

**NACNPEP**

National Advisory Council on Nurse Education and Practice

# **Addressing New Challenges Facing Nursing Education:**

## **Solutions for a Transforming Healthcare Environment**

### **Eighth Annual Report**

To the Secretary of the U.S. Department of Health and Human Services  
and the U.S. Congress

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## **Abstract**

Nursing practice in the 21<sup>st</sup> century faces a number of challenges including a growing population of hospitalized patients who are older and more acutely ill, increasing healthcare costs, and the need to stay current with rapid advances in medical knowledge and technology. These challenges are complicated by an existing shortage of nurses, an aging nurse workforce, a shortage of nursing faculty members, and prospects of a worsening nurse shortage. In addition, new models of overall healthcare delivery are being developed that will impact the workforce and care delivery.

To address these challenges, employers will seek nurses who have knowledge, skills and attitudes that are aligned with the requirements of their practice environments, can work effectively in inter-professional teams across of variety of healthcare settings, and can provide traditional nursing services as well as other needed services such as case and practice leadership, case management, health promotion, and disease prevention.

To keep pace with the rapidly changing healthcare environment, nurse educators must continuously evaluate and revise education curricula, approaches, and programs used to educate new and practicing nurses. The National Advisory Council on Nurse Education and Practice (NACNEP) met in November 2007 and May 2008 to examine these challenges and develop recommendations for nursing education in the 21<sup>st</sup> century. The Council's review of the challenges and their recommendations are presented in this report.

**Full article available at:**

<http://www.hrsa.gov/advisorycommittees/bhpradvisory/nacnep/Reports/eighthreport.pdf>

## Executive Summary

Nursing practice in the 21<sup>st</sup> century faces a number of challenges including a growing population of hospitalized patients who are older and more acutely ill, increasing healthcare costs, and the need to stay current with rapid advances in medical knowledge and technology. These challenges are complicated by an existing shortage of nurses, an aging nurse workforce, and prospects of a worsening nurse shortage. In addition, new models of overall healthcare delivery are being developed to address a range of challenges in healthcare and impact the structure of the workforce and care delivery.

According to the 2004 National Sample Survey of Registered Nurses (Health Resources and Services Administration, 2004), between 2000 and 2004, the number of registered nurses (RNs) in the United States grew by about 200,000, to 2.9 million. Yet the gap between nursing workforce supply and demand has widened dramatically over the past 15 years (National Advisory Council on Nurse Education and Practice, 2006). As medical advances increase longevity, and technological advances in patient care have led to increased demand for more medical procedures and providers who can perform them, the demand for knowledgeable healthcare practitioners continues to grow.

To address these challenges, employers will seek out nurses who have skills that are aligned with the requirements of their practice environments, can work effectively in inter-professional teams across a variety of healthcare settings, and can provide traditional nursing services as well as other needed services such as case and practice leadership, case management, health promotion, and disease prevention.

Nursing education must keep pace with practice innovations and other changes in the healthcare delivery system. Education has tended to adopt change incrementally while the practice environment is more nimble and therefore can more easily integrate change.

The medical knowledge base, currently doubling every 5 to 8 years, is reliably predicted to begin doubling every year; medical schools, healthcare institutions, practitioners, and students will all need to develop strategies for coping with the sheer volume of information, concepts, and skills (Distlehorst, Dunnington, & Folse, 2000). Technology will assist nurses in providing safer patient care environments but will also require them to manage greater amounts of information for their patients. The nurse of the future will require an expanded skill set that will include knowledge of the science and medical technology to function in and manage a highly complex patient-care environment.

As a critical component of the healthcare workforce, the nursing profession must keep pace with changes in the healthcare environment to ensure the continued delivery of high quality, safe, and effective patient care. To stay current, new nurses must be trained and equipped with the appropriate skills. In order for educators and policymakers to plan for the future, it is first necessary to assess requirements for the future workforce, based on expectations of the work environment. As a result of this assessment, the goal of nursing educators will be to develop educational approaches and curricula required for nurses to fill those roles. Policymakers can support these efforts by ensuring the needs of the healthcare environment are being met by providing adequate resources to supply the workforce needed to educate and train the nurse of the future.

## Recommendations

To keep pace with the rapidly changing healthcare environment, nurse educators must continuously evaluate and revise education curricula, approaches, and programs used to educate new and practicing nurses. The National Advisory Council on Nurse Education and Practice (NACNEP) met in November 2007 and May 2008 to examine these challenges and develop recommendations for nursing education in the 21<sup>st</sup> century. The Council's review of the challenges and their recommendations are presented in this report.

1. The U.S. Congress, U.S. Department of Health and Human Services and U.S. Department of Education should work with U.S. nursing programs to support the goal of having all registered nurses prepared at the baccalaureate in nursing (BSN) or higher degree level to improve quality and safety in healthcare in the United States.

