Academic Progression in Nursing: Moving Together Toward a Highly Educated Nursing Workforce

The American Association of Colleges of Nursing (AACN) is committed to working with the larger education and healthcare communities to create a highly educated nursing workforce able to meet complex healthcare demands today and in the future. To that end, AACN encourages all nurses to advance their education and supports the many pathways to achieving academic progression in nursing. Because education has a significant impact on the knowledge and competencies of the nurse clinician:

> *The American Association of Colleges of Nursing strongly believes that registered nurses (RNs) should be, at minimum, prepared with the Bachelor of Science in Nursing (BSN) or equivalent baccalaureate nursing degree (e.g., BS in Nursing, BA in Nursing) offered at an accredited four-year college or university*.*

Research has shown that lower mortality rates, fewer medication errors, and positive patient outcomes are all linked to nurses prepared at the baccalaureate and higher degree levels (see Table 1). As health care continues to shift to a population-focused, community-based approach to care, the health system needs RNs who can practice across multiple settings and function to the fullest extent of their license. Employers today are seeking nurses capable of providing high-quality direct care, complex clinical decision-making, care transition management, supervision of support personnel, guidance of patients through the maze of healthcare resources, and education to patients on treatment regimens and the adoption of healthy lifestyles. Moving nurses further along the educational continuum will help to ensure that RNs are well-prepared to meet these expectations.

With half of all newly licensed RNs entering the workforce with an associate degree (NCSBN, 2017), AACN is calling for greater collaboration between community colleges and four-year colleges or universities to ensure a seamless transition to the baccalaureate or master's degree. AACN reaffirms its commitment made in 2012 to working with the Organization for Associate Degree Nursing (OADN), the American Association of Community Colleges (AACC), the Association of Community Colleges Trustees (ACCT), and the National League for Nursing (NLN) to remove barriers to educational advancement and encourage all nurses to advance in their professional development (Joint Statement, 2012).

Though completing a BSN is an important step in the preparation of a professional nurse, it is only the beginning. Nurses looking to advance their expertise and impact healthcare delivery at a higher level should be encouraged to complete a master's degree and a research-focused (i.e., PhD) or practice-focused (Doctor of Nursing Practice or DNP) doctorate. Nurses with graduate-level preparation are needed to provide high quality care; conduct research; teach online, across clinical settings, and classroom; shape public policy; lead health systems; consult with corporations; and implement evidence-based solutions that revolutionize health care. These providers are in great demand to fill established and emerging roles that allow nurses to focus on a variety of practice areas, such as geriatrics, pediatrics, public health, informatics, systems improvement, and genetics/genomics.

*In this position statement, AACN defines "four-year college or university" broadly to include member schools that offer upper division coursework leading to a baccalaureate degree.

Educational Mobility in Nursing and Lifelong Learning

The goal of having at least 80% of the RN workforce prepared at the baccalaureate level by 2020 (Institute of Medicine (now the National Academy of Medicine), 2011) has generated momentum to explore an array of pathways to the BSN. Nursing schools have made achieving this IOM goal a priority and are working to expand capacity in their baccalaureate programs to meet the growing demand. Current pathways for nurses to obtain a baccalaureate degree include the traditional four-year program, which offers entry as a freshman, sophomore, or junior depending on the individual school of nursing. Accelerated BSN programs are now available in 49 states and are designed to efficiently transition individuals with baccalaureate and graduate degrees in other disciplines into nursing. Since the 2011 release of the IOM report, 88 new entry-level BSN programs have opened nationwide, and enrollment in RN to baccalaureate degree completion programs has increased 76% (AACN, 2017). Despite this expansion, the capacity of university-based BSN programs to educate more nurses is challenged by the growing shortage of nursing faculty.

For registered nurses entering the workforce without a BSN, AACN supports efforts to advance academic progression from associate degree nursing (ADN) programs offered by community colleges to baccalaureate programs offered by four-year colleges and universities. Many students begin their nursing education at the associate degree level and complete their general education requirements at community colleges before transferring to RN to baccalaureate (or RN to master's) programs. Across the nation, faculty from ADN and BSN programs are collaborating to design articulation agreements, which transfer credits between institutions and facilitate the degree completion process.

AACN calls for the continued support for and expansion of articulation agreements and concurrent enrollment agreements as a proven solution for addressing the needs for more baccalaureate-prepared nurses (IOM, 2016). These agreements are geared toward a seamless transition or integration of community college graduates into BSN programs offered by four-year colleges and universities. Articulation agreements and partnerships accomplish the following:

- Provide a pathway for students into existing regionally and professionally accredited baccalaureate programs;
- Promote mutually beneficial cooperation among four-year colleges and universities and community colleges; and
- Ensure the quality of BSN degree programs.

