largest employer segment in Wisconsin, and the segment is consistently creating new jobs. New jobs mean a growing industry, many employment opportunities and great potential for those just entering the workforce and those looking for new career options.

New Jobs Projected	2006-2016
Ambulatory Health Care Services	29,840
Hospitals	20,950
Nursing and Residential Care Facilities	10,230
Total	61,020

Most of the available health care jobs in Wisconsin will not be new, but rather *replacement positions* for individuals leaving the workforce. An exception is registered nurses. There are expected to be 13,400 new registered nurse positions created over the next 10 years, but it's also anticipated there will be 8,400 replacement

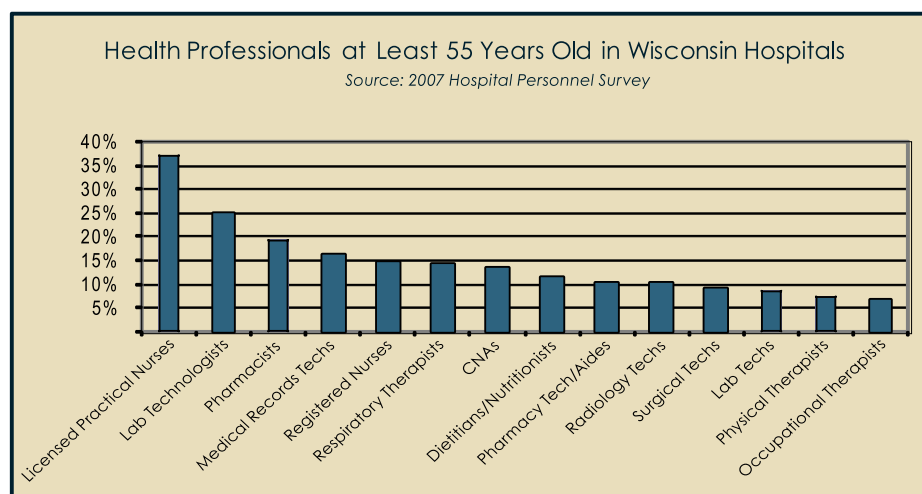
positions available. Registered nurse is the only job in the top 10 where new jobs will outpace replacement positions. In the next decade, retirements will generate a multitude of job openings, and with that comes a wealth of employment opportunities.

Over the next 10 years, 61,020 new jobs will be created in health care, for an industry total of nearly 350,000 jobs. New jobs combined with the growing number of expected retirements mean that there will be steady opportunities for employment in health care—and a continuous need to prepare health care workers, interest students in health care careers, recruit new employees and retain those already working in the industry.

Aging of the Workforce

Wisconsin residents and the health care workforce are aging. An aging workforce means that retirements are an increasing expectation. With a total population that is aging, even new health care employees may be in their 40s as they enter a health occupation as a second career.

The Wisconsin Hospital Association asks members to report the age of certain work groups. That data is reflected in the chart below.

