

DRAFT AACN VISION FOR NURSING EDUCATION POSITION STATEMENT

Environmental Scan ***Current State and Trends***

This document looks at the trends and projected changes in healthcare, higher education, population demographics, learners and learning styles, nursing workforce, and patient/populations needs. Built on these trends and relevant assumptions, AACN's vision for nursing education, which meets the needs of a dynamic and global society, is presented. Recommendations address education pathways, overarching curricular changes, and learning methodologies to move nursing towards a preferred vision.

Changing Higher Education

Higher education has been subject to shrinking federal and state funding, rising tuition, aging infrastructure, variation in funding sources, fluctuations in available resources, and changing demographics of enrollees (Chronicle of Higher Education, 2014). Traditional higher education models, including faculty structures, governance models, and curricula can limit flexibility and create barriers to innovation. Recent trends being developed, such as the open access online courses, short courses that award micro-credentials or badges, tuition models based on the number of enrollees in the course, and the growing availability of distance learning opportunities, are challenging traditional approaches to higher education.

The development and awarding of micro-credentials or badges by education institutions is a growing trend. One study found that more than 90 percent of educational institutions are offering credentials and digital badges, in part, to serve the millennial students who favor badging and certificates to traditional degrees (Bratcher, 2016). A badge is a visual representation of an accomplishment, achievement or skill acquisition but not a formal degree. Digital badges have emerged as a documentation of community engagement, professional development and accomplishments. Badges recognize incremental learning in visible ways and can support career development (Educause, 2018). A related phenomenon is stackable credentials which are credentials such as badges that can be accumulated over time and help one along a career trajectory (Department of Labor, 2015).

Competency-based education has emerged in the health professions to address criticisms of contemporary approaches to training (Frank, JR, et. al, 2010). Medicine has identified Entrustable Professional Acts (EPAs) and is developing competencies for the post-graduate residencies (Englander, R. et al., 2013; Hicks, et al, 2010). The discipline of physical therapy has identified common competencies that graduates of physical therapy programs are expected to demonstrate prior to graduation. In addition, the Physical Therapist Clinical Performance Instrument provides a validated, standardized, assessment tool that is available for programs to use to document attainment of the expected competencies (Roach, et.al., 2012).

Charged with educating the nursing workforce of the future, a proactive response to the changing landscape of higher education and the demands of employers, prospective students, and the

public by those in academic nursing is critical. To ensure that graduates are ready for contemporary practice this requires faculty who have an awareness of the evolving changes and a commitment to regularly adapting curricula, teaching strategies, and student learning assessment. Further, inculcating graduates with the knowledge, skills and values for embracing change through career-long learning is paramount.

Changing Learners

Across the educational spectrum, students are calling for changes in how they are taught given the changes in how they learn. Today's learners are composed of the Millennials (1977-1995) and Centennials (born after 1996) and also Generation Z (1998-present) which is sometimes included with the Centennials. Baby Boomers (1946-1964) returning to school to re-tool or pursue new career options also make up today's learners. Each learn differently and have preferences and characteristics that necessitate modifying curricular offerings and learning opportunities. Millennials are "digital natives" and have the perceived ability to multi-task. Centennials are the iGeneration (iGen) who have been referred to as "digital natives on steroids." Centennials have not known a world without social media or the immediacy of web searches and information at their fingertips. They prefer using a check list approach and do not embrace our societal conventions which views seat time as a benchmark for higher education. Generation Z values entrepreneurship and innovation, self-reliance, social and racial equality, and project-based learning around real-world problems (Seemiller & Grace, 2016).

In addition to traditional first-time college students seeking an education and degree, second degree learners are returning to school in greater numbers to retool their skills to better meet workforce demands. Learners are seeking second degrees to be competitive in the workplace and obtain marketable degrees and skills that afford them a preferred lifestyle. Faculty today must retool their teaching strategies to accommodate the styles of this diverse population of learners, both first degree students (pedagogy) as well as adults returning to school (andragogy). These shifts in generations will require a metamorphosis of the education enterprise as we now know it.

Changing Learning and Practice Technologies

The use of learning technologies is transforming higher education toward a semi-permeable learning ecosystem with blurred boundaries between formal and informal learning systems and greater opportunity for connectivity and active engagement. The technology explosion requires faculty to have a clear understanding of the push-pull of technology; the utility of technologies in transforming the teaching-learning experiences; and the availability, acceptability, affordability, and accessibility of technology to enhance learning. As technologies evolve that clearly enhance the teaching-learning experience availability and affordability for all institutions and learners must be considered. A balance is needed between competition and collaboration among institutions and the increased availability of technology-driven teaching methods, the rising cost of tuition, and the proven effectiveness of learning technologies.