In addition to individual agreements between ADN and BSN programs, several statewide models of academic progression have been successful in moving more nurses to the baccalaureate level. These models include the Oregon Consortium for Nursing Education (Gaines & Spencer, 2013) and the California Collaborative Model for Nursing Education (Close & Orlowski, 2015) as well as regional dual-degree and shared curriculum models in several states, including North Carolina, New York, Texas, and New Mexico (Bastable & Markowitz, 2012; Close et al., 2015).

Lessons learned from these emerging models of academic progression are influencing how traditional programs are offered as well as student and employer beliefs regarding what constitutes entry-level RN preparation. As various models are studied, the importance of concurrent dual enrollment was noted to shift the ultimate expectation to achieve the BSN. For example, the partnership model developed collaboratively with accredited Kansas Community Colleges and the

University of Kansas School of Nursing was studied to identify gaps between associate degree and baccalaureate level nursing education (Kumm et al., 2014). Nurse educators from across program levels met to review the 109 competencies articulated in AACN's *The Essentials of Baccalaureate Education for Professional Nursing Practice* (2008). Participants came to a consensus on the competencies met by associate degree programs and those developed through a baccalaureate program. These findings were used to develop a curriculum that decreased duplication of coursework and facilitated the development of blended or online learning options to expand degree completion programs (Kumm et al., 2014).

According to the findings of the Academic Progression in Nursing initiative launched by the Robert Wood Johnson Foundation (Gerardi, 2017), facilitators of successful academic progression programs include intentional coordination of degree requirements using easily understood pathways; in employer settings, offering group tuition rates; and in most models, a strong relationship among leaders with explicit strategies to sustain long-term partnerships. Of strategic importance with any of the models is a program organized so that interested students are able to see the experience as a whole and understand the importance of a baccalaureate degree for education mobility and career progression (Close & Orlowski, 2015; Gaines & Spencer, 2013; Bastable & Markowitz, 2012; Close et al, 2015; Pittman, Kurtzman, & Johnson, 2014; and Kumm et al., 2014).

As new models of academic progression are introduced and current models mature, nurse educators must ensure that well-established standards are met by all programs leading to the baccalaureate. To ensure quality, all BSN programs must be accredited and meet the profession's uniform standards. Such standards are stated in *The Essentials of Baccalaureate Education for Professional Nursing Practice* (2008) and are reflected in a BSN program accredited by an agency recognized by the U.S. Department of Education to assess quality in nursing education programs. All programs that grant the BSN must integrate the essential elements of liberal education, professional values, core competencies, core knowledge, and role development through an upper division nursing major.

More research is needed to determine if differences exist among students prepared via the various academic progression models, which will help guide decision-making related to which programs are best suited to prepare the future workforce. As data emerge on the effectiveness of the models in promoting an increase in nurses prepared at the baccalaureate level, these models for academic progression hold promise for achieving another goal recommended in the *Future of Nursing* report (IOM, 2011)—the need for nurses to pursue lifelong learning.

Conclusion

Reaching the Institute of Medicine's goal of preparing at least 80% of the nation's RN workforce at the baccalaureate or higher degree level requires innovative solutions and collaboration among all parties engaged in the development of future generations of nurses. Now is the time for nurse educators, higher education administrators, employers, legislators, and other stakeholders to commit to marshaling resources and providing opportunities to enable all nurses to take the next step in their educational development. Together we can send a clear message that quality nursing education matters, while also instilling a passion for lifelong learning among new recruits to the profession.