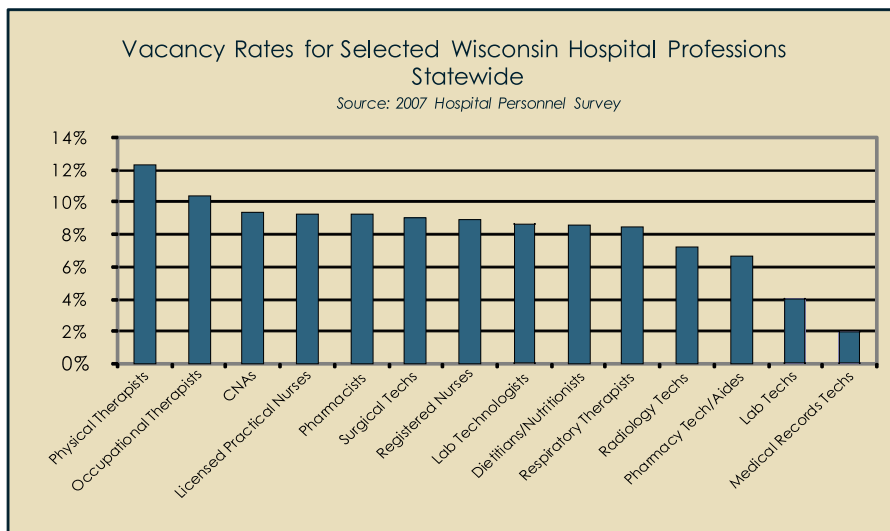


At one time, age 55 was the age that many health care workers anticipated leaving the workforce. While that is not true today, these workers are nearing the end of their full-time careers. They may stay until age 62, or age 65, but often wish to reduce the number of hours worked, reduce the physicality of their jobs or change to work schedules that accommodate time off for vacation or family. Most of these individuals over age 55 will exit the workforce in the next decade. This makes recruiting new entrants into health care an urgent priority. For those who choose to stay, accommodating requests and expectations will also be a priority. Work schedules, benefits and even physical environments of care will need to change to accommodate these workers.

“As workers of the baby-boom generation begin to retire in large numbers, a big challenge for Wisconsin’s employers will be finding skilled, well-trained workers. The amount of knowledge and experience that retiring boomers will take with them as they leave the workforce can only be matched with a significant increase in education and training of the new entrants into the workforce. We are entering an era in which businesses will fight for talent.” - OEA, 2008, p4.

Replacing the knowledge and experience of retiring workers will be a challenge for health care employers and also for Wisconsin's educational institutions. The number of new jobs added to the number of replacement jobs means that increased capacity in health occupational programs will be a necessity. Schools and programs are already working hard to meet current needs, but the demographics of Wisconsin's workforce will require even further increases in program size and capacity.

Hospital Job Vacancies

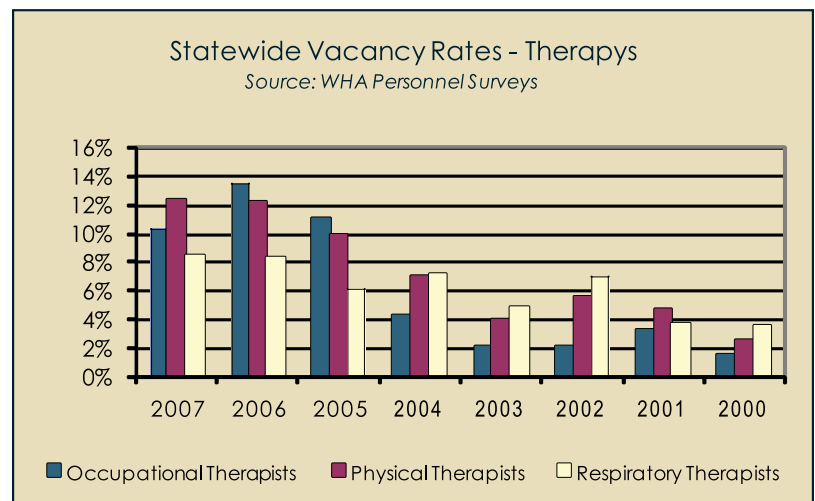


Hospitals devote much time and a great deal of resources to ensuring that they have an adequate number of professionals to provide 24/7 staffing. This is not without its challenges. Many variables affect which positions are open and difficult to fill. Vacancy rates for many positions are on the increase. This negative trend, when coupled with predicted growth in new jobs and retirements, is very concerning and a cause for action.

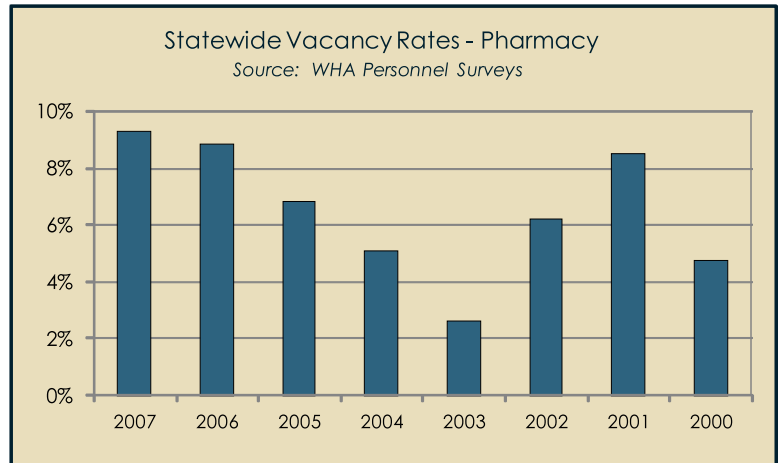
The supply is influenced by learner interest and the number and capacity of programs preparing workers, while

the demand is affected by the health care delivery system, number and types of patients being seen, number of retirements and even the payment system. Demand is increasing and learner interest in health care careers remains high. It is absolutely necessary that there is adequate classroom capacity and faculty available to educate potential new entrants into the health care field to fill existing vacancies and meet the expected demand for new positions.

