The Doctor of Nursing Practice:
Current Issues and Clarifying Recommendations

Report from the Task Force on the Implementation of the DNP

August 2015

Introduction

The AACN Position Statement on the Practice Doctorate in Nursing (AACN, 2004) changed the course of nursing education by recommending that advanced nursing practice education be moved to the doctoral level. A decade later, the Doctor of Nursing Practice (DNP) is widely recognized as one of the discipline's two terminal degrees and the preferred pathway for those seeking preparation at the highest level of nursing practice. Across the nation, the number of DNP programs continues to grow as more schools transition advanced nursing practice programs to the doctoral level. A recent national study commissioned by the AACN Board of Directors and conducted by RAND Corporation found that there is near universal agreement among the nursing community on the value of DNP education in preparing nurses to meet future healthcare needs (Auerbach, 2015). Despite this strong support for the practice doctorate, variability exists among DNP programs, which are currently offered in 49 states.

The national dialogue about the DNP has amplified the need to clarify and restate how advanced nursing practice is defined. Advanced nursing practice, (defined in the Glossary) is any form of nursing intervention that influences healthcare outcomes for individuals or populations,
including the provision of direct care or management of care for individual patients or management of care populations, and the provision of indirect care such as nursing administration, executive leadership, health policy, informatics, and population health. Also, it is important to remember that the DNP is an academic degree, not a role.

Considering the changing landscape in health care and higher education over the last ten years as well as the dramatic growth of DNP programs, the AACN Board of Directors convened a task force to review the current state of DNP programs, clarify curricular and practice expectations as outlined in the Essentials of Doctoral Education for Advanced Nursing Practice (DNP Essentials), and highlight practice scholarship and academic partnership opportunities. Naturally, a professional transition of this magnitude has generated many questions and provides an opportunity for reflection.

The DNP Implementation Task Force presents this white paper as an important resource for the evolution of the practice doctorate in nursing. The paper includes recommendations to describe and clarify the characteristics of DNP graduate scholarship, the DNP project, efficient use of resources, program length, curriculum considerations, practice experiences, and collaborative partnership guidelines. Following the task force's recommendations are a glossary, references, a list of task force members and appendices to provide examples that support the individual recommendations.

Recommendations

I.   DNP Graduate Scholarship

The *DNP Essentials* state, "Practice-focused doctoral programs prepare experts in specialized advanced nursing practice. These programs focus heavily on practice that is innovative and evidence-based, reflecting the application of credible research findings" (p.3). The development of the advanced knowledge and skills necessary to fulfill this outcome is what constitutes the scholarship of the DNP graduate. The *DNP Essentials* provide a foundation and guide for this knowledge development.

DNP practice-scholarship is demonstrated when the principles of nursing scholarship are combined with the eight *DNP Essentials* to produce a graduate prepared to improve health and care outcomes. The integration of these new or refined skills improves outcomes through organizational/systems leadership, quality improvement processes, and translation of evidence into practice, among other ways.

Scholarship is the mechanism that provides knowledge development within a discipline. To clarify the difference between the development and application of research-focused scholarship and practice-focused scholarship, the *DNP Essentials* state, "Rather than a knowledge-generating research effort, the student in a practice-focused program generally carries out a practice application-oriented final DNP project" (AACN, 2006, p. 3). As DNP programs have evolved, questions have emerged regarding the *development of new knowledge* and, in some instances, have been a source of debate in nursing education and practice communities. It is increasingly understood that DNP knowledge production is measured according to its contribution to improved outcomes rather than its contribution to generalizable knowledge (Rolfe & Davies, 2009). Therefore, DNP programs focus on the translation of new science, its application and evaluation. In addition, DNP graduates generate evidence through their practice to guide improvements in practice and outcomes of care (DePalma & McGuire, 2005).

Following a review of the federal definition of research (Department of Health and Human Services, 2015), AACN's position statement on *The Research Focused Doctoral Program in Nursing* (2010), the *DNP Essentials*, and models of implementation science (Gannon, 2014; Knafl & Grey, 2008; NIH, 2015; Westfall, Mold & Fagnan, 2007), the DNP Task Force has concluded that:

1. The distinction between research-focused and practice-focused scholarship be clarified to state:

    Graduates of both research- and practice-focused doctoral programs are prepared to generate new knowledge. However, research-focused graduates are prepared to generate knowledge through rigorous research and statistical methodologies that may be broadly applicable or generalizable; practice-focused graduates are prepared to generate new knowledge through innovation of practice change, the translation of evidence, and the implementation of quality improvement processes in specific practice settings, systems, or with specific populations to improve health or health outcomes. New knowledge generated through practice innovation, for example, could be of value to other practice

settings. This new knowledge is considered transferrable but is not considered generalizable.

2. Organizational and systems leadership knowledge and skills are critical for DNP graduates to develop and evaluate new models of care delivery and to create and sustain change at the organization and systems levels. Practice includes leadership, advancing the quality of nursing care and the profession of nursing through policy evaluation, development, and advocacy, and the creation and maintenance of healthy work environments. The development and trial of new models of care delivery may be partially based in generalizable evidence, based in transferrable evidence from another practice site, or when no evidence exists, based on experience and new/innovative thinking. The ability to develop and adapt care delivery and evaluate outcomes is essential for DNP graduates to mold practice and improve the health and well-being of populations. For example, evaluation of outcomes may include rapid cycle testing or rapid cycle prototyping used in quality improvement processes (See Glossary and Appendix C).

