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## **Nursing Shortage Fact Sheet**

The U.S. is in the midst of a shortage of registered nurses (RNs) that is expected to intensify as baby boomers age and the need for health care grows. Compounding the problem is the fact that nursing colleges and universities across the country are struggling to expand enrollment to meet the rising demand for nursing care. The **American Association of Colleges of Nursing (AACN)** is working with schools, policy makers, nursing organizations, and the media to bring attention to this healthcare crisis. AACN is leveraging its resources to enact legislation, identify strategies, and form collaborations to address the nursing shortage. To keep stakeholders abreast of current statistics related to the shortage, this fact sheet has been developed along with a companion Web resource: [www.aacn.nche.edu/Media/shortageresource.htm](http://www.aacn.nche.edu/Media/shortageresource.htm).

### **Current and Projected Shortage Indicators**

- In the July/August 2009 *Health Affairs*, Dr. Peter Buerhaus and coauthors found that despite the current easing of the nursing shortage due to the recession, the U.S. nursing shortage is projected to grow to 260,000 registered nurses by 2025. A shortage of this magnitude would be twice as large as any nursing shortage experienced in this country since the mid-1960s. In the article titled *The Recent Surge In Nurse Employment: Causes And Implications*, the researchers point to a rapidly aging workforce as a primary contributor to the projected shortage. <http://content.healthaffairs.org>
- On July 2, 2009, the U.S. Bureau of Labor Statistics (BLS) reported that the healthcare sector of the economy is continuing to grow, despite significant job losses in nearly all major industries. Hospitals, long-term care facilities, and other ambulatory care settings added 21,000 new jobs in June 2009, a month when 467,000 jobs were eliminated across the country. As the largest segment of the healthcare workforce, RNs likely will be recruited to fill many of these new positions. In September 2009, the BLS confirmed that 544,000 jobs have been added in the healthcare sector since the recession began. [www.bls.gov/news.release/pdf/empsit.pdf](http://www.bls.gov/news.release/pdf/empsit.pdf)
- In the November 26, 2008 *Journal of the American Medical Association*, workforce analyst Dr. Peter Buerhaus stated: "Over the next 20 years, the average age of the RN will increase and the size of the workforce will plateau as large numbers of RNs retire. Because demand for RNs is expected to increase during this time, a large and prolonged shortage of nurses is expected to hit the US in the latter half of the next decade." <http://jama.ama-assn.org>
- According to a report released by the American Health Care Association in July 2008, more than 19,400 RN vacancies exist in long-term care settings. These vacancies, coupled with an additional 116,000 open positions in hospitals reported by the American Hospital Association in July 2007, bring the total RN vacancies in the U.S. to more than 135,000. This translates into a national RN vacancy rate of 8.1%. [www.ahapolicyforum.org/ahapolicyforum/reports](http://www.ahapolicyforum.org/ahapolicyforum/reports) and [http://www.ahcancal.org/research\\_data/staffing/Pages/default.aspx](http://www.ahcancal.org/research_data/staffing/Pages/default.aspx)

- In March 2008, The Council on Physician and Nurse Supply, an independent group of healthcare leaders based at the University of Pennsylvania, called for 30,000 additional nurses to be graduated annually to meet the nation's healthcare needs, an expansion of 30% over the current number of annual nurse graduates. [www.physiciannursesupply.com](http://www.physiciannursesupply.com)
- According to the latest projections from the U.S. Bureau of Labor Statistics published in the November 2007 *Monthly Labor Review*, more than one million new and replacement nurses will be needed by 2016. Government analysts project that more than 587,000 new nursing positions will be created through 2016 (a 23.5% increase), making nursing the nation's top profession in terms of projected job growth. [www.bls.gov/opub/mlr/2007/11/art5full.pdf](http://www.bls.gov/opub/mlr/2007/11/art5full.pdf)
- Based on finding from the *Nursing Management Aging Workforce Survey* released in July 2006 by the Bernard Hodes Group, 55% of surveyed nurses reported their intention to retire between 2011 and 2020. The majority of those surveyed were nurse managers. <http://www.amnhealthcare.com/News.aspx?id=15444>
- In April 2006, officials with the Health Resources and Services Administration (HRSA) released projections that the nation's nursing shortage would grow to more than one million nurses by the year 2020. In the report titled *What is Behind HRSA's Projected Supply, Demand, and Shortage of Registered Nurses?*, analysts show that all 50 states will experience a shortage of nurses to varying degrees by the year 2015. <http://bhpr.hrsa.gov/healthworkforce/reports>
- According to a November 2004 Web exclusive of *Health Affairs*, Dr. Peter Buerhaus and colleagues found that “despite the increase in employment of nearly 185,000 hospital RNs since 2001, there is no empirical evidence that the nursing shortage has ended. To the contrary, national surveys of RNs and physicians conducted in 2004 found that a clear majority of RNs (82%) and doctors (81%) perceived shortages where they worked.” [www.healthaffairs.org](http://www.healthaffairs.org)