Currently the largest percentage of vacancies and probably the most difficult to fill positions for hospitals are therapist positions—including physical therapists and occupational therapists and specialties within those groups. The situation is partly created by increasing patient need for joint and mobility improvement, and increasingly sophisticated interventions for these limitations. Educational programs for these professionals are lengthy, requiring a baccalaureate or higher degree and capacity in these programs has not grown appreciably. The chart to the right shows how vacancies in therapy positions in Wisconsin hospitals have grown over the last eight years. New programs and/or additional capacity are needed to fill these vacant positions and ensure accessibility for patients.

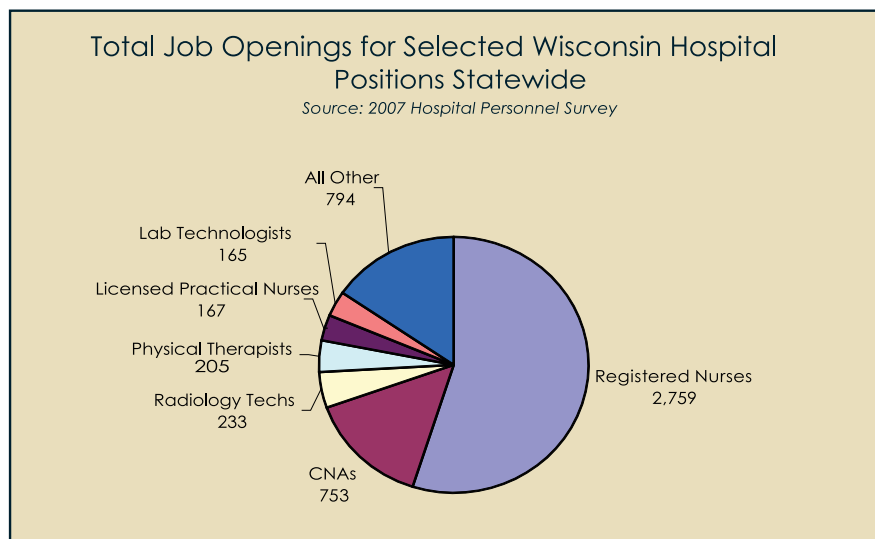


Pharmacist positions remain very difficult to fill in Wisconsin hospitals. Increasing consumer use of medications and their need for professional assistance with managing medication regimens increases the need for pharmacists, while the long educational timeline (five or more years) reduces supply. Recently, Concordia University of Wisconsin announced its plan to open a pharmacy program. Although it will take many years for this new program to graduate pharmacists, this is good news for the future supply of pharmacists in Wisconsin. These vacancies have grown dramatically over the last five years. Most pharmacies are fairly small with even a single vacancy affecting a hospital's ability to provide care.