- Support the development and testing of innovative models to facilitate entry and progression to the BSN degree.
- Foster innovative linkages among universities, community colleges, and practice settings to strengthen bridge and articulation programs.
- Increase funding for graduate nursing education to prepare professionals to function in the faculty role.

2. The U.S. Congress, U.S. Department of Health and Human Services, Nursing Accreditation Bodies and U.S. nursing programs should increase the supply of nursing faculty to address the demands of the current and future nursing workforce.

- Foster academic and practice partnerships to address future workforce issues proactively in order to prevent future shortages. For instance, create joint faculty positions with colleges/schools of nursing and healthcare facilities, where the faculty serve in administrative roles within the facility.
- Support funding to providers for nurse residencies (post-licensure) to promote a seamless transition into practice (similar to physician residency programs) to improve nurse retention, ultimately increasing the nurse supply.
- Create test models with an emphasis on effective feedback loops between academic institutions and healthcare providers to inform curriculum needs and clinical practice advances to close the gap between practice and education for nurses and to improve safety and quality for patients.
- Increase the number of clinical instructors and support innovative joint appointments between schools and healthcare provider systems. Fund the gap costs of clinical instructors through grants and improved funding formulas for clinical instruction educators to address the nursing faculty shortage.

3. The U.S. Congress and U.S. Department of Health and Human Services should fund models and demonstration projects that integrate education of healthcare professionals that are interdisciplinary, inter-professional, and which incorporate the core competencies for nursing and healthcare in the 21<sup>st</sup> century.

4. The U.S. Congress and U.S. Department of Health and Human Services should increase access to education for faculty and students through the development and testing of innovative models which focus on mentorship to promote a sustained pipeline.

- Expand the use of technologies (e.g., simulation, distance learning, virtual worlds) to prepare faculty to teach effectively and efficiently and to prepare nurses for practice in complex healthcare delivery systems.
- Promote innovative practice models that provide learning opportunities that emphasize safe, coordinated, and affordable healthcare (e.g., publish Pathways to Nursing Practice – establish a baseline of programs and geographic distribution of all programs. Identify the nursing programs that support training or offer education in rural areas with integrated experiences in ambulatory, community, and inpatient environments).
- Advance inter-professional models of education that provide collaborative and consumer-centered care.
- Provide funding to support well-designed and effective, sustainable strategies to promote and retain racial and ethnic diversity in nursing education and practice.

## 2. Challenges Facing Nursing Education in the 21st Century

### 2.1. *Aligning Education with the Practice Environment*

As a critical component of the healthcare industry, the nursing profession must keep pace with changes in the healthcare system to insure the continued delivery of high quality, safe, and effective patient-centered care. To stay current, new nurses must be educated and equipped with relevant and appropriate competencies, knowledge, skills, and attitudes. In order to plan for the future, it is first necessary to assess requirements for the workforce, based on expectations of the work environment, and develop the education required for nurses to fill those roles.

The healthcare system in the United States is becoming increasingly complex; the nurse of the future will face a highly challenging healthcare delivery environment. Research indicates the shortage of professional nurses will continue to grow as the patient population ages and places increasing demands on the healthcare system (American Organization of Nurse Executives, 2008). Financial pressures will drive organizations to increase efficiency (National Advisory Council on Nurse Education and Practice, 2006).

Use of healthcare information technology (IT) is expected to continue to grow significantly. The medical knowledge base is currently doubling every 5 to 8 years and that rate of growth is expected to increase. Medical schools, institutions, practitioners, and students will all need to develop strategies for coping with the sheer volume of new information, concepts, and skills (Distlehorst, Dunnington, & Folse, 2000). Technology will assist nurses in providing safer patient care environments but will also require them to monitor, synthesize, and manage greater amounts of information for the patients entrusted to their care. The demanding role of the nurse of the future will require that an RN possess an expanded knowledge base and mastery of competencies that will allow this individual to manage a highly complex patient care journey in collaboration and partnership with an interdisciplinary team (American Organization of Nurse Executives, 2008).

“Healthcare is facing dramatic changes. An aging population, growing diversity, the global health care system, bio-medical advances, and new areas of knowledge (i.e. genetics, environmental health) will reshape how we provide care in the future. To address these changes, nurses will require more knowledge than ever before. For instance, non-intensive care units of a hospital now require nurses with higher acuity levels than in ICUs 10 years ago.”

(Bednash, 2008b)

In a recent hospital-based case study, research indicated that new graduates felt that they possessed the necessary knowledge to perform well. However, preceptors and management reported that while graduates have knowledge of the essentials of practice, they lack specific skills such as how to insert an intravenous line, chart patient information, use healthcare IT, and perform other tasks and interventions they could have practiced in school or during clinical training (Yurdin, 2007). Additionally, preceptors are expected to facilitate the transition from education into practice while maintaining a full patient assignment and without receiving additional compensation as trainers. This paradoxical role for preceptors can result in two negative outcomes: either the new graduate doesn't receive additional support in important nursing duties, resulting in a continued lack of specific skills the new graduate will need to perform well in the workplace; or the needs of the patients of both the new graduate and their preceptor are inadequately met.

