Lessons learned from APIN's four-year project to identify and develop the most promising strategies for creating a more highly educated nursing workforce.

Academic Progression in Nursing (APIN)

Final Program Summary and Outcomes

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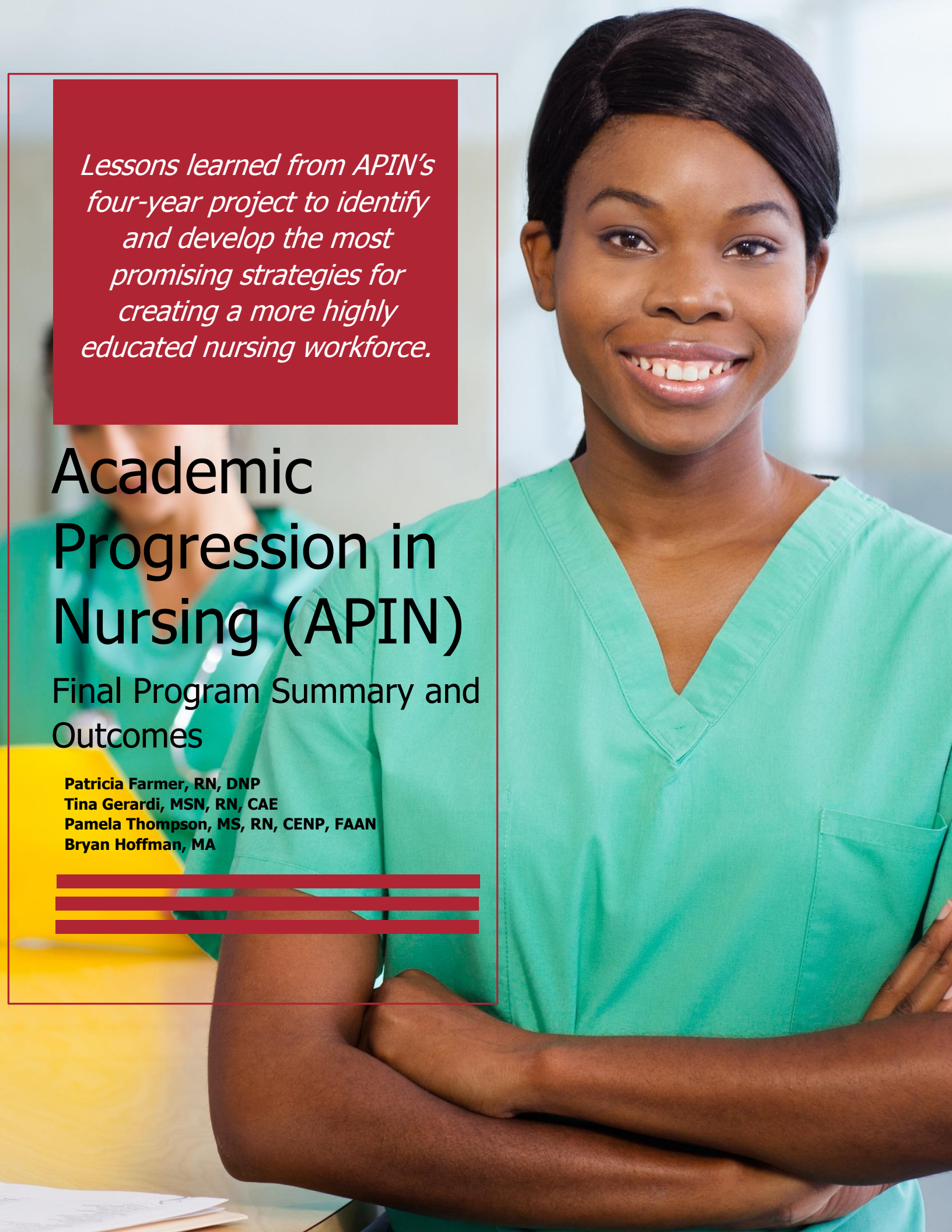

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Executive Summary

The Academic Progression in Nursing Program (APIN) has concluded a four-year project to identify and develop the most promising strategies for creating a more highly educated nursing workforce. APIN was funded by the Robert Wood Johnson Foundation (RWJF) in partnership with the nursing Tri-Council, and administered by the American Organization of Nurse Executives (AONE). The APIN national advisory committee reviewed applications and recommended that groups in nine states receive grants from RWJF to design and test models of academic progression to increase the number of nurses with baccalaureate degrees to 80 percent of the workforce, as recommended in the Institute of Medicine (IOM) report, *The Future of Nursing: Leading Change, Advancing Health*.

The APIN national program office subsequently linked representatives of these nine state grantees with other thought leaders from around the country to incorporate learnings and distill the most promising strategies. This group collectively identified a model that shows the greatest potential for advancing seamless academic progression. The model centers on intentional and carefully constructed partnerships, and builds on the existing infrastructure of widely available community colleges as well as university expertise for providing baccalaureate education.

Over the course of the four years, APIN grantees and other innovators developed a number of variations on this partnership model, demonstrating that it is sufficiently flexible for adaptation across a broad landscape. Although individual project sites used different mechanisms to advance the model, there is substantial commonality across the group, allowing some comparison and preliminary evaluation of promising practices. Key elements of successful partnership models include alignment of curriculum and specific aspects of supportive infrastructure, which the group defined and explored. All participants recognized that close collaboration and support from practice partners is critical to success, and many worked to develop mechanisms to foster these relationships.

Partnership models exist on a continuum of increasing curricular integration and infrastructure, and more information is needed to identify where within that continuum the most effective and efficient pathway lies. Due to the time required to design and implement academic programs, early adopters are only now seeing cohort size sufficient to allow meaningful evaluation. The proportion of students who progress directly from Associate Degree (AD) to the Bachelors of Science in Nursing (BSN) varies across sites. All sites substantially reduced the time between a nurse obtaining an AD and returning to complete the BSN from the existing baseline of nine to 12 years. Most with integrated progression pathways report that when students in these programs complete the AD component, more than 80 percent will advance directly into the BSN component. This represents substantial improvement over the levels of progression in systems without intentional partnerships, and is a remarkable achievement over a short period of time.

However, early results indicate that even well-designed partnership models will not achieve an 80 percent BSN-prepared nursing

workforce unless students are incentivized to enter and complete the baccalaureate curriculum through specific aspects of program design and focused efforts on the part of nursing employers.

The APIN program generated extensive information and exemplars to support further development and dissemination of partnership models, but momentum must be maintained to achieve the desired outcomes and prevent a repeat of historical patterns in which educational emphasis varies with market forces.

It is critical that national nursing leaders broaden the impact of these learnings through:

- ongoing centralization of resources, expertise, and collaborative learning
- continued dissemination of information on the need and options for academic progression programs
- sustained support for development of standardized metrics for data collection and evaluation
- deeper engagement with deans and directors of *all* nursing education programs, not just with those already engaged with academic progression models
- efforts to foster consistency and continued support for practice partners and nursing employers, especially those in rural areas or smaller health care systems and settings.

Registered nurses (RNs) are seeking baccalaureate education in record numbers, resulting in small but steady advances in the proportion of BSN-educated nurses in the workforce. However, 50 percent of RNs continue to enter the workforce through the community college pathway, and achieving the IOM recommendation goals will require that a greater proportion of these nurses go directly into BSN education.

The nursing profession has been mired in controversy over nursing education for more than 50 years. Registered nurses (RNs) are seeking baccalaureate education in record numbers, resulting in small but steady advances in the proportion of BSN-educated nurses in the workforce. However, 50 percent of RNs continue to enter the workforce through the community college pathway, and achieving the IOM recommendation goals will require that a greater proportion of these nurses go directly into BSN education. The APIN grantees and other national leaders have identified a viable model to successfully realize that outcome, but further work is needed to bring this effort to fruition and achieve the IOM goal.

Background and Overview

Impetus for change

The need for a more highly educated nursing workforce has been widely recognized for many year (Benner, Sutphen, Leonard & Day, 2010; National Academies of Sciences, Engineering & Medicine (NASEM, 2011). Extensive research now supports the 2003 findings of Aiken, Clarke, Cheung, Sloane & Silber in demonstrating the relationship between higher levels of nursing education and improved patient outcomes (American Association of Colleges of Nursing, 2014). The landmark IOM report, *The Future of Nursing: Leading Change, Advancing Health*, funded by the Robert Wood Johnson Foundation, advanced a recommendation that 80 percent of RNs be prepared with a baccalaureate or higher degree (IOM, 2011). At the time, the IOM report was completed, approximately 50 percent of nurses in the United States were educated at this level (Health Resources and Services Administration (HRSA), 2008).

How best to close that gap remained unclear, as the nursing education pipeline was often inefficient and lacking in capacity, with the academic institutions that educated nurses at the baccalaureate level generally operating in isolation from academic institutions that prepared nurses at the level of the diploma or associates degree (Benner, Sutphen, Leonard & Day, 2010). The Robert Wood Johnson Foundation provided financial support to identify and evaluate improved mechanisms for nursing academic progression (RWJF, 2012). This work was one aspect of the Campaign for Action, a joint initiative of RWJF and AARP to transform health care nationally through improved utilization of the nursing workforce (RWJF, 2012b).

A learning collaborative of nursing education and thought leaders convened by the Center to Champion Nursing in America (CCNA) identified four potential models to address the need for more nurses to obtain a BSN: RN to BSN degree conferred by community colleges; accelerated options such as RN to MSN; competency- or outcomes-based curriculum; and shared curriculum (Campaign for Action, 2012). RWJF built upon this structure in creating APIN – a program focused on exploring and developing further options to accelerate change within the nursing education system.

APIN Launch

RWJF turned to the Tri-Council for Nursing to lead APIN. The Tri-Council is an alliance of four autonomous national nursing organizations: the American Association of Colleges of Nursing (AACN), the National League for Nursing (NLN), the American Nurses Association (ANA), and the American Organization of Nurse Executives (AONE). These organizations provide expertise and representation from nursing practice, education, policy, research, and leadership (Tri-Council for Nursing, 2016). This was the first awarding of funds to the Tri-Council as a group, and the charge was broad: to advance state and regional strategies to create a more highly educated nursing workforce (RWJF, 2012).

Selection of the Tri-Council to lead APIN was key to program development, as it provided a clear statement of support for academic progression from all participating

organizations, each with a unique constituency and role in advancing nursing practice and professionalism. Because academic progression in nursing remained a somewhat controversial topic, the Tri-Council's leadership offered legitimacy and validated the work, establishing a construct in which diverse groups of nursing leaders would work in cooperation for this common goal. In addition, it maximized messaging of program goals and progress through the existing infrastructure of all four organizations.

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As each organization began reporting "downstream" about the APIN work, they validated the importance of the work to the profession as a whole. At the request of Tri-Council leadership, AONE took the lead in project management, housing the APIN national program office (NPO). The Tri-Council's selection of AONE for this role was also intentional and demonstrated the importance of full inclusion of practice partners in nursing education system re-design. RWJF provided more than $10 million to the program, allowing two phases and covering a four-year time span (RWJF, 2014).