## **Contributing Factors Impacting the Nursing Shortage**

### **Nursing school enrollment is not growing fast enough to meet the projected demand for RNs.**

Though AACN reported a 2.2% enrollment increase in entry-level baccalaureate programs in nursing in 2008, this increase is not sufficient to meet the projected demand for nurses. HRSA officials state that “to meet the projected growth in demand for RN services, the U.S. must graduate approximately 90 percent more nurses from US nursing programs.” [www.aacn.nche.edu/IDS](http://www.aacn.nche.edu/IDS) and <http://bhpr.hrsa.gov/healthworkforce/reports/behindrnprojections/index.htm>

### **A shortage of nursing school faculty is restricting nursing program enrollments.**

- According to AACN's report on *2008-2009 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing*, U.S. nursing schools turned away 49,948 qualified applicants from baccalaureate and graduate nursing programs in 2008 due to insufficient number of faculty, clinical sites, classroom space, clinical preceptors, and budget constraints. Almost two-thirds of the nursing schools responding to the survey pointed to faculty shortages as a reason for not accepting all qualified applicants into their programs. [www.aacn.nche.edu/IDS](http://www.aacn.nche.edu/IDS)
- According to a study by the Southern Regional Board of Education (SREB) in February 2002, a serious shortage of nursing faculty was documented in 16 states and the District of Columbia. Survey findings point to a 12% shortfall in the number of nurse educators needed. Unfilled

faculty positions, projected retirements, and the shortage of students being prepared for the faculty role pose a threat to nursing education over the next five years. [www.sreb.org](http://www.sreb.org)

### **The total population of registered nurses is growing at a slow rate.**

According to the latest *National Sample Survey of Registered Nurses*, the total RN population has increased at every 4-year interval in which the survey has been taken since 1980. Although the total RN population increased from 2,696,540 in 2000 to 2,909,357 in 2004, this increase (7.9%) was comparatively low considering growth between earlier report intervals (i.e. the RN population grew 14.2% between 1992 and 1996). In 2004, an estimated 83.2% of RNs were employed in nursing. <http://bhpr.hrsa.gov/healthworkforce/rnsurvey04>

### **With fewer new nurses entering the profession, the average age of the RN is climbing.**

- With the average age of RNs projected to 44.5 years by 2012, nurses in their 50s are expected to become the largest segment of the nursing workforce, accounting for almost one quarter of the RN population. [www.jbpub.com/catalog/9780763756840](http://www.jbpub.com/catalog/9780763756840)
- According to the 2004 *National Sample Survey* released in February 2007 by the federal Division of Nursing, the average age of the RN population in March 2004 was 46.8 years of age, up from 45.2 in 2000. The RN population under the age of 30 dropped from 9.0% of the nursing population in 2000 to 8.0% in 2004. <http://bhpr.hrsa.gov/healthworkforce/rnsurvey04>