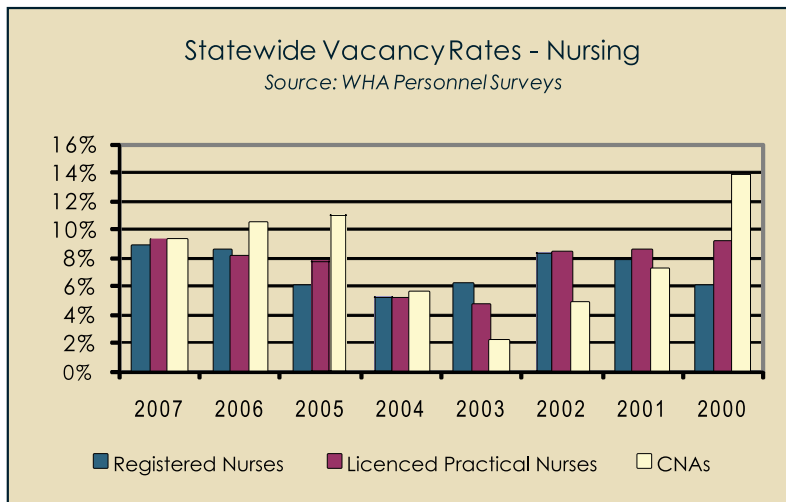


Certified nursing assistants (CNAs), who are important caregivers in Wisconsin hospitals, also account for a high percentage of vacancies. CNAs are prepared in all districts of the Wisconsin Technical College System, by many local youth apprentice programs, by nursing homes and by some hospitals. While these programs graduate a generous number of CNAs, they often continue their education and move on to other health occupations. This creates an excellent career ladder for CNAs, but brings with it a significant amount of turnover and vacancies in hospitals. It is important that Wisconsin Technical College System districts continue with and expand their nursing assistant programs because of the career opportunities that it opens as well as the important role that these professionals play in caring for patients.

There are two ways to categorize workforce shortages. One is to look at the total vacancy rate for the professional. Another is to look at the number of vacancies that are open in any one profession. When examined that way, registered nurse positions are clearly the largest and most visible vacancy for hospitals. This is because it is the largest occupational group, and hospitals can have a large number of vacancies within this profession without having a large percentage of vacancies. For example, if a hospital has two pharmacists, and one position is vacant, the percent of vacancies in that profession is 50 percent. In nursing, if there are 150 nurses and there are 20 vacancies, the vacancy rate is 13 percent.



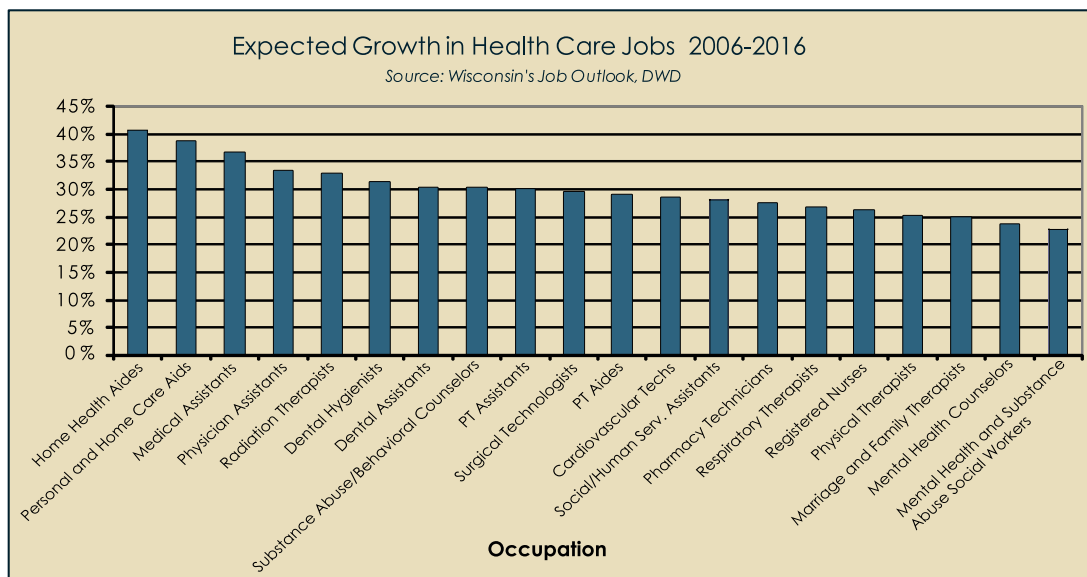
Over half of all vacant positions reported in the 2008 WHA survey are registered nurse positions. The reported vacancy rate of eight percent represents 2,825 open registered nurse positions. The RN vacancy rate is the highest it has been in five years and it is predicted to continue to increase. Nursing service in hospitals is a 24-hour service. Staffing for care across seven days and 24 hours every week is incredibly complex. When hospitals must do this with increasing numbers of vacant positions, the task becomes even more difficult.