3. These delineations in knowledge generation are not to be construed as a hierarchical structure of the importance of these two types of knowledge generating methods. The application and translation of evidence into practice is a vital and necessary skill that is currently lacking in the healthcare environment and the nursing profession. The DNP graduate will help to fulfill this need. As a result DNP and PhD graduates will have the opportunity to collaborate and work synergistically to improve health outcomes.

II.   DNP Project

The *DNP Essentials* recognizes the need for a final scholarly project that demonstrates clinical scholarship. With the accelerated growth of new programs and increased interest in the DNP, it is crucial that the profession clarify the scope of the final scholarly project, the level of implementation, the impact on system/practice outcomes, the extent of collaborative efforts, the expected dissemination of findings, and the degree of faculty mentorship/oversight. It also is important that the translation of knowledge into the practice setting by way of the final scholarly project be clarified to ensure consistency of learning.

The post-master's and the post-baccalaureate DNP student – who begin their doctoral programs with different education and practice backgrounds – should graduate with the same comprehensive skill set as delineated in the *DNP Essentials*. Although the DNP skill set represents new learning for all students pursuing the practice doctorate, the scope and impact of DNP projects can differ greatly since some are undertaken by post-baccalaureate students and others by experienced nurses in post-master's programs.

1. Title: The final scholarly project should be called DNP Project to avoid confusion with the term capstone, which is used at varying levels of education (National Organization of Nurse Practitioner Faculties, 2013). The DNP Project is not a research dissertation; therefore, this term should not be used.

2. <u>Scholarly Product</u>: The product of the DNP Project may take on various final forms depending on the academic institution's requirements and the student's area of advanced nursing practice. Programs are encouraged to support innovation in the design and dissemination of the final project and product to reflect the changing healthcare environment. However, the elements of the DNP Project should be the same for all students and include planning, implementation, and evaluation components. As an outcome of the program, students must have the opportunity to integrate all *DNP Essentials* into practice. However, all eight *Essentials* do not have to be demonstrated in the DNP Project. All DNP Projects should:

   a. Focus on a change that impacts healthcare outcomes either through direct or indirect care.
   b. Have a systems (micro-, meso-, or macro- level) or population/aggregate focus.
   c. Demonstrate implementation in the appropriate arena or area of practice.
   d. Include a plan for sustainability (e.g. financial, systems or political realities, not only theoretical abstractions).
   e. Include an evaluation of processes and/or outcomes (formative or summative). DNP Projects should be designed so that processes and/or outcomes will be evaluated to guide practice and policy. Clinical significance is as important in guiding practice as statistical significance is in evaluating research.
   f. Provide a foundation for future practice scholarship.

3. <u>Integrative and Systematic Reviews</u>: Contrary to the *DNP Essentials*, the task force believes that an integrative and systematic review alone is not considered a DNP project and does not provide opportunities for students to develop and integrate scholarship into their practice.

4. <u>Portfolios</u>: A student's portfolio is not considered a DNP Project, but rather a tool to document and evaluate professional development and learning or synthesis of student's development and learning.

5. <u>Group/Team Projects</u> can be a valuable experience, helping to prepare graduates to function in interprofessional teams in the future, but often present challenges, particularly for student evaluation and grading. Group projects are acceptable when appropriate to the students' area of practice and goals, and the project aims are consistent with the focus of the program. Guidelines for the entire project as well as for individual contributions to the project and a rubric used for each individual's evaluation should be developed and shared with students prior to the initiation of the project. Each member of the group must meet all expectations of planning, implementation, and evaluation of the project, and be evaluated accordingly. Each student must have a leadership role in at least one component of the project and be held accountable for a deliverable. The following serve as illustrative examples:

   a. The student serves as a vital member of an interprofessional team, implementing and evaluating a component of a larger project.

b. Students work on the same project, for example improving hand washing, across multiple units within the same organization or across multiple organizations.

c. Students focus on different aspects of improving diabetic outcomes of care by meeting criteria for guidelines for diabetes care such as eye exams, time frames for Hg A1-c screening, and foot care.

d. Students analyze and implement changes in state immunization policies to improve access to immunizations and increase immunization rates.

6. Dissemination of the DNP Project should include a product that describes the purpose, planning, implementation, and evaluation components of the project, and should be required for each project. Dissemination of the project outcomes is essential and may include a variety of forms depending upon the focus and area of advanced nursing practice and should be targeted to appropriate audiences to ensure impact. (See Appendix A on Dissemination.)

7. DNP Project Team: Replace the term "committee" with "DNP Project Team" to minimize confusion between the PhD dissertation committee and the faculty and mentors who oversee the DNP final project. The DNP Project team should consist of a student or a group of students with a minimum of a doctoral prepared faculty member and a practice mentor who may be from outside the university. In some instances, additional experts/mentors/partners/facilitators can be formal or informal collaborators and may provide intermittent or limited support throughout the project stages as needed.