The APIN national advisory committee evaluated grant applications and provided substantive input to RWJF, which subsequently selected nine project sites to develop, refine, and evaluate models for advancing BSN education. Program developers chose sites from both urban and rural areas, representing all regions across the United States, and each site received more than $300,000 for each two-year phase. Several grantees had work in progress at the outset, and that work was amplified and expanded during the grant period. Although grantees were free to design a program that best met their needs, it is notable that all states gravitated toward what would subsequently be identified as the partnership model. Since each grantee approached this somewhat differently, collectively they generated a great deal of information about program design and implementation.

Summaries from each of the APIN projects can be reviewed on the APIN website at *www.academicprogression.org*.

Early Project Development and Initial Role of the NPO

The APIN NPO assumed a more active role than most grant administrators. A team of representatives composed of NPO staff, a member of the APIN national advisory committee, and a CCNA staff member visited each grantee. These visits were largely investigative, to help NPO staff fully understand each project. Early site visits also created an opportunity to assist grantees in organization and infrastructure, goal-setting, and development of partnerships.

Relationship Development

Strong and inclusive partnerships were critical for all projects. A few grantees had excellent working relationships across academic institutions from the outset. For others, the work was initially hampered by perceived competition and mistrust. In addition to relationships between schools, AONE and other Tri-Council members emphasized the importance of involving nursing employers and other stakeholders throughout the process. In most locations these relationships required outreach, development, and strengthening.

The creation or transformation of academic progression programs required work well beyond what grant funds could directly support, and a great deal of volunteer effort was required. Project leaders identified the need to develop new skills in soliciting and managing this volunteer workforce.

The NPO's early work included facilitating outreach and team-building among multiple individuals and institutions. NPO staff provided assistance with intentional communication and skilled messaging. Because the grantees' early work was exploratory in nature, the NPO initially prioritized role-modeling of concepts critical to this work: flexible leadership, collaboration rather than competition, curiosity, and creativity.

Structural Support

In addition to site visits and team-building assistance, the NPO provided support to grantees through structured contact across the various projects. Although each project was unique, project leaders recognized shared challenges and opportunities to build on one another's work. NPO staff convened the group in monthly conference calls and created a newsletter and private website to provide a central location for comments, questions, and shared review of the work that was underway. Quarterly reports helped keep grantees on track and ensure they were progressing.

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Even with these supports in place, the challenge was daunting for many grantees, who began with substantial enthusiasm but were sometimes overwhelmed by the challenges associated with creating transformative change within highly structured academic institutions. Grantees

were charged with advancing bold agendas, but in many cases the organizational culture did not support transformative change. From the early months of the project, NPO staff provided positive feedback and reinforced the need to "start where you are" and find ways to make progress, even in the absence of enough data, enough personnel, or perfectly aligned organizations.

Identification of Essential Elements for Success

In the first year of funding, the NPO was able to identify essential elements for success across the APIN-funded projects. These elements were used to assess each grantee and will guide future academic progression program development (Gerardi, 2015). They are:

- Relationships: Strong relationships between AD and baccalaureate educators were critical to program development, and projects with existing relationships demonstrated accelerated progress. Relationships between academia and practice partners were also essential and helped to drive change through hiring practices and elements of policy infrastructure detailed below. Other relationships proved important, as well, including those with legislative and regulatory bodies, hospital associations, nurse executives, business representatives, and practice partners across all settings.
- Leadership: Successful education redesign required significant resources and commitment from key stakeholders, especially academic institutions and practice partners. Dissemination of learning required leadership through presentations at nursing conferences, publication of articles, and provision of consultative services.
- Supporting infrastructures: Substantial infrastructure was required at the outset and throughout the development of the programs. Participants were organized through committees or work groups, clear goals and timelines were established, and project coordinators proved essential. Access to accurate data was a key determinant in the ability of program leaders to measure project impact.
- Scalability and sustainability: From the start, it was clear that projects would need to be scalable in order to raise BSN numbers in a meaningful way. Successful programs required a mechanism to institutionalize change and maintain operational and financial support beyond the grant period.
- Competency: Education system redesign required demonstrated competencies in system thinking, innovation, complexity science, organizational behavior, risk-taking, and change management. Intentional development of these skills accelerated progress.

Iterative Learning and Evolution of the Program

Each project matured, although growth was uneven and dependent on local environments. In some states, weak partnerships and the need to create or strengthen relationships limited progress, and in those regions this remained the focus of NPO support. In other states, attention shifted to the mechanics of program development – especially curricular design and messaging of transitions. Sites with pre-existing academic progression projects moved beyond curricular design to enhance the role of practice partners and tackle challenges, especially the impact of new pathways on admissions, financial aid, and diversity. As the projects advanced their work, the role of the NPO likewise evolved and role-modeling shifted to greater integration of complexity science, demonstrating the importance of managing multiple interrelated systems, interconnectivity, and dynamic adaptability across all projects.

Broadening Outreach and Impact

The second and third years of the APIN project brought substantial discovery and program development. Increasingly, the NPO served as a convener and began to broaden the community of outreach to projects outside the APIN-funded sites. By then, a number of non-APIN states were advancing academic progression projects through the State Implementation Program (SIP), also funded by RWJF (Campaign for Action, 2015). Through cooperation with CCNA and the SIP NPO, conjoined national meetings were held. Among the SIP-funded projects, the Minnesota Alliance for Nursing Education's (MANE's) work mirrored the process used by APIN projects in developing an academic progression model (MANE, 2016). Although SIP funding for MANE concluded in 2015, the APIN and SIP NPOs fostered its continued involvement with the national academic progression work.

In addition, the APIN NPO became aware of substantive work on academic progression being done at sites without dedicated Campaign for Action funding, most notably through programs in Arizona, Colorado, and Kansas, as well as through widely disseminated distance education programs such as the University of Phoenix. Each of these sites developed sophisticated exemplars of the partnership model. After identifying these programs, APIN NPO staff met with representatives of each to develop a full understanding of their work. Due to the significant synergy with the APIN projects, representatives of these programs were subsequently included in national meetings and other learning forums for the duration of the project. APIN representatives also reached out to leaders from the Oregon Consortium for Nursing Education (OCNE) – the originator of the statewide standardized nursing curriculum model and the earliest national leader in intentional academic progression pathways (OCNE, 2016). Bringing representatives from

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these varied projects together with APIN grantees expanded the learning milieu, allowing all to benefit (Gerardi, 2016). It was through this dynamic interchange that the most promising practices began to emerge (Hoffman, 2016).

Critical Role of Practice Partners

All participants recognized the critical role of nursing employers and other practice partners in driving academic progression; this was validated repeatedly throughout the project. Employers were found to play a vital role in driving the market for BSN-prepared nurses, with more than 90 percent ultimately expressing a hiring requirement or preference for the BSN (AACN, 2013; AACN, 2015b, AACN, 2016). Among APIN grantees, Hawaii provided an example of the importance of hiring practices upon BSN completion. A temporary oversupply of nurses in that state allowed employers to strengthen BSN-preferred hiring. AD graduates were unable to find suitable employment and in many cases remained in school, which resulted in Hawaii having one of the highest proportions of BSN-prepared nurses in the nation. Magnet recognition and the Magnet journey have had a powerful influence on hiring practices (AACN 2014). Major national employers such as the U.S. Public Health service and the U.S. military have long required the BSN (AACN, 2015b; Kessler, 2016; U.S. Public Health Service, 2016). Those seeking to enter the nursing profession with an AD have faced diminishing options in the acute care setting (Auerbach, Buerhaus, & Staiger, 2015). This momentum for a more highly educated workforce was positive overall but created complexities in evaluation of individual academic progression programs because these market forces varied geographically (AACN, 2013).

The APIN NPO required project teams to develop and strengthen ties to practice. Each project leadership team had representatives from nursing practice, and these individuals were included in national meetings and dialog. NPO staff ensured that the employer perspective was highlighted and reinforced consistently. They provided intentional outreach to national nursing practice leaders through targeted publications and presentations.

Other Key Partnerships

Over time, the APIN NPO identified and strengthened other key partnerships, especially with the Organization for Associate Degree Nursing (OADN). Under the guidance of Chief Executive Officer Donna Meyer, MSN, RN, OADN partnered with other national leaders to support AD program participation in academic progression models. Like the Tri-Council, OADN is a membership organization that served a dual role, providing a voice for its membership as well as messaging back to its members about the work in progress (OADN, 2017). Among the OADN constituency, there was general support for academic progression coupled with recognition of the role community colleges play in nursing education nationally. As an organization, OADN provided early endorsement of education transformation, having joined with AACN, the American Association of Community Colleges, the Association of Community Colleges Trustees, and the National League for Nursing in a 2012 position statement endorsing the need for academic progression (AACN, 2012). Thoughtful leadership by Meyer and ongoing inclusive practices amplified OADN's support,

which was valuable to development of the community college–university partnerships that form the basis of the most successful structures for academic progression. In 2015, OADN reiterated its commitment through a Joint Position Statement with ANA, calling for all nurses to have access to seamless academic progression through accredited nursing education programs, and in 2016, OADN created a brochure in conjunction with AACN to provide information to students about academic progression (OADN, 2015; OADN, 2016).

Other key individuals helped advance the work through their content expertise and consultative services. Heather Andersen, EdD, RN, was invaluable in strategizing and facilitating group sessions. Jean Giddens, PhD, RN, provided critical content on early creation of the New Mexico model, and on challenges to adapting that model elsewhere. Rhonda Anderson, DNSc, RN, and Catherine Rick, DSc(h), RN, provided strategic guidance and continued support from the practice perspective. Critical assistance with data assessment was provided by JoAnne Spetz, PhD. Pat Polansky, MS, RN, and Mary Sue Gorski, PhD, RN, offered consistent collaboration and provided critical links to the related work being conducted through CCNA. Mary Dickow, MPA, assisted APIN grantees and others with targeted expertise on sustainability planning. Program developers in communities advancing academic progression models without the benefit of APIN funding were generous and collegial in sharing details about their programs, including Nelda Godfrey, PhD, RN, Margi Schultz, PhD, RN, Susan Bonini, MSN, RN, Faye Uppman, MS, RN, Collene Bay Andersen, MBA, and Paula Gubrud-Howe, EdD, RN.

Broadening the constituency of participants also helped to identify common questions, concerns, and challenges across projects.

As the learning community matured, specific issues crystalized and required resolution for the common good.

Challenges Revealed and Addressed

As the learning community matured, specific issues crystalized and required resolution for the common good. The APIN program staff, often in conjunction with CCNA and other representatives of the Campaign for Action, guided interventions to resolve and address problems of mutual interest.