Recent advances in educational neuroscience – a term used to describe the interrelationship between neuroscience, teaching strategies, and psychology – has resulted in new understandings associated with how the brain learns. This area of science provides evidence for best practices in teaching to include strategies that engage the learner in challenging and purposeful learning, and where reflection on that learning is incorporated.

A growing emphasis for learning involves promoting active learning, e.g., the flipped classroom movement and personalized-paced learning. Priming for classroom learning, both actual and virtual, by creating self-study, guided exposure to concepts and content (knowledge), followed by teacher coaching of knowledge application in the classroom holds much promise to accelerate learning. An example of technology as an adaptive learning tool that is already commonly found is the online use of problem-based learning. Learners are guided through multiple steps where previous knowledge must be recalled and applied to make decisions in order to progress through a problem-based unfolding case study.

Access to online education and new technologies is growing. Increasingly, a design-build approach is being used with pairing of faculty with an instructional designer to promote innovation and effective teaching methods in the classroom. Such approaches help address limited resources, rising education costs, and demands to expand enrollments as well as diverse student learning styles. New models being developed, including large, introductory courses taught by a team, typically a professor, preceptor for small group facilitation, and a teaching assistant, create a multi-pronged educational approach to facilitate student-centered instruction.

Today's nursing graduates are called to deliver quality care in increasingly technologically enhanced settings, which includes an electronic health record used to order interventions, document treatments and the patient's reaction to treatments, and communicate across the care team. Technologies, including artificial intelligence, are emerging rapidly to support diagnostics, patient monitoring, care delivery, and care outcomes evaluation and trending.

Changing Faculty Availability and Mix

The aging of the nursing faculty workforce is creating pressure to adapt our education models. Although faculty are delaying retirement much longer than in the past, in 2015 31 percent of full-time faculty were over 60 years of age (Fang & Kesten, 2017). Therefore, projections were that retirements between 2016-2025 would equal one third of the 2015 employed faculty workforce. However, on a more positive note, the proportion of faculty age 44 or younger increased from 19% in 2006 to 24% in 2015. While the delayed retirements might prevent hiring less experienced faculty, potentially at lower cost, hiring sufficient faculty to meet program needs is the current challenge. In 2016, 48% of all nursing programs (baccalaureate, master's and doctoral) reported insufficient number of faculty as one of the primary reasons for not admitting all qualified applicants (AACN, 2017).

In the face of evolving educational models and sometimes to meet financial challenges and shortages of faculty, the number of adjunct faculty has been steadily increasing. Within widespread national dialogues raising questions on the costs, purpose and value of the academic

enterprise, the current model of tenure and traditional criteria for hiring and promotion are being examined. To better suit the institutional mission, many schools have instituted both clinical or practice and research faculty tracks for recruitment, promotion, and tenure of faculty. Due to the differential in academic and practice salaries, concerns have been raised about fewer nurse clinicians choosing to enter academia (Fang & Bednash, 2015). This fuels a call for new models of faculty mix and utilization and the need to develop robust partnerships with the practice community (AACN 2016). Growing options for practice and research within industry and the clinical services enterprise have provided alternatives to academic careers for nurse scholars. With the growth of the practice doctorate and the need to maintain advanced practice licensure, new academic workload models incorporating faculty clinical practice and enhanced academic-practice relationships are emerging.

Maintaining active engagement in practice ensures that what is taught reflects current practices, increases faculty credibility with practice, and enhances the relevance, applicability, and implementation of research. Stronger collaboration both formal and informal between academia and practice also is important to position nursing in a leadership role in healthcare delivery (AACN, 2016).

Changing Healthcare Systems

In an effort to spur broader access to an enhanced patient experience, better quality care and provider work life and all at a reduced cost, the U.S. healthcare delivery system is undergoing constant change. Needed are adaptable, creative individuals who are able to work with diverse populations while being agile to respond to the fluctuating business needs and reimbursement realities. Reimbursement is moving from service-based payment to value-based purchasing. Integrated-care systems are emerging which require coordination, not only across settings, but across the care and lifespan continuum. With scientific discoveries growing exponentially, including new technologies, knowledge of genetics, treatments, and pharmacologic agents, health care is growing increasingly complex.

In addition, the rise of personalized health care has the potential to transform the traditional patient care experience. Precision health, which is frequently called precision medicine, refers to the use of biologic markers to make accurate predictions regarding an individual's risk for health conditions, and/or best treatment options for existing conditions. The technologies for precision health already exist and may lead to a significant shift in care delivery from standard to individualized treatments and from treating conditions to preventing conditions. This shift will occur in conjunction with a growing emphasis on population health and the social determinants of health. However, regulatory policy, reimbursement, and clinical adoption of available options have been slow to change. The implementation of precision health approaches in clinical practice requires an increased awareness and understanding of these advances by the current and future healthcare workforce. The new approach to care requires that we rethink what we teach – what knowledge, skills, and attitudes will be necessary to provide this individualized approach to care.