8. Evaluation of the final DNP Project is the responsibility of the faculty. Evaluation includes a review process, which may include academic review, peer review and/or stakeholder review. In addition, review and input from stakeholders outside of academia are important to ensure rigor, applicability, and impact of the work as well as to disseminate outcomes.

9. A digital repository for DNP final projects should be used to advance nursing practice by archiving and sharing of this work and outcomes.

III. Resources, Logistics, and Curriculum Considerations

Questions regarding the length of the program, program resources, and curricular design continue to be raised. Based on these questions, it is evident that a wide variety of approaches and interpretations of the *DNP Essentials* exist. Until universally agreed upon definitions and measurable competencies are developed for the nursing profession, metrics such as program length, credit hours, and clinical hours should be based on the program track, student's experiences, and meeting overall program outcomes. Programs need to provide evidence of achievement and show that graduates are meeting the outcome expectations outlined in the *DNP Essentials*.

1. Mapping the *DNP Essentials*: Incorporate the DNP outcomes clearly into the curriculum and make them transparent to students. Mapping student learning objectives to expected outcomes is an important strategy for DNP programs. Using an electronic student

portfolio is one effective tool for tracking student progress and can serve as an excellent mechanism for documenting program outcomes for accreditation reporting. The student's demonstrated achievement of the program outcomes provides evidence that the curricular design and teaching/learning experiences support the student's readiness to practice as a new DNP-prepared nurse.

2. Length of Program: The task force reaffirms the guidelines, as stated in the *DNP Essentials*, for length of program. A post-baccalaureate full-time program of study should be 3 years including summers or four years on a traditional academic calendar. For a post-master's program of study, a minimum of 12 months of full-time study is needed to acquire doctoral-level outcomes and completion of the DNP Project. AACN recognizes that policies of institutional, state and various accrediting bodies can dictate minimum or maximum length and/or credit hours needed to award specific academic degrees (AACN, 2006).

3. Efficiency: To maintain high quality outcomes and effective use of resources, the task force recommends that DNP programs and curricula be designed with attention to efficiency. In addition to the project team described below, other resources may be needed to support DNP quality program outcomes and ultimately achieve efficiencies. (See Appendix B for examples of Program Efficiency.)

4. New Models: Consider new models and processes for implementing DNP Project teams that provide efficient use of resources and support student learning. Maximizing faculty and other resources by cohorts of students produces enhanced learning as well as efficiencies. Adopt a process that allows for oversight and evaluation of DNP Projects that ensures quality and equity of resources. One example is using a standing proposal review committee to review and approve all DNP Project proposals to ensure that the proposed project meets expected requirements, scope, and focus. (See Appendix B for examples of Program Efficiency.)

5. Faculty development is important to ensure quality student learning outcomes and efficient use of resources. Areas for faculty development include, but not limited to:

   a. Curricular design of DNP programs.
   b. Development of new, innovative teaching strategies, particularly, methodologies for hybrid and distance education to include instructional design, development of course objectives, guiding and facilitating student learning, and evaluation of student learning.
   c. Development of innovative, new practice opportunities to support achievement of the *DNP Essentials* learning outcomes.
   d. Strategies to support and evaluate the DNP Project.
   e. Implementation of quality improvement processes. (To address faculty development in the use of quality improvement methods further see Appendix C on Faculty Development.)
   f. Interprofessional education and practice.

6. Preparation for the Nurse Educator Role: The role of nurse educator is highly valued, and diversity of preparation is needed for faculty roles. Graduates of practice doctoral programs will have expertise and preparation for the highest level of nursing practice. DNP graduates are eligible to teach at the collegiate level since they have a terminal degree in the discipline of nursing.

   a. Just as graduates of research-focused doctoral programs, it is recommended that graduates of practice-focused nursing programs who aspire to hold a faculty position have additional preparation in the educator role and pedagogies in addition to preparation in an area of advanced nursing practice (AACN, 2004).

   b. The task force reaffirms that the discipline of education encompasses an entirely separate body of knowledge and competence (AACN, 2004, p. 13) and is not an area of advanced nursing practice.

   c. Additional preparation in the nurse educator role may be included as optional coursework within the DNP program.

IV. Practice Experiences, Practice Hours, and Collaborative Partnerships

DNP programs prepare graduates for the highest level of nursing practice and demonstrate synthesis and application of all *DNP Essentials*. The *DNP Essentials* contrasts research-focused and practice-focused programs by stating that the latter include integrative practice experiences and an intense practice immersion experience. The *DNP Essentials* also states that the student in a practice-focused program carries out an application-oriented final DNP Project, which is an integral part of the integrative practice experience. As the transition of advanced nursing practice education to the DNP degree is evolving, numerous questions have been raised regarding the types of practice experiences and number of practice hours required in a DNP program, particularly in post-master's programs. Practice experiences should prepare the post-baccalaureate and post-master's DNP student with the outcomes delineated in the *DNP Essentials*, not only Essential VIII Advanced Nursing Practice. Faculty are responsible for assessing students' learning needs and designing practice experiences that allow students to attain and demonstrate the *DNP Essentials* as well as integrate these Essential outcomes into one's practice.