- Inconsistent prerequisites and general education requirements created barriers for students to advance from the AD to higher levels of education.
  - NPO response: A national workgroup was convened to seek consensus on needed prerequisite and general education coursework.
  - Outcome: Development of the BSN "Foundational Courses," a standardized set of course requirements consisting of 60-64 non-nursing credits, covering general education and basic, social, and human sciences (RWJF, 2015b).
- The potential impact of innovative education pathways on program accreditation was not clear and created concerns for academic institutions in advancing these models.
  - NPO response: A Round Table discussion was held with leaders from the Commission on Collegiate Nursing

Education (CCNE), the Accreditation Commission for Education in Nursing (ACEN), and the Commission for Nursing Education Accreditation (CNEA). Prior to the event, questions and concerns were solicited from the developers of academic progression models, and these were presented to the accreditation agencies for response.
    - Outcome: Development and dissemination of a Frequently Asked Questions document: *Accreditation and Academic Progression FAQ* (Campaign for Action, 2015b). Leaders from the accreditation agencies voiced their support for academic progression and acceptance of high quality innovative programs (RWJF, 2015). Specific questions from the field were addressed.
- The role of nursing regulators in providing oversight to nursing education programs, especially those advancing new academic progression pathways, was unclear.
    - NPO response: The NPO facilitated a meeting for discussion and mutual education with the National Council of State Boards of Nursing (NCSBN). As with the accreditation agencies, questions and concerns were solicited from academic progression program leaders prior to the meeting, and these were presented to the NCSBN for response and clarification (Gerardi, 2016b).
        - Outcome: Development and dissemination of a Frequently Asked Questions document: *National Council of State Boards of Nursing and Academic Progression FAQ* (Campaign for Action, 2016).
- Rural partners identified unique challenges which were not being fully addressed through existing projects.
    - NPO response: A national meeting of rural constituents was convened to identify and address concerns unique to these areas. Selected content experts provided exemplars and group discussion elicited strategies to accelerate progress (Gerardi, 2016c). Several months later, the APIN NPO conducted a Day of Dialog with key participants to further develop creative solutions applicable to rural and frontier areas.
    - Outcome: Development and dissemination of a document to support the unique needs of rural and frontier communities in developing academic progression programs: *The Guiding Principles for Academic Progression in Rural Communities* (Gerardi, 2016c).
- Concerns were expressed regarding nursing education data throughout the project. The availability of baseline information, familiarity with data sources, and reliability of available data varied from state to state. The metrics for evaluation of the academic progression projects themselves also varied, making comparative evaluation difficult.
    - NPO response: A variety of strategies were adopted to address this issue. In conjunction with CCNA and Campaign for Action consultants, the strengths and weaknesses of various data sources were reviewed in several settings – during monthly calls, at national meetings, via webinar, and through individual consultation with grantees. Several projects conducted

individual surveys of related matters, such as the Massachusetts and New York Employer Surveys. There was recognition of the need to continue advancement despite insufficient data, and program leaders were encouraged not to allow need for data to delay important and challenging work.
    - Outcome: Significant progress has been demonstrated in consistency of data related to nursing workforce educational levels. For many states, strengthened relationships with boards of nursing allowed improvements in data collection and sharing. All APIN grantees were provided with baseline data and subsequent updates from the American Community Survey. Data reporting remains inconsistent across states, however, and there is still a need to define standard metrics of success for the academic progression programs themselves.
- Strengthening diversity of the nursing workforce remains a concern, and the impact of innovative academic progression pathways on student diversity is not clear. Some programs reported early evidence of decreased racial/ethnic diversity within initial cohorts in their innovative pathways. Other projects had anecdotal evidence that their programs were enhancing diversity, but data was lacking for objective comparisons. Many types of diversity can be strengthened by including students who begin their education through the community college. This includes a higher proportion of students from rural areas, first generation college students, and those who are disadvantaged socioeconomically.
    - NPO response: Intentional dialog through monthly calls and conference presentations provided strategies for recruitment, mentoring, and retention of diverse students. APIN grantees were encouraged to track diversity of students enrolling and graduating within their new pathways.
    - Each APIN project site addressed diversity through a variety of mechanisms tailored to their site.
    - Outcome: There is a need for better data to allow evaluation of the impact of innovative academic progression pathways on student diversity.
- Nurse educators and practice partners who were not actively involved with their state Action Coalitions or the Campaign for Action were not well engaged in the work, leaving gaps in outreach.
    - NPO response: Efforts were strengthened for dissemination of information through memberships of the Tri-Council and OADN. A series of publications was disseminated through the AONE bi-monthly newsletter. Presentations were delivered at national and state nursing conferences, including the AACN Baccalaureate Conference, the AACN Deans and Directors meeting, the Western Institutes of Nursing, the AONE annual meeting, the OADN annual meeting and the Community College Baccalaureate Association annual conference. Some individual program leaders have also published and presented nationally on their programs.

- Outcome: Outreach was strengthened, but the need for improved information dissemination across all nursing education programs remains.

Contribution of External Evaluation to the Learning Process

RWJF engaged the TCC group to provide formative and ongoing evaluation of the APIN initiative, which strengthened learning for all (RWJF, 2012c; RWJF, 2013). The TCC Group conducted independent site visits to each APIN-funded site to assess implementation of programs and evaluate outcomes. Its representatives presented updates from the ongoing evaluation at each annual APIN meeting, with a focus on advancing the work of APIN grantees as well as identifying strategies from APIN-funded projects that might help other project sites advance academic progression nationally. Consultants from TCC helped APIN grantees develop and utilize logic maps to build project management capabilities. TCC identified elements of success for APIN projects and noted substantial overlap with elements identified by the APIN NPO. Critical elements identified by TCC included:

- Substantive infrastructure, including assigned roles for specific functions within the team, such as visionary, convener, and organizer.
- A strong coordinator who was able to hold others accountable (TCC's highest priority recommendation).
- Access to data and the ability to understand it.
- Action orientation including willingness to move forward without perfect data.
- Ability to message skeptics.
- Close links with practice partners and nursing employers; acknowledgement of Magnet impact.
- Consideration of the entire spectrum of nursing education, rather than only on RN – BSN education.
- Not being overly focused on determining the specific financial support for nurses to go back to school.
- Strong relationships including with their state Action Coalition.

Source: TCC Group, 2014.

RWJF funded and the IOM conducted a follow-up study to the original Future of Nursing report. Twelve reviewers provided an overview of academic progression work nationally and disseminated the information through a new publication, *Assessing Progress on the IOM Report The Future of Nursing*. In their findings, the reviewers validated the benefit of community college programs in providing entry into nursing for disadvantaged and underrepresented populations (National Academies of Sciences, Engineering and Medicine (NASEM), 2015). They noted overall growth in BSN programs, with some APIN states reporting higher levels than national averages, while acknowledging the uneven outcomes across the nine APIN projects (NASEM, 2015). Reviewers found that, "New models of education, such as partnerships between community colleges and 4-year universities, show promise for increasing the percentage of baccalaureate prepared nurses" (p 81) and recommended promulgation of these models (NASEM, 2015). There was acknowledgement in the report of the important role played by practice partners in driving change in nursing educational levels, and the reviewers recommended that new programs should be

monitored for quality through the accreditation agencies (NASEM, 2015). This report provided independent validation of important learnings developed through the APIN program, especially the importance of community college–university partnerships.

Stretch Goals: A Unique Challenge

Leaders of academic progression projects were uniquely challenged by the fact that they were unlikely to reach identified goals. The size of the existing nursing workforce, the likelihood that nurses near the end of their careers would not choose to advance their education, and the time required to develop academic progression pathways made the goal of a national nursing workforce that is 80 percent BSN-prepared by 2020 exceedingly challenging. The authors of the original IOM Future of Nursing report presented a truly elegant solution to a conundrum that had plagued nursing for decades, and they provided an exciting and motivating goal. Despite substantial progress, the 80 percent goal will not be reached quickly. The sheer volume of the nursing workforce means that national metrics respond slowly to shifting patterns of education.

APIN leaders recognized the impact on grantees of the likelihood that the goals might not be fully met. They provided honest appraisal and intentional conversation to avoid negativity and in some cases shifted project goals to more realistic objectives. The NPO emphasized the nature of rapid-cycle change and group learning, and became the advocate for creation of an infrastructure that would carry the work forward and allow accelerating progress toward the larger objective over time.

Learnings Emerge

Identification of the Partnership Model

The four models of academic progression identified by the CCNA Learning Collaborative provided the initial framework for program development and were subject to change over time.

- The RN – MSN was fairly well established at the outset of APIN, and no project site selected this model for extensive development or evaluation. This model continues to be a successful pathway for educational advancement; in 2015, more than 200 programs were available across the United States. (AACN, 2015).
- The model in which an RN – BSN degree is conferred by a community college has continued, but expansion has been limited to specific geographic regions with small impact on BSN proportions overall (Farmer, Meyer, Sroczynski, Close, Gorski & Wortock, 2017). There is some evidence that limited dissemination is the result of legislative barriers and university resistance, rather than lack of interest (OADN, 2017b).
- The competency-based model came to be viewed as an important component of coordinated curriculum or accelerated models but was not, in and of itself, seen to increase the proportion of BSN-prepared nurses. Several APIN states and other academic progression projects used the associated tools and process to further their work.
- Virtually all APIN projects and other identified leaders in academic progression nationally focused on programs that evolved from the shared curriculum model, in which a collaboration between community colleges and universities allowed students to "transition automatically and seamlessly" (Campaign for Action, 2012). As each project developed the model in different ways, it underwent substantial evolution. A critical commonality across all sites was close partnership between a community college and university, which led program leaders from CCNA and APIN to consider the broader title of partnership model.

Virtually all APIN projects and other identified leaders in academic progression nationally focused on programs that evolved from the shared curriculum model, in which a collaboration between community colleges and universities allowed students to "transition automatically and seamlessly."

This partnership model has shown the best potential to accelerate progress broadly due to several important advantages. Most critically, it moved the dialog between academic institutions from one of competition and conflict to one of cooperation. Developers of the model acknowledged and built upon the existing community college infrastructure, including improved access for underrepresented and economically disadvantaged students. Simultaneously, program leaders recognized and incorporated the expertise of university faculty in delivering baccalaureate content. The model provides a robust opportunity for practice-partner engagement and support. Practice partners in rural areas who have historically been reliant on local community colleges for

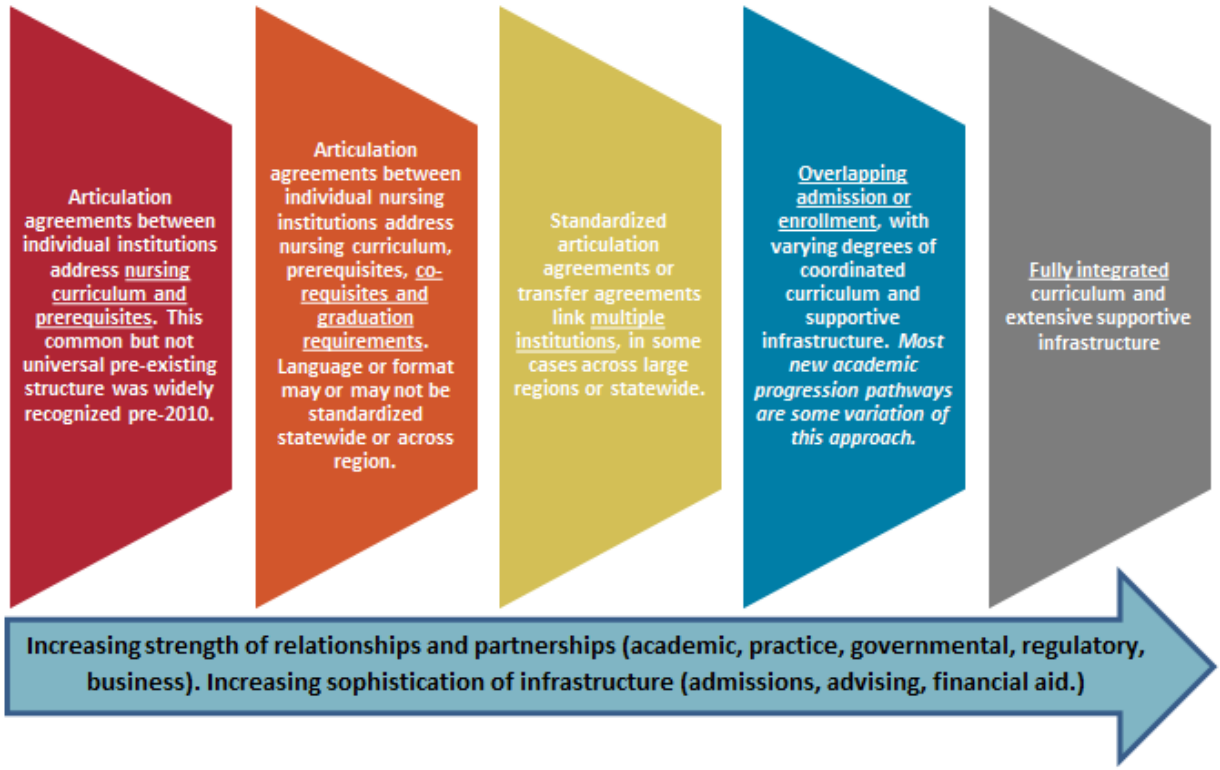
workforce development were able to appreciate the value of this approach.