Nurse employment settings are shifting from the most expensive venues – inpatient facilities and emergency departments - to more ambulatory and primary care settings over the past few years. Care is becoming convenient with more mobile and technology enabled e-visits or e-encounters

available any place and any time. Shifting care delivery to retail, community or home settings has the potential to produce cost savings, a shift in workforce distribution, and requisite skills. Healthcare systems are revising strategic goals and reorganizing services to move more care outside of the inpatient institutions. The American Hospital Association reported that from 2008 to 2012 outpatient visits rose from 624 million to 675 million while inpatient visits decreased from 35.7 million to 34.40 million (Vesely R., 2014). Urgent care clinics employing growing numbers of advanced practice registered nurses (APRNs) deliver simple services at a 72% savings over emergency departments and project growth to 12,000 urgent care clinics by 2019 (Rechtorsis, 2016). The increasing use of telehealth as well as the growth of non-hospital settings will affect the RN and APRN nursing workforces.

Changing Nursing Workforce

Today's nurses work in complex, integrated healthcare delivery systems. With patients and families experiencing multiple transitions across care settings, nurses need to have higher level skills to support safe transitions and minimize fragmentation of care. Growing demands for an increasing number of baccalaureate and higher-degree prepared nurses, require new education models, particularly new clinical education models. Strong academic-practice partnerships are needed to co-design clinical education that is relevant and reciprocal ensuring graduates are prepared to practice in the continually changing healthcare system and solidifying nursing's influence on efficient and effective care delivery models. To improve healthcare outcomes and the overall health of the population nursing faculty will need to prepare nurses with a solid skill set to practice across settings, provide care to diverse populations, address the social determinants of health, and minimize health disparities.

In 2016, the Josiah Macy Jr. Foundation brought together leaders in nursing education and primary care to examine current education along with best practice. This led to proposed actionable recommendations for re-balancing nursing education; and specifically a call to encourage RNs to become leaders in primary care teams, practicing to their full scope of practice to improve the health of the American people (J Macy Foundation, 2016). The lack of primary care content in the curricula of most nursing schools, including both didactic content and clinical experiences, was noted; especially that RN education continues to emphasize in-patient hospital nursing. As most faculty are likely not prepared to teach primary care nursing, this was addressed as a need. Nurses must partner with others to transform our healthcare system into one that promotes the health of individuals, families, and communities, including preventing and better managing chronic illnesses.

The Macy report must be considered in light of the 2017 report *Supply and Demand Projections of the Nursing Workforce 2014-2030*, from the DHHS, HRSA, Bureau of Health Workforce, and the National Center for Health Workforce Analysis (U.S. DHHS, 2017). This report highlighted the inequitable distribution of the nursing workforce across the United States. With regard to the concern about a shortage of registered nurses, the greater problem is with the distribution across states particularly in rural areas. Rural communities are greatly affected by the maldistribution of healthcare professionals, which significantly impacts primary and acute care access. Areas with higher proportions of low-income and minority residents, such as rural areas, tend to suffer most from a lower supply of health care providers. The number of working RNs per capita has

remained lower in rural areas than in urban areas, and the salaries of RNs who live in rural areas remain lower than urban-residing. The variables that impact the maldistribution of workforce include lower reimbursement levels, less ability to recruit and retain health professionals, higher rates of uninsured or Medicaid/Medicare, and fewer rural training sites. Most future health professionals come from urban areas, as rural students often experience educational disadvantage in terms of preparation in math and science and development of successful academic/learning skills (National Rural Health Association, 2012; Rural Health Information Hub, 2018).

The nursing workforce demographics have changed slowly. The United States is steadily becoming more diverse. According to the U.S. Census Bureau in 2016, minority groups comprised 38.7% of the population. If these population trends continue the minority population will be the majority by 2043. However, the nursing workforce remains predominately White with minorities comprising 24.5% of the workforce (U.S. Census Bureau, 2016). Diversity within the nursing workforce—in terms of race/ethnicity and sex—is desirable because it can improve both access and care quality for minorities and medically underserved populations (Laveist, TA & Pierre, G., 2014). Holistic admissions review is defined as a flexible, individualized way of assessing how an applicant will fare as a student and as a future professional and member of society (AAMC, 2014.) Other health professions, particularly medicine (91%), dentistry (98%), pharmacy (78%) and public health (78%) have adopted holistic admission processes (Urban Universities for Health, 2014). Research has shown that holistic admissions review practices can increase diversity across students without decreasing the workforce preparedness and academic success of students (Glazer, et al, 2016).