The American Health Care Association (AHCA) represents nursing home and assisted living facilities. In 2004, AHCA conducted surveys to assess nurse workforce challenges and evaluate skills deficiencies, their impact, and factors related to turnover. Based on the surveys' feedback, AHCA identified key skills and abilities required by nurses. These include:

- Care coordination/teamwork between paraprofessionals and other clinicians;
- Patient-centered care orientation;
- Data management and analysis;
- Caring for the chronically ill and disabled (advanced clinical topics); and
- Cultural and religious considerations in providing and coordinating care.

Specific issues that AHCA identified relating to nursing training include:

- Long-term care providers do not believe that undergraduate nursing programs are preparing nurses for successful employment in long-term care;
- Both undergraduate and graduate nurses need skill sets identified and agreed upon by educators and practitioners; and
- More emphasis is needed on community-based nursing and the spectrum of care services available to patients (Fitzler, 2007).

To address gaps in leadership skills, AHCA developed the Radiating Excellence Project. The project focuses on subjects such as supervision, resource management, leadership, quality improvement, staff development, communications, and other topics important for nurses in leadership positions.

Studies such as that by AHCA demonstrate that the current and future requirements of employers and education must be brought closer into alignment. To facilitate reaching this goal, schools must improve communications with employers to identify the skills that their graduates will need. In turn, employers must provide clearer feedback to schools regarding better graduate preparation. Section 3 of this report explores options for addressing this challenge.

Consumers are also concerned about the competence of their healthcare providers. The public may be less concerned about the specifics of nursing education but still wants nurses who are knowledgeable, have strong communication and interpersonal skills, are able to share the decision-making process, and are attentive to patients' needs, delivering patient-centered care (Swanklin, 2008).

"The public has a right to expect registered nurses to demonstrate professional competence throughout their careers. ANA believes... that it is the nursing profession's responsibility to shape and guide any process for assuring nurse competence. Assurance of competence is the shared responsibility of the profession, individual nurses, professional organizations, credentialing and certification entities, regulatory agencies, employers, and other key stakeholders."

(American Nurses Association, 2008)

## **2.2. Faculty Development Challenges**

Quality education depends on well-prepared faculty members. Faculty development and faculty vacancies are critical challenges in nursing education. As discussed in Section 1.1.1, the nursing shortage poses a significant threat to healthcare delivery in the future. Insufficient capacity in nursing schools is a major contributor to the shortage of nurses and the shortage of nursing faculty is a major cause of the capacity constraints (The Maryland Statewide Commission on the

Crisis in Nursing, 2005; Buerhaus, et al., 2004). In addition to increasing the number of faculty members, those educators need the training to enable them to incorporate evidence-based teaching practices more effectively and teach nursing students the skills that will be required in the 21<sup>st</sup> century's healthcare environment. Nursing schools require faculty who are experts in nursing education and who must possess the knowledge to serve in an advanced practice role. Furthermore, deans of schools of nursing are needed to complement these experts and act to create systems that value and reward expertise in nursing education.

In a study conducted by Smith, Cronenwett, and Sherwood (2007), the researchers found that 23% of schools reported they would like to include more educational content related to evidence-based practice and 38% wanted to provide more on quality improvement and informatics. According to another study, there were gaps in faculty members' knowledge, skills, and attitudes, particularly related to safety, informatics, and quality improvement, and in the teaching of those competencies (Cronenwett, et al., 2007).

Both now and in the future, nursing schools will require faculty who have the expertise to teach the content that students will need for effective patient care in practice environments. These faculty don't necessarily need to be experts in particular clinical areas but must have solid, foundations of understanding and be able to demonstrate good teaching skills. As evidenced by the persistent faculty shortage, this is a difficult issue to address. Among the major underlying causes contributing to the nursing faculty shortage are the aging of faculty, increasing demands to be involved in non-teaching university activities, and comparatively low salaries. Various approaches for addressing these challenges are discussed in Section 3 of this report.

### ***2.3. Nursing as Part of an Integrated Healthcare Workforce***

There is increasing evidence that inter-professional healthcare practice approaches can be effective in improving patient outcomes and reducing healthcare costs; however, there are a number of barriers to establishing effective integrated teams, including a lack of mutual understanding of roles and lack of interdisciplinary training among providers (Brashers, et al., 2001). To operate effectively as part of these teams, students need to be trained to provide inter-professional care and to participate as a member of inter-professional teams (Weekes, 2008).

"All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics."