Partnership Model Development

OCNE created the progenitor of this model, through development of a competency-based shared curriculum across participating schools (OCNE, 2016). Although the OCNE model was established well before APIN began its work, neither outcomes nor dissemination were as transformative as hoped (Munkvold, Tanner, & Herinckx, 2012; OCNE, 2012). Many educators outside of Oregon were unwilling to consider the model due to the perceived need for each academic institution to adopt a standardized curriculum, as was done through OCNE. "It's a great approach, but it won't work here," was a common sentiment.

The current academic progression work has provided important lessons for advancing and disseminating elements of this model on a national scale. Shifting from "shared curriculum" to other paradigms, such as "coordinated curriculum" or "curricular alignment," opened the dialog in many areas. Project sites were demonstrating such a variety of options for implementation that education leaders who had not previously been engaged in academic progression increasingly became intrigued. Dialog shifted from what could not be accomplished to what could. Practice partners had ample opportunity for input and engagement, but the model was able to advance even in areas where employers were less involved.

Community college–university partnerships developed differently across the nation in other ways as well. There was sufficient similarity across sites to allow thought leaders to identify this structure as most useful overall, and sufficient difference to provide comparison across the projects. In each partnership, students with an interest in



obtaining the BSN enjoy a streamlined process, with clearer pathways and less redundancy of coursework, but the benefits and efficiencies become more robust as partnerships evolve. Early partnerships often begin with articulation agreements between individual schools and advance through increasing degrees of collaboration. Programs vary widely in the degree of formal infrastructure and integration of curriculum and can be viewed across a continuum.

National nurse educators have declared clearly their consensus that there is no "one size fits all" academic progression pathway. However, the commonalities among partnership programs and the apparent gradations of outcomes provides some direction for all. The continuum framework allows stakeholders to better recognize their status and to see clearly how other options might be developed.

Basic articulation agreements address needed prerequisites and co-requisites as well as nursing courses, but alignment of curricula may or may not have taken place. All schools maintain autonomy for admission and progression.

An important outcome of work to date is that those pursuing improved academic progression do not need to advance in a modulated stepwise fashion, but rather can model their work on other existing systems as local environments allow. Early outcome data supports higher degrees of integration and infrastructure, but it is not yet clear what *degree* of integration or which specific elements of infrastructure are needed for the greatest efficiency and effectiveness. Further monitoring and assessment of these various approaches is needed.

Continuum of Academic Progression Partnerships: Curriculum and Infrastructure

As the models of academic progression matured, the characteristics of the programs along the continuum became clearer.

- **Basic articulation.** Individual academic institutions provide a clear, current map for students advancing from an associate's degree program to a BSN–granting school. Articulation agreements address needed prerequisites and co-requisites as well as nursing courses, but alignment of curricula may or may not have taken place. All schools maintain autonomy for admission and progression. Partnering institutions define credits for transfer and processes for application and acceptance, improving efficiency. Financial aid is managed by each institution independently, and students may begin BSN coursework without access to further funding support. In addition to inefficient use of financial aid, other barriers may remain if not intentionally addressed, including complex admission and transfer mechanisms, residency requirements from the university, co-requisites and other requirements for graduation, and an excessive number of units needed to obtain the baccalaureate. Partnering schools may reduce redundancy by conducting an intentional evaluation of competencies that are addressed within each curriculum. Students may be encouraged to advance but no formal process links the community college student to university education. Academic institutions face a labor-intensive process of maintaining multiple current articulation agreements, which may

encourage them to streamline through standardization.

- **State- or system-wide articulation or transfer agreements.** Articulation or transfer is standardized across a region or state, allowing streamlined progression with additional supportive infrastructure. This configuration requires some degree of curricular alignment and not all schools within a region or state may choose to participate. Focused advising becomes increasingly important but no formal program application is generally required beyond that of the individual institutions. Students complete AD coursework in conjunction with defined prerequisites and co-requisites for direct advancement to the BSN. Use of a structured competency assessment such as the Quality and Safety Education for Nursing (QSEN) competencies may be helpful in developing this structure. Standardized articulation or transfer agreements may or may not address financial aid or conjoined application. In some regions, students receive preference for admission into the baccalaureate-granting institutions, but they are not within a cohort defined for advancement. Development of broad and well-designed articulation or transfer agreements may result in the programmatic foundations for creation of dual enrollment models.
- **Dual admission or co-enrollmen**t. The defining element of this level of partnership is curricular integration with some overlapping coursework between the community colleges and university. In some cases, this may be minimal, with students completing two or three baccalaureate-level courses in conjunction with their AD coursework, and in other cases there may be substantially more integration of curriculum. Early and accurate advising is critical. In most cases, students entering through the community college and seeking a BSN are identified at a specific time in the program. This may be prior to beginning any coursework or at a defined point in the community college curriculum. Even in its most basic form, the community college student is able to declare an intent and take some steps to continue to the baccalaureate. Application and acceptance processes vary across settings, with virtually all programs capacity-controlled. One exception is the Minnesota-based MANE program, in which all community college students who enter a participating school are automatically dually enrolled with the university. In all other programs, students opting in and accepted to the BSN endpoint are identified as a specific cohort with anticipated direct advancement to the baccalaureate. Course sequencing and overlap vary widely across programs. Program developers have identified a need to increase coordination as overlap between academic institutions increases. APIN teams and other national education leaders found opportunities to minimize barriers and improve efficiency, especially regarding development of clear Memoranda of Understanding between schools, streamlined admissions, and equitable distribution of financial aid. In this model, students are eligible for NCLEX after completion of the AD content and at that juncture may have significant components of the BSN coursework complete. In some programs, licensing at

this point is mandatory; in others, it is optional.

The University of Colorado College of Nursing (CON) has developed a notable variation on the dual admission structure. The Integrated Nursing Pathway supports partnerships with community colleges that do not have nursing programs. The program provides tightly integrated co-advising and addresses financial aid concerns. Once accepted, students complete defined prerequisites and co-requisites at the community college, then attend introductory nursing courses co-taught by community college and CON faculty. They transition to CON for further coursework.

Individual employer policies also affected academic progression. The absence of financial incentives to remain in school is a barrier to academic progression.

- **Complete curricular integration.** Students begin their education at the community college and exit with both an AD and a university-conferred BSN at the completion of the full program, as baccalaureate content is woven throughout the curriculum. In current programs, the BSN endpoint is an option students may select on entry to their AD program. Financial aid is distributed across the student's entire course of study. The AD is still awarded to ensure that both schools are credited with their contribution to each student's education.

Further information on the continuum and evolution of partnership models is available at *www.academicprogression.org*.

Role of Practice Partners

Practice partners have had influence on nursing education programs through multiple mechanisms. Employers identified shortcomings in the preparation of new graduate nurses and voiced concerns about the need for more focus on new models of care (National Advisory Council on Nurse Education and Practice, 2010). Although these concerns were technically independent of academic progression models, the opportunity to contribute to education system redesign was a motivator for practice representatives to join the process. Program leaders were able to role-model the benefits of employers as key partners with nurse educators in curriculum revision, especially those in Montana, New Mexico, and Oregon.

Individual employer policies also affected academic progression. The absence of financial incentives to remain in school is a barrier to academic progression (Munkvold, Tanner, & Herinckx, 2012). Employers that are able to provide financial incentive or assistance with educational costs increased the likelihood of academic progression by AD nurses (Kovner, Brewer, Katigbak, Djukic & Fatehi, 2012). APIN grantees identified several other successful strategies through surveys and other assessments of practice partners. Promotion policies, flexible scheduling, formation of cohorts, on-site education, no-cost use of information technology services, and mentoring all contributed to a culture that encourages nurses to advance their education.

Supporting Practices

Messaging. In addition to support from employers, curricular alignment, and development of infrastructure between community colleges and universities, other key practices have been identified to support academic progression, especially regarding recruitment and messaging. Individual programs have used various methods to advertise and promote their academic progression pathways (NMNEC, 2016; University of Phoenix, 2016; 2016b). The OADN Academic Progression Task Force found messaging by community college faculty to be particularly motivational for students (Donna Meyer, personal communication, February 5, 2017). Researchers from the OCNE program interviewed first cohort students who elected *not* to continue to the BSN and found they lacked the information needed to make an informed choice (OCNE, 2012). Continuation rose from 21 to 30 percent after providing a "transition advisor" to better inform students (OCNE, 2012). Several states found meticulously prepared college advisors to be critical to success and subsequently developed specific methods of communication for this process (NMNEC, 2016b; OCNE, 2012, RIBN, 2017b). Substantial effort has gone into messaging the value of the BSN to various audiences (RWJF, 2013b). Individual states have developed mechanisms to encourage nursing as a career and the BSN in particular to students in middle school and high school. See, for example, content from New York State at *www.academicprogression.org*.

Retention. A number of project sites have addressed retention of vulnerable students. The Montana APIN team developed and evaluated extensive resources for mentoring nursing students (Montana Center to Advance Health Through Nursing, 2016). North Carolina developed a program to train and deploy Student Success Advocates, who promote successful program completion (RIBN, 2011).

Financial Aid. Nurses seeking to advance their education often confront a complex landscape with regard to financial aid. Redundant coursework and excessive residency requirements can keep students enrolled beyond the period of eligibility for financial aid, while the sheer volume of credits needed to graduate frequently exceeds what financial aid will cover. AD graduates returning to complete the BSN commonly learn that they are not eligible for federal financial student aid, such as Pell Grants, because those sources were accessed during their community college program. This is true even if the funds were not fully utilized or were spent for courses that would not articulate to the baccalaureate level.