The *DNP Essentials* specifies that practice hours must be part of an academic program. The *Essentials* further state that to achieve the DNP student outcomes, programs should provide a minimum of 1,000 hours of practice post-baccalaureate as part of a supervised academic program. All DNP students, including those in post-master's programs, are expected to complete a minimum of 1,000 post-baccalaureate practice hours.

Practice immersion experiences afford the opportunity to apply, integrate, and synthesize the *DNP Essentials* necessary to demonstrate achievement of desired outcomes in an area of advanced nursing practice. Brief or episodic practice experiences may be integrated throughout the curriculum. Immersion experiences enhance synthesis of the *DNP Essentials* into a focused area of practice. Strong foundational collaborative partnerships between academia and practice provide benefits to both partners and to the student and may be furthered by student immersion opportunities.

Practice experiences for the DNP student are not intended to be solely direct patient care focused but should include indirect care practices in healthcare settings or related environments that broaden the experiences of the student. Faculty should consider placing students in non-traditional practice settings to acquire the expanded skill sets defined in the *DNP Essentials*. (See Appendix D for description and exemplars of non-traditional practice settings for both direct care and indirect care-focused DNP programs.)

1. Practice Experiences

   Practice experiences should be designed to help students achieve specific learning objectives related to all of the *DNP Essentials*, role outcomes, and application of theory and evidence to practice. Faculty should evaluate student's learning needs based on past education and practice experiences. Based on this assessment, faculty, in conjunction with the student, should develop learning objectives for the practice experience(s), provide preceptor/mentor orientation, and assume accountability for the evaluation of student learning and achievement of outcomes.

   Opportunities for inter- and intra-professional collaboration, both between DNP and PhD nursing students as well as between DNP students and other health professions' students, are needed to prepare the graduate with the leadership, communication, and team practice capabilities that are critical to advanced nursing practice. There is much potential for DNP students to work with students in other fields such as engineering, public health, healthcare administration, and business. Documenting and disseminating these experiences also will provide a rich resource of outcomes and exemplars for the discipline.

   DNP program practice experiences are designed to provide:
   - Systematic opportunities for feedback and reflection.
   - In-depth work/mentorship with experts in nursing, as well as other disciplines.
   - Opportunities for meaningful student engagement within practice environments.
   - Opportunities for building and assimilating knowledge for advanced nursing practice at a high level of complexity.
   - Opportunities for further application, synthesis, and expansion of learning.
   - Experience in the context of advanced nursing practice within which the final DNP Project is completed.
   - Opportunities for integrating and synthesizing all of the *DNP Essentials* and role requirements necessary to demonstrate achievement of defined outcomes in an area of advanced nursing practice.

2. Practice Hours:

   As stated above, all DNP students are expected to complete a minimum of 1,000 post-baccalaureate practice hours as part of an academic program. Variability in the ways practice hours are defined, awarded, and designed by DNP programs currently exists, particularly for post-master's DNP programs. A variety of mechanisms or processes are currently being employed to award post-master's DNP students practice hour credits. Years and experience in practice do not necessarily reflect the type, currency, or level of practice; therefore, these approaches should not be used to waive practice hours. One

commonly used process adopted by programs is to award credit to students who hold national certification in an area of advanced nursing practice, most commonly for national certification in one of the four APRN roles. Some programs also currently waive practice hours for other national advanced nursing practice certifications e.g. ANCC's Advanced Public Health Nursing certification and ANCC's Advanced Nurse Executive certification. To provide clarification and guidance to programs, the task force recommends the following:

a. Programs must demonstrate/validate that graduates have attained all of the *DNP Essentials* outcomes. All students must complete sufficient time in supervised practice hours to integrate and demonstrate the new skills and knowledge needed to achieve the *DNP Essential* outcomes. This expectation applies to all DNP students, including those focusing on organizational and executive leadership, health policy, and all direct care roles.

b. Students who have completed more than 1,000 practice hours in their master's program will need to complete additional hours in the DNP program to demonstrate the expected outcomes delineated in the *DNP Essentials* and their ability to integrate their new learning into practice. Hours spent in the practice environment related to the final project may be counted.

c. Practice hours spent in master's nursing programs can be counted as post-baccalaureate practice hours, provided they can be verified. Verification of hours can be completed in various ways, including forms sent to the student's master's degree program, transcript review, and documentation of national certification requiring academically supervised practicum hours.

d. DNP students may be employed in settings or positions that appear to overlap with some of the outcomes delineated in the *DNP Essentials*. Other DNP students may have the opportunity to engage in learning experiences in an area or setting where they are employed. Practice experiences should have well defined learning objectives and provide experiences over and above the individual's job responsibilities or activities. Also, the DNP student must have the opportunity to gain knowledge and skills beyond employment expectations and incorporate these into his/her nursing practice.

e. To provide some additional clarity and flexibility, schools may credit practice hours to a post-master's DNP student who holds current national certification:

   1. In an area of advanced nursing practice, as defined in the *DNP Essentials*; and
   2. Requires a minimum of a graduate degree.

f. The remaining faculty supervised practice hours should be spent in achieving the *DNP Essentials*. Programs must demonstrate or validate how graduates meet the *Essentials* in addition to including an area of preparation in advanced nursing practice.

g. If a student is seeking a degree and national certification in an area of advanced nursing practice different from his/her previous area of practice – for example a pediatric primary care nurse practitioner entering a certified registered nurse anesthetist track or a public health nurse seeking to become a psych/mental health nurse practitioner – the student must complete all didactic and clinical course work required to be eligible for certification in that role in addition to preparation with the *DNP Essentials*.

h. Practice as a nurse educator should not be included in the DNP practice hours. The focus of a DNP program, including practicum and DNP Project, should not be on the educational process, the academic curriculum, or on educating nursing students.

