



Accelerating Progress in Seamless Academic Progression

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ABSTRACT

Introduction: The Institute of Medicine Future of Nursing (2011) report recommended nurses achieve higher levels of education and training through an improved education system that promotes seamless academic progression. The report cited evidence that a higher proportion of BSN prepared RNs in the workforce improves patient outcomes.

Methods: An extensive network of funding and grassroots support from Robert Wood Johnson Foundation and AARP Foundation generated a host of activities to advance progress in this recommendation. Community colleges and universities strengthened strategic partnerships and developed tools to address identified challenges. The community colleges and universities testing academic progression models developed a new model with the potential to accelerate progress by providing community college RN students an option to exit with a BSN (Gerardi, 2017). Building on these successes and using a projection tool (Spetz, 2018), this paper illustrates recommended next steps. Implementing the proposed changes would accelerate progress to 83.9% RNs in the workforce with BSN or higher preparation by 2025 rather than the predicted 64% at the current rate of progress.

Recommendations/Conclusions: Accelerating progress to meet national academic progression goals will require targeted support for increased education capacity at community colleges and universities. Addressing faculty shortages, increased student and faculty diversity, and economic drivers will be essential for success. The strategic action proposal described in this paper can be the essential next step to accelerate progress in this important work.

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Introduction

Health care transformation is underway, and the system is dramatically changing. Although the next legislative steps are not known, health care reform is nonetheless in process, and the nursing workforce

must meet changing needs. A growing body of research shows the connection between more nurses with baccalaureate education and lower mortality rates (Aiken, Cimiotti, & Sloane, 2011; Aiken, Sloane, & Bruyneel, 2014). The health care environment is more complex than ever, and evidence supports higher educated nurses are part of the solution to providing

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access to high quality care in the future. The [Institute of Medicine Future of Nursing \(2011\)](#) report recommended nurses achieve higher levels of education and training through an improved education system that promotes seamless academic progression citing evidence that a higher proportion of BSN prepared RNs in the workforce improve patient outcomes. Studies since 2010 have strengthened the link between higher nurse education and improved patient outcomes ([Pittman, Horton, Keeton, & Herrera, 2012](#); [Yakusheva, Lindrooth, & Weiss, 2014](#)). The growing evidence creates an urgency to accelerate progress in academic progression and continue to build a new infrastructure for a higher educated nursing workforce.

The Center to Champion Nursing in America (CCNA) an initiative supported by the Robert Wood Johnson Foundation (RWJF), AARP and the AARP Foundation began their work on education transformation prior to the release of the IOM report in 2010. Over the next two years, CCNA launched 51 state action coalitions (ACs) to support the implementation of the recommendations. CCNA hosted a series of meetings and webinars in 2011 and 2012 convening experts to determine the best practices currently advancing nursing education. Promising models likely to support seamless academic progression were first identified ([Close, Gorski, Sroczyński, Farmer, & Wortock, 2015](#); [Farmer et al., 2017](#); [Gorski, Farmer, Sroczyński, Close, & Wortock, 2015](#); [Gorski, Gerardi, Giddens, Meyer, & Peters-Lewis, 2015](#); [Sroczyński, Close, Gorski, Farmer, & Wortock, 2017](#)) then were tested and refined over 4 years by the Academic Progression in Nursing (APIN) program, an initiative of RWJF, in partnership with the Tri-Council, and administered by AONE ([Gerardi, 2017](#); [Gerardi, Framer, and Hoffman, 2018](#)). APIN collaborated with CCNA, the state ACs and their partners to accelerate implementation of these promising models. An additional RWJF grant program, the State Implementation Program (SIP) provided additional support to 21 of the 44 state ACs engaged in academic progression projects. The community colleges and universities involved in this work continue to collaborate through the National Education Progression in Nursing Project.

The extensive network of nurse educators and practice partners engaged in this work, resulted in significant progress increasing the overall education level of nurses. This paper proposes building on key successes, fully implementing academic progression models and developing enrollment and graduation targets to accelerate this impressive progress. Suggested solutions to challenges are outlined and recommendations given for next steps in this important work.