Many academic progression partnerships have developed creative mechanisms to address financial aid barriers. At a minimum, transfer or articulation pathways may include financial aid guidance that helps students more efficiently and effectively utilize the aid available to them.

Many academic progression partnerships have developed creative mechanisms to address financial aid barriers. At a minimum, transfer or articulation pathways may include financial aid guidance that helps students more efficiently and effectively utilize the aid

available to them. Academic progression programs with integrated or overlapping AD and BSN coursework have embraced additional strategies to reduce barriers to accessing financial aid and to minimize out-of-pocket costs to those students. Chief among these strategies has been the utilization of *Financial Aid Consortium Agreements* developed by the U.S. Department of Education (U.S. Department of Education, 2017). These agreements were specifically designed to allow students to apply financial aid to separate educational institutions in which they are enrolled concurrently or in alternating terms. Lack of familiarity with these agreements among financial aid professionals has been a barrier to utilization of this strategy. They are integral to successful partnerships in New Mexico and Kansas, where students have qualifying federal financial aid distributed across the two institutions in which they are concurrently enrolled. This ensures that students maximally utilize their aid in a timeframe similar to that of a traditional BSN student.

Program Quality

Questions have been raised about the quality of education offered through new models or pathways (NASEM, 2015). Since RN – BSN programs do not create eligibility for licensure, they are generally not reviewed by state boards of nursing, as pre-licensure programs are. (This applies to all RN – BSN programs, not just the more recent pathways.) Aside from state board review, the quality standard for any nursing program is accreditation from national agencies such as ACEN or CCNE. These agencies are relied upon by the U.S. Department of Education to define and evaluate the quality and rigor of nursing programs. All BSN programs developed through APIN funding as well as those featured here maintain full program accreditation. As with all nursing programs, this provides evidence that they have met the standards of quality through continual self-assessment and compliance with defined criteria. Going forward, if additional quality standards for nursing education are widely embraced by the nursing community overall, it will be imperative for new pathways to meet those same standards.

The iterative learning that has taken place would not have been possible without repeated opportunities for educators and practice partners to share strategies, actions, tools, and outcomes for mutual benefit. The convening efforts of the APIN NPO resulted in refinement and strengthening of the learning community, which benefitted all.

Dissemination to Date

The iterative learning that has taken place would not have been possible without repeated opportunities for educators and practice partners to share strategies, actions, tools, and outcomes for mutual benefit. The convening efforts of the APIN NPO resulted in refinement and strengthening of the learning community, which benefitted all. However, it is only recently that the work reached the point at which the NPO could distill key program attributes and early outcomes. When these can be communicated clearly and intentionally, program staff anticipate a further advantage of the partnership option: a relative lack of resistance and possible speed of

implementation by motivated education leaders. A recent development in the evolution of the concurrent enrollment model is the rapid escalation of participation by large online RN – BSN programs.

Other programs are advancing and gaining momentum as well. However, this organic process creates a growing challenge. Although systematic efforts to identify other programs nationally have been limited, APIN NPO staff are aware of similar models under development in Idaho, Illinois, Arkansas, New Jersey, Ohio, and other states. It appears that each of these projects involves a few schools only, and that they are developing in relative isolation from one another, resulting in significant duplication of effort and an absence of centralized evaluation of outcomes.

The APIN project identified and developed successful models of academic progression, and early work to disseminate the lessons learned generated substantial interest. Innovative academic progression pathways remain the exception rather than the rule however, and this is especially true outside of major urban centers. The availability of resources on the APIN and Campaign for Action websites will help those seeking specific tools. This avenue of communication is likely not sufficient for maintaining momentum for the transformative change still needed nationally.

Outcomes

Evaluating National Outcomes

Outcomes in advancing the educational level of the nursing workforce must be examined in context. Researchers have developed and published extensive study data to validate and highlight the need for more highly educated nurses. Nursing leaders and other stakeholders have been messaging powerfully and consistently to RNs that higher levels of education are important. APIN and SIP grantees specifically have devoted extensive time and resources to messaging the need for academic progression and have developed a wide variety of tools for this purpose, including publications, podcasts, PowerPoint presentations, student advisor guides, and other content. Practice partners have had substantial influence on nursing education trends both nationally and regionally.

While all forms of partnership within this continuum improve student progression, outcomes are not equivalent.

Changes in nursing education metrics therefore reflect the combined impact of these efforts and cannot be specifically attributed to any single source, although the Campaign for Action overall has clearly influenced each aspect. Data displayed through the Campaign for Action dashboard (Campaign for Action, 2017) demonstrate clear progress:

- More U.S.-educated nurses have a BSN or higher degree at their entry into practice than at any previous point in history.
- Nurses are returning to school in record numbers. RN – BSN graduations have risen dramatically since the Campaign launched, from 22,531 in 2010 to 56,059 in 2015.
- The overall proportion of employed nurses with a BSN or higher degree in nursing is climbing slowly but steadily, from 49 percent in 2010 to 53 percent in 2015.

Evaluating Individual Program Outcomes

Nursing leaders and other stakeholders need to assess program outcomes in order to identify the most promising elements of progression pathways. APIN project leaders created summative reports in January of 2017, and the NPO distilled those findings. NPO staff and consultants subsequently reached out to other academic progression program sites included in the national convening to obtain any available outcome data. Comparative outcomes would be particularly useful; however, project development sites selected varied metrics to evaluate progress, applying no unifying standard, thus creating a significant challenge. Projects advancing a defined cohort of co-enrolled students are able to track outcomes differently than those attempting influence on a broad number of schools statewide. A few projects have not advanced sufficiently for numeric evaluation. With these caveats in mind, some assessment is still possible and valuable.

All models substantially reduce the time to progression from the AD to a higher degree from the existing baseline of a nine- to 12-year delay (HRSA, 2008; California Board of Registered Nursing, 2012). While all forms of partnership within this continuum

improve student progression, outcomes are not equivalent.

Integrated Curriculum Models. Early evidence indicates that partnerships in which students complete university coursework concurrently with AD content hold the greatest promise for substantially accelerating the proportion of nurses with BSN degrees. Within the relatively small sample of co-enrollment programs with cohorts that have completed the AD portion of the curriculum, the proportion of students continuing to the BSN has increased dramatically, in some cases to more than 80 percent and in all cases evaluated to more than 60 percent. This substantive increase validates the benefit of this approach. However, outcomes still have not matched expectations in some cases. This is particularly concerning since (with the exception of the MANE program) these cohorts include only those students who self-selected a pathway designed for BSN exit, and were then chosen through a competitive process. Virtually all were anticipated to complete the baccalaureate immediately after the AD. The lower-than-expected continuation rate provides the impetus for the *fully integrated* curriculum, in which students enter at the community college but are not licensed until program completion. Those models are also in early stages for evaluation, but current metrics indicate that more than 85 percent of students who begin their nursing education through this pathway will progress directly to successful completion of the BSN. This measure is inclusive of attrition in the AD content.

Early evidence indicates that partnerships in which students complete university coursework concurrently with AD content hold the greatest promise for substantially accelerating the proportion of nurses with BSN degrees.

Articulation and Transfer Models. With the exception of the MANE project, integrated curriculum programs draw from a subset of AD students who have declared an interest in BSN education, and they cannot easily be compared to articulation and transfer models. Prior to the initiation of APIN, it was clear that basic articulation was insufficient to achieve the needed transformation, as these agreements had been longstanding in many communities with minimal impact on the proportion of BSN-prepared nurses. Even among schools that have addressed prerequisites, co-requisites, and nursing courses, curricular alignment alone does not provide the needed impetus for students. Adequate infrastructure for student advising, admission, and financial aid must also be created. Limited data indicate that in these cases the proportion of students who progress may approach 20 percent.

Strengthening that infrastructure improves likelihood of success. Highly developed shared curriculum models using standardized articulation or transfer with solid advising have been shown to triple the proportion of students advancing from the AD to the BSN into the 30 percent range (Munkvold, Tanner, & Herinckx, 2012; personal communication, Angela Spencer, March 10, 2017). These students may advance after a delay of some years, however. In one very small sample (22 students) a new direct transfer agreement in

Washington resulted in more than 40 percent of AD graduates advancing to the BSN. For other newer models, comparative evaluation is hampered by lack of standardized metrics, and by the time lag between program development and students reaching the decision point at which they exit with the AD or continue to pursue the BSN. For students who do exit, programs have not been in place long enough to evaluate the proportion who return for continuation within a defined timeframe.

The NPO has compiled a brief overview and summary of academic progression models and their outcomes to date, including those from both APIN and non-APIN funded sites (See Appendix A). More time and additional evaluation are needed to clarify and validate the early findings in evaluation of progression pathways.

Incidental Learning and Additional Benefits

Beyond specifics of academic progression, APIN and the related efforts of the Campaign for Action have resulted in substantial benefits that will continue to influence nursing professional development in the years ahead. In addition to the development of academic progression models themselves, many APIN states used grant funds to complete other substantive projects to advance nursing education. The NPO has provided a summary of these accomplishments, available with full descriptions at *www.academicprogression.org*.

The creation of a national community of nursing educators inclusive of both community colleges and universities is having a profound impact. The candor and collegial spirit of this group has provided an opportunity for frank discussion of model strengths, shortfalls, and challenges. Promising practices from all areas have been shared and consolidated. The recognition of common effort toward a common goal resulted in a fellowship and camaraderie that generated a commitment not only to the work, but also to one another. This represents transformative change in the nursing education community, which can be directly attributed to the Campaign for Action.

New leaders have emerged across the nursing community in relation to the work of education transformation. The creative and highly complex nature of the work along with the mandate for improved relationships required unique skills, and many individuals rose to the occasion. Role modeling, mentorship, and team development resulted in identification and fostering of new young leaders.

The NPO itself experienced key learnings that may be useful to others. Conducting site visits after grants were awarded, rather than before, allowed project staff to accurately assess and support individual grantees. The relatively poor understanding of outcome measures would have been better addressed earlier, although there was value in teaching grantees to move beyond counting in evaluating the impact of their work. Supporting program leaders who were working with volunteers was challenging. Identifying sooner the importance of designating individual project coordinators at the state and grantee level might have expedited work in some states. Developing trust between grantees and project staff required time, but ultimately created a safe space to discuss successes and challenges and was key to the progress individual

projects made. Outreach to key national partners beyond the funded grantees greatly expanded both the understanding of promising practices and the sphere of influence of the project.

The Path Forward

Extensive work remains to more fully evaluate these very new programs, continue disseminating findings, and support expansion of successful programs. The academic progression projects have not yet demonstrated sufficient momentum to allow the process of national education transformation to be self-sustaining. Academic progression in nursing overall has benefitted from increased attention, new programs, and employer demand. However, nursing education has a long history of response to market forces, including the reduction of educational requirements in response to labor shortages (Donley & Flaherty, 2008). Current market projections for nursing vary from supply outpacing demand (United States Health Resources and Services Administration National Center for Health Workforce Analysis, 2014) to a continuation or worsening of the nursing shortage (Carnevale, Smith, & Gulish, 2015). The extent to which education transformation might be "undone" by a market shift is unclear but concerning. A retreat from the progress to date creates a risk of perpetuating nursing's 50-year stagnation on the issue of educational preparation for practice. Nursing leaders must collaborate to respond effectively to this potential threat. Consolidating and continuing the gains will require continued centralization of this work in the immediate future, to allow comparative evaluation of outcomes, identify the most cost-effective pathways, evaluate impact on diversity, and relieve expensive, redundant efforts by individual schools that are redesigning education pathways.