Changing Regulation of Nursing Practice

The National Council of State Boards of Nursing (NCSBN), a not-for-profit organization whose members include the state and territorial boards of nursing, administers the national licensing exam, NCLEX-RN). The NCLEX-RN is the national exam used by all 50 states and territories as well as the Canadian provinces to license all entry-level registered nurses. The licensing exam is based on a job analysis of newly licensed nurses conducted every 3 years (NCSBN, 2018). Due to the increasing complexity of decisions being made by newly licensed nurses, NCSBN has announced that it is piloting new testing formats and assessment items known as the next generation of NCLEX (NCSBN, 2018c).

In 2002 the AACN Task Force on Education and Regulation I report stated that it was not feasible at that time to engage in efforts to differentiate the license for baccalaureate and associate degree nursing graduates (AACN, 2002). In 2003, a second task force (TFER II) was charged with identifying the knowledge and skills that would be needed by future nurses to address the many gaps in healthcare and improve outcomes. The TFER II report, *White Paper on the Role of the Clinical Nurse Leader*, delineated the education outcomes and expectations for a new master's prepared nurse. The AACN Board in addition to approving the white paper passed a motion to assume leadership in the development of a new legal scope of practice and credential for the new master's prepared nursing professional, the Clinical Nurse Leader (CNL). The CNL Certification exam was launched in 2007; over 6,000 master's prepared nurses have been credentialed through this examination.

Regulation of advanced practice registered nurses (APRN) has varied by state and by APRN role since their inception. In the early 1990's NCSBN began its involvement with APRN regulation by developing model legislation for APRN licensure and core competencies. In 1995, NCSBN began working with national APRN certifiers to make the examinations suitable for regulatory purposes (NCSBN, 2018). In 2004 in response to growing variability among state boards of nursing requirements for advanced practice registered nurse (APRN) licensure/certification, AACN and the National Organization of Nurse Practitioner Faculties (NONPF) initiated the dialogue known as the APRN Consensus Group and then the APRN Joint Dialogue Group which brought the work of the Consensus Group together with that of NCSBN. In 2008 the final report of the Joint Dialogue Group, *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education*, was released and endorsed almost immediately by 40 national nursing organizations (Consensus Work Group and NCSBN APRN Advisory Committee, 2008). Implementation of the new regulatory model by all organizations engaged in any aspect of the model has been ongoing since 2008. To date 16 states have fully implemented all aspects of the model and another 10 have implemented a majority of the model's requirements. The goal of the model is to provide standardization in APRN regulation for the over 267,000 APRNs in the U.S. thereby improving mobility across states as well as increased access to APRN care (NCSBN, 2018 b).

Vision for Nursing Education

The Vision for Nursing Education Task Force has extensively reviewed and thoughtfully considered the many issues delineated above. Built on these trends and validated assumptions, a vision for nursing education was developed which meets the needs of a dynamic and global society and a diverse patient population. Recommendations address education pathways, overarching curricular changes, faculty preparation, and learning methodologies which move nursing towards this preferred vision.

General Recommendations for All Levels of Nursing Education

Nursing Workforce Recommendation

AACN members have affirmed the need to address pervasive inequities in health care by ensuring the preparation of nurses able to meet the needs of all individuals in an increasingly diverse American society. AACN and its member schools committed to accelerating diversity, inclusion, and equity initiatives to prepare the current and future nursing workforce to be reflective of the society it serves while simultaneously fulfilling society expectations and needs (AACN 2017 b). Therefore the recommendation to advance this goal is:

1. Schools of nursing will use holistic admissions review practices.

Competency-based Education and Assessment Recommendations

At the national level, consensus is building for preparing health professionals via competency-based, time variable education (Macy, 2017). Academic leaders are calling for transition to programs that are more strongly competency-based with mastery of competencies variably paced for individual success. The move to competency-based education and assessment of standardized

competencies meets the needs of clinical preceptors and employers who are currently frustrated by the diverse expectations of students entering clinical experiences as well as new graduates.

2. All nursing education, both at the entry-level for professional nursing practice as well as advanced nursing practice education transition away from time- or credit-based education to competency-based, time variable education.
3. Schools or programs of nursing be required to document that the required national, consensus-based competencies are achieved prior to graduation using national validated methods; however, the curricular process and design would be determined by the program/school.
4. AACN to facilitate the development of nationally recognized competencies using a consensus based process that engages diverse stakeholders from academia, practice, and regulation. This would be similar to the Association of American Medical Colleges' (AAMC) Entrustable Professional Acts (EPAs).
5. Subsequent to adoption of the nursing competencies entry and advanced clinical practice, AACN to facilitate the development of standardized competency assessment tools or methods to facilitate the valid assessment of students prior to completion of the nursing program..