Wisconsin schools of nursing have done a commendable job of expanding capacity; however, hospitals have not yet experienced significant retirements in the RN ranks that are expected within the next five years. It is critical to maintain efforts that create interest in nursing and prepare registered nurses. Registered nurse is one of the top 10 occupations in Wisconsin with the most job openings projected for 2006-2026. It is the only one of the 10 where the number of new jobs will outpace the number of replacement positions.

clear that there will be an enormous need for new nurses in the future. Wisconsin's Office of Economic Advisors report projects there will be 21,820 job openings in the next 10 years. Nursing programs continue to see much interest from potential students, but continue to turn away large numbers of qualified learners. The clear future demand requires continued expansion of capacity in nursing programs. To accomplish that, issues of faculty shortage, cost of educational programs (both to students and to educational facilities) and opportunities for clinical experience will need to be addressed and resolved.

Nursing is not the only occupation projected to have exceptional growth. Of the 30 fastest growing occupations in Wisconsin, two-thirds are in health care. The fastest growing occupations are listed below:



The occupations listed above offer great opportunity. They reflect a very large number of new positions and range from short-term educational preparation to graduate-level requirements. This list is also a call to action. Expanding any occupational group by 30-40 percent requires effort. Even with that effort, it will be difficult to have the number of aides, care workers, assistants, therapists, and many other health care employees that will clearly be needed by patients, residents and their families.

Many new jobs in an array of health care environments, caring for patients of all ages and conditions are available today, and more will be available in the near future. Many challenges come with these job opportunities. Funding educational programs to prepare these providers, finding faculty to teach them, creating interest in learners, making sure that students are prepared in math and science for health care programs are only a few of the “speed bumps” on the way to meeting this growth. Ensuring an adequate and skilled health care workforce needs to be a Wisconsin goal. Achieving that goal requires a plan, a commitment and action.

ADVANCED PRACTICE PROVIDERS IN WISCONSIN EXTEND ACCESS

There is a growing interest in a group of health care providers that will collectively be called Advanced Practice Providers (APP). These individuals provide care to patients under the supervision of, in collaboration with or independent from a physician. These caregivers include physician assistants (PA) and advance practice nurses (APN). They are well-regarded by patients and are currently providing an increasing amount of health care in Wisconsin.

With the potential of a physician shortage in Wisconsin, APPs may be a critical component of the health care delivery system by providing access to care to an increasing number of patients that would otherwise not be available. Hospitals have already created roles for these professionals in their medical practice groups, emergency rooms, working with hospitalists in managing the care of hospitalized patients, and in clinics located in retail establishments. Nationally, three-fourths of hospital executives indicate they are using more advanced practice providers, and that trend is reflected in Wisconsin as well. Outside of hospitals, these providers are finding increased opportunities in medical clinics, ambulatory clinics and retail locations. As that trend continues, positions for APPs are becoming more difficult to fill, making this an emerging health care workforce shortage.

Advanced Practice Nurses

Wisconsin Administrative Rules define an advanced practice nurse (APN) as a registered nurse who holds a current license, is currently certified by a national body as a nurse practitioner, certified nurse-midwife, certified registered nurse anesthetist or a clinical nurse specialist, and in most cases holds a master's degree. It is unclear how many individuals in Wisconsin meet this definition. The definition excludes nurses with master's degrees (whether in nursing or not) with a focus in leadership, education, public health and other related fields. There are more registered nurses with master's degrees than there are APNs in Wisconsin. An APN is eligible to apply for and receive prescriptive authority and be certified as an advanced practice nurse prescriber (APNP). The number of nurses with this authority is often used as an estimate of the number of APNs in Wisconsin, although not all nurses eligible for this privilege have applied for or obtained it. The Department of Regulation and Licensing reports 2,624 APNPs certified in Wisconsin as of June 2007. This number is, therefore, a conservative estimate of the number of APNs. There are four types of nurses that fit the definition of advanced practice nurse.

Certified Registered Nurse Anesthetist

A certified registered nurse anesthetist (CRNA) is an advanced practice nurse that specializes in anesthesia care. A CRNA is a registered nurse that has completed a graduate program in nurse anesthesia from an accredited institution and has obtained and maintained national certification, including passing a national exam. There are nearly 600 CRNAs in Wisconsin. Most, but not all, are APNPs. CRNAs practice in most hospitals in Wisconsin, but more importantly, are often the only provider of anesthesia care in small or rural hospitals.