Strategies and Tools

The successful strategies and tools described below are foundational for continued progress and planning

next steps. Community colleges and universities aligned goals and strengthened strategic partnerships providing essential channels for collaboration. Tools developed to meet challenges also facilitated progress, such as, standardized foundational courses for the BSN and a BSN forecasting tool ([Spetz, 2018](#)).

Academic Partnerships

One important early insight was a lack of knowledge across stakeholder groups about community college nursing education. Intentional inclusion of the community college perspective was essential to successfully correct misunderstandings. Community college nursing organizations have been an integral part of planning strategies for success. A specific project included a group of community college presidents convened by RWJF to discuss mutual goals and challenges. RWJF subsequently distributed a white paper, led by Fairman and Meyer ([RWJF, 2014](#)) to share the discussion and next steps. Community colleges provide a quality, accessible and affordable pathway for higher education ([AACN, 2014](#)). They serve a critical role in the nursing education pipeline with potential to increase the diversity of the nursing workforce and ensure education access for nurses in all regions of the United States. Half of all RNs enter the workforce with an ADN degree conferred by a community college. Meeting workforce goals must include the community colleges and the programs in place are a strong foundation from which to build. Meeting workforce goals must include the community college perspective and valuing of their programs resulted in a network of strong community college university partnerships previously not possible.

BSN Foundational Courses

A challenge identified early was the lack of consistent prerequisites/general education requirements as students moved from ADN to BSN causing redundancy for students and delaying completion. A work group representing perspectives from universities, community colleges, and practice convened in July 2014. The workgroup proposed standardized foundational courses for the BSN degree, where the total number of credits would be consistent across all types of BSN programs with enough flexibility in the requirements to meet college, university, or state requirements. The foundational BSN courses described by [Giddens and Meyer \(2016\)](#) provide a framework for all BSN programs to standardize the prerequisite and graduation requirements. The number of credits in each general category results in a total of 60 to 64 foundational course credits. Although this workgroup did not specifically address the nursing courses there are 60 to 64 additional semester credits required in nursing courses for a total of 120 to 128 credits required for a BSN. Creating proposed foundational BSN courses provides a tool for university and community college

educators developing partnership programs to assure students seamless academic progression without redundancy. Additional unnecessary requirements can add cost and extend program completion times. The work of the ACs through the APIN and SIP grants identified this as a particular challenge for the community college and university partnership models because students complete coursework in more than one institution where the requirements for program completion may differ. The workgroup recommended use of this framework for all BSN programs to support seamless academic progression.

Forecasting Tool

The positive trends in graduation rates provide an opportunity to use data from ADN and BSN programs to forecast the future work force. Spetz (2018) developed a BSN Forecasting Tool for the Robert Wood Johnson Foundation and the American Organization of Nurse Executives. It is a simple Excel-based model that estimates the future supply of baccalaureate and non-baccalaureate nurses based on current supply of nurses and nurse graduates. The model uses reliable and accurate trend data compiled from four sources; the American Community Survey, Integrated Postsecondary Education Data System, American Association of Colleges of Nursing, and data from the California Board of Registered Nursing (UCSF, 2018). Using this forecasting model to predict continuing current trends in ADN, RN-to-BSN, and BSN graduations, 64% of RNs would be prepared with a BSN or higher degree by 2025. Although this represents an impressive gain from previous levels, maintaining current trends will not provide the change needed to realize the goal put forth by the IOM (2011). The nursing profession must accelerate progress.

Indications of Success

The trends since 2010 indicate progress toward increasing the percentages of RNs with BSN or higher education. Two measures indicating this progress are changes in BSN graduation rates (AACN, 2016) and the education preparation of first time NCLEX test takers (NCSBN, 2017).

The number of RN-to-BSN graduates in the United States has more than tripled in nine years from 19,606

in 2009 to 62,725 in 2017. The number of prelicensure BSN graduates has also increased although more slowly with a 49% increase from 47,121 in 2009 to 70,230 in 2017. Combining RN to BSN and BSN graduates provides an indication of the total number of BSN graduates entering the workforce. The combined number of RN to BSN and BSN graduates nearly doubled from 66,727 in 2009 to 132,955 in 2017. These trends indicate preliminary successes and they imply there is potential for continued and perhaps accelerated progress (Table 1).