In summary, all post-master's students, regardless of education and experience, must have faculty supervised practice hours in the DNP program that provide the opportunity for the student to integrate all of the outcomes delineated in the *DNP Essentials*. Nurse educators also are encouraged to review the *APRN Clinical Training Task Force Report* (AACN, 2015) for recommendations specific to simulation and other innovative APRN clinical education models.

3. Collaborative Partnerships

The task force reaffirms the importance of academic-practice partnerships to create and sustain progressive nursing education and practice. Programs should follow the Academic-Practice Partnership guiding principles developed by the AACN-AONE Task Force on Academic-Practice Partnerships (2012). The joint task force recommended a systems approach as most appropriate to develop a collaborative relationship that can create or support these educational and practice experiences. The rapid changes in healthcare practice and environment make strong partnerships between academia and practice even more imperative. Partnerships provide more efficient sharing of resources and expertise by both academia and practice.

Programs are encouraged to consider a broad range of academic-practice partnerships, e.g. with school systems, prison systems, and public health departments, that afford students opportunities to engage in the full planning, implementation, and evaluation of a project that impacts healthcare outcomes. Academic and practice partners are encouraged to collect outcome data to demonstrate the added value that DNP graduates bring to health care. (See examples of partnerships in the Appendix on Practice Experiences.)

Summary

The AACN Board of Directors charged the task force with the development of a white paper that clarifies the purpose of the DNP final scholarly product and the clinical learning practice hour requirements as described in the *DNP Essentials*. In addition, the task force was charged with exploring, clarifying, and finding new and innovative ways to meet DNP education and practice requirements. This white paper provides clarification of the *DNP Essentials* and provides recommendations as well as supplementary examples for programs to prepare DNP graduates with the expanded knowledge, skills, and attitudes needed for future advanced nursing practice.

Glossary

Advanced nursing practice: Any form of nursing intervention that influences health care outcomes for individuals or populations, including the direct care of individual patients, management of care for individuals and populations, administration of nursing and health care organizations, and the development and implementation of health policy (AACN, 2004). (Not to be confused with APN or APRN see below)

Advanced Practice Nurse (APN): Refers to the four direct care roles − certified nurse-midwife (CNM), certified registered nurse anesthetist (CRNA), clinical nurse specialist (CNS), and nurse practitioner (NP) (AACN, 2004). In this document APN is synonymous with APRN, the preferred and more current term.

Advanced Practice Registered Nurse (APRN):
The title given to a nurse who has met education and certification requirements and obtained a license to practice as an APRN in one of the four APRN roles: certified registered nurse anesthetist (CRNA), certified nurse-midwife (CNM), clinical nurse specialist (CNS), and certified nurse practitioner (CNP) (APRN Consensus Model, 2008).

Collaboration: When multiple health workers from different professional backgrounds work together with patients, families, caregivers, and communities to deliver the highest quality of care (WHO, 2010).

Competence: The array of abilities across multiple domains or aspects of performance in a certain context. Statements about competence require descriptive qualifiers to define the relevant abilities, context, and stages of training. Competence is multi-dimensional and dynamic. It changes with time, experience, and setting. (Frank & Snell, 2010, p. 641)

Competency: An observable ability of a health professional, integrating multiple components such as knowledge, skills, values, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition. Competencies can be assembled like building blocks to facilitate progressive development (Frank & Snell, 2010, p. 641). At this time, nursing does not have its own universally agreed upon measureable competencies and tools to measure competencies.

Direct care: Refers to nursing care provided to individuals or families that is intended to achieve specific health goals or achieve selected health outcomes. Direct care may be provided in a wide range of settings, including acute and critical care, long-term care, home health, community-based settings, and educational settings (AACN, 2004, 2006; Suby, 2009; Upenieks, Akhavan, Kotlerman et al., 2007).

Education Outcomes: Indicators of achievement that may be quantitative or qualitative, broad or detailed (Commission on Collegiate Nursing Education, 2013).
- Student Outcomes: Statements, including those focused on learning, explicitly describing the characteristics or attributes attained by students as a result of program activities.

- Faculty Outcomes: Statements explicitly describing the achievements attained by faculty as part of their participation in the program.
- Program Outcomes: Statements of levels of achievement, which encompass student achievement, faculty achievement, and other program-selected indicators of achievement. Program outcomes may be expressed in the form of overall program goals, end-of-program outcomes, curricular outcomes, and/or faculty outcomes.
- Expected Outcomes: Statements of desired and predetermined levels of student, faculty, and program achievement.
- Actual Outcomes: Results describing real student, faculty, and program achievement.