(Institute of Medicine, 2003, p. 122)

### 3. Options for Addressing Challenges

As discussed in Section 2, there is a growing gap between education and the direction of practice for the 21<sup>st</sup> century. Education must keep pace with practice innovations and other changes in the healthcare delivery system. Education tends to adopt change incrementally while the practice environment is more nimble and therefore can more easily integrate change. This section discusses a number of options for addressing the growing gaps between these two environments.

#### 3.1. BSN – Quality and Safety

##### 3.1.1. Entry Options for Nursing: New Approaches and Old Quandaries

As outlined in Section 1, there are several different educational paths a student can take to become an RN. There is a lack of consensus, however, as to what educational background is needed for new practitioners entering the field. How, or whether, to appropriately recognize RNs with higher educational levels is an issue that has not been resolved. The same license, an RN, is bestowed to graduates of both baccalaureate and associate degrees (Buerhaus, 2008). Meanwhile, some argue that the master's degree is increasingly seen as the appropriate entry-level credential for a registered professional nurse (Bednash, 2008a).

There has been debate within the profession and among policymakers, educators, and employers as to whether the ADN entry provides an RN with the requisite background for the high-level problem-solving required of nurses, or if the baccalaureate nursing degree is a more appropriate entry point into the practice arena.

A growing body of research shows a connection between baccalaureate education and lower mortality rates. Tourangeau and colleagues (2007) studied 46,993 patients and found lower 30-day mortality rates in hospitals with higher proportions of baccalaureate degree-prepared nurses. The researchers found that a 10% increase in the proportion of nurses educated at this level was associated with nine fewer deaths for every 1,000 discharged patients. In a study of 168 Pennsylvania hospitals, Aiken, Clarke, Cheung, Sloane, and Silber (2003) found that increases in the proportion of RNs holding baccalaureate degrees were correlated with a decrease in mortality. In a study released in 2008, Aiken and colleagues confirmed the findings from the 2003 study and found that every 10% increase in the proportion of BSN nurses on the hospital staff was associated with a 4% decrease in the risk of death (Aiken, Clarke, Sloane, Lake, & Cheney, 2008). In a study examining the effect of nursing practice environments on outcomes of hospitalized cancer patients undergoing surgery, Friese and colleagues found that nurse staffing ratios and nursing education levels were significantly

“A significant number of changes [are] affecting health care delivery... namely, a shift from acute to chronic care, the need to integrate a continually expanding evidence base and technological innovations, more clinical practice occurring in teams, complex delivery arrangements, and changing patient clinician relationships. In response to the changes... the health care workforce needs adequate preparation. Responding to the changing needs of populations and making use of new knowledge requires that health professionals develop new skills and assume new roles. This requires educating, in both academic and the practice settings, health professionals differently.”

(Institute of Medicine, 2002)

associated with patient outcomes. Nurses with a baccalaureate-level education were linked with lower mortality and failure-to-rescue rates. The authors conclude that moving to a nurse workforce with a higher proportion of staff nurses prepared at the baccalaureate level or above would result in substantially fewer adverse outcomes for patients (Friese, Lake, Aiken, Silber, & Sochalski, 2008).

The American Organization of Nurse Executives (AONE), in collaboration with state and regional AONE chapter leaders, concluded that a BSN degree in nursing is the educational degree that best prepares nurses for the challenges going forward. NACNEP agrees: to improve quality and safety in U.S. healthcare, NACNEP supports the goal of having all registered nurses prepared at the BSN level or above. To facilitate this goal, policymakers should explore non-traditional approaches that allow students to earn a BSN. As Janney (2007) noted, many students do not pursue a BSN because they cannot afford it. ADNs are educated in the community without incurring the costs of a 4-year degree. We need to explore linkages between 2- and 4-year programs and the use of technology such as online courses that make education more accessible.

### **3.1.2. Implementation of Articulation Programs**

Across the nation, articulation agreements between ADN programs at community colleges and BSN programs at 4-year institutions help students who are seeking baccalaureate-level nursing education. These agreements between the 2- and 4-year institutions establish which course credits transfer across schools and contribute to an integrated education route to the BSN. Accelerated baccalaureate and master's degrees in nursing programs for non-nursing graduates enable individuals with undergraduate degrees in other disciplines to build on prior learning experiences and to transition into the field of nursing.

Various articulation programs can transition ADN nurses into BSN programs. For example, the Oregon Education Consortium has worked to standardize nursing schools' admission requirements and curricula (Robert Wood Johnson Foundation, 2006). The fully articulated statewide agreement allows credits to be transferable across all institutions in the state. Under this new system, students take the same prerequisite courses to apply to all state nursing schools; these new admission standards apply to community college students in 2-year nursing programs, granting them automatic admission into the bachelor's degree programs at Oregon Health Sciences University (OHSU) 4-year nursing schools. The new curricula should better prepare RNs to meet healthcare needs and use emerging medical technologies (National Advisory Council on Nurse Education and Practice, 2006).