Transition to Practice Recommendations:

6. With the growing complexity of healthcare and diversity of practice settings, schools of nursing and practice entities jointly offer optional, accredited (by a Department of Education recognized entity), post-graduate transition to practice programs for both entry-level and advanced nursing graduates.
7. To address the variable needs of employers and nurses, schools of nursing and practices entities jointly offer short courses or modules (separately or within post-graduate transition to practice programs) focused on specific areas of practice and preferably designed to award academic credits that promote competency enhancement and career advancement.

Faculty Shortage and Scarce Resources Recommendations:

Increasing costs and scarcity of resources in higher education and health professional education, including the faculty shortage, are projected to grow. A shortage of qualified and/or experienced faculty at each nursing school puts educational quality at risk and jeopardizes consistent student exposure to critical competency-based knowledge and skills and guidance by expert faculty.

8. To assure high quality through increased content standardization, address the faculty shortage and better utilize scarce resources and expertise, regional consortia of nursing schools share in providing core and optional/elective courses or areas of content for entry-level and advanced nursing. This could be similar to the western regional consortium, i.e. (NEXUS) or done centrally through an AACN coordinated repository/service.

9. Regional learning (simulation) centers provide access to current and new technologies for students and practicing clinicians.

Academic – Practice Interface Recommendations

In light of the recognized need for educational transformation that will improve the health of the public and create a workforce matched to healthcare delivery, there is a clear need to develop academic-practice partnership models that go beyond what is evident today. Models that include multi-school and multi-practice partnerships as well as regional coalitions are needed. Important is that Nursing has an influential voice in designing and implementing healthcare policy, systems and delivery. Academic nursing must be a strong and active participant in dialogues with practice partners and policy makers. Stronger academic-practice partnerships are needed such that nursing faculty are engaged in the clinical practice of the health system and clinical services are more closely connected to the academic mission of the school of nursing (AACN, 2016).

Recommendations are:

10. AACN-AONE principles for academic-practice partnerships adopted by all schools of nursing (AACN-AONE, 2014).
11. Schools of nursing in partnership with practice institutions implement the recommendations delineated in *A New Era for Academic Nursing*.
12. In addition to the broad, high-level goals and purposes described above, academic-practice partnerships include engagement around:
Co-curricular design and implementation
 - Joint faculty appointments and identification and preparation of preceptors and mentors for students and new graduates
 - Development of optional transition to practice programs
 - Joint participation in health professional, research teams

Faculty Preparation and Career Advancement Recommendations

Dialogues regarding how best to prepare individuals for the faculty role transcend all health professions and other higher education disciplines. Faculty preparing the next generation of graduates are required to hold a terminal degree in the area in which they are teaching and have current expertise in that area. As in other disciplines (e.g. engineering, business, law), the major focus of the education program must be on the area of practice specialization within the discipline, not the process of teaching. However, individuals who desire a role as an educator whether that role is operationalized in a practice environment or the academy should have additional preparation in the science of pedagogy to augment their ability to transmit the science of the profession they practice and teach. Supporting faculty to obtain the necessary knowledge and skill set is important and several recommendations are proposed:

13. Additional preparation occurs as optional, formal course work during one's graduate academic program (either a DNP or PhD program).
14. Schools of nursing or the university/college provide an orientation or onboarding as well as mentorship for faculty new to the role.
15. Optional/elective coursework is offered as a post-graduate badge/credential for those interested in an academic career.

16. Faculty development across one's career is essential and reflects changes in healthcare and higher education, i.e. new discoveries in learning science, IP team care and education, and healthcare and learning technologies.
17. All faculty remain current in their area of expertise, which requires active practice and engagement in a practice or clinical setting.
18. Faculty mix of expertise in practice and research is appropriate; faculty with degrees and programs of research in education and other disciplines should be included as determined by the mission and needs of the institution.
19. Teaching teams include individuals with expertise in instructional technology and other advances in learning.
20. Leadership development opportunities are provided to faculty to provide for career progression as well as growth and sustainability of the profession.
21. AACN leads in the design and implementation of a multidisciplinary Center for Teaching and Learning to showcase and support the development of innovative learning, experiential, and curricular models, for both didactic and clinical learning.

Entry-Level Professional Nursing Recommendations

Based on the current state and assumptions delineated above, for the purposes of recommendations:

22. The baccalaureate degree in nursing is adopted as the minimum preparation for registered nurse licensure and entry into the nursing profession.
23. Achieving this in reality means degree programs are offered in universities/four-year colleges or in partnership with community colleges or other four-year colleges/universities. Models of partnerships are identified in the Academic Progression in Nursing (APIN) final report, a Tri-Council for Nursing initiative. (Gerardi, 2016)
24. An imperative is that AACN, in partnership with other organizations, i.e. American Organization of Nurse Executives (AONE) and the National Council of State Boards of Nursing (NCSBN), facilitate this transition.