### **Changing demographics signal a need for more nurses to care for our aging population.**

- According to the July 2001 report, *Nursing Workforce: Emerging Nurse Shortages Due to Multiple Factors* (GAO-01-944), a serious shortage of nurses is expected in the future as demographic pressures influence both supply and demand. The future demand for nurses is expected to increase dramatically as the baby boomers reach their 60s and older. [www.gao.gov](http://www.gao.gov)
- According to a May 2001 report, *Who Will Care for Each of Us?: America's Coming Health Care Crisis*, by the Nursing Institute at the University of Illinois College of Nursing, the ratio of potential caregivers to the people most likely to need care, the elderly population, will decrease by 40% between 2010 and 2030. Demographic changes may limit access to health care unless the number of nurses grows in proportion to the rising elderly population. [www.uic.edu/nursing](http://www.uic.edu/nursing)

### **Insufficient staffing is raising the stress level of nurses, impacting job satisfaction, and driving many nurses to leave the profession.**

- In the March-April 2005 issue of *Nursing Economic\$*, Dr. Peter Buerhaus and colleagues found that more than 75% of RNs believe the nursing shortage presents a major problem for the quality of their work life, the quality of patient care, and the amount of time nurses can spend with patients. Looking forward, almost all surveyed nurses see the shortage in the future as a catalyst for increasing stress on nurses (98%), lowering patient care quality (93%) and causing nurses to leave the profession (93%). [www.medscape.com/viewpublication/785\\_index](http://www.medscape.com/viewpublication/785_index)
- According to a study in the October 2002 *Journal of the American Medical Association*, nurses reported greater job dissatisfaction and emotional exhaustion when they were responsible for more patients than they can safely care for. Dr. Linda Aiken found that “failure to retain nurses contributes to avoidable patient deaths.” [www.nursing.upenn.edu/news/detail.asp?t=2&id=23](http://www.nursing.upenn.edu/news/detail.asp?t=2&id=23)

## **High nurse turnover and vacancy rates are affecting access to health care.**

- In September 2007, Dr. Christine T. Kovner and colleagues found that 13% of newly licensed RNs had changed principal jobs after one year, and 37% reported that they felt ready to change jobs. These findings were reported in the *American Journal of Nursing* in an article titled “Newly Licensed RNs’ Characteristics, Work Attitudes, and Intentions to Work.” [www.ajnonline.com](http://www.ajnonline.com)
- In July 2007, a report released by the PricewaterhouseCoopers’ Health Research Institute found that though the average nurse turnover rate in hospitals was 8.4%, the average voluntary turnover for first-year nurses was 27.1%. This report is titled *What Works: Healing the Healthcare Staffing Shortage*. [www.pwc.com](http://www.pwc.com)
- In March 2005, the Bernard Hodes Group released the results of a national poll of 138 health care recruiters and found that the average RN turnover rate was 13.9%, the vacancy rate was 16.1% and the average RN cost-per-hire was \$2,821. [www.hodes.com](http://www.hodes.com)

## **Impact of Nurse Staffing on Patient Care**

### **Many recent studies point to the connection between adequate levels of registered nurse staffing and safe patient care.**

- A growing body of research clearly links baccalaureate-prepared nurses to lower mortality and failure-to-rescue rates. The latest studies published in the journals *Health Services Research* in August 2008 and the *Journal of Nursing Administration* in May 2008 confirm the findings of several previous studies which link education level and patient outcomes. Efforts to address the nursing shortage must focus on preparing more baccalaureate-prepared nurses in order to ensure access to high quality, safe patient care. [www.aacn.nche.edu/Media/FactSheets/NursingWrkf.htm](http://www.aacn.nche.edu/Media/FactSheets/NursingWrkf.htm)
- In March 2007, a comprehensive report initiated by the Agency for Healthcare Research and Quality was released on *Nursing Staffing and Quality of Patient Care*. Through this meta-analysis, the authors found that the shortage of registered nurses, in combination with an increased workload, poses a potential threat to the quality of care. Increases in registered nurse staffing was associated with reductions in hospital-related mortality and failure to rescue as well as reduced length of stays. In settings with inadequate staffing, patient safety was compromised. [www.ahrq.gov/downloads/pub/evidence/pdf/nursestaff/nursestaff.pdf](http://www.ahrq.gov/downloads/pub/evidence/pdf/nursestaff/nursestaff.pdf)
- Published in the March 2006 issue of *Nursing Economic\$,* a comprehensive analysis of several national surveys on the nursing workforce found that majority of nurses reported the RN shortage is negatively impacting patient care and undermining the quality of care goals set by the Institute of Medicine and the National Quality Forum. [www.medscape.com/viewarticle/525650](http://www.medscape.com/viewarticle/525650)
- In an article published in the September/October 2005 issue of *Nursing Economic\$,* Dr. Peter Buerhaus and associates found that the majority of RNs (79%) and Chief Nursing Officers (68%) believe the nursing shortage is affecting the overall quality of patient care in hospitals and other settings, including long-term care facilities, ambulatory care settings, and student health centers. Most hospital RNs (93%) report major problems with having enough time to maintain patient safety, detect complications early, and collaborate with other team members. [www.medscape.com/viewpublication/785\\_index](http://www.medscape.com/viewpublication/785_index)