The U.S. Department of Education's Office of Vocational and Adult Education (OVAE) supports vocational and community college programs to enhance efforts to provide postsecondary education and support services that help adults become employed in occupational sectors which are important to local economies. The Adult Basic Education Career Connections project promotes a Career Pathway as a framework for assisting adult basic education students to transition successfully to postsecondary programs and begin careers in high-demand fields (U.S. Department of Education, Office of Vocational and Adult Education, 2008). A Career Pathway is an articulated sequence of academic and career courses, commencing in the ninth grade and leading to an associate degree, an industry-recognized certificate or licensure, and/or a baccalaureate degree. For instance, the Bluegrass Community and Technical College (BCTC) Adult Education Program in Lexington, Kentucky is establishing a Pre-Nurse Aide Program in

which valuable, reliable, non-healthcare employees of long term care facilities will be encouraged to become nurse aides. Through the program, current laundry, housekeeping, dietary, and floor technician staff at Loudon Long-Term Health Care facilities will benefit from articulation agreements and dual credit opportunities with the college and representatives from BCTC will offer college advising. Participants will be able to obtain the Nurse Aide certification as a step on the career pathway to becoming a nurse; participants in the project will be guaranteed employment as nurse aides upon passing the Nurse Aide Certificate test (U.S. Department of Education, Office of Vocational and Adult Education, 2008).

The postsecondary component of the Career Pathway provides students opportunities to earn college credit through avenues such as dual/concurrent enrollment or articulation agreements, and alignment and articulation with baccalaureate programs and employment, business, and entrepreneurial opportunities in chosen career clusters at multiple exit points (Stanley, 2007).

As indicated above, to improve quality and safety in U.S. healthcare, NACNEP supports the goal of having all registered nurses prepared at the BSN or higher degree level. To support this objective, policymakers should provide funding for innovative linkages among community colleges, universities, and practice settings to strengthen bridge/articulation programs.

## **3.2. Academic/Practice Partnerships**

### **3.2.1. Partnerships**

Section 2.2 discussed the current nurse faculty shortage. In one approach to address this issue, an employer provides clinical faculty to an educational institution and the school teaches these staff nurses how to be clinical faculty members. This type of academic practice partnership is gaining prominence in nursing education as a vehicle for bridging educational preparation and professional practice (Herrin, et al., 2006). For example, in Florida, a community college partnered with all the hospitals in the area. The school was represented within the hospitals and conversely, the hospitals were represented within the school. Employers underwrote the costs of faculty to run weekend and evening programs, in which 500 students participated. Collaboration between academic institutions of nursing and hospitals or clinical agencies is a means of solving critical problems facing educators and clinicians (Horns, et al., 2007).

"Some of our nurses also work as adjunct faculty at local nursing schools. We pay their salary 2 days a week to offset a college's costs of hiring additional faculty. It's a fabulous opportunity for our experienced nurses to share their clinical knowledge with students."

- Jan Hunter, director of work force planning and development at John Muir Medical Center in Walnut Creek, California.

(Childers, 2008)

Partnerships address complex healthcare issues such as the shortage of nurses and nurse educators, the need to foster employee competencies by building on the values and assets brought by the partners, and efforts made at striving towards mutually beneficial goals and shared accountability. Benefits of partnerships include shared space and clinical resources and a greater research presence in the hospital (Horns, et al., 2007).

Many different kinds of partnerships have been implemented across the nation to achieve the benefits of collaboration among different institutions. One example is a national program funded by the Robert Wood Johnson Foundation, called Partnerships for Training: Regional Education Systems for Nurse Practitioners, Certified Nurse-Midwives, and Physician Assistants. This

program developed eight regional education systems to increase the number of primary care providers in federally designated medically underserved areas. These regional university-community partnerships used distance education (e.g., Web- and interactive video-based courses) to educate nurse practitioners (Brand, 2008). Another example is the AACN/University HealthSystem Consortium Partnership: this collaborative effort provides a formal curriculum in a 1-year, post-baccalaureate experience with carefully defined learning and mentorship experiences built upon the AACN Essentials of Baccalaureate Nursing Education for Professional Nursing Practice (Bednash, 2008b)

The design of a partnership is influenced by factors such as desired outcomes and regional availability, according to Smith and Tonges (2004), suggesting, for example, that a hospital interested in conducting nursing research might benefit more from a partnership with a university than a community college. The authors describe the formation, maintenance, roles, and potential benefits of a research

university/academic medical center arrangement between the University of North Carolina and the University of North Carolina Hospitals. A new model of an academic-practice partnership was implemented to facilitate rapid adoption of evidence-based practice in long term care, using steps of the Clinical Practice Improvement Process to link academic and practice settings (Schildwachter McConnell, Lekan, Hebert, & Leatherwood, 2007). An advanced practice geriatric nurse served in a liaison role between the long term care practice setting and a research-intensive school of nursing. The authors conclude that:

...academic-practice partnerships such as the one described in this case study provide the needed leadership, mentorship, and support in a collaborative process to translate and incorporate the best new evidence into practice and fosters a high level of professional engagement by nurses. Clinical rotations founded on such partnerships should provide a more effective environment for learning than settings of care where gaps between the evidence-base for practice and its implementation are not addressed systematically (p. 103).