An additional useful trend to examine is RN NCLEX test takers. Table 2 shows the number of first time RN NCLEX test takers from diploma or ADN programs compared to test takers from BSN and MSN programs. The percent of RNs prepared for initial licensure with BSN or MSN increased from 39% in 2010 to 48% in 2017 while the percent of RNs prepared for initial licensure with diploma or ADN went from 61% in 2010 to 52% in 2017.

The trends indicate successful mobilization of nursing education to implement the current models. However, the number of ADN graduates continues to represent more than half of all new RNs and there are reports that ADN graduates are having more difficulty finding jobs in some areas (Buerhaus, Skinner, Auerbach, & Staiger, 2017).

The extensive national network refining academic models and strengthening partnerships has been successful. Nursing education capacity was increased enough to double the number of BSN graduates since 2010 despite significant challenges. It is critical to build on this success. Community college programs can continue to provide an excellent entry option for the BSN but, there must be an increase in the percentage of nurses entering the workforce with a BSN or higher to assure quality, safe, and cost effective care (Yakusheva et al., 2014). The successes realized and momentum activated can provide a foundation for the next steps to accelerate progress.

Accelerating Progress

One result of testing academic progression models across the country was the emergence of a new model where community colleges and universities in partnership develop a shared baccalaureate curriculum. Building on successes coupled with full implementation of this new model and using the BSN forecasting

Table 1 – Number of RN to BSN and BSN Program Graduates*

	2009	2010	2011	2012	2013	2014	2015	2016	2017
RN to BSN	19,606	22,531	27,818	34,615	40,213	47,777	56,059	60,842	62,725
BSN	47,121	51,039	52,872	56,432	59,985	63,336	65,504	67,536	70,230
Total BSN	66,727	73,570	80,690	91,047	100,198	111,113	121,563	128,378	132,955

* American Association of Colleges of Nursing (2017).

Table 2 – Trends in First-Time RN NCLEX Test-Takers in the US*

	2010	2011	2012	2013	2014	2015	2016	2017
BSN or MSN	55,407 (39%)	58,246 (40%)	62,535 (42%)	65,406 (42%)	68,175 (43%)	70,889 (45%)	72,655 (46%)	75,944 (48%)
Non-BSN	85,475 (61%)	86,337 (60%)	87,731 (58%)	89,692 (58%)	89,197 (57%)	87,068 (55%)	84,448 (54%)	81,776 (52%)
Total RNs	140,882 (100%)	144,583 (100%)	150,226 (100%)	155,098 (100%)	157,372 (100%)	157,957 (100%)	157,103 (100%)	157,720 (100%)

* National Council of State Boards of Nursing (2017).

tool to establish goals will provide the essential boost to progress.

Shared Baccalaureate Curriculum Model

Community colleges and universities collaborate to create a shared BSN curriculum where duplicative coursework for students is less likely. The shared BSN program includes implementation of the BSN Foundational Courses to simplify advising and streamline progression. When a student must complete BSN course requirements after completion of an ADN program, the student is more likely to face unintended barriers to academic progression or unknown prerequisites and graduation requirements. Students enter at the community college and may take university courses concurrently with community college classes or may complete the entire BSN degree at the community college. The result is a higher rate of BSN graduates since students do not exit at the ADN.

Giddens, Keller, and Liesveld (2015) and Godfrey (2016) described the implementation of this strategy in New Mexico and Kansas and stressed the importance of providing resources to support academic success for community college and university students. Alignment between community college and university expectations, norms, and policies are more of a challenge with this new model because it requires a higher level of sustained partnership between the community college and the university than in previous models. Developing procedures across institutions to continue student financial aid is essential. Providing faculty support to prepare for a shared curriculum requires support from both the community college and the university.

Key components of this model: (a) Builds on work to date and lessons learned through APIN, SIP, and other academic progression projects nationally. (b) Students starting their education at the community college will be able to choose a program with a BSN exit. (c) There is no exit at the ADN, but the graduate may receive an ADN in addition to the BSN. (d) The student completes all BSN coursework before the RN licensure exam.

The model provides automatic and seamless transition from the community college directly to a BSN program similar to other models with one key difference; graduates are conferred the BSN before taking the NCLEX exam.