25. Entry-level Education and Curriculum Recommendations

Currently, entry-level nursing education prepares graduates primarily for acute care. With the growing complexity of healthcare systems and the increasing move of care to the community, entry professional nurses need to provide team-based care across a variety of venues.. To meet these needs, entry-level professional nursing education should prepare a generalist for practice across the lifespan and continuum of care in four areas or spheres of practice. (Lipstein, S.H. et al, 2016)

- Prevention/promotion of health and well-being includes the promotion of physical and psychological health in all patients as well as management of minor acute and intermittent care needs of generally healthy patients;

- Chronic disease care which includes management of chronic diseases and prevention of negative sequela;
 - Regenerative or restorative care which includes critical/trauma care, complex acute care, acute exacerbations of chronic conditions, and treatment of physiologically unstable patients that generally requires care in a mega-acute care institution; and,
 - Hospice/palliative/supportive care.
26. Programs encompass didactic, simulation, and clinical field learning opportunities in diverse settings, including community primary care, long-term care, acute care, hospice, and virtual care settings. Specific recommendations include:
27. Beginning competencies for person care, care transitions and coordination, and population health are mastered within the four spheres of care, which are not setting specific. For example a long-term care (LTC) facility may encompass all spheres of practice except the regenerative (critical/trauma) sphere.
28. Substantial clinical experiences are provided within appropriate areas/sites that reflect the four spheres of care and include combinations of experiences in acute care, ambulatory, primary care, LTC, palliative care, or other relevant settings.
29. Strong academic-practice partnerships are forged to design and implement innovative, contemporary clinical or field experiences.
30. Substantial (time and type of experiences) immersion experiences are available to all entry-level learners encompassing one or more of the four spheres of care near the end of the degree program.. The experiences are designed to integrate learning into one's clinical practice, increase care competencies, provide continuity, and increase confidence in performing as a generalist nurse.
31. Expected competencies for generalist, entry-level nursing practice include observable and measurable competencies across the four spheres of care. Competencies in the areas of professionalism, ethics, legal aspects of practice, critical thinking, evidence-based practice, social determinants of health (SDOH), assessment, communication, mental health, care coordination, and interprofessional team practice are threaded and assessed across the four spheres of care.
32. As described in the general recommendations, optional, transition to practice programs for baccalaureate or master's entry nurses are offered in any of the four spheres: prevention/promotion of health and wellbeing, chronic disease care, regenerative (critical/trauma) care, and hospice/palliative care.
33. Courses in specialty areas are offered as stackable credentials or badges within an academic program or as part of a life-long program of learning/career development. These are designed and offered by schools or in conjunction with practice and address identified needs of employers and changes within the healthcare system.

Entry to the Profession Master's Degree Recommendations:

34. As the complexity of healthcare delivery and patient/population health needs continue to grow, education preparation for the entry to professional nursing practice is expected to evolve to a generalist master's degree. Generalist master's degree programs require students to enter with a minimum of a bachelor's degree in another field.
35. In addition to the entry-level professional nursing competencies previously mentioned, nursing entry into the profession transition toward providing education for strengthened

- competencies in organizational and system's thinking, quality improvement and safety, care coordination, interprofessional communication, and team-based care and leadership.
36. As pre-RN licensure students, graduates from generalist master's entry-level degree programs, in addition to sitting for the NCLEX-RN®, sit for a certification exam that provides assurance of the additional competencies. This is in alignment with the recommendation of the AACN Task Force on Education and Regulation II.
 37. Eventually, it is envisioned that as entry-degree credentialing moves from a bachelor to a masters' level, the RN licensure examination will evolve to encompass testing of the master's entry competencies. This also assumes that advanced nursing practice evolves to require a practice doctorate. Masters' degrees in indirect practice domains, e.g., leadership, health informatics, public health, or others, are envisioned to evolve to the doctoral level.
 38. While transitioning to this future vision for nursing education, post-baccalaureate master's degree programs with an emphasis on systems, quality improvement and safety, evidence-based practice, care coordination, interprofessional communication, and team leadership should continue to prepare graduates for practice at the point of care. These master's degree programs address the needs and gaps in the current healthcare system as well as provide opportunities for nurses to advance their careers through graduate education, assume greater accountability for care outcomes, and continue practice at the point of care.