NACNEP believes that academic-practice partnerships can be an effective means for helping to address workforce shortages and that policymakers should foster such partnerships.

### **3.2.2. Residencies / Internships**

As discussed in Section 2.1, the transition from student to nurse is a difficult one. Newly graduated nurses must hit the ground running, and without the appropriate support, the stress of this transition can lead to a high turnover rate for new nurses within their first 2 years of employment (Smith, 2008). Since it has been noted that it takes at least 1 year to master the transition into practice for nurses (Tradewell, 1996), many new nurses leave their first employers

“Past Federal investment in the health professions programs has contributed to a foundation that state and local governments, academic institutions, and the private sector can build on to address current workforce issues. To maximize the impact of our past support of these programs, the Federal government must leverage cooperation from the private sector and state and local governments. We must address the health workforce issues with an innovative approach -- partnerships between the private sector, academic institutions, and the communities they serve will be critical to necessary workforce development.”

(Brand, 2008)

before they have had a chance to become comfortable in their new environment. Although healthcare organizations spend significant time and resources on nurse recruitment, orientation, and training, new nurse graduates account for more than half of the turnover rate in some hospitals, according to a study published in 2007 by Johns Hopkins University School of Nursing researchers. This turnover is attributed to the challenges that many graduates face in their first year of employment. Furthermore, many discover that disparities between the student and staff nurse roles create unexpected professional and personal struggles that are difficult to manage (Study finds intern program could reduce job turnover for new nurses, 2007).

With the national shortage of RNs, new graduates have increasingly been assigned to care for acutely ill patients with complex needs, yet specialty preparation has not been emphasized at the baccalaureate level (Goode

& Williams, 2004). Hospitals must meet accreditation standards set by Joint Commission on the Accreditation of Healthcare Organizations, including making certain that healthcare providers possess the appropriate knowledge, skills, attitudes, and competencies needed in their critical areas. As noted in Section 2.1, a recent hospital study showed that while new graduates felt that they possessed the necessary knowledge to perform well, preceptors and management reported that those new graduates lacked specific skills such as how to insert an intravenous line, chart patient information, use clinical information systems, and perform other tasks and interventions they could have practiced in school or during clinical training (Yurdin, 2007).

An approach to addressing these issues is the use of nurse residency/intern programs, which prepare nursing students for practice in the working environment prior to their graduation from nursing programs. Butlin (2008) noted that the Commission on Collegiate Nursing Education (CCNE) has worked since 2004 to develop an accreditation process for post-baccalaureate nurse residency programs. In 2008, there were 40 University HealthSystem Consortium (UHC) residencies following the curriculum established by the UHC and AACN. CCNE established a task force to develop accreditation standards; these were approved in 2008 by the CCNE Board.

Organizations such as the American Hospital Association and the Joint Commission on Accreditation of Healthcare Organizations have called for the creation of residency programs in nursing, similar to those for physicians. In 2002, the AACN and the UHC sponsored a 1-year nurse residency program at six sites, with 15 additional sites established by 2004. Goode and Williams (2004) describe the residency pilot demonstration program as consisting of a series of learning and work experiences designed to provide the knowledge and skills needed by new graduates working in acute care settings. The purposes of the program were to transition advanced beginner nurses to competent professional nurses, develop the skills of new graduates in areas such as effective decision-making related to clinical judgments and performance, create supportive work environments, provide clinical leadership at the point of patient care, decrease patient care errors, strengthen the individual's commitment to nursing as a career choice,

"Marquette University College of Nursing runs a 1-year residency program for first-year nurses at 40 Wisconsin hospitals. Known as the Wisconsin Nurse Residency Program (WNRP), the initiative is intended to help first-year nurses better adjust to their new careers. The junior nurses are paired with veteran nurses who provide clinical coaching on the job; they also attend monthly 6-hour classes on critical issues and follow a professional development plan tailored to their needs. After 3 years, 87% of the nurses who completed the program continue to work at the same hospital, a figure that is well above national average retention rates for first-year nurses."

(Agency for Healthcare Research and Quality, 2008)

formulate an individual development plan related to the nurse's new clinical role, incorporate research-based evidence into practice, and lower nursing staff turnover (Goode & Williams, 2004). The UHC and AACN have worked to have this program accredited (Goode & Williams, 2004).