Evidence-based practice: The integration of best research evidence, clinical research, and patient values in making decisions about the care of individual patients (IOM, 2003).

Healthcare outcomes: The end result of healthcare practices. There are many kinds of outcomes. How long people live following a healthcare treatment is one kind of outcome, known as survival. Other outcomes measure the effects a treatment has on people's lives, such as changes in their ability to function or changes in their quality of life. Outcomes also include undesirable events such as side effects of drugs. Another type of outcome is whether people needed to change to another kind of treatment (AHRQ, 2015).

High fidelity simulation: Experiences using full scale computerized patient simulators, virtual reality, or standardized patients that are extremely realistic and provide a high level of interactivity (INACSL, 2013, p. S6.)

Implementation science: the study of methods to promote the integration of research findings and evidence into healthcare policy and practice (NIH, 2015).

Indirect care: Indirect care refers to nursing decisions, actions, or interventions that are provided through or on behalf of individuals, families, or groups. These decisions or interventions create the conditions under which nursing care or self-care may occur. Nurses might use administrative decisions, population or aggregate health planning, or policy development to affect health outcomes in this way. Nurses who function in administrative capacities are responsible for direct care provided by other nurses. Their administrative decisions create the conditions under which direct care is provided. Public health nurses organize care for populations or aggregates to create the conditions under which care and improved health outcomes are more likely. Health policies create broad scale conditions for delivery of nursing and health care (AACN, 2004, 2006; Suby, 2009; Upenieks, Akhavan, Kotlerman et al., 2007).

Informatics: Nursing informatics (NI) is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information, knowledge, and wisdom in nursing practice. NI supports consumers, patients, nurses, and other providers in their decision making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology. (American Nurses Association, 2014).

Interprofessional collaborative practice: Working across healthcare professions to cooperate, collaborate, communicate, and integrate care in teams to ensure that care is continuous and reliable. The team consists of the patient, the nurse, and other healthcare providers as appropriate (IOM, 2003).

Interprofessional education: Involves shared learning experiences among health profession students across disciplines, with the goals of building strong clinical teams and improving health outcomes (World Health Organization, 2015).

Low fidelity simulation: Experiences such as case studies, role-playing, using partial task trainers or static mannequins to immerse students or practitioners in a clinical situation or practice of a specific skill (INACSL, 2013, p. S7).

Macro-, Meso-, and Microsystems: The health system is composed of basic parts – frontline clinical microsystems, mesosystems, and overarching macrosystems. At the *macrosystem* level senior leaders are responsible for organization-wide performance. Within the *mesosystem*, midlevel leaders are responsible for large clinical programs, clinical support services, and administrative services. Clinical microsystems are the small, functional frontline units that provide most health care to most people. They are the building blocks of larger organizations and of the health system. They are the place where patients, families, and care teams intersect or meet. (Nelson et al., 2007).

Population health: Inclusive of aggregates, community, and/or clinical populations that consider the environmental, occupational, and cultural, socio-economic and other dimensions of health (Allan et al., 2004), and derives evidence from population-level data and statistics (Starfield, Hyde, Gervas, & Heath, 2008).

Practice experiences: Planned learning activities in nursing practice that allow students to understand, perform, and refine professional competencies at the appropriate program level. Practice experiences may be known as clinical learning opportunities, clinical practice, clinical strategies, clinical activities, experiential learning strategies, or practice (Commission on Collegiate Nursing Education, 2013).

Public health: Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention, and detection and control of infectious diseases (CDC, 2015).

Quality improvement: In health care, Quality Improvement (QI) refers to routinely giving the right patients the right care at the right time and in the right place of service. Typically, QI efforts are strongly rooted in evidence-based procedures and rely extensively on data collected about processes, outcomes, and infrastructure. (Ogrinc, Nelson, Adams, O'Hara, 2013).

Quality improvement in public health: The use of a deliberate and defined improvement process, such as a four step model Plan-Do-Check-Act, which is focused on activities that are responsive to community needs for carrying out change in public health practice and improving population health. It refers to a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality

in services or processes which achieve equity and improve the health of the community. (American Public Health Association, 2013).

Research: A systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program which is considered research for other purposes. For example, some demonstration and service programs may include research activities (Department of Health and Human Services, 2015).

Simulation: An attempt to mimic essential aspects of a clinical situation with the goal of understanding and managing the situation better when it occurs in actual clinical practice. A technique that uses a situation or environment created to allow persons to experience a representation of a real event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions (NLN, 2015). Simulation scenarios represent a continuum and can include an activity or event replicating clinical practice using high fidelity manikins, medium-fidelity manikins, standardized patients, role playing, skills stations and computer-based critical thinking simulations (Hayden, Jeffries, Kardong-Edgren, and Spector, 2009).

