

AHEC Nursing Workforce Research, Planning and Development

2015 Nursing Data Dashboard for Vermont

Vermont Nurse Workforce Licensed versus Working in Vermont FY 2014-15

64% RNs (10,478)

Mean age

LPN (2014).....49 years

RN (2015).....48 years

APRN (2015)....51.5 years

Demand for Hospital-Based RNs

During July 2015, a telephone survey of Human Resources Departments in 15 Vermont hospitals* yielded a response from 12 (80%). The open positions for RNs and the number of fulltime and part-time RNs on staff was requested. Vacancy rates were then calculated.

Average vacancy rate.....6.5%

Range of vacancy rates.....0-13%

American Nursing Association 2015 - Negative Effects of the Nursing Shortage

The nursing shortage affords opportunity, but there are consequences, too. Nurses often need to work long hours under stressful conditions, which can result in [fatigue](#), [injury](#), and job dissatisfaction. Nurses suffering in these environments are more prone to making mistakes and medical errors. Patient quality can suffer. For these reasons, and more, ANA is dedicated to improving the [workplace safety](#) for nurses around the nation.

American College of Nursing (2014)

- Considerable uncertainty persists about whether or not interest in nursing will continue to grow in the future.
- The aging of the population is likely to increase demand for RNs at a greater rate than in the past.
- Full implementation of the Affordable Care Act and expanding roles for nurses in primary care will likely increase demand for RNs and result in future shortages.
- Ongoing bottlenecks in nursing education (i.e. faculty shortages, insufficient clinical training sites) could narrow the future pipeline of nurses below optimal levels.

**U.S. Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
National Center for Health Workforce Analysis**

**The Future of the Nursing Workforce:
National- and State-Level Projections, 2012-2025**

Projections at the national level mask a distributional imbalance of RNs at the state level.

Sixteen states are projected to experience a smaller growth in RN supply relative to their state-specific demand, resulting in a shortage of RNs by 2025; ten of these states are in the West, four are in the South, and two are in the Northeast region.

- States projected to experience the greatest shortfalls in the number of RNs by 2025 are Arizona (with 28,100 fewer RNs than needed) followed by Colorado and North Carolina (each with 12,900 fewer RNs than needed).
- Growth in supply is expected to exceed demand growth in the remaining 34 states, including all of the Midwestern states.

While not considered in this study, emerging care delivery models, with a focus on managing health status and preventing acute health issues, will likely contribute to new growth in demand for nurses, e.g., nurses taking on new and/or expanded roles in preventive care and care coordination.

Twenty-two states are projected to experience a smaller growth in the supply of LPNs relative to their state-specific demand for LPN services resulting in a shortage of LPNs by 2025. Ten of these states are in the West, five are in the South, five are in the Northeast, and two are in the Midwest.

2012 Region/State	Supply & Demand	Demand	2025 Projected		Difference
			Supply		
<i>Northeast</i>					
Connecticut	37,100	41,500	45,200		+3,700
Maine	16,200	17,500	15,800		-1,700
Massachusetts	78,800	85,500	85,900		+400
New Hampshire	15,700	18,000	18,500		+500
New Jersey	84,600	98,500	119,400		+20,900
New York	191,200	212,400	235,800		+23,400
Pennsylvania	145,000	152,600	178,400		+25,800
Rhode Island	12,900	14,000	11,900		-2,100
Vermont	7,400	8,100	8,800		+700
<i>Northeast subtotal</i>	<i>588,900</i>	<i>648,100</i>	<i>719,700</i>		<i>+71,600</i>

CURRENT AND PROJECTED SHORTAGE INDICATORS

- According to the Bureau of Labor Statistics' Employment Projections 2012-2022 released in December 2013, Registered Nursing (RN) is listed among the top occupations in terms of job growth through 2022. The RN workforce is expected to grow from 2.71 million in 2012 to 3.24 million in 2022, an increase of 526,800 or 19%. The Bureau also projects the need for 525,000 replacements nurses in the workforce bringing the total number of job openings for nurses due to growth and replacements to 1.05 million by 2022. <http://www.bls.gov/news.release/ecopro.t08.htm>
- According to the "United States Registered Nurse Workforce Report Card and Shortage Forecast" published in the January 2012 issue of the American Journal of Medical Quality, a shortage of registered nurses is projected to spread across the country between 2009 and 2030. In this state-by-state analysis, the authors forecast the RN shortage to be most intense in the South and the West. <http://ajm.sagepub.com>
- In June 2011, **Wanted Analytics** reported that employers and staffing agencies posted more than 121,000 new job ads for Registered Nurses in May, up 46% from May 2010. About 10% of that growth, or 12,700, were ads placed for positions at general and surgical hospitals, where annual turnover rates for RNs average 14% according to a recent **KPMG survey**.
- In October 2010, the Institute of Medicine released its landmark report on **The Future of Nursing**, initiated by the Robert Wood Johnson Foundation, which called for increasing the number of baccalaureate-prepared nurses in the workforce to 80% and doubling the population of nurses with doctoral degrees. The current nursing workforce falls far short of these recommendations with only 55% of registered nurses prepared at the baccalaureate or graduate degree level.
- In July 2010, the Tri-Council for Nursing released a joint statement on Recent Registered Nurse Supply and Demand Projections, which cautioned stakeholders about declaring an end to the nursing shortage. The downturn in the economy has led to an easing of the shortage in many parts of the country, a recent development most analysts believe to be temporary. In the joint statement, the Tri-Council raises serious concerns about slowing the production of RNs given the projected demand for nursing services, particularly in light of healthcare reform. See <http://www.aacn.nche.edu/news/articles/2010/tricouncil>.
- 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.