Table 1: Evidence on the Impact of Baccalaureate-Level Nursing Education

Reference	Findings
Goode, C.J., Pinkerton, S., McCausland, M.P., Southard, P., Graham, R., & Krsek, C. (2001). Documenting chief nursing officers' preference for BSN-prepared nurses. *Journal of Nursing Administration*, 31(2). 55-59.	72% of nursing directors identified differences in practice between BSN-prepared RNs and those with an associate degree or hospital diploma; baccalaureate-prepared nurses demonstrated stronger synthesis and application of knowledge and leadership skills.
Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M., & Silber, J.H. (2003). Educational levels of hospital nurses and surgical patient mortality. *Journal of the American Medical Association*, *290*(12), 1617-1623. doi:10.1001/jama.290.12.1617	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%.
Estabrooks, C.A., Midodzi, W.K., Cummings, G.C., Ricker, K.L., & Giovanetti, P. (2005). The impact of hospital nursing characteristics on 30-day mortality. *Nursing Research*, 54(2), 72-84. doi: 10.1097/NNA.0b013e318221c260	Baccalaureate-prepared nurses were found have a positive impact on mortality rates following an examination of more than 18,000 patient outcomes at 49 Canadian hospitals.
Tourangeau, A.E, Doran, D.M., McGillis Hall, L., O'Brien Pallas, L., Pringle, D., Tu, J.V., & Cranley, L.A. (2007). Impact of hospital nursing care on 30-day mortality for acute medical patients. *Journal of Advanced Nursing*, 57(1), 32-41. doi: 10.1111/j.1365-2648.2006.04084.x	BSN-prepared nurses had a positive impact on lowering patient mortality rates in this study of 46,993 patients admitted to the hospital with heart attacks, strokes, pneumonia, and blood poisoning. "Hospitals with higher proportions of baccalaureate-prepared nurses tended to have lower 30-day mortality rates. Findings indicated that a 10% increase in the proportion of baccalaureate prepared nurses was associated with 9 fewer deaths for every 1,000 discharged patients."
Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T. & Cheney, T. (2008). Effects of hospital care environment on patient mortality and nurse outcomes. *Journal of Nursing Administration*, 38(5), 223-229. doi: 10.1097/01.NNA.0000312773.42352.d7	Study confirmed findings from Dr. Aiken's 2003 study, which showed a link between RN education level and patient outcomes. Key finding: a 10% increase in the proportion of BSN nurses on the hospital staff was associated with a 4% decrease in the risk of death.
Friese, C.R, Lake, E.T., Aiken, L.H., Silber, J.H., & Sochalski, J. (2008). Hospital nurse practice environments and outcomes for surgical oncology patients. *Health Services Research*, 43(4), 1145-1163. doi: 10.1111/j.1475-6773.2007.00825.x	Nurses prepared at the baccalaureate-level were linked with lower mortality and failure-to-rescue rates. The authors conclude that "moving to a nurse workforce in which a higher proportion of staff nurses have at least a baccalaureate-level education would result in substantially fewer adverse outcomes for patients."

Kendall-Gallagher, D., Aiken, L., Sloane, D.M., & Cimiotti, J.P. (2011). Nurse specialty certification, inpatient mortality, and failure to rescue. *Journal of Nursing Scholarship*, 43(2), 188-194. doi: 10.1111/j.1547-5069.2011.01391.x	Nurse specialty certification was associated with better patient outcomes, but only when care was provided by nurses with baccalaureate level education. The authors concluded that "no effect of specialization was seen in the absence of baccalaureate education."
Blegen, M.A., Goode, C.J., Park, S.H., Vaughn, T., & Spetz, J. (2013). Baccalaureate education in nursing and patient outcomes. *Journal of Nursing Administration,* 43(2), 89-94. doi: 10.1097/NNA.0b013e31827f2028	Hospitals with a higher percentage of RNs with baccalaureate or higher degrees had lower congestive heart failure mortality, decubitus ulcers, failure to rescue, and postoperative deep vein thrombosis or pulmonary embolism and shorter length of stay.
Kutney-Lee, A., Sloane, D.M., & Aiken, L. (2013). An increase in the number of nurses with baccalaureate degrees is linked to lower rates of post-surgery mortality. *Health Affairs*, 32(3), 579-586. DOI.ORG/10.1377/HLTHAFF.2012.0504	A 10-point increase in the percentage of nurses holding a BSN within a hospital was associated with an average reduction of 2.12 deaths for every 1,000 patients. In patients with complications, there were 7.47 fewer deaths per 1,000 patients.
McHugh, M.D., Kelly, L.A., Smith, H.L., Wu, E.S., Vanak, J.M., & Aiken, L.H. (2013). Lower Mortality in Magnet Hospitals. *Medical Care*, 51(5), 382–388. doi: 10.1097/MLR.0b013e3182726cc5	Surgical patients in Magnet hospitals had 14% lower odds of inpatient death within 30 days and 12% lower odds of failure-to-rescue compared with patients cared for in non-Magnet hospitals. The authors conclude that these better outcomes were attributed in large part to investments in highly qualified nurses, including a higher proportion of baccalaureate-prepared nurses.
Aiken, L. H., Sloane, D. M., Bruyneel, L. et al. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet,* 383(9931), 1824-30. doi: 10.1016/S0140-6736(13)62631-8.	An increase in a nurses' workload by one patient increased the likelihood of dying within 30 days of admission by 7% and every 10% increase in bachelor's degree nurses was associated with a decrease in this likelihood by 7%.
Yakusheva, O., Lindrooth, R., & Weiss, M. (2014). Economic evaluation of the 80% baccalaureate nurse workforce recommendation: A patient-level analysis. *Medical Care*, 52(10), 864-869. doi: 10.1097/MLR.0000000000000189	A 10% increase in the proportion of baccalaureate-prepared nurses on hospital units was associated with lowering patient mortality by 10.9%. Increasing the amount of care provided by BSNs to 80% would result in significantly lower readmission rates and shorter lengths of stay. These outcomes translate into cost savings that would off-set expenses for increasing the number of baccalaureate-prepared nurses in hospitals.
Aiken, L. H., Sloan, D., Griffiths, P. et al. (2017). Nursing skill mix in European hospitals: association with mortality, patient ratings, and quality of care. *BMJ Quality & Safety*, 26(7), 559-568. doi:10.1136/bmjqs-2016-005567.	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.

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