Such programs help transition new graduates to becoming professional RNs, support them in providing competent and safe care, and increase job retention. Program components include guided clinical experience with a preceptor, orientation for new nurses working in specialty areas, and residencies in academic health centers. Goode and Williams (2004) state that "the research indicates that to address the needs of new graduate nurses, more attention needs to be paid to the development and implementation of a post-baccalaureate nurse residency program that is standardized across acute care institutions".

Because these programs are costly, employers providing financial, staffing, and physical resources are interested in seeing evidence of their cost and personnel benefits. To study the effectiveness of residency programs, the Robert Wood Johnson Foundation conducted an evaluation in 2005. Over the course of the nurse residency program, graduates expressed greater confidence, competence and job mastery, and an increase in their perceived ability to organize and prioritize. Graduates of the program remained in their jobs for 1 year at significantly higher rates than rates shown nationally for new nurses. In 2007, 93.5% of residents were still in their first employment position 1 year after graduation, as opposed to the 40 – 50% average turnover rate for new graduates (Bednash, 2008b). Residents had positive evaluations of the program in the areas of recruitment, welcome to the workplace, program goals, views of the program, and program faculty and curriculum. However, residents were less satisfied with their job by program's end than at the beginning, although this lessened at 6 months following their graduation (American Association of Colleges of Nursing and the University HealthSystem Consortium, 2005).

NACNEP believes that policymakers should support nurse residencies to help ensure an improved transition into practice. This will help to improve patient outcomes among nurses and improve nurse retention.

### **3.3. Inter-professional Education**

As discussed in Section 2.3, there is increasing evidence that interdisciplinary and inter-professional healthcare practice approaches can be effective in improving patient outcomes and reducing healthcare costs. However, there are a number of barriers to establishing effective integrated teams, including a lack of mutual understanding of roles and a lack of interdisciplinary training among providers (Brashers, et al., 2001). Interdisciplinary education in healthcare and opportunities for nurses to learn alongside healthcare professionals from other disciplines offer students benefits from their shared learning; it also enhances inter-professional interaction leading to better understanding and collaboration in the workplace (Fealy, 2005). Fealy points to the effective and efficient utilization of human and material resources in shared learning environments. Models of interdisciplinary learning include didactic experiences with sharing of courses and modules, clinical practice involving learning experiences in interdisciplinary care delivery, and project-based student experiences incorporating these two elements. Challenges to collaboration in interdisciplinary education that must be addressed include traditional power differentials and hierarchical relationships (Fealy, 2005).

#### **Case Study: Implementing a Nursing Residency**

The RN residency program is proving to be a viable, long-term solution to bolster clinical confidence and competence among new RN professionals.

As part of its ongoing strategic planning, John Muir Medical Center in Walnut Creek, Calif., a 325-bed facility, examined its workforce, patient demographics, and anticipated growth. The result was a workforce development plan spanning a 7-year horizon.

John Muir determined that it had issues with nurse staffing—for first-year nurses, turnover was 24%; by 2 years it reached 35%—and was likely to see those workforce problems continue. The medical center called for a comprehensive strategy. As a first step, the hospital forged numerous partnerships with local nursing schools: it allocated funds for the schools to hire extra instructors and it shared lab space with students. In addition, some John Muir nurses held adjunct-faculty positions and worked collaboratively at the schools to keep the academic programs well-targeted and relevant for today's new nurses.

John Muir then adopted a comprehensive residency, starting with a cohort of 44 nurses. The hospital outsourced the residency program, customizing the residency as an 18-week combination of classroom instruction and hands-on clinical learning with a preceptor at the bedside.

The formal, structured nursing residency replaced the hospital's 8-week orientation program. John Muir found that the structure of the residency not only helped train its newly graduated nurses, it also led mentors and preceptors to adopt standardized, uniform practices that further improved patient outcomes.

After 3 years of training its graduate nurses through the residency, John Muir has achieved notable results, estimating that it is saving at least \$1 million annually. Turnover has shrunk to 6.6%, an achievement that has reduced the hospital's need for new nurses. At current rates, the hospital expects to need only six new nurses in 2012—even as it expands its facility by 100 beds.

(Krozek, 2008)

Another approach to interdisciplinary education is to include trainers from different healthcare professions on teaching teams. Team-taught classes integrating faculty and students from different disciplines are increasingly used to prepare healthcare professionals for the team-based work environment that characterizes many healthcare delivery systems (Dyer, 2003).

In an attempt to improve patient safety and reduce errors, Brigham and Women's Hospital has established an interdisciplinary committee of senior pharmacy and nursing leadership, nursing staff educators, and pharmacists to create a joint orientation program with nurses and pharmacists (Cina, et al., 2004). In addition to improving safety and efficacy in the medication use process, the authors noted that the program enhanced communication among the participating providers and increased awareness of the various roles played by the two disciplines in this process.