- 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.”
- 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%.
- In a statement released in March 2008, **The Council on Physician and Nurse Supply**, an independent group of health care leaders based at the University of Pennsylvania, has determined that 30,000 additional nurses should be graduated annually to meet the nation's healthcare needs, an expansion of 30% over the current number of annual nurse graduates.

CONTRIBUTING FACTORS IMPACTING THE NURSING SHORTAGE

Nursing school enrollment is not growing fast enough to meet the projected demand for RN and APRN services.

Though **AACN** reported a 2.6% enrollment increase in entry-level baccalaureate programs in nursing in 2013, this increase is not sufficient to meet the projected demand for nursing services. With the passage of the Patient Protection and Affordable Care Act in 2010, more than 32 million Americans will soon gain access to healthcare services, including those provided by RNs and Advanced Practice Registered Nurses (APRNs).

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

- According to AACN's report on **2012-2013 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing**, U.S. nursing schools turned away 79,659 qualified applicants from baccalaureate and graduate nursing programs in 2012 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.
- According to a study released by the **Southern Regional Board of Education** (SREB) in February 2002, a serious shortage of nursing faculty was documented in 16 SREB states and the District of Columbia. Survey findings show that the combination of faculty vacancies (432) and newly

budgeted positions (350) points to a 12% shortfall in the number of nurse educators needed. Unfilled faculty positions, resignations, projected retirements, and the shortage of students being prepared for the faculty role pose a threat to the nursing education workforce over the next five years.

The significant segment of the nursing workforce is nearing retirement age.

- According to a 2013 survey conducted by the **National Council of State Boards of Nursing and The Forum of State Nursing Workforce Centers**, 55% of the RN workforce is age 50 or older.
- The **Health Resources and Services Administration** projects that more than 1 million registered nurses will reach retirement age within the next 10 to 15 years.
- According to data from the **2008 National Sample Survey of Registered Nurses** released in September 2010 by the federal Division of Nursing, the average age of the RN population is 47.0 years of age, up slightly from 46.8 in 2004.

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 beyond.
- According to a May 2001 report, **Who Will Care for Each of Us?: America's Coming Health Care Crisis**, released 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 and other caregivers grows in proportion to the rising elderly population.

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%).
- 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. Researcher Dr. Linda Aiken concluded that "failure to retain nurses contributes to avoidable patient deaths."

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."
- 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.

Relationship between Psychiatric Nurse Work Environments and Nurse Burnout in Acute Care General Hospitals - Issues Mental Health Nursing 2010 Mar; 31(3): 198–207

- According to a national study of the psychiatric registered nurse workforce, there are estimates of nearly 90,000 psychiatric nurses practicing in the United States ([Hanrahan, 2009](#)). Two thirds of these nurses work in various types of hospital settings. They make up the largest proportion of the professional workforce for acute inpatient psychiatric services ([Hanrahan, Delaney, & Merwin, 2006](#)). Research is limited on psychiatric nurses and inpatient practice environments in general hospitals in the United States. What is known about psychiatric nurse burnout and inpatient psychiatric environments is largely from research performed in other countries.
- Research findings show psychiatric nurse burnout is associated with unsupportive management ([Callaghan, 1991](#); [Farrell & Dares, 1999](#); [Goodykoontz & Herrick, 1990](#); [Ryan & Quayle, 1999](#); [Sullivan, 1993](#)); a lack of a formal orientation program or continuing education for staff ([Farrell & Dares, 1999](#)); high risk and acutely ill patients ([Goodykoontz & Herrick, 1990](#); [Minstral, Hall, & McKee, 2002](#); [Muscroft & Hicks, 1998](#); [Rothwell, McManus, & Higgon, 1997](#); [Sullivan, 1993](#); [Tyson, Lambert, & Beattie, 2002](#)); too much paperwork ([Sullivan, 1993](#)); and inadequate numbers of staff and unsupportive staff communication ([Bowers & Flood, 2008](#)). Worker injuries and verbally aggressive patients are reported to be increasing and are associated with higher rates of burnout of psychiatric nurses ([Flannery, Farley, Rego, & Walker, 2007](#); [Liu & Wuerker, 2005](#)). One study reported verbal aggression and work injuries directed toward psychiatric nurses to be twice that of medical surgical nurses ([Hanrahan, 2008](#)).
- Two recent comprehensive literature reviews of occupational stress experienced by psychiatric nurses show major gaps in the quality of this research ([Gilbody et al., 2006](#); [Richards et al., 2006](#)). The authors summarized multiple studies that consist of small samples, single sites, and unstandardized measures of the prevalence and determinants of psychiatric nurse burnout ([Richards et al., 2006](#)). Additionally, only a few studies were specific to acute inpatient psychiatric care settings ([Bowers, Allan, Simpson, Nijman, & Warren, 2007](#)). Substantial challenges exist in research about the extent to which psychiatric nurses experience occupational stress. Furthermore, studies rarely include standardized organizational measures of the work environment. Because so few of these studies originate in the US, transfer of knowledge is limited by major differences in health care delivery systems.