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APPENDICES

Appendix A: Dissemination of DNP Project Examples

- Publishing in a peer reviewed print or on-line journal (individual faculty or a faculty committee/team should carefully evaluate any manuscript for publication probability and select those appropriate for submission).
- Poster and podium presentations.
- Presentation of a written or verbal executive summary to stakeholders and/or the practice site/organization leadership.
- Development of a webinar presentation or video, e.g. for YouTube or other public site,
- Submission and publication to a non-refereed lay publication.
- Oral presentation to the public-at-large.
- Development and presentation of a digital poster, a grand rounds presentation, and/or a PowerPoint presentation. Providing financial and production resources to assist students is recommended.
- A student's portfolio is not considered a DNP Project or a form of dissemination but rather a tool to document and evaluate professional development and learning. A minimum of an executive summary or a written report that is disseminated or shared beyond the academic setting is recommended for dissemination of the DNP Project outcomes.

Appendix B: Examples of Program Efficiencies

- Resources could be made available to a cohort of students (students whose project focus or phase of the project are similar) and may be provided in groups, online, or through collaboration with other departments to promote effective and efficient use of resources.
- Collaboration with other departments; for example, pre-requisites or some courses may be taken from a partnering university or department to reduce the need for faculty resources and to encourage interprofessional course work.
- Guiding groups or cohorts of students through the DNP Project via classroom or online learning through a series of courses/seminars integrated throughout the curriculum that allows for faculty efficiency and for students to support and learn from one another. Peer interaction could enhance learning through activities such as collating and synthesizing evidence, discussing issues regarding project implementation, team communication, access to or gathering data, and outcome evaluation methods.
- Providing scholarly writing support, individually or in groups; sharing resources with other institutional departments when available.

- Faculty advisement done with groups or cohorts of students to create efficient use of faculty time and maximize peer learning.
- Developing a DNP student toolkit with information regarding such topics as requirements, available resources, timelines, scholarly writing, and publishing guidelines.
- Providing statistician support for faculty and students to assist the student to understand the methods needed to evaluate and present project outcomes. This support may most effectively be provided for groups of students.
- Using online modules to accompany courses. External or practice experts can assist with creation of modules.
- Sharing courses with other university departments such as informatics, epidemiology, and business.
- Inviting faculty with particular expertise from other schools of nursing or other schools in a university to present in person or online and serve as the lead on particular topics in online discussions.
- Enlist the expertise of the nurse executives and expert practice partners in teaching in the DNP program and in providing guidance/oversight along with faculty for DNP projects.
- Enroll DNP and PhD students in course work together as an opportunity to examine overlap between roles as well as differentiation; for example: Health Policy and Advocacy, Epidemiology, Ethics, Scientific Underpinnings, Biostatistics, and Leadership.
- Intra-professional nursing projects with faculty/student collaboration.
- International health project with collaboration of DNP and PhD students.
- Co-curricular opportunities for working together such as participating in an IHI Open School to implement patient safety initiatives via interprofessional teams.

Appendix C: Faculty Development Resources

Interprofessional Education

AACN IPE Resource: www.aacnnursing.org/Interprofessional-Education

Interprofessional Education Collaborative Expert Panel. (2011). *Core Competencies for Interprofessional Collaborative Practice Report of an expert panel.* Washington, D.C.: Interprofessional Education Collaborative.

TeamSTEPPS, Agency for Healthcare Research and Quality: http://teamstepps.ahrq.gov

National Center for Interprofessional Practice and Education: https://nexusipe.org

Quality Improvement

Agency for Healthcare Research and Quality: http://www.ahrq.gov/clinic/epcix.htm

Baldrige National Quality Program. Criteria for Performance Excellence, 2009–2010: http://www.nist.gov/baldrige/

Clinical Microsystems and Quality Improvement from Dartmouth Institute for Health Policy and Clinical Practice:
http://dms.dartmouth.edu/cms

Crossing the Quality Chasm: The IOM Health Care Quality Initiative:
http://www.iom.edu/?id=16176

Lean Six Sigma in Healthcare:
http://asq.org/healthcaresixsigma/lean-six-sigma.html

National Quality Forum (NQF): http://qualityforum.org/nursing

Plan-Do-Study-Act (PDSA) Worksheet, Institute for Healthcare Improvement:
http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx

Quality and Safety Education for Nurses (QSEN) bibliography and
teaching strategies around the following topics: Patient-Centered Care, Teamwork
and Collaboration, Evidence-Based Practice, Quality Improvement, Safety, and
Informatics: http://www.qsen.org/faculty_resources.php

Rapid Cycle Testing, Institute for Healthcare Improvement:
http:// http://www.ihi.org/about/pages/innovationscontributions.aspx

Simulation

INACSL, (2013). *Standards of Best Practice: Simulation, Clinical Simulation in Nursing*, (9) 6s

Simulation Innovation Resource Center: An Interactive Global Simulation Community.
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Appendix D: Examples of Settings for DNP Practice and Projects

The following are examples of settings, areas of practice, and final projects that could be considered to provide a broader array of opportunities particularly in geographic areas with limited access to traditional practice sites. A project developed in any of these settings or areas of practice delineated here should include planning, implementation, and evaluation.

