Fact Sheet:
Nursing Shortage

The U.S. is projected to experience 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 schools across the country are struggling to expand capacity to meet the rising demand for 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 concern. AACN is leveraging its resources to shape legislation, identify strategies, and form collaborations to address the shortage.

Current and Projected Shortage Indicators

- According to the Bureau of Labor Statistics' *Employment Projections 2021-2031*, the Registered Nursing (RN) workforce is expected to grow by 6% over the next decade. The RN workforce is expected to grow from 3.1 million in 2021 to 3.3 million in 2031, an increase of 195,400 nurses. The Bureau also projects 203,200 openings for RNs each year through 2031 when nurse retirements and workforce exits are factored into the number of nurses needed in the U.S.

- The Advanced Practice Registered Nurse (APRN) workforce, including Nurse Practitioners, Nurse Anesthetists, and Nurse Midwives, is expected to grow much faster than average for all occupation, by 40% from 2021 through 2031, according to the BLS' Occupational Outlook Handbook. Approximately 30,200 new APRNs, which are prepared in master's and doctoral programs, will be needed each year through 2031 to meet the rising demand for care.

- According to the United States Registered Nurse Workforce Report Card and Shortage Forecast published in the September/October 2019 issue of the *American Journal of Medical Quality*, a shortage of registered nurses is projected to spread across the country through 2030. In this state-by-state analysis, the authors forecast a significant RN shortage in 30 states with the most intense shortage in the Western region of the U.S.

- In April 2022, Dr. David Auerbach and colleagues published a nursing workforce analysis in *Health Affairs*, which found that total supply of RNs decreased by more than 100,000 from 2020 to 2021 – the largest drop than ever observed over the past four decades. A significant number of nurses leaving the workforce were under the age of 35, and most were employed in hospitals.

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- The Institute of Medicine in its landmark report on *The Future of Nursing* called for increasing the number of baccalaureate-prepared nurses in the workforce to at least 80% to enhance patient safety. The current nursing workforce falls short of this recommendations with only 65.2% of registered nurses prepared at the baccalaureate or graduate degree level according to the latest workforce survey conducted by the National Council of State Boards of Nursing.

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 enrollment in entry-level baccalaureate programs in nursing increased by 3.3% in 2021, AACN did report drops in both PhD and master's nursing programs by 0.7% and 3.8%, respectively. These trends are raising concerns about the capacity of nursing schools to meet the projected demand for nursing services, including the need for more nurse faculty, researchers, and primary care providers.

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

- According to AACN's report on *2021-2022 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing*, U.S. nursing schools turned away 91,938 qualified applications (not applicants) from baccalaureate and graduate nursing programs in 2021 due to insufficient number of faculty, clinical sites, classroom space, and clinical preceptors, as well as budget constraints.

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

- According to a 2020 National Nursing Workforce Survey conducted by the National Council of State Boards of Nursing found that the average age for an RN is 52 years old, which may signal a large wave over the next 15 years.

- In a *Health Affairs* blog posted in May 2017, Dr. Peter Buerhaus and colleagues project than more than 1 million registered nurses will retire from the workforce by 2030.

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

- The U.S. Census Bureau reported that by 2034, there will be 77.0 million people age 65 years and older compared to 76.5 million under the age of 18. With larger numbers of older adults, there will be an increased need for geriatric care, including care for individuals with chronic diseases and comorbidities.

Amplified by the pandemic, insufficient staffing is raising the stress level of nurses, impacting job satisfaction, and driving many nurses to leave the profession.

- According to data published in Nurse.com's 2022 Nurse Salary Research Report, 29% of nurses across all license types considering leaving in 2021, compared with 11% in 2020.Among nurses who are considering leaving the profession, higher pay was the most influential motivation to stay, followed by better support for work-life balance and more reasonable workload.

- In March 2022, the American Nurses Foundation and the American Nurses Association released the results of its [COVID-19 Impact Assessment Survey](#), which found that 52% of nurses are considering leaving their current position due primarily to insufficient staffing, work negatively affecting health and well-being, and inability to deliver quality care. In addition, 60% of acute care nurses report feeling burnt out, and 75% report feeling stressed, frustrated, and exhausted.

- In September 2021, the American Association of Critical-Care Nurses reported [survey findings](#) which show 66% of acute care nurses have considered leaving nursing after their experiences during the pandemic.

Impact of Nurse Staffing on Patient Care

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

- In November 2021, new research in Nursing Outlook examined Variations in Nursing Baccalaureate Education and 30-day Inpatient Surgical Mortality. Researchers found that having a higher proportion of baccalaureate-prepared nurses (BSN) in hospital settings, regardless of educational pathway, is associated with lower rates of 30-day inpatient surgical mortality. The findings support promoting multiple BSN educational pathways.

