



# Educational Capacity Annotated Bibliography

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The Nightingale Center for Nursing Scholarship (NCNS) has taken an extensive and critical review of the literature on educational capacity and transformation of nursing education. The attached annotated bibliography offers citations on relevant journal articles, books, editorials, and online resources on the broad topics of nursing education and the nursing workforce.

A note on organization: The bibliography is broken down into the two main categories with several sub-categories under each.

- I. Nursing Education
  - a. Clinical Education
  - b. Education Transformation
  - c. Key Website Resources
- II. Nursing Workforce
  - a. Economics & Policy
  - b. Trends
  - c. Nursing Shortage
  - d. Workforce Development

The flash-drive contains a folder named *Education Capacity Articles* with sub-folders arranged as indicated above. For your convenience we have placed copies of *non-copyrighted* material in each of the sub-folders. An empty sub-folder indicates all the material listed in the bibliography are copyrighted.

If you have any questions or comments about this bibliography please feel free to contact Sarah Trimmer at [trimmers@uwyo.edu](mailto:trimmers@uwyo.edu) or 307.766.3906.

# I. NURSING EDUCATION

## a. Clinical Education

Barnett, T., M. Cross, et al. (2009). "The evaluation of a successful collaborative education model to expand student clinical placements." Nurse Education in Practice **10**(1): 17-21.

Worldwide, universities have been encouraged to increase the number of students enrolled in nursing courses as a way to bolster the domestic supply of graduates and address workforce shortages. This places pressure on clinical agencies to accommodate greater numbers of students for clinical experience who, in Australia, may often come from different educational institutions. The aim of this study was to develop and evaluate a collaborative model of clinical education that would increase the capacity of a health care agency to accommodate student placements and improve workplace readiness. The project was undertaken in a medium sized regional hospital in rural Australia where most nurses worked part time. Through an iterative process, a new supported preceptorship model was developed by academics from three institutions and staff from the hospital. Focus group discussions and interviews were conducted with key stakeholders and clinical placement data analyzed for the years 2004 (baseline) to 2007. The model was associated with a 58% increase in the number of students and a 45% increase in the number of student placement weeks over the four year period. Students reported positively on their experience and key stakeholders believed that the new model would better prepare students for the realities of nursing work.

Diefenback, C. A. e. a. (2006). "Clinical immersion: a residency model for nursing education." Nursing Education Perspectives **27**(2): 72-79.

The education of future generations of nurses is in need of philosophic and programmatic transformation in keeping with the rapidly changing health care delivery system. The Nurse Residency Model is one baccalaureate nursing program's response to calls for reform. Rooted in a spirit of collegiality and lifelong learning, the three facets of its philosophy include enhanced socialization, improved transition to practice, and increased student accountability. Students gain increased competency and demonstrate increased accountability with each progressive semester in the program, which culminates in clinical immersion in the senior year. Unique programmatic features of this model include field experiences, the simulation lab, and a work requirement. Additional benefits include resource efficiency and patient safety. Implementation remains an ongoing process. Outcome indicators are expected to yield valuable data on which to develop an evidence base in support of the model.

Edgecombe, K., Wotton, K., Gonda, J., & Mason, P. (1999). "Dedicated education units: 1 a new concept for clinical teaching and learning." Contemporary Nurse **8**(4): 166-171.

The Dedicated Education Unit (DEU) is a new concept in clinical nurse education. The DEU a major role in enhancing links between health care providers and The Flinders Unit of South Australia (FUSA) School of Nursing. The collaborative venture has created a more positive clinical learning environment, maximized the achievement of student learning outcomes, and nurtured closer partnership between clinicians and academics. Recognition of mutuality, respect and trust among all stakeholders is central to its success. This paper (part one) explains the rationale for the DEU and describes its inherent value. Part two reports on an evaluation.

Gonda, J., Wotton, K., Edgecombe, K., & Mason, P. (1999). "Dedicated education units: 2 an evaluation." Contemporary Nurse **8**(4): 172-176.