Enrollment and Graduation Targets

The academic progression model outlined above provides an opportunity to build on current successes and use data from the testing of current models to adjust action plans and accelerate progress. Providing a work force with significantly more BSN graduates will take shifts in the current trends. Current ADN programs would need to provide more students an opportunity to enter the workforce with both an RN and a BSN.

A powerful mechanism to develop targets for accelerated progress is the forecasting tool previously

Table 3 – BSN Forecasting—Proposed Baseline, Proposed Annual Change, and Projection of Program Graduates

Program	Baseline	Proposed Change	Projection (Custom)
AD and Diploma	86,986	–30,000	56,986
BSN and Master's	70,863	+40,000	110,863
RN-to-BSN grads	56,059	+54,000	110,059

Source: [NCSBN \(2017\)](#) and [AACN \(2017\)](#).

Baseline—National RN workforce projections with continuation of current trends.

Projection (Custom)—National RN workforce projections with proposed changes implemented.

described. [Table 3](#) outlines an example using 2015 national data as a baseline, proposing changes in current trends, and illustrating the resultant projection for 2025. This scenario is not exact rather, it is an example of potential gains realized when available data and evidence is used to determine next steps. The proposed changes would accelerate progress through community colleges providing at least 30,000 students per year an option to earn the BSN before they are eligible for licensure. These programs could be through university and community college partnerships or through community college RN-to-BSN programs. Universities across the country would need to increase their capacity for BSN and higher programs by 40,000 graduates. Community colleges and universities collectively would increase their capacity for RN-to-BSN programs to accommodate 54,000 additional graduates each year.

Community colleges could expand or open new RN-to-BSN programs and/or expand capacity for students in partnership models. [Figure 1](#) illustrates the projection (custom) data in [Table 3](#) entered into the forecasting tool showing significantly accelerated progress with 83.9% RNs in the workforce with BSN or higher preparation by 2025.

Meeting these projections would require bold and far reaching action. The current momentum around nursing education transformation coupled with successful partnerships, strategies, and tools provide the foundation for these next steps to take place.

Challenges and Solutions

In addition to many successes, the national network refining academic progression models identified barriers to success and developed solutions to many of these challenges ([National Education Progression in Nursing, 2018](#)). Increasing enrollment capacity in community colleges and universities creates more pressure on an education system already stretched. The community college programs must maintain or increase enrollment as they transition to either conferring the baccalaureate degree or developing a shared curriculum with universities giving students an option for a BSN before they exit the program. Universities will also need to maintain or increase capacity in BSN and graduate entry programs as well as RN-to-BSN programs. Legislative changes will be necessary in some states to offer the RN-to-BSN at the community college ([Farmer et al., 2017](#)). Support for increased nursing program capacity and model implementation must include financial aid for students and funding for program implementation. Several of the challenges deserve particular emphasis; addressing faculty shortages, student and faculty diversity, and changing economic drivers in practice.

Faculty

One of the most urgent challenges faced is the present and future shortage of nursing faculty. Increases in

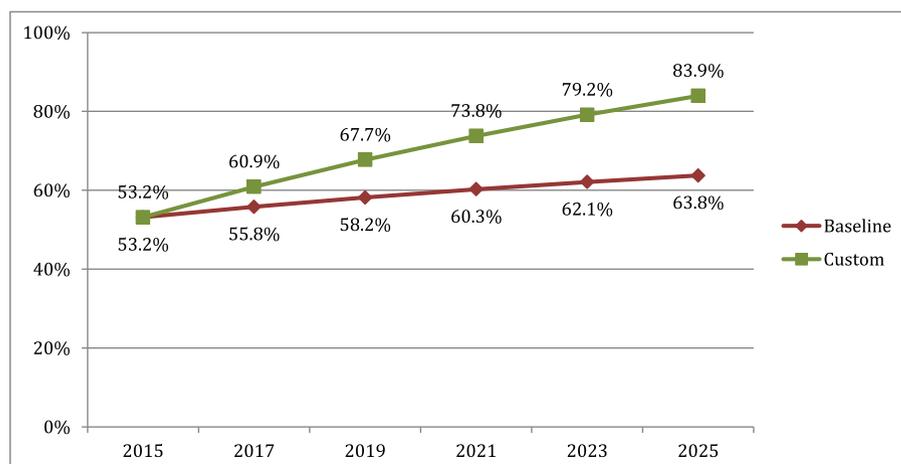


Figure 1 – Percent of nurses with BSN or higher using forecasting tool. Baseline—Projection with continuation of current trends; Custom—Projections with proposed changes implemented.