- In November 2004, results from the National Survey on Consumers' Experiences with Patient Safety and Quality Information were released and found that 40% of Americans think the quality of health care has worsened in the last five years. Consumers reported that the most important issues affecting medical error rates are workload, stress or fatigue among health professionals (74%); too little time spent with patients (70%); and too few nurses (69%). This survey was sponsored by the Kaiser Family Foundation, the Agency for Healthcare Research and Quality and the Harvard School of Public Health. [www.kff.org/kaiserpolls/pomr111704pkg.cfm](http://www.kff.org/kaiserpolls/pomr111704pkg.cfm)
- A shortage of nurses prepared at the baccalaureate level is affecting health care quality and patient outcomes. In a study published September 24, 2003 in the *Journal of the American Medical Association (JAMA)*, Dr. Linda Aiken and her colleagues at the University of Pennsylvania identified a clear link between higher levels of nursing education and better patient outcomes. This extensive study found that surgical patients have a "substantial survival advantage" if treated in hospitals with higher proportions of nurses educated at the baccalaureate or higher degree level. In hospitals, a 10% increase in the proportion of nurses holding BSN degrees decreased the risk of patient death and failure to rescue by 5%. <http://jama.ama-assn.org>
- A survey reported in the December 12, 2002 issue of the *New England Journal of Medicine* found that 53% of physicians and 65% of the public cited the shortage of nurses as a leading cause of medical errors. Overall, 42% of the public and more than a third of U.S. doctors reported that they or their family members have experienced medical errors in the course of receiving medical care. <http://content.nejm.org>
- An October 2002 study in *JAMA* found that more nurses at the bedside could save thousands of lives each year. Researchers at the University of Pennsylvania determined that patients who have common surgeries in hospitals with low nurse-to-patient ratios have up to a 31% increased chance of dying. The study found that every additional patient in an average hospital nurse's workload increased the risk of death in surgical patients by 7%. Having too few nurses may actually cost more given the high costs of replacing nurses and caring for patients with poor outcomes. [www.nursing.upenn.edu/news/detail.asp?t=2&id=23](http://www.nursing.upenn.edu/news/detail.asp?t=2&id=23)
- In *Health Care at the Crossroads*, a report released in August 2002 by the Joint Commission (JC), the authors found that a shortage of nurses in America's hospitals is putting patient lives in danger. JC examined 1,609 hospital reports of patient deaths and injuries since 1996 and found that low nursing staff levels were a contributing factor in 24% of the cases. [www.jcaho.org](http://www.jcaho.org)
- According to a study published in the *New England Journal of Medicine* in May 2002, a higher proportion of nursing care provided by RNs and a greater number of hours of care by RNs per day are associated with better outcomes for hospitalized patients. This extensive study was conducted by Drs. Jack Needleman and Peter Buerhaus. <http://content.nejm.org>