This paper reports on an evaluation of a new concept in clinical nurse education: the Dedicated Education Unit (DEU). Developed by the School of Nursing, The Flinders University of South Australia, the DEU aims to optimize undergraduate student learning through enhancement of the clinical learning environment and collaboration between clinicians, academics and students. Three DEUs involving 91 students were evaluated, using primarily summative methods to elicit positive and negative attributes of the DEUs. Outcomes indicated that the DEU is a highly appropriate clinical placement model. (Part one of this paper explained the rationale for the DEU and its key features.)

Jacobson, L., C. Grindel, and B.F. Lewis (2006). "What is happening in pre-licensure RN clinical nursing education? Findings from the faculty and administrator survey on clinical nursing education." Nursing Education Perspectives **27**(2): 108-9. Retrieved May 19, 2010 at <http://www.thefreelibrary.com/ /print/PrintArticle.aspx?id=145571649>

The question of what constitutes adequate clinical nursing education for entry-level RN practice continues to be a source of concern and even apprehension throughout the United States. Ever since the Institute of Medicine issued its 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century* (1), followed by *Health Professions Education: A Bridge to Quality* (2), followed by public, regulatory, and accrediting agencies, employers, and other state-level and national professional nursing organizations have expressed concern about the preparation of entry-level RNs. Do they receive sufficient hands-on, effective, supervised clinical nursing education to ensure safe nursing practice?

Jeffries, P. R. (2005). "A framework for designing, implementing, and evaluating simulations used as teaching strategies in nursing." Nursing Education Perspectives **26**(2): 96-103.

This article presents a framework that can be used to design, implement, and evaluate simulations used for teaching strategies in nursing education. Components of the framework include best practices in education, student factors, teacher factors, simulation design characteristics, and outcomes. Variables are identified for each of the framework components.

Jeffries, P. R., & Rizzolo, M.A. (2006). "Designing and implementing models for the innovative use of simulation to teach nursing care of ill adults and children: a national, multi-site, multi-method study." National League for Nursing. Published online by National League for Nursing (NLN), retrieved May 19, 2010 at [www.nln.org](http://www.nln.org)

The purposes of this national, multi-site, multi-method project were fourfold: 1) To develop and test models that nursing faculty can implement when using simulation to promote student learning, 2) To develop a cadre of nursing faculty who can use simulation in innovative ways to enhance student learning, 3) To contribute to the refinement of the body of knowledge related to the use of simulation in nursing education, and 4) To demonstrate the value of collaboration between the corporate and not-for-profit worlds.

MacIntyre, R. C., T. A. Murray, et al. (2009). "Five Recommendations for Pre-licensure Clinical Nursing Education." Journal of Nursing Education **48**(8): 447-453.

The acute shortage of RNs is both well established and projected to continue. Two primary factors contributing to the nursing shortage are insufficient numbers of faculty and insufficient clinical sites for students. Innovative academic-service partnerships are realigning these scarce resources to improve the quality of clinical education and build cultures of safety. Relationships among students, staff nurses, faculty, and the institutions where they practice are central to students' socialization, professional role development, and transition to practice. Five recommendations to strengthen these professional relationships are suggested to: re-envision nursing student-staff nurse relationships, re-conceptualize the clinical faculty role, enhance development for school-based faculty and staff nurses working with students, reexamine the depth and breadth of the clinical component, and strengthen the evidence for best practices in clinical nursing education. Five key outcomes are suggested to evaluate both traditional and emerging approaches to clinical nursing education.

Moscato, S. R., Miller, J., Logsdon, K., Weinberg, S., & Chorpensing, L (2007). "Dedicated education unit: An innovative clinical partner education model." Nursing Outlook **55**: 31-37.

This article describes the implementation and evaluation of the Dedicated Education Unit (DEU) as an innovative model of clinical nursing education. A partnership of nurse executives, staff nurses and faculty transformed patient care units into environments of support for nursing students and staff nurses while continuing the critical work of providing quality care to acutely ill adults. Various methods were used to obtain formative data during the implementation of this model in which staff nurses assumed the role of nursing instructors. Results showed high student and nurse satisfaction and a marked increase in clinical capacity that allowed for increased enrollment. This article reports on a 3-year project to operationalize the DEU concept with 6 nursing units in 3 hospitals. The development of staff nurses as clinical instructors, best practices to teach and evaluate critical thinking in students, and the mix of student

learners continue as focus areas.