Needed Next Steps

The APIN NPO recommends the following specific actions to bolster progress and reach the goal of 80 percent of the nursing workforce prepared at the level of the baccalaureate and beyond.

- Complete dissemination of findings to date.
  - Continue development of a web-based repository of information.
  - Expand efforts to message through publications and presentations.
- Determine a central place and organization(s) to lead the ongoing work to convene, coordinate, and facilitate academic progression efforts nationally.
- Standardize data metrics specific to evaluating outcomes of academic progression pathways. Assess which programs are most successful at getting and keeping students in the baccalaureate pipeline and determine impact of statewide transfer agreements and other methods. Create replicable metrics to evaluate individual models' enrollments, progression, and graduation rates, including diversity data at all points of measurement.
  - Develop replicable metrics for reporting the number and proportion of AD students who advance directly to the BSN or remain within a fully integrated pathway program.
  - Develop replicable metrics for reporting the number and proportion of AD students who return for the BSN within a defined period (1-2 years).

    - Centralize data into a repository for evaluation.
- Develop a standardized method for evaluating impact of innovative academic progression pathways on diversity. Address any trends related to loss of diversity within these pathways.
    - Evaluate impact of inclusive mechanisms of student recruitment and support structures such as mentorship.
- Complete an environmental scan to identify other examples of the partnership model in place or under development.
    - Evaluate the total number and characteristics of co-enrollment models or other similar initiatives.
    - Identify LPN – BSN or medic – BSN pathway options that would benefit from links to work in progress.
- Improve coordinated outreach to deans and directors of nursing programs nationally.
    - Expand outreach beyond the CFA Action Coalitions through statewide deans and directors groups to ensure adequate inclusion.
    - Incorporate the resulting broadened constituency in future discussions and strategic planning.
    - Strengthen roles of national organizations devoted to nursing education, ensuring institutionalization of the mission of academic progression.
    - Develop a structure of guidance for schools of nursing across the United States seeking more efficient and effective partnership models to ensure all nursing students entering a community college pathway have access to seamless progression to the BSN.
- Continue strengthening the role of practice partners.
    - Ensure continued collaboration on curricular development to ensure employer needs are addressed, especially the education of nurses for new roles outside of acute care.
    - Strategize adaptation to market shifts to prevent loss of progress.
    - Ensure institutionalization of support for academic progression within practice settings.
- Further evaluate the impact of messaging and recruitment on the number and proportion of prospective students who select into the AD vs BSN pathway.
    - Messaging requires nuance in view of the evidence linking patient outcomes to nursing education levels and the fact that prospective students require accurate and complete information.
    - Offer successful methods of messaging and recruitment to new programs.

Conclusion

The APIN project has facilitated development and evaluation of successful academic progression pathways. Over four years, a variety of models and methods have been created and expanded. Individual APIN projects have been linked to one another and to other education and practice innovators nationally, creating a powerfully aligned community.

This group has identified intentionally designed partnerships between community colleges and universities as the model most likely to generate an 80 percent BSN-prepared workforce and members have further explored and defined specific characteristics of the model most likely to enhance success.

The APIN NPO has centralized preliminary outcomes for review and has developed a construct to show the continuum of partnership options. The continuum provides an opportunity for other regions to assess their status and begin making progress toward structures that improve outcomes. APIN and other project leaders have created an array of tools for program development, which can be helpful to others.

The APIN program has generated meaningful progress toward the goal of a more highly educated nursing workforce, and the NPO strongly recommends that national nursing leaders seize the opportunity to fully realize the benefits of this substantial investment.

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Appendix A: Summary of Programs Implementing the Partnership Model of Academic Progression

A brief overview of academic progression pathways developed by APIN grantees and others is presented below. APIN grantees conducted substantive work in addition to developing academic progression pathways. A brief summary is provided in Appendix B. For more detailed information on APIN-funded projects, see *www.academicprogression.org.*

Nursing education leaders have developed several variations of the partnership model. All substantially reduce the time for an AD nurse to achieve a BSN from the existing baseline of nine to 12 years (HRSA, 2008; California Board of Registered Nursing, 2012). These programs fall into one of two broad categories: those with co-enrollment or integrated progression pathways and those utilizing common curriculum, articulation, or transfer agreements. Absolute numbers for many of these programs are small, as extensive program development preceded student enrollment. Project leaders anticipate that outcomes from new academic progression pathways will increase more quickly in the years ahead. *Individual programs have unique configurations, and for that and other reasons, metrics cannot always be compared directly*. (See "Evaluating Individual Program Outcomes" on page 22 for further details.)

Integrated Progression Pathways

Four APIN grantees developed variations of co-enrollment or integrated progression pathways (California, New Mexico, New York, and North Carolina). The APIN NPO invited program leaders from five additional sites with integrated progression pathways to collaborate with grantees in advancing this work nationally (Colorado Integrated Nursing Pathway, MaricopaNursing Concurrent Enrollment Program, Minnesota Alliance for Nursing Education, University of Kansas Community College Nursing Partnership, and University of Phoenix Concurrent Enrollment Program).

Except for the Minnesota program, all integrated progression pathways have capped enrollment, and outcome measures for these pathways include only those AD students who opted in—a self-selecting population not likely to be representative of all AD students. In most programs, acceptance into the integrated pathway is competitive and selected students may be more likely to succeed than the general population of AD students.

Integrated Progression Pathways: APIN-Funded

California. California State University, Los Angeles (Cal State LA) initially developed partnerships with seven community colleges, providing a pathway for AD students to complete the BSN within four years through co-enrollment. The program is capacity-controlled and students apply and are selected during the second semester of nursing coursework at the community college. After completing prerequisites and their first year of the nursing education at the community college, students take selected baccalaureate content during summer sessions. They receive the AD after four semesters of nursing content and must pass the NCLEX to continue.

Outcomes to date: *Of the students who successfully completed the AD component, 87 percent (200/229) advanced directly into the baccalaureate coursework and 87 percent of those eligible completed the BSN in one academic year*. The model has expanded and currently involves 12 community colleges in partnership with Cal State LA, as well as 19 university campuses and more than 50 community colleges in other areas of the state. The California Collaborative model championed by Cal State LA is on track to add nearly 1,200 new BSN-prepared nurses a year to the California workforce.

New Mexico. The New Mexico Nursing Education Consortium (NMNEC) created a statewide common curriculum at both the AD and BSN levels, providing seamless integration across all programs (NMNEC, 2016). State-funded programs formed co-enrollment partnerships between community colleges and universities providing the opportunity for students to complete AD and BSN coursework simultaneously. The program is capacity-controlled, and students apply at the outset of their nursing education. Baccalaureate content is woven through the curriculum. All courses are completed within the home community, generally at the community college itself, although BSN content is delivered by the University. The AD and baccalaureate degree are awarded together after completion of all content. Both traditional AD and BSN options remain intact in New Mexico.

Outcomes to date: *In the initial cohorts enrolled in this model, 85 percent (121/143) of students progressed directly to completion of the BSN. Program design is such that attrition includes students exiting at any time over the course of their nursing education, i.e., these progression rates are not comparable to programs evaluated based on the proportion of AD graduates who advance. Attrition rates in traditional pre-licensure BSN programs often exceed 20 percent (ACEN, 2015)*. As a direct result of NMNEC, pre-licensure BSN capacity in New Mexico has increased 42 percent and will increase further with full implementation. In the 11 schools offering the NMNEC common curriculum, BSN-enrolled students outnumber ADN-enrolled students by 34 percent, with an anticipated increase to 45 percent in 2017-18. NMNEC has provided extensive materials and consultation to other states evaluating academic progression models.

New York. New York developed a partnership model that provides simultaneous admission to the AD- and BSN-granting institutions in a "1+2+1" model. The program is capacity-controlled and students opt in prior to enrollment via a competitive application process. Students complete foundational courses during their first year at the university and nursing core content through the community college during the second and third years. They receive the AD at the end of their third year and are eligible for licensure. They return to the university (where they have maintained enrollment) for the final year and the subsequent awarding of the BSN.

Outcomes to date: *Of the students who successfully completed the AD component within two years, 84 percent (84/100) advanced directly into the baccalaureate coursework and 100 percent of those students completed the BSN in one academic year*. It is important to note that in this model, students enter the pathway before completing prerequisites, and higher attrition is to be expected. New York reports 12 institutions actively engaged with the model, including public and private schools, a hospital-based program, urban and rural locations, and institutions varying in size from enrollments of 100 students to more than 16,000.

North Carolina. The Regionally Increasing Baccalaureate Nurses project (RIBN) supports community college-university partnerships in eight regions across the state. In participating regions, programs provide dual enrollment at a community or private college and a university through a shared four-year curriculum (RIBN, 2017). The program is capacity-controlled and students apply at the outset of their nursing education via a competitive application process. Baccalaureate content is woven throughout the curriculum from the outset. Students complete the first three years at the community college with one online university course each semester. Students receive the AD at the end of their third year and must pass the NCLEX to continue. The BSN is awarded at the conclusion of the fourth year.

Outcomes to date: *Of the students who successfully completed the AD component, 78 percent (71/91) advanced directly into the baccalaureate component and 79 percent of those eligible completed*

the BSN in one additional academic year. During the grant period, the number of students enrolled in the RIBN program increased from 16 in the initial pilot to more than 500 in 2016.

Integrated Progression Pathways: Non-APIN-Funded

Colorado Integrated Nursing Pathway (INP). The Colorado INP is the only program evaluated that provides a pathway for students from community colleges that do *not* have an independent nursing program. The program enrolls students after completion of most prerequisites at the community college. Students are then dually enrolled and spend an additional year at the community college within a defined cohort, completing the remainder of nursing-specific prerequisites as well as introductory nursing courses co-taught by community college and university faculty. The program provides dual advising, guidance for financial aid, and socialization to the university environment from the time of acceptance (Goode, Preheim, Bonini, Case, VanderMeer & Iannelli, 2016). Students receive a non-nursing AD at the conclusion of their final year at the community college and advance seamlessly to the university, where they complete the BSN within an additional two years.

Outcomes to date: *Of the students who were accepted into the program, 85 percent (164/192) advanced directly into the baccalaureate component and 90.5 percent of those eligible completed the BSN in one additional academic year.*

MaricopaNursing Concurrent Enrollment Program (CEP). The MaricopaNursing Concurrent Enrollment Program (CEP) began within the Maricopa Community College district, which includes eight community colleges and five universities. Students apply to the CEP pathway at the outset of their nursing education, take one to two courses at the university, then pursue additional baccalaureate degree content concurrently with their Associate of Applied Sciences (Maricopa Community Colleges, 2015). Each school maintains some degree of autonomy and students from any of the community colleges may enroll at any of the participating universities. Infrastructure, such as participation in the financial aid consortium, varies by school. Students are eligible for NCLEX after completion of the AD. The program was originally designed for BSN graduation after one to two additional semesters of study. However, students have driven an accelerated pathway, and most now graduate with both degrees simultaneously.