Advanced Nursing Practice Recommendations

The changes in higher education and the growing complexity of healthcare have significantly impacted the entire nursing workforce, including those prepared at the advanced nursing practice level. A shift to a practice doctorate from a special practice master's degree is already in effect. Changes in health care and demands for improved outcomes and reduced costs have created exciting opportunities for nursing. For the future, the following are recommendations for schools of nursing:

39. The practice doctorate in nursing (DNP) is the minimum level of preparation for advanced practice registered nurse (APRN) practice and all other areas of advanced nursing practice which encompass direct care and systems or indirect nursing practice.
40. All advanced nursing education programs have a standardized core (advanced level courses) that incorporates advanced systems and design thinking (knowledge acquisition, assessment, development and application and analytics).among other topics such as leadership, ethics, epidemiology, data analysis, health informatics, and health policy. Implementation of an advanced nursing or doctoral core would allow students to move more easily from one track or degree to another as well as standardize the expected outcomes of advanced nursing education.
41. After completing the advanced nursing core, students choose one of two pathways: 1) direct clinical care or 2) systems/indirect nursing practice and pursue mastery of the national competencies delineated for that pathway or track.
42. The direct clinical care pathway can include the presently recognized four Advanced Practice Registered Nurse (APRN) roles: certified nurse-midwife, certified registered nurse anesthetist, clinical nurse specialist, and nurse practitioner. The systems/indirect care pathway can include: executive leadership/ nursing administration, health informatics, health policy, public health, and quality/safety.

43. All practice doctoral education includes an immersion, practice experience in an appropriate setting/population reflecting the track or area of advanced nursing practice. It is recommended that a final DNP project be integrated into the immersion experience.
44. Opportunities to complete a nursing science doctorate (PhD in Nursing) are available in an appropriately streamlined path.

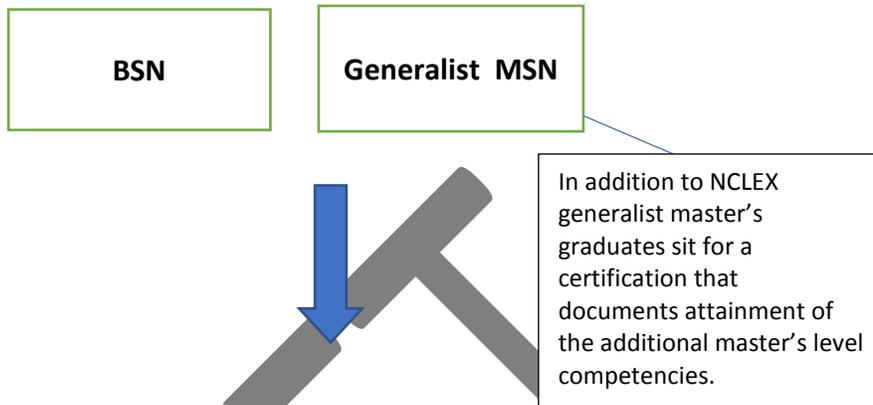
PhD or Research-Focused Education Recommendations

The PhD in nursing/health science degree prepares for the conduct of health-related knowledge generation through research. PhD nursing/health science programs are open to those holding a baccalaureate or higher degree in nursing and to individuals with a minimum of a bachelor's degree in a related discipline. The PhD coursework prepares the individual for the conduct of individual and group research, including interprofessional or nursing practice research and translational science.