There is one school of nurse anesthesia in Wisconsin—Franciscan Skemp Healthcare School of Anesthesia. The program has recently expanded and accepts 10 students each year.

CRNA positions are increasingly difficult to fill. Wisconsin hospitals report it takes upwards of a year to recruit a nurse anesthetist. Like the rest of the nursing profession, this group is older with 41 percent indicating that they have been in practice 21 or more years. Anticipated retirements will make recruitment and hiring of these nurses even more urgent and difficult. Small hospitals in Wisconsin with a CRNA vacancy are limited in their ability to provide surgical, obstetric and emergency services to their community. The Wisconsin Association of Nurse Anesthetists is concerned about the availability of CRNAs and has been working with the Wisconsin Hospital Association to increase the number of CRNAs in Wisconsin. Strategies include working to increase the number of CRNAs educated in Wisconsin and proposing recruitment strategies to attract CRNAs to (especially rural) Wisconsin.

Thank you to Wilma Gillis, CRNA, president, Wisconsin Association of Nurse Anesthetists for her help with this section.

Certified Nurse Midwife

A certified nurse-midwife (CNM) is an advanced practice nurse that specializes in the primary care of women throughout their lifespan. To obtain licensure in Wisconsin a CNM must be a registered nurse, have completed an education program in nurse-midwifery from an accredited institution, and be certified by the American College of Nurse-Midwives. There are approximately 108 CNMs in about 48 practices located throughout the state. According to the Wisconsin Department of Health Services, CNMs attended 4,938 Wisconsin births in 2006 (roughly 6.8 percent of all births in Wisconsin). Approximately 92 percent of all births attended by CNMs in Wisconsin occur in the hospital setting with the remainder occurring at the single out-of-hospital birth center or in the home birth setting.

There is one program of nurse-midwifery in Wisconsin at Marquette University College of Nursing. That program admits approximately 18 students per year. Most, but not all practicing CNMs are APNPs. Nurse-midwives care for patients in both rural and urban settings in Wisconsin.

Thanks to Kathryn Osborne, MSN CNM, chair - Wisconsin Chapter of the American College of Nurse-Midwives for her help with this section.

Nurse Practitioner

Nurse practitioners (NPs) are registered nurses that are prepared, through advanced education and clinical training, to provide a wide range of preventive and acute health care services to individuals of all ages. (American College of Nurse Practitioners, Web site, Aug 2008). NPs are licensed as registered nurses in Wisconsin, and most are certified by a nursing specialty organization. The Health Resources and Services Administration (HRSA), Department of Health and Human Services estimates that there are more than 140,000 nurse practitioners in the United States (HRSA, Registered Nurse Sample Survey Report, 2006). There is no good way to estimate the number of nurse practitioners within Wisconsin. While there are 2,426 advanced practice nurse prescribers (APNP) in Wisconsin, not all NPs are APNPs and not all APNPs are nurse practitioners. According to HRSA, more than half of all advanced practice nurses are nurse practitioners.

Seven nursing schools in Wisconsin have nurse practitioner programs: Marian College, Marquette University, Viterbo and four campuses of the University of Wisconsin. These programs admit over 150 students to their nurse practitioner programs each year. Hospitals report nurse practitioner positions as increasingly difficult to fill.

Clinical Nurse Specialist

Clinical nurse specialists (CNS) are licensed registered nurses that have graduate preparation and are expert clinicians in a specialized area of nursing practice. An estimated 69,017 RNs in the United States have the education and credentials to practice as a clinical nurse specialist (CNS) (NACNS Web site, August 2008). Clinical nurses are less likely to provide personal care to patients; instead they provide expert consultation for nursing staff and implement improvements in the delivery of care. Again, it is unclear how many CNSs practice in Wisconsin. Four master's degree programs in nursing in Wisconsin prepare clinical nurse specialists, with approximately 75 admissions to these programs each year. Hospitals report that this group of practitioners is very difficult to recruit and hire.