Outcomes to date: *Of the students who successfully completed the AD component, 89 percent (584/659/) advanced directly into the baccalaureate component, and 97 percent of those eligible completed the BSN within one additional academic year*. This model is being adopted by other schools in Arizona and elsewhere, and principals report more than 60 percent of Maricopa Community College students are concurrently enrolling in the CEP program (personal communication, M. Schultz 3.3.17).

Minnesota Alliance for Nursing Education (MANE). MANE is an alliance of eight academic institutions and practice partners that have created a dual admission BSN program (MANE, 2016). Students enter either at the university or at the community college and progress through a concept-based curriculum. All community college students from participating schools are automatically dually admitted; they do not specifically opt into a BSN track. They receive an Associate of Science degree and are eligible for NCLEX after completion of semester five, and conclude with the BSN after semester eight.

Outcomes to date: *Of the students who entered via the community college and successfully completed the AD component, 35.4 percent (382/1028) advanced directly into the baccalaureate component and 80 percent of those eligible completed the BSN in three additional semesters*. *Note this baseline includes all students who entered at participating community colleges*. The MANE Dual Admission Manual is an exemplar of student resources. MANE now has cohorts of 840 to 850 students each academic year (Faye Uppman, personal communication, June, 2016).

University of Kansas. The University of Kansas (KU) program, like the one in New Mexico, provides a fully integrated curriculum. Faculty at the University of Kansas School of Nursing completed extensive evaluation of the Essentials of Baccalaureate Education to ensure that content was inclusive and complete. Students enter the community college, and those who meet criteria may apply to KU for concurrent coursework. Community college courses are completed on campus, and KU courses are completed online. Students complete both programs together and license at the conclusion of the combined coursework (University of Kansas Medical Center, 2016).

Outcomes to date: *In the initial cohorts enrolled in this model, 93.5 percent (57/61) of students are graduating or progressing without interruption*. *The pilot cohort was limited to eight students, five of whom completed without interruption*. Although the program is quite new, more than 25 percent of entering AD students at the initial community college pilot site are now opting into the BSN partnership (University of Kansas Medical Center, 2016). Four additional community colleges in Kansas have joined the partnership and others are expressing interest (Nelda Godfrey, personal communication, March 2017).

University of Phoenix Concurrent Enrollment Program. The University of Phoenix (UoP) began offering a Concurrent Enrollment Program (CEP) in 2013. The program has active partnerships with community colleges in seven states and programs in development in five more. Students at participating community college programs enroll as a cohort with UoP and begin taking bachelor's coursework while completing the AD. UoP works with representatives from each school to ensure alignment of coursework. Courses are generally offered during term breaks, rather than simultaneously with the AD curriculum. After graduation with the AD, students continue to complete BSN courses with UoP, and are able to obtain the BSN in less than one year (University of Phoenix, 2016).

Outcomes to date: *Of the students who successfully completed the AD component 74.7 percent (71/95) advanced directly into the baccalaureate component, and 89 percent of those eligible completed the BSN in one additional academic year*. The UoP program is growing rapidly, and currently has more than 225 students enrolled.

Shared Curriculum, Transfer or Articulation Pathways

Five APIN grantees fostered academic progression by linking universities with AD-granting institutions through shared curriculum, transfer agreements, or articulation models (Hawaii, Massachusetts, Montana, Texas, and Washington). In addition, the APIN NPO invited program leaders from OCNE to collaborate with grantees in advancing work nationally. OCNE was the originator of the statewide shared curriculum model and has continued robust work in refinement of that model.

Most transfer or articulation models do not cap enrollment, although participating schools may do so. All students who graduate from a participating AD program are eligible for advancement to the BSN without additional coursework. Students must still apply and be accepted by the BSN-granting institution, although this process is generally streamlined. Some programs include all nursing schools statewide; others are regional or include only schools that have opted in. Outcome measures are more difficult to capture and must be evaluated in view of the larger pool of AD students who made no intentional choice to pursue baccalaureate education. These models might best be evaluated against a baseline of the proportion of nurses without access to an academic progression pathway who nevertheless advance from AD to BSN within a defined time frame, but data on this point is limited. The 2008 sample survey of RNs indicated that 12.1 percent of AD-educated nurses returned for a BSN after licensure, and that they averaged 7.5 years between degrees (HRSA, 2008). Delay between degrees was substantiated more

recently through the 2012 state survey in California, which showed an average of 9.4 years between nurses obtaining their AD and completing a subsequent BSN (California Board of Registered Nurses, 2012).

Shared Curriculum, Transfer or Articulation Pathways: APIN-Funded

Hawaii. University of Hawai'i Manoa partnered with three community colleges in a shared curriculum model. Schools of nursing conducted evaluation and alignment of individual courses within their curricula. Students complete the first three years at a participating community college campus, where the curriculum includes content and support courses for direct matriculation to the university. There are no capacity controls aside from those associated with the individual nursing programs. Community college campuses retain autonomy for admission, progression, and granting of the AD. Application and admission processes to the university are standard. Students license at the completion of the AD.

Outcomes to date: *Of the students who successfully completed the AD component, 17.9 percent (127/709) advanced directly into the baccalaureate component, and 88 percent of those eligible completed the BSN in one additional academic year.*

Massachusetts. Massachusetts created a transparent and seamless path for academic progression across all public two- and four -year nursing programs through development of the Nursing Education Transfer Compact (NETC). The compact simplifies transfer of credits earned in an AD program to an RN – BSN program. Students completing the requirements defined in the compact will have their credits accepted by all nursing programs offered by public colleges and universities, statewide. No capacity controls exist aside from those associated with the individual nursing programs. Students who have completed the AD with a minimum grade point average of 2.75 receive additional benefits: admission fee to the RN – BSN program is waived, no admission essay is required, and preferential admission is offered based on availability.

Outcomes to date: The NETC was approved as a state Department of Higher Education policy in March 2015 and full implementation is in process. *The policy has not been in place for a sufficient period to evaluate the proportion of students who will advance directly to the BSN through this program*.

Montana. Montana promoted academic progression through development of a seamless curriculum spanning the LPN, RN, BSN and beyond. The new curriculum was approved by the state Board of Nursing and Board of Regents in early 2016. APIN grantees also assisted with development of new nursing program education pathways including an RN – MSN program.

Outcomes to date: The first cohorts of students following the new curricular model were enrolled in fall of 2016, with additional schools scheduled to enroll students in 2017. *The curriculum has not been in place for a sufficient period of time to evaluate the percentage of students who will advance directly to the BSN through this program*.

Texas. Texas developed the Consortium for Advancing Baccalaureate Nursing Education in Texas (CABNET) program, which improves seamless transfer from institutions granting the AD to those providing BSN education. This is achieved through standardization of articulation agreements between individual schools. Community colleges identify their prerequisites, general education, and core curriculum, and individual universities determine which are acceptable for admission to their programs. In addition, Texas has developed and promoted an optional standardized concept–based curriculum. No capacity controls exist aside from those associated with the individual nursing programs. However, students must attend schools that maintain active articulation agreements.

Outcomes to date: The CABNET program has expanded substantially, with 12 universities and 24 community colleges signing agreements. The concept-based curriculum has been adopted at 17 AD programs and two universities. *The percentage of students who utilize the program to advance directly to the BSN is not known.*

Washington. Washington created an optional standardized curriculum for AD programs, resulting in a seamless transfer option in the form of state-approved "Direct Transfer Agreement/Major Ready Program" (DTA/MRP). Students at participating community colleges complete coursework and receive an Associate's DTA/MRP Degree. They are eligible for licensure and can apply to any in-state RN – BSN-granting institution as having met all criteria for entry into their nursing programs as well as having met all general education requirements. There is no specific opt-in, although students must select both AD- and BSN-granting institutions that participate in the DTA/MRP curricular pathway. No capacity controls exist aside from those associated with the individual nursing programs in participating schools. Once admitted, students can complete their BSN in one additional year.

Outcomes to date: The DTA degree program has been initiated at 43 percent of Washington state's community college RN programs and all in-state public and private RN – BSN programs. In 2015-2016, 600 AD nursing students were enrolled in these programs, with 300 expected to graduate in June of 2017, allowing larger numbers for evaluation. *Of the small number of students who successfully completed the AD component in the initial small cohort, 50 percent (11/22) advanced directly into the baccalaureate coursework. That cohort is in the final year of BSN completion and has not yet advanced to the point of graduation*.

Shared Curriculum, Transfer or Articulation Pathways: Non-APIN-Funded

Oregon Consortium for Nursing Education (OCNE). OCNE was the originator of the statewide standardized nursing curriculum model and the earliest national leader in intentional academic progression pathways, with the first cohort of students admitted in 2006 (OCNE, 2012). OCNE currently represents a partnership of 11 community college and five university campuses (all branches of Oregon Health & Science University (OHSU)). Students enter at any participating community college and follow a competency-based curriculum (OCNE, 2016). They can receive an Associate of Applied Science in nursing, take NCLEX after two years of nursing curriculum, and are then eligible for direct continuation to baccalaureate content.

Outcomes to date: *Of the students who entered via the community college in the first three years (2006 to 2009) and successfully completed the AD component, 30 percent (228/760) advanced into the baccalaureate component at OHSU. (Munkvold, Tanner & Herinckx, 2012). Between 2012 and 2016, 1,376 students graduated from participating community colleges and 452 graduated with a BSN through OHSU, with an additional 136 in progress. However, some of the BSN graduates may have begun in earlier years, and students may also have opted to complete a BSN through other avenues. OCNE metrics do not allow evaluation of how promptly after graduation AD students advanced.*

Appendix B: Summary of APIN Project Sites' Grant-Funded Work in Addition to Development of RN – BSN Academic Progression Models

Several APIN grantees developed academic progression models that yielded measurable student progression rates during the grant period. These have been summarized in Appendix A. Further details on all aspects of APIN grantee projects are available at *www.academicprogression.org*.

Note: Standard data sources were used to evaluate metrics whenever possible. Some states also provided internal metrics, included here but not verified by the APIN national program office.

California

- Assisted in further development and dissemination of the California Collaborative Model of Nursing Education across the state.
- Created infrastructure through the College of Professional and Global Education for sustainability of the selected model at the California State University, Los Angeles pilot site.
- Advanced a goal to enhance diversity of the nursing workforce through increased enrollment of Hispanic students across all nursing programs and within the RN workforce, as well as an increase in the proportion of African American students within the academic progression program itself.
- Fostered employer support for a more highly educated nursing workforce, with gains in the proportion of employers who prefer or require the BSN, those who provide salary differentiation, and those who provide tuition reimbursement.
- Addressed challenges in completion of the BSN by new graduate RNs through focused interaction with employers to ensure scheduling accommodation and recognition of the organizational value of student success.