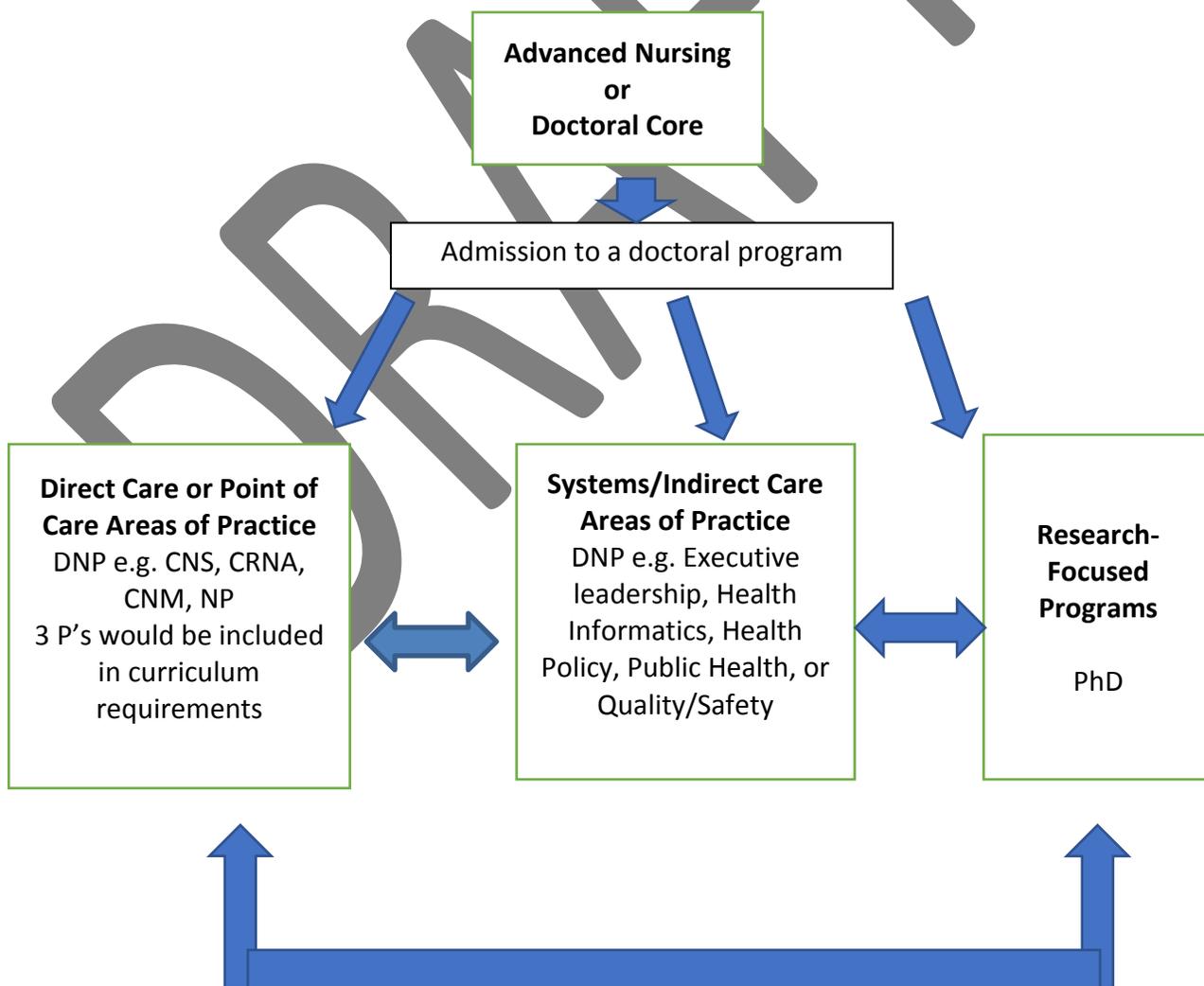
45. A path from the DNP to the PhD and from the PhD to the DNP is offered in research-intensive schools of nursing.
46. Individuals moving from the PhD to the DNP complete the advanced nursing core as part of the program of study.
47. DNP and PhD graduates are eligible for academic positions relevant to their degree, background and experience.
48. DNP and PhD education prepare graduates with an understanding and experience with PhD/DNP scholarly teams to reinforce how the unique skill set of each degree is critical to the development of new knowledge and application of best evidence.

VISION FOR NURSING EDUCATION EDUCATION PATHWAYS

ENTRY TO THE PROFESSION



ADVANCED NURSING STUDY



Glossary

Patient – Includes individuals, families, groups, communities, and populations (AACN, 2008, p.7)

Competency- based education – Competency-based education (CBE) is an approach to preparing [clinicians] for practice that is fundamentally oriented to graduate outcome abilities and organized around competencies derived from an analysis of societal and patient needs. It deemphasizes time-based training and promises greater accountability, flexibility, and learner centredness (Frank, J.R., et al, 2010).

Competency based education - Learners progress by demonstrating the competencies they need to perform optimally as health professionals across the span of their careers through the various states of formal education, including transitions from one stage to the next (Macy, 2017).

Competency - An observable ability of a health professional, integrating multiple components such as knowledge, skills, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition (Frank JR, Snell LS, Cate OT, et al., 2010).

Competence - The array of abilities (knowledge, skills and attitudes) across multiple domains or aspects of performance in a certain context. Competence is multi-dimensional and dynamic. It changes with time, experience, and settings (Frank JR, Snell LS, Cate OT, et al., 2010).

Generalist entry-level master's degree – Entry-level or 2nd degree master's program that admits students with baccalaureate degrees in other disciplines and no previous nursing education. The program prepares graduates for entry into the profession and awards a master's degree in nursing (Fang, D., Li, Y., Kennedy, K.A. & Trautman, D.E., 2017).

Stackable credentials - A sequence of credentials that can be accumulated over time and move an individual along a career pathway or up a career ladder (Department of Labor, 2015).

Badge – a visual representation of an accomplishment, achievement or skill acquisition – more granular than a formal degree but helps to make incremental learning more visible. (Educause, 2018)

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