Physician Assistants

Physician assistants (PAs) are health care professionals licensed, or in the case of those employed by the federal government, credentialed, to practice medicine with physician supervision (AAPA Web site, August 2008). There are 1,604 PAs licensed in Wisconsin and the AAPA estimates that there are 1,432 individuals practicing in Wisconsin. Three academic programs graduate physician assistants: University of Wisconsin-La Crosse, University of Wisconsin-Madison and Marquette University. These programs graduate about 90 physician assistants each year.

In 2006, the Wisconsin Council on Medical Education and Workforce, a group comprised of the Wisconsin Hospital Association, the Wisconsin Medical Society, both Wisconsin medical schools and others, surveyed major practice groups regarding advanced practice providers. The respondents reported that they employed more than 500 advanced practice providers. The following describes these practitioners:

- Primary focus of practice: direct patient care and patient education. Rarely, longitudinal case management.
- Principle type of practice: NPs virtually 100 percent primary care, PAs evenly split between primary and specialty practice.
- Location of practice: Nurse practitioners more likely than physician assistants to practice in rural setting.

Positions for mid-level providers are increasing rapidly in Wisconsin. Physician assistants have been identified by OEA as one of the fastest growing occupations with a greater than 30 percent increase in positions predicted in the next 10 years. Nurse practitioners are not discretely counted by either BHI or OEA data, but likely will experience the same job growth. This incredible level of growth is very difficult for an occupation. It demands a significant increase in capacity in educational programs, more clinical learning opportunities, and additional faculty and individuals willing to precept student learning experiences. With those demands, it is highly unlikely that Wisconsin will be able to meet this level of demand. Dr. Richard Cooper, in his recent editorial in *Academic Medicine*, states that, "It is hard not to be impressed by the vigor and creativity of both the NP and PA professions in responding to the need for practitioners with advanced skills. Each has raised the standard of training and lifted the bar for credentialing." (2007).

The preparation of nurse practitioners will move to the doctoral level with a doctorate of nursing practice (DNP) required within the educational system by 2015. The increasing cost and additional time required to educate these professionals will reduce both the number of graduates from these programs and may even decrease the capacity if schools are unable to meet the standard for doctoral preparation. At a time when these occupations are clearly growing and needed to provide care to Wisconsin residents, this is a great risk.

The concern about a shortage of faculty is well publicized in Wisconsin. While the shortage of nursing faculty has received the most notice, all of the health occupations mentioned face the same shortage. The new pharmacy program in Wisconsin will only be successful if there is faculty available to teach. The causes of the faculty shortage are the same across professions: aging of the current faculty, better pay in service sector and workload concerns. New systems of reward and incentives for faculty will be needed to expand capacity in educational programs.

Advanced practice providers are a growing component of the health care workforce. These providers are offering care in hospitals in a variety of old and new ways while meeting consumer's demands for accessible, available care in outpatient settings and even retail locations. Wisconsin's capacity to create these providers has not increased and future demand will not be met without growth in both occupational groups.

SUMMARY RECOMMENDATIONS

The number of health care providers educated in Wisconsin must be increased with a focus on those occupations that are predicted to be fastest growing and create the most new jobs. The focus should be on registered nurses, advanced practice nurses, physical therapists, occupational therapists, pharmacists and physician assistants.

New education strategies are necessary to meet the increasing demand for clinical experience for additional students. Simulation labs are the most promising strategy to ensure that students have been exposed to and functioned in patient care situations. Because of high costs, organizations should try to cooperatively support simulation laboratories.

Growth in capacity for the above occupations is hugely dependent upon creating, recruiting and retaining faculty. The aging of current faculty further complicates this problem, which must be quickly addressed. Salary, cost, and time of educational preparation and quality of work will need to be addressed.

In this time of limited resources, reallocation of educational resources is necessary. Wisconsin must focus on industry and job segments that are growing and creating demand. Health care is creating new jobs and a growing occupational segment. Moving resources to health care occupations would be a good long-term investment for Wisconsin.

With demand for care likely to outstrip the size of the future workforce, new ways of delivering care must be created. Technology, workplace design and work redesign must be harnessed more effectively to allow a smaller workforce to meet Wisconsin's health care needs.

To achieve these goals, a statewide health care workforce plan is required. How many workers, within what time frame, prepared by which institutions, are needed both to ensure an adequate workforce of the future and to wisely use very limited financial resources. Quantification of the need and a commitment by the educational community is critical to meeting those needs.

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