Novotny, J. M., M. Donahue, et al. (2004). "The clinical partnership as strategic alliance." Journal of Professional Nursing **20**(4): 216-221.

The purpose of this article is to describe a renewed partnership between a collegiate school of nursing and a community hospital. Universities and hospitals are searching for creative solutions to increase the number of registered nurses available to meet the demand for nursing care. An affiliation agreement had been in existence for many years, but health care system imperatives made it necessary to redesign the partnership between nursing education and nursing service. The model used to develop this new partnership is based on the work done in the field of management and is in the form of a strategic alliance. The success of a strategic alliance depends on two key factors: the relationship between partners and partnership performance. Identified outcomes show that this partnership is helping to meet the increasing demand for nursing care by building student capacity, satisfying mutual needs of faculty and clinical staff, and removing economic barriers. This article describes the development of the strategic alliance, its current status, and strategies for the future. (C) 2004 Elsevier Inc. All rights reserved.

Paton, B., R. Thompson-Isherwood, et al. (2009). "Preceptors Matter: An Evolving Framework." Journal of Nursing Education **48**(4): 213-216.

Preceptors teach students within complex, unpredictable, and often chaotic environments. The teaching expertise that preceptors acquire as they guide, facilitate, and evaluate student learning often is overlooked by both academia and service. The purpose of this triangulated research was to create a profile of nurse preceptors and reveal teaching expertise through the interpretation of preceptors' everyday experiences and challenges. The findings of this research are brought forward through the three main understandings of discovering, learning, and engaging. Dissemination occurred through the development of a collaborative Centralized Preceptorship Education Project that included three health regions, seven academic institutions, and professional regulating bodies, as well as the development of a preceptor educational framework, entitled Preceptors Matter. Our intent throughout the research and dissemination process was to legitimize the preceptor role by revealing expertise, connecting conversations, and offering opportunities for extension.

Preheim, G., K. Casey, et al. (2006). "Clinical Scholar Model: providing excellence in clinical supervision of nursing students." Journal for Nurses in Staff Development **22**(1): 15-20; quiz 21-2.

The Clinical Scholar Model (CSM) is a practice-education partnership focused on improving the outcomes of clinical nursing education by bridging the academic and service settings. An expert clinical nurse serves as a clinical scholar (CS) to coordinate, supervise, and evaluate the clinical education of nursing students in collaboration with school of nursing faculty. This article describes the model's evolution, how the model is differentiated from traditional clinical instruction roles and responsibilities, and the benefits to the collaborating clinical agency and school of nursing.

Tanner, C. A. (2006). "The next transformation: clinical education." Journal of Nursing Education **45**(4): 99-100.

Clinical education in nursing is coming under increasing scrutiny, and I think it's about time. In fall 2004, apparently concerned about innovations address the nursing shortage that might reduce the quantity and quality of clinical education, the American Organization of Nurse Executives passed a position paper on pre-licensure clinical instruction. Similarly, in August 2005, the National Council of State Boards of Nursing adopted its position paper on clinical instruction in pre-licensure nursing programs. Both organizations support innovation and research, but are clear that nursing education programs must include clinical experiences with actual patients, supervised by qualified faculty who provide feedback and facilitate reflection.

Udlis, K. A. (2008). "Preceptorship in undergraduate nursing education: An integrative review." Journal of Nursing Education **47**(1): 20-29.