- In the July 2017 issue of *BMJ Quality & Safety*, the international journal of healthcare improvement, Dr. Linda Aiken and her colleagues released [findings from a study of acute care hospitals](#) in Belgium, England, Finland, Ireland, Spain, and Switzerland, which found that a greater proportion of professional nurses at the bedside is associated with better outcomes for patients and nurses. Reducing nursing skill mix by adding assistive personnel without professional nurse qualifications may contribute to preventable deaths, erode care quality, and contribute to nurse shortages.

- In a study published in the journal *BMJ Quality & Safety* in May 2013, researcher Heather L. Tubbs-Cooley and colleagues observed that higher patient loads were associated with higher hospital readmission rates. The study found that when more than four patients were assigned to an RN in pediatric hospitals, the likelihood of hospital readmissions increased significantly.

- In the August 2012 issue of the *American Journal of Infection Control*, Dr. Jeannie Cimiotti and colleagues identified a significant association between high patient-to-nurse ratios and nurse burnout with increased urinary tract and surgical site infections. In this study of Pennsylvania hospitals, the researchers found that increasing a nurse's patient load by just one patient was associated with higher rates of infection. The authors conclude that reducing nurse burnout can improve both the well-being of nurses and the quality of patient care.

- In a study publishing in the April 2011 issue of *Medical Care*, Dr. Mary Blegen and her colleagues from the University of California, San Francisco found that higher nurse staffing levels were associated with fewer deaths, lower failure-to-rescue incidents,

lower rates of infection, and shorter hospital stays.

- In March 2011, Dr. Jack Needleman and colleagues published findings in the *New England Journal of Medicine*, which indicate that insufficient nurse staffing was related to higher patient mortality rates. These researchers analyzed the records of nearly 198,000 admitted patients and 177,000 eight-hour nursing shifts across 43 patient-care units at large academic health centers. The data show that the mortality risk for patients was about 6% higher on units that were understaffed as compared with fully staffed units. In the study titled "Nurse Staffing and Inpatient Hospital Mortality," the researchers also found that when a nurse's workload increases because of high patient turnover, mortality risk also increases.

- 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 safe patient care.

- 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 quality. Increases in registered nurse staffing was associated with reductions in hospital-related mortality and failure to rescue as well as reduced length of stays.

- 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%.

Efforts to Address the Nursing Shortage

- AACN is committed to working with the education and healthcare community to create a highly educated nurses in sufficient numbers to meet the needs of the nation's diverse patient population. To address the nursing shortage, AACN is advocating for federal legislation and increased funding for nursing education (Title VIII, FAAN Act); promoting a post-baccalaureate nurse residency program to aid in nurse retention; encouraging innovation in nursing programs, including the development of fast-track programs (second-degree BSN and MSN programs; baccalaureate to doctoral); and working with partner organizations to highlight careers in nursing, including those requiring graduate level preparation.

- Since 2010, AACN has operated NursingCAS, the nation's centralized application service for nursing education programs that prepare nurses for entry-level and advanced roles. One of the primary reasons for launching NursingCAS was to ensure that all vacant seats in schools of nursing are filled to better meet the nation's need for RNs, APRNs, and nurse faculty.

- In June 2022, the National Council of State Legislatures issued a brief profiling different legislative approaches states are using to address the nursing shortage, including adapting scope of practice laws and offering financial incentives for preceptors,

- In a report on How To Ease the Nursing Shortage in America released in May 2022, the Center for American Progress calls for bold policies toward solving the nursing shortage to ensure that more patients with access to safe, high-quality nursing services. The report highlights how federal and state policymakers can address the shortage through coordinated planning, action, and investment.

- Many statewide initiatives are underway to address both the shortage of RNs and nurse educators. For example, in October 2022, the University of Minnesota and Minnesota State joined forces to create Coalition for Nursing Equity and Excellence, which will work with every school of nursing in the state, healthcare providers, and others stakeholders to increase enrollment in nurse education programs, expand equity in the nursing workforce, and increase student success. Additional initiatives are also underway in Florida and Louisiana among other states.

- Nursing schools are forming strategic partnerships and seeking private support to help expand student capacity.

Recent Articles on the Nursing Shortage

Buerhaus, P.I., Staiger, D.O., Auerbach, D.I., Yates, C., & Donelan, K. (2022, January). Nurse employment during the first fifteen months of the COVID-19 pandemic. *Health Affairs*, 41(1).

Buerhaus, P.I. (2021, September/October). Current nursing shortages could have long-lasting consequences: Time to change our present course. *Nursing Economics*, 39(5), 247-250.

Firth, S. (2022, May 16). More Support Needed to Shore Up Nurse Pipeline, Experts Say. *MedPage Today*.

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