## Strategies to Address the Nursing Shortage

- In February 2009, Senator Richard Durbin (D-IL) introduced the **Nurse Education, Expansion and Development Act (NEED Act)**. If passed, the NEED Act would amend Title VIII to authorize Capitation Grants (formula grants) for nursing schools to increase the number of faculty and students. Capitation grants have been effective in addressing past nursing shortages. Representative Nita Lowey (D-NY), who has championed the *NEED Act* since 2004, plans to reintroduce the bill later this spring. [www.aacn.nche.edu/Government/pdf/CapGrants.pdf](http://www.aacn.nche.edu/Government/pdf/CapGrants.pdf)

- In February 2009, academic and healthcare leaders from 47 states gathered in Baltimore for the 2009 Nursing Education Capacity Summit to help identify and advance strategic solutions to the nursing shortage. Sponsored by the Center to Champion Nursing in America, HRSA and the U.S. Department of Labor, participants shared best practices related to strategic partnerships and resource alignment; policy and regulation; increasing faculty capacity and diversity; and redesigning educational curricula. [www.championnursing.org](http://www.championnursing.org)
- Many statewide initiatives are underway to address both the shortage of RNs and nurse educators. For example, in September 2008, Pennsylvania Governor Edward G. Rendell announced that the state's investment of \$750,000 to address the nursing shortage would be matched by at least \$870,000 in private-sector funds. This public-private partnership yielded new money for schools to hire more nurse faculty and educate more students. For a listing of other state-based initiatives, see [www.aacn.nche.edu/Publications/issues/Oct06.htm](http://www.aacn.nche.edu/Publications/issues/Oct06.htm) and [www.aacn.nche.edu/Media/PartnershipsResource.htm](http://www.aacn.nche.edu/Media/PartnershipsResource.htm)
- Nursing schools are forming strategic partnerships and seeking private support to help expand student capacity. For example, Shenandoah University in Virginia announced in November 2008 that the school of nursing formed a partnership with Inova Health System to support the school's accelerated BSN program. Through a two-year agreement, Inova will award \$7,500 scholarships to up to 55 students who make an employment commitment to Inova after graduation. The health system will also contribute \$500,000 to fund new classrooms, skills/simulation labs and/or administrative spaces and provide additional clinical rotation slots at three Inova hospitals. For details on similar initiatives, see [www.aacn.nche.edu/Media/PartnershipsResource.htm](http://www.aacn.nche.edu/Media/PartnershipsResource.htm).
- In July 2007, PricewaterhouseCoopers released a report titled *What Works: Healing the Healthcare Staffing Shortage* which advanced several strategies to address the nursing shortage, including developing more public-private partnerships, creating healthy work environments, using technology as a training tool, and designing more flexible roles for advanced practice nurses given their increased use as primary care providers. [www.pwc.com](http://www.pwc.com)
- In an article published in the June 2006 *Health Affairs* titled "Hospitals' Responses to Nurse Staffing Shortages," the authors found that 97% of surveyed hospitals were using educational strategies to address the shortage of nurses. Specific strategies include partnering with schools of nursing, subsidizing nurse faculty salaries, reimbursing nurses for advancing their education in exchange for a work commitment, and providing scheduling flexibility to enable staff to attend classes. The paper ends with a call for more public financing support to expand enrollment capacity at schools of nursing. <http://content.healthaffairs.org/cgi/content/abstract/25/4/W316>
- In June 2005, the U.S. Department of Labor (DOL) awarded more than \$12 million in grant-funding through the **President's High Growth Job Training Initiative**, \$3 million of which will help to address the nurse faculty shortage. In total, the DOL has committed \$43 million to the health care workforce through the High-Growth program. Details on all grant-funded programs are posted at [www.doleta.gov/BRG/Indprof/Health.cfm](http://www.doleta.gov/BRG/Indprof/Health.cfm).
- In February 2002, Johnson & Johnson launched the *Campaign for Nursing's Future*, a multimedia initiative to promote careers in nursing and polish the image of nursing. This multimillion dollar effort includes television commercials, a recruitment video, a Web site, brochures, and other visuals. In 2007, Johnson & Johnson generously committed to extending this winning campaign for another five years. [www.discovernursing.com](http://www.discovernursing.com)

**Last Update: September 28, 2009**