The traditional clinical component of undergraduate nursing education has been reputed to inadequately prepare students for professional nursing. Preceptorship programs have become prevalent in nursing education as an alternative clinical teaching method, yet few empirical studies have been performed to support its benefits or advantages over the traditional clinical experience. Sixteen research studies

examining measurable changes in students as a result of preceptorship were reviewed. Overall, 56% of the studies reviewed supported the use of preceptored clinical experiences in undergraduate nursing education, whereas the remaining 44% found no significant differences in students after a preceptorship experience. Specifically, preceptorship failed to demonstrate significant benefits over traditional clinical in the areas of critical thinking, clinical competence, and NCLEX-RN (R) pass rates. Further empirical studies are warranted to elucidate the role of preceptorship in undergraduate nursing education.

Whalen, K. S. (2009). "Work-related stressors experienced by part-time clinical affiliate nursing faculty in baccalaureate education." International Journal of Nursing Education Scholarship 6(1): Article30.

This descriptive and multivariate correlational study identifies work-related situations that were perceived as stressful in a sample of part-time clinical affiliate nursing faculty (n = 91) from a western state who teach in baccalaureate programs. The most stressful conditions include being physically and emotionally drained; working outside regular hours; dealing with the number of role expectations; and receiving inadequate monetary compensation. Subjects reported other specific stressful situations related to their work with clinical agencies, universities, and students. The researcher also examined the relationships between selected background factors (number of years of clinical teaching experience, clinical teacher education, and holding a second job), role stress, and job satisfaction. Even though this sample had a high job satisfaction rating, the variable, role stress, was shown to significantly predict job satisfaction. Lastly, implications for nurse educators in baccalaureate programs are explored.

## **b. Education Transformation**

Nursing, N. L. f. (2003). "Position statement: Innovation in nursing education: a call to reform."

The National League for Nursing's Curriculum Revolution of the late 1980s called for a re-examination of curricular structures and processes: how nursing programs were designed, what they were striving to accomplish and how student learning was facilitated. Since that time, many schools have sought to implement innovative programs. Yet a closer look reveals that much of this "innovation" has focused on the addition or re-arrangement of content within the curriculum, rather than on significant, "paradigm shift"-type changes. Furthermore, despite significant changes in the healthcare system and in nursing practice, many nurse educators continue to teach as they were taught (Diekelmann, 2002) and for a health care system that no longer exists (Oesterle & O'Callaghan, 1996; Porter-O'Grady, 2003).

(2006). "A report addressing the resources needed to increase the capacity of the Kansas Board of Regents system for educating registered nurses. Charge from the Legislative Budget Committee." Kansas Nurse 81(1): 13-20.

The Legislative Budget Committee expressed concern over the shortage of nurses in Kansas and recognized that the problem will only become worse as the current workforce nears retirement. As a result, the committee recommended that the Board of Regents submit a report to the Governor and the 2006 Legislature addressing the resources needed to increase the capacity in the state's higher education system for educating registered nurses by 25 percent. It was also requested that the report include a timeline for rebuilding the infrastructure to accommodate up to 250 more nursing student admissions annually. The Kansas Board of Regents appreciates the opportunity to respond to this issue. The report begins with a background of the nursing shortage drawing upon both national and Kansas studies. The next section, Filling the Pipeline, focuses on the successful efforts of various organizations in attracting more interest in the nursing profession. As a result of these efforts, a new problem has surfaced - postsecondary program capacity and growth, referred in the report as, Widening the Pipeline. The paper also addresses the various barriers to increasing capacity and growth. The report concludes with recommendations, projected costs, and a stated timeline for the project.

(2008). "Nursing education capacity summit final report." 1-15. Retrieved May 19, 2010 at <http://championnursing.org/resources/2008-nursing-education-capacity-summit-final-report>

The U.S. Department of Labor, Employment and Training Administration, the Robert Wood Johnson Foundation, the Center to Champion Nursing in America, and the U.S. Department of Health and Human Services, Health Resources and Services Administration sponsored a national Nursing Education Capacity Summit that addressed critical issues faced by colleges and universities face in educating nurses.

The Nursing Education Capacity Summit focused on four key aspects of increasing nursing education capacity: 1) Strategic Partnerships and Resource Alignment; 2) The Role of Policy and Regulation; 3) Increasing Faculty Capacity and Diversity; and 4) Education Redesign. States were invited to assemble a team and required to bring representation from each of the seven categories including: the nursing education system; employers of nurses; the Workforce Investment System; regulatory bodies; nursing leadership, government agencies, policymakers and policy and consumer advocates; and State or regional philanthropic organizations.