- Organizational Systems Leadership: Work with the Director of the Red Cross exploring ways to improve disaster preparedness; Work with a director of system IT exploring the preparedness strategies to prevent an IT shutdown and strategies for communication and charting to continue during a shutdown, or focus on the nursing leadership role in leading IT design and implementation issues; Work with the System Safety Office evaluating the disaster plan incorporating national best practices and making recommendations for quality improvement of the system plan.

- Population Health: Partner with community organizations that affect the health of high risk populations to address screening or health education processes, financial challenges (including how to raise money and manage money), volunteerism, and interactions/ collaborative opportunities with the healthcare system. Examples of community agencies include: Habitat for Humanity, food pantries, Catholic Charities, homeless shelters, Salvation Army, and Hope Center. Other opportunities might include collaboration with private sector companies to design healthcare facilities, or design and implement wellness/health programs in conjunction with business such as the airline or auto industry.
- Policy Projects: Evaluate evidence to develop a policy to reduce major events that trigger an ED visit, e.g. by notifying a provider that a fall has occurred, document evidence of need for the policy change; Evaluate geriatric trauma screening for triage; make a recommendation for policy change to revise criteria.
- Long-Term Care Facilities: Evaluate and implement a quality improvement program within a long-term care facility, e.g. Evercare or a Medicare Advantage plan, to improve antibiotic selection for symptomatic UTIs in older adults without indwelling catheters and to decrease the inappropriate use of nitrofurantoin. Implement a policy and care practice for antibiotic selection guided by the Infections Disease Society of America guidelines for treatment of UTIs.
- Urgent Care: Focus on achieving the national benchmark of urgent care visit times lasting less than 60 minutes, identifying and mitigating impediments to efficient patient flow at a Family Medicine Center Walk-in Clinic. Implement a quality improvement project to identify measure and rectify bottlenecks impacting patient flow through the clinic while tracking total visit times.
- Prison Systems: Explore the effectiveness of chronic disease management models and mental health services among the aging population in prison systems. Focus on the institution of mental health screening and care models to be integrated into the prison system of care.
- School Systems: Evaluate *Tobacco Free Teens* program as a mobile device application, introduce the mobile application in a middle school classroom and evaluate the adolescents' satisfaction with the tool; other areas of focus may include evaluating immunizations, weight loss, and healthy eating.
- Community-based Care Network: Implement a quality improvement project developed to address the gaps in APRN practice and evaluate the impact of a competency-based training program on the translation of evidence in the APRNs' practice. Specific projects may include:
  o Increase documentation of didactic training and skills validation for transvaginal ultrasounds and endometrial biopsy from 0% to 90%.
  o Increase the number of APRNs who perform transvaginal cervical length measurement in the assessment of symptomatic preterm labor patients from less than 40% to 75%.
  o Decrease the number of fetal fibronectin studies run without a corresponding cervical length measurement by 20%.
  o Decrease the number of inadequate endometrial samples from the current 25% to less than 10% by X date.
  o Increase the percent of endometrial biopsies being done by APRNs in the region to greater than 50%.
- Rural Native American Reservation: Form a working group with health department personnel to discuss and address the issues of health literacy and cultural sensitivity; Develop a case

management model for more complex patients that includes the development of a cost sharing plan that proposes utilizing social workers from the senior center to coordinate this service and proposes to the community council the need to add a professional nurse FTE position to the clinic to help coordinate the effort of the social workers in ensuring regular follow up of patients; implement the use of community health workers as a means of further engaging the community and as a means of increasing follow-up visits.

- Public Health Department: Collaborate with state government units to improve access to health care, negotiating tribal governance, gender issues, language, and culture in a population by training lay health promoters e.g. to improve the diet and access to fresh foods or providing zinc supplementation to the under age 5 population in Guatemala.
- Non-governmental Organizations and Community Health Organizations: Collaborate with in country NGOs to decrease stigmatization and increase screening for breast cancer in Zambia; or collaborate with the American Heart Association or other organization to improve outcomes in the community.
- Corporations: Focus on decreasing the percentage of employees in a manufacturing plant with a BMI in the obese or overweight category by changing cafeteria food options, educational initiatives and a voluntary employer-based 16 week wellness program.

Appendix E: Academic-Practice Partnership Guidelines

To substantially and sustainably contribute to the improvement of DNP program implementation, the task force recommends that academic programs begin by:

- Performing a baseline measurement/description of existing successful academic-practice partnerships, existing programs, and interprofessional educational processes.
- Including national quality strategy and Triple Aim to focus initial partnership and interprofessional collaboration efforts.
- Increasing nursing school awareness of the evidence and value for interprofessional collaborative education and practice.
- Spreading collaborative relationship best practices to DNP programs using learning communities and toolkits.
- Stimulating a faculty desire to collaborate and integrate partners through resource allocation.,
- Increasing existing faculty knowledge of existing/preferred partnership and translational research frameworks and models.
- Developing existing academic faculty's interprofessional communication competencies to initiate, facilitate, and sustain community partnerships.
- Reinforcing systematic progress in the direction of Academic-Practice Partnerships and interprofessional education by establishing DNP program quality improvement indicators and reporting.

See Academic-Practice Partnership Guidelines:
www.aacnnursing.org/Academic-Practice-Partnerships/The-Guiding-Principles