student enrollment are dependent on availability of qualified faculty and many areas are experiencing severe faculty shortages at the current enrollment level. In addition to the imperative to increase nursing faculty education level, there are impending retirements and vacancies compounding the challenge (Buerhaus et al., 2017). Support to advance faculty education such as implementation of loan repayment and scholarship programs will incentivize nurses to become or remain faculty (Morgan et al., 2014). Competitive faculty salaries more closely aligned with practice salaries will also help to recruit qualified nurses from practice areas into nursing education and retain current nursing faculty. Increasing education capacity depends on state and national strategies for recruitment and retention of qualified faculty.

Student and Faculty Diversity

An additional challenge is assuring the diversity in student and faculty diversity match the populations served. A diverse nursing workforce can help improve patient and population health outcomes, particularly with regard to reducing disparities in health (Williams et al., 2014). In 2016, 70 percent of the RN workforce was white non-Hispanic, as compared with 65 percent of the overall the US workforce (Spetz, 2017). While there has been progress toward increasing the diversity of the nursing workforce, improvement has been slow. Causes for the lack of diversity among RNs include differences in preparation at the high-school level, which could affect qualification for RN education and differences in successful completion of RN education. As community colleges and universities implement new models they will need to assess student retention and graduation rates and be prepared to adjust and supplement their student support as indicated. Providing a nursing faculty workforce reflecting the diversity of the students is also essential. We must build on successful strategies monitor progress and adjust support to assure successful recruitment and retention of diverse student and faculty populations.

Economic Drivers

Possibly the most perplexing challenge is maintaining alignment of nursing education with the rapid and unpredictable changes in the health care environment. One change driving the need for a more highly educated nursing workforce is reimbursement mechanisms focusing on patient outcomes (value based). This shift provides the opportunity to shine a light on the economic benefits of nursing care, but also intensifies the urgency for a higher educated nursing workforce.

The right mix of BSN prepared nurses can improve patient outcomes and result in a cost savings to the hospital. Yakusheva et al. (2014) found economic simulations increasing the BSN "dose" to >80% for every eligible patient could result in about 248 fewer

readmissions and over \$5.6 million in related annual savings for the study site's eligible patient population. Bobay, Yakusheva, and Weiss (2011) demonstrated the impact of fluctuating staffing levels on emergency department visits within 30 days of discharge. Results of both of these studies adjusted for the increase in salary for BSN nurses and the cost of hiring and orienting new nurses, yet they still found increasing the number and education level of RNs improved outcomes and resulted in a net economic gain for the employer. It is important for nurse managers, directors, and administrators to recognize the impact of RN education level on patient outcomes (Aiken et al., 2011; Dick, Patrician, & Loan, 2017; Welton & Harper, 2016). Strengthening practice education partnerships will be essential to assure an increased level of nursing education actually prepares nurses for current and evolving future practice (Burton, Hays, Savage, & Hoeksel, 2017).

Meeting complex nursing workforce needs require a complex network of educational options. A nursing education infrastructure to serve the future health care workforce is one where; students can obtain a BSN degree at the community college, university, or through community college/university partnerships.

Conclusions

The nursing profession needs to ensure that highly qualified and diverse nurses are available to provide quality cost effective care. There is not enough education capacity to provide the necessary nursing workforce without the community college programs. Although it is not clear how health care reform will progress, it is clear there will be increased needs due to value based reimbursement and the changing demographics specifically related to the aging population. The extensive network of community colleges and universities testing academic progression models led to a new model with the potential to accelerate progress by providing community college RN students an option to exit with a BSN. Building on successes and using a projection tool, this paper illustrates recommended next steps in this vital work. The accelerated progress described in this paper can be a leap forward if the nursing profession is willing to take the next bold steps.

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