Proportion of Employed Nurses with a BSN or Higher Degree

California	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)
RNs with BSN or higher	54.3%	50%	57%

Data source: American Community Survey (ACS) or through state level survey.
Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN Enrollments and Graduations

California	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	2,376	3,544	49%
RN – BSN graduations	850	1600	88%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Hawaii

- Served as a catalyst for development of a statewide sustainability plan for ongoing efforts to increase the percentage of baccalaureate prepared nurses.
- Transitioned the leadership and mentoring program components into undergraduate education curricula for the University of Hawai'i Statewide Nursing Consortium academic progression partners.
- Mapped prerequisite BSN courses for local institutions in comparison with Campaign for Action and APIN recommendations, and met with nursing education leaders from each partner school to encourage alignment.
- Engaged with employers and practice partners to facilitate progression of AD RNs, including an assessment of such supportive practices as tuition reimbursement, hiring preferences, onsite education, flexible scheduling, and promotion policies.
- Supported diversity with a specific goal of increasing the number of Native Hawaiian/Pacific Island graduates with BSN degrees, resulting in a 540 percent increase, from 5 in 2011 to 32 in 2016.
- Facilitated development and offering of an Executive RN – BSN pathway.
- Implemented a strategic marketing plan to encourage both AD students and nurses to complete the BSN, including a social media campaign, printed brochures, infographics, and a video.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

Hawaii	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	58.9%	58.3%	52.9%	68%

Data source: American Community Survey (ACS) or through state level survey. Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN enrollments and graduations

Hawaii	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	30	85	183%
RN – BSN graduations	18	118	556%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Massachusetts

- Promoted BSN education through focused messaging, including development and dissemination of a brochure entitled, "Step Ahead with a Bachelor's of Science Degree in Nursing," and creation of a brief report entitled, "A Case for a Greater Percentage of BSNs in the Post-Acute Setting."
- Developed a diversity and inclusion plan in conjunction with the Massachusetts Action Coalition Diversity Advisory Group.
- Evaluated and addressed concerns about nursing faculty with resultant publications and presentations. Developed resources to support nursing faculty including mentoring resources and an extensive orientation program for clinical faculty, utilized by more than 600 faculty members to date.
- Designed a Centralized Clinical Placement Nursing Faculty Database to facilitate connections between nursing programs and faculty candidates.
- Promoted integration of the Nurse of the Future Nursing Core Competencies© across all education and practice settings, including dissemination of a related toolkit. Contributed substantially to review and update of the competencies, and to creation of related competencies for LPNs.
- Accelerated the proportion of BSN-prepared nurses and worked to increase nursing diversity through support of LPN – BSN pathways.
- Enhanced impact through additional funding support by the Massachusetts Department of Higher Education's Nursing and Allied Health Initiative. Four additional grant-funded projects aligned with the APIN initiative to support development or enhancement of RN – BSN programs and LPN – BSN pathways, including one specific to military veterans.

Proportion of employed nurses with a BSN or higher degree in nursing

Massachusetts	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	59%	53.2%	56.3%	58.2%

Data source: American Community Survey (ACS) or through state level survey. Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN Enrollments and Graduations

Massachusetts	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	1,426	2,372	66%
RN – BSN graduations	377	851	125%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Montana

- Developed a statewide plan to incentivize and facilitate nurses continuing their education, the BSN Education Initiative. (Employer incentives may include direct salary differential [and differentiated

practice] for a BSN, tuition reimbursement, scholarships or loans for school, flexible scheduling, use of facility technology, etc., to promote academic progression.)

- In conjunction with multiple stakeholders and nursing practice partners, developed a seamless pathway for nursing academic progression from LPN to ASN to BSN and beyond. The new pathway was approved by the Board of Nursing in 2016 and is now being implemented.
- Supported changes by the Board of Nursing to the Nursing Education Program Rules to facilitate nursing education program development and expansion.
- Enhanced the scale and sustainability of nursing education work through use of additional funding provided through a Department of Labor HealthCARE grant.
- Assisted individual schools with program development, including the first new BSN program in Montana that has been approved in 78 years.
- Created a mentoring program for RN and RN – BSN students, with subsequent presentations and publications. Developed a mentoring workshop, "Art of Mentoring in Nursing," and expanded outreach through use of distance education technologies useful in rural and remote areas.
- Supported enhanced diversity of the nursing workforce pipeline with a special focus on Native American populations, including assistance in developing a new tribal college nursing program and site visits to all tribal college programs.
- Expanded a program for nursing preceptor training and recognition, including provision of the program to cohorts of participants outside the state.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

ACS sample size for Montana is too small to create reliable data; statewide survey with licensure also resulted in low response rates but indicated proportion of RNs with a BSN or higher was 54.9 percent in 2010 and 56.4 percent in 2012.

RN – BSN Enrollments and Graduations

Montana	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	89	298	235%
RN – BSN graduations	17	110	547%

Data source: American Association of Colleges of Nursing, Research and Data Services.

New Mexico

- Participated in a statewide program for high school students exploring career options, presenting options in nursing.
- Conducted a diversity assessment of all 18 schools participating in NMNEC to evaluate programmatic efforts to work with diverse populations.
- Researched and developed a document *Creating a Diverse Nursing Program: Rural Pipeline Program Best Practices.*
- Provided seed funding for Pipeline Programs in three schools to support diverse students.

- Expanded engagement with nursing employers through inclusion of two clinical partners within the Leadership Council and worked to increase employer demand for BSN-prepared nurses through targeted outreach via workshops and meetings.
- Pursued sustainability through a variety of strategies, including grants and ongoing relationships with the state Higher Education Department.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

ACS sample size for New Mexico is too small to create reliable data; statewide survey with licensure indicated proportion of RNs with a BSN or higher was 50 percent in 2015

RN – BSN Enrollments and Graduations

New Mexico	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	197	331	68%
RN – BSN graduations	93	168	81%

Data source: American Association of Colleges of Nursing, Research and Data Services.

New York

- Provided broad support for academic progression through intentional messaging and identification of leaders.
- Monitored and disseminated academic progression data statewide.
- Evaluated employer practices in support of BSN education through baseline and follow-up survey.
- Enhanced diversity of the nursing workforce pipeline through focus on recruitment and retention of under-represented students, including development and dissemination of the *Nursing Profession Resource Guide for School Counselors.*
- Surveyed clinical partners to evaluate practices related to cultural sensitivity and inclusion.
- Created an 18-month evening and weekend Accelerated Dual Degree Partnership designed for adult learners with a non-nursing BA/BS degree.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

New York	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	49.2%	47.2%	53%	57%

Data source: American Community Survey (ACS) or through state level survey. Data compilation courtesy of Joanne Spetz, PhD. State Data source: HANYS Nursing and Allied Health Care Professionals Workforce Surveys, 2015.

RN – BSN Enrollments and Graduations

New York	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	5576	8546	53%
RN – BSN graduations	1304	2850	119%

Data source: American Association of Colleges of Nursing, Research and Data Services.

North Carolina

- Facilitated statewide RN – BSN articulation agreement between North Carolina Community Colleges System and University of North Carolina, including statewide standardization of RN – BSN prerequisites; program subsequently also adopted by private nursing programs.
- Explored feasibility of expanding academic progression model (RIBN, See Appendix A) to include LPNs.
- Supported enhanced diversity through expanded membership of the North Carolina Action Coalition Executive Committee and via focused attention on recruitment and retention strategies.
- Strengthened partnerships with nursing employers, especially through the Transition to Professional Practice webinar and the Transition to Professional Practice & Employment collaborative.
- Conducted an annual survey of Chief Nursing Officers to evaluate issues related to the nursing workforce, including expansion into public health settings.
- Enhanced sustainability through use of additional funding provided by the Jonas Center for Nursing Excellence Partners Investing in Nursing's Future, The Duke Endowment, the NC Area Health Education Centers, and the Kate B. Reynolds Charitable Trust.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

North Carolina	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	42.8%	44.7%	46.9%	51.3%

Data source: American Community Survey (ACS) or through state level survey. Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN Enrollments and Graduations

North Carolina	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	1520	3028	99%
RN – BSN graduations	838	1457	74%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Texas

- Implemented an optional statewide concept-based curriculum (CBC), promoted via publications and online. The CBC has been adopted by two universities and 17 community colleges, with sustainability addressed through formation of the Texas Nursing CBC Consortium.
- Created a series of webinars to assist faculty in teaching RN – BSN students with limited clinical experience, incorporating input from an RN – BSN faculty survey.
- Developed and deployed a survey for new AD graduates to assess NCLEX pass rates and progression to baccalaureate coursework.
- Contributed to a statewide 2 percent increase in diversity of the nursing workforce through a series of regional meetings with more than 1,300 participants.
- Completed two articles addressing issues related to nursing workforce diversity.
- Developed a mentorship program with 195 mentor/mentee dyads in place.
- Supported 10 new rural BSN graduates in completion of a Transition to Practice program and evaluated perceptions of both participants and nursing CNOs about the program.
- Developed two survey instruments for possible future use, one to assess competencies of new graduate nurses and the other to evaluate employer support for academic progression in rural hospitals.
- Supported academic progression through messaging via a website and distribution of relevant documents.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

Texas	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	50.4%	48.8%	53.2%	55.4%

Data source: American Community Survey (ACS) or through state level survey. Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN Enrollments and Graduations

Texas	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	3,348	9,811	193%
RN – BSN graduations	1,298	3,427	164%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Washington

- Assessed promising practices to expand access, capacity, and quality of RN – BSN programs, resulting in a comprehensive report, *RN – BSN programs in Washington state*.
- Developed a diversity mentoring program for nursing students.
- Created a video for K-12 students, *Exploring Your Future in Nursing;* and one for nursing students and nurses in practice,) *Advancing Nursing Education, Advancing Health* to promote academic progression in nursing. Both videos were disseminated widely to school counselors, workforce development partners, and media contacts in the state of Washington and nationwide.
- In collaboration with nursing education leaders, provided two statewide workshops to enhance faculty and community health provider development to support diversity.
- In collaboration with the Washington State Nursing Students Association, the Council on Nursing Education in Washington State, and the Washington State Nurses Association, gathered information via online survey and in-person meetings to develop a report and recommendations on how to increase recruitment and retention of diverse students.
- Supported development of strategies and policies to promote academic progression within the workforce through formation of a statewide Practice Partner Group, including a broad group of stakeholders. The group developed a description of the academic progression needs of RNs working in rural areas, an online toolkit for leaders, and an online video for RNs considering additional education, *Advancing Nursing Education/Advancing Health*.

Proportion of Employed Nurses with a BSN or Higher Degree in Nursing

Washington	2009 (American Community Survey Data)	2012 (American Community Survey Data)	2015 (American Community Survey Data)	2015 (State-supplied Data)
RNs with BSN or higher	48%	51%	53.2%	69%

Data source: American Community Survey (ACS). Data compilation courtesy of Joanne Spetz, PhD.

RN – BSN Enrollments and Graduations

Washington	8/1/09 to 7/31/10	8/1/14 to 7/31/15	Increase
RN – BSN enrollments	679	710	5%
RN – BSN graduations	329	461	29%

Data source: American Association of Colleges of Nursing, Research and Data Services.

Support for this publication was provided by the Robert Wood Johnson Foundation. The views expressed here do not necessarily reflect the views of the Foundation.

The APIN program was originally funded by the Robert Wood Johnson Foundation from 2012 to 2017 and managed by the American Organization of Nurse Executives.