Benner, P., Stuphen, M., Leonard, V., Day, L. (2010). *Educating Nurses: A Radical Transformation*. San Fransisco, CA, Jossey-Bass.

The book can previewed at: [http://books.google.com/books?id=DE757IzAvFwC&source=gbs\\_navlinks\\_s](http://books.google.com/books?id=DE757IzAvFwC&source=gbs_navlinks_s)

Coonan, P. R. (2008). "Educational innovation: Nursing's leadership challenge." *Nursing Economics* **26**(2): 117-121.

Hospitals are increasingly looking for the best graduates, but as this competitive environment increases, little focus is on collaboration and innovation in changing the education system so there will be more "best nurses." In universities today we find numerous barriers to investment in innovation and risk, which hampers the ability to address national workforce needs and compete in a global marketplace. Academic institutions need to become more creative, and begin to look at nursing as a partnership between those who essentially purchase our product and those who develop the product. Nursing leadership needs to collaborate quickly with integration and innovation in developing, improving, and maintaining the skill set of the nursing workforce and assuring competent practitioners from our educational system going forward. We need to share our valuable resources and move out of our silos and begin to look at the big picture, and we need to reach inside and find that creative child that works within us.

Cleary, B. L., A. B. McBride, et al. (2009). "Expanding the Capacity of Nursing Education." *Health Affairs* **28**(4): W634-W645.

Assuring a nurse workforce that is large enough and possesses the right competencies for the changing demographics and health reform scenarios of the early twenty-first century is nothing short of an imperative. Getting there will involve continual recruitment of a talented and diverse group of people and increasing nurses' progression to a more highly educated workforce, no matter where they enter the profession. These actions will enable the United States to fill vacant nursing faculty positions as we simultaneously recreate how nursing education is delivered in this country. The nation's health is dependent on the actions we now take. [Health Affairs 28, no. 4 (2009): w634-w645 (published online 12 June 2009; 10.1377/hlthaff.28.4.w634)]

Giddens, J., D. Brady, et al. (2008). "A new curriculum for a new era of nursing education." *Nursing Education Perspectives* **29**(4): 200-4.

The need for curriculum reform, a common theme in the nursing and health sciences literature for a number of years, is becoming urgent. This article describes an innovative undergraduate nursing curriculum. Central to the curriculum revision were the adoption of a conceptual approach, the institution of clinical experiences driven by conceptually based learning, and a focus on experiences across population groups and practice settings. An innovative, Web-based community was developed as a platform for the curriculum.

Green, A., Fowler, C., Sportsman, S., Cottenoir, M., Light, K., & Schumann, R. (2006). "Innovation in nursing education: A statewide grant initiative." *Policy, Politics, & Nursing Practice* **7**(1): 45-53.

Meeting the challenges of the nursing shortage appears to be daunting for schools of nursing across the nation as they struggle to meet educational capacity needs with limited resources. A statewide grant program was developed and implemented through legislative initiatives providing opportunities for schools of nursing to respond to the need for innovation in nursing education. This article shares some of the successes and challenges identified through the process of implementing and evaluating this grant program. Insights into the political and regulatory process are provided as a model for other states to consider. Examples of educational strategies that were successful in improving the recruitment and

retention of students and faculty are discussed. Nursing and other health care leaders across the nation should look to policy initiatives such as grant programs to infuse innovation into educational programs and to address educational capacity issues compounding the nursing shortage.

Gubrud-Howe, P., K. S. Shaver, et al. (2003). "A challenge to meet the future: Nursing education in Oregon, 2010." Journal of Nursing Education **42**(4): 163-167.

Nursing leadership in Oregon has united behind a plan to address the nursing shortage, setting forth five strategic goals. Two of these are specific to nursing education-to double enrollment by 2004 and redesign nursing education to more directly meet the changing health care needs of Oregonians. This article describes the Oregon Nursing Leadership Council plan and the processes used to develop it. Controversial issues, challenges, and future directions also are discussed.