In the 2002 Health Professions Education summit, the Institute of Medicine planning group advocated that all healthcare professionals be educated to practice as members of interdisciplinary teams emphasizing evidence-based practice, quality improvement, and informatics (Institute of Medicine, 2003). Some benefits of this concept identified in the research literature include demonstration of competencies, good patient outcomes from effective nurse/physician communication, greater patient satisfaction and safety, and cost effectiveness of collaborative practice (Shaver, 2005; Sievers & Wolf, 2006). Shaver concludes that there is little visibility for sustainable collaborative practice models, stressing the need for adoption of interdisciplinary education and collaborative practice as a cultural value along with reconciling different worldviews and addressing power differentials.

Barriers to interdisciplinary team development that have been identified include the historical legacy of the different professions, differences across health professions in educational and socialization processes, gender inequality and role disparities, and changing and overlapping practice domains (Tillet, 2007). Pringle (2005) points to frustrated attempts to sustain interdisciplinary educational programs and the challenges to the nursing professional in particular, since most nursing schools are not located in universities where other healthcare professionals are trained, or are housed in universities that do not have a medical school or other health sciences. As nursing programs shift to university settings, the potential for shared learning increases.

NACNEP believes that policy makers should support interdisciplinary and inter-professional education. This can be achieved through development of interdisciplinary and inter-professional models and demonstration projects that integrate education of healthcare professionals to provide collaborative and consumer-centered care.

### ***3.4. Develop and Test Innovative Program Models/Technology Models***

#### **3.4.1. Technology in Education**

Information technology can facilitate the delivery of course materials, streamline course management, improve access by students and faculty, reduce costs, and improve learning outcomes (Bradley, 2003). A wide range of information technologies have applications in nursing education, including e-learning, simulations, blogs, and online scholarly and research

journals. Technologies such as clinical simulation and e-learning can help institutions leverage limited resources and thereby expand teaching capacity.

Clinical simulation is an IT tool that is growing in acceptance and adoption. A study in Virginia found that if 25% of clinical training was replaced with simulations, an additional 250 clinical training slots would be made available (Drenkard, 2008). E-learning and virtual technologies offer adjuncts to live clinical education, reducing barriers associated with limited experiences, limited clinical sites, and limited clinical faculty resources (Krautscheid & Burton, 2003). These technologies can help effectively leverage limited teaching resources like classroom space.

Use of these technologies is increasing but more research and information is needed to facilitate wider implementation. While there is limited research on best practices, an example of such research is the Quality and Safety Education for Nurses (QSEN) project. The goal of QSEN is to reshape professional identity formation in nursing so that it includes the commitment to the development and assessment of quality and safety competencies. The QSEN project is supported by expert faculty across the United States and an Advisory Board composed of leaders in organizations that set standards for nursing regulation, certification, and accreditation of nursing programs. The project is being implemented in two phases, the first of which concluded in March 2007 and focused on identifying the desired competencies; describing the knowledge, skills, and attitudes expected to be developed in the pre-licensure curricula; obtaining feedback and building consensus for inclusion of the competencies in pre-licensure curricula; developing teaching strategies for classroom, group work, simulation, clinical site teaching, and inter-professional learning; and creating a Web site with resources for faculty (Cronenwett, 2008). In the second phase, QSEN will partner with representatives of organizations that represent advanced practice nurses to draft proposed knowledge, skill, and attitude targets for graduate education. This phase also includes work with 15 pilot schools who commit to active engagement in curricular change to incorporate quality and safety competencies (Quality and Safety Education for Nurses, 2007).

Careful planning is required to ensure that technologies are implemented in a way that optimizes usability, access, and cost. To increase access to education for faculty and students, policy-makers should facilitate the development and testing of innovative technology for education such as simulation, distance learning, and virtual worlds. NACNEP believes policymakers should support increased use of healthcare technologies both to prepare faculty to teach effectively and efficiently and also to prepare nurses for practice in complex healthcare delivery systems.

### **3.4.2. Nursing Practice Models**

Challenges in the healthcare environment are forcing healthcare organizations to examine new practice models to reduce costs while maintaining quality of care. To respond to the changes in the practice environment, organizations can alter their practice arrangements. Nursing practice models are innovative practice arrangements that differ from traditional models on one or more of the following structural dimensions:

- The degree to which the practice of individual nurses is differentiated according to education level or performance competencies;
- The degree to which nursing practice at the unit level is self-managed, rather than managed by traditional supervisors;

- The degree to which case management is employed; and
- The degree to which teams (either nursing or multidisciplinary) are employed. Many practice models contain more than one of these elements and also include elements of primary nursing (Weisman, 2007).

Other structural dimensions may be used, but overall, some practice models are intended to optimize costs, while others are intended to deal with staffing constraints. Policy makers should support evaluation and adoption of innovative models that are intended to address challenges facing the nurse practice environment. Such models should provide learning opportunities that emphasize safe, coordinated, and affordable healthcare.