Henderson, T. M. and S. B. Hassmiller (2007). "Hospitals and philanthropy as partners in funding nursing education." Nursing Economics **25**(2): 95-+.

Important public sources of institutional funding for nursing education have shifted over the years. Federal funding has nearly vanished, and state funding has become less dependable because of budget shortfalls and economic declines. Nursing education needs a new strategy for sustaining itself and growing to meet the demands of health care today and tomorrow. Collaborations with private sector hospitals, foundations, and government are proving effective in a number of states and have the potential to lead nursing education into a strong future.

Ironside, P. M., & Valiga (2006). "Creating a vision for the future of nursing education: moving toward excellence through innovation." Nursing Education Perspectives **3**(27).

Despite the plethora of challenges nurse faculty face daily, they are unwilling to accept mediocrity in their own work and in that of their students and colleagues. They are raising standards and expectations for themselves, their peers, their students, and the profession as a whole. They are beginning to base their approaches to teaching and learning on research rather than on anecdotal evidence or tradition.

Joynt, J., & Kimball, B. (2008). "Blowing open the bottleneck: Designing new approaches to increase nurse education capacity." 1-35.

This paper was commissioned by the Robert Wood Johnson Foundation; the Center to Champion Nursing in America; and the U.S. Department of Labor, Employment and Training Administration to provide background for participants attending the national Nursing Education Summit in June 2008. The purpose of this paper is to provide a concise but comprehensive understanding of the complexity of nursing education capacity and to inform Summit participants of pioneering solutions currently in development across the nation. The paper is designed to stimulate innovative thinking and help multi-stakeholder teams develop and implement creative solutions to the challenge of insufficient nursing education capacity.

Karshmer, J. F. (2003). "Oregon Education-based Technology Needs Assessment: Expanding Nursing Education Capacity." 1-24. Retrieved on May 19, 2010 at [http://www.oregoncenterfornursing.org/documents/Tech\\_Assessment.pdf](http://www.oregoncenterfornursing.org/documents/Tech_Assessment.pdf)

Oregon, a rural and frontier state<sup>1</sup>, needs to produce at least twice its current annual level of Registered Nurse (RN) graduates to solve its acute and growing nursing shortage. Combining technological applications in support of classroom and clinical education can make the best use of limited faculty, financial and clinical placement resources. The Oregon Center for Nursing coordinated a comprehensive needs assessment of present technology resources and needs in all of Oregon and Southwest Washington's nursing education programs during October 2003. Through site visits, face-to-face interviews, phone interviews, and re-verification of data, it was documented that nursing education programs throughout Oregon and Southwest Washington were utilizing various technology media to provide both theory and clinical education components. One hundred percent of the nursing education programs in Oregon and Southwest Washington (n=23) were assessed. All 23 programs offered web-enhancement of traditional face-to-face courses; nine programs offered online courses; seven programs utilize videoconferencing in nursing education; three programs utilize high-fidelity clinical simulation and virtual reality in clinical education. Gaps and needs in technology were identified.

Recommendations for utilization of technology in nursing education as a method to expand capacity were made.

Oermann, M. H. (2004). "Reflections on undergraduate nursing education: a look to the future." International Journal of Nursing Education Scholarship 1: Article 5.

The nursing shortage combined with a shortage of faculty have created new challenges for schools of nursing particularly at the undergraduate level. At a time when schools are attempting to increase student enrollment, there are fewer faculty available for teaching those students. Faculty are increasingly faced with more responsibilities and demands placed on them to prepare students with essential knowledge and skills for beginning practice. The purposes of this paper are to examine current challenges in undergraduate nursing education and some strategies for addressing them.

Murray, T. A. (2007). "Expanding education capacity through an innovative practice-education partnership." Educational Innovations 47(7): 330-333.

This article describes a unique demonstration project using a collaborative practice and education partnership to expand baccalaureate student education capacity by 75% in an accelerated nursing program. Components of the project include using hospital-paid (donated) master's clinicians as clinical faculty; using online course delivery for the non-clinical theory nursing courses, thereby decreasing the need for classroom space; employing a Web instructional designer to convert the existing master's nurse educator program to an online format in an effort to increase the pipeline of nursing faculty; renovating existing space to expand the nursing skills laboratory; and purchasing equipment and supplies for the simulated patient environment modules in the expanded skills laboratory space. Both formative and summative measures will be used to evaluate the project, which is expected to produce 24 additional workforce ready baccalaureate-prepared RNs in 15 months.

Murray, T. A. (2008). "An academic service partnership to expand capacity: What did we learn." The Journal of Continuing Education in Nursing 39(5): 217-224.

This article highlights the educational needs that emerged when an academic institution and a hospital partnered to produce more nurses in response to the registered nurse shortage. The partnership proposed to offer quality clinical experiences for students by having the hospital-paid nurse clinicians serve as faculty. This would enable the academic partner to increase enrollment amid limited faculty resources. The qualitative feedback received may prove useful in (1) guiding the professional development activities of future nurse clinicians who participate in education–service partnerships to expand educational capacity; (2) assisting academic nursing program administrators and faculty to expand capacity without compromising quality; and (3) assisting hospital nurse administrators to weigh risks and returns to pursue mutually beneficial outcomes.

Scheckel, M. and T. M. Valiga (2007). "Advancing the science of nursing education: more findings from the National Survey on Excellence in nursing education." Nursing Education Perspectives 28(3): 167-9.

The article presents a survey conducted by the National League for Nursing's (NLN) Nursing Education Advisory Council in the U.S. The survey aimed to establish a baseline regarding the extent to which faculty in all types of nursing education programs perceived that the NLN Hallmarks of Excellence in Nursing Education were evident in their educational environments. Results indicated that 48% of respondents perceived that students and faculty were contributing to the science of nursing education by critiquing pedagogical research and 63% believed that pedagogical research were being used.

### **Key Website Resources**

- Oregon Consortium for Nursing Education - <http://www.ocne.org/>
- National League for Nursing - <http://www.nln.org/>
- NLN, annotated bibliography on simulation - <http://sirc.nln.org/mod/data/view.php?id=445>
- American Association of Colleges of Nursing - <http://www.aacn.nche.edu/>
- Center to Champion Nursing - <http://championnursing.org/>
- Wyoming Center for Nursing and Health Care Partnerships - <http://www.wynursing.org/>



### c. Nursing Faculty and Educators

(2005). "Faculty shortages in baccalaureate and graduate nursing programs: scope of the problem and strategies." American Association of Colleges of Nursing.

The American Association of Colleges of Nursing (AACN) recognizes that the shortage of faculty in schools of nursing with baccalaureate and graduate programs is a continuing and expanding problem. Over the past several years, the deficit of faculty has reached critical proportions as the current faculty workforce rapidly advances toward retirement and the pool of younger replacement faculty decreases. The purpose of this white paper is to summarize the scope of the problem, discuss issues contributing to the shortage of faculty, and put forth strategies for expanding the capacity of the current and future pool of nursing faculty.

Allan, J. D. and J. Aldebron (2008). "A systematic assessment of strategies to address the nursing faculty shortage, US." Nursing Outlook **56**(6): 286-297.

This article provides an assessment of strategies implemented nationwide to counter the nursing faculty shortage, highlights those indicating most promise, and proposes a basis for evaluating outcomes. The deficit of educators is a key impediment to filling the growing demand for nurses generated by an aging population and a weak supply of new graduates, which has left up to 13% of hospital RN positions vacant. Educational institutions have adopted various approaches to expand faculty resources with the goal of increasing nursing student enrollment. After conducting a systematic review of the literature from 2000 onward, we analyzed and coded these initiatives using techniques of content analysis and constant comparison. We induced 4 large domains from the data: advocacy, educational partnerships, academic innovation, and external funding. For each domain we identified an exemplar that is substantial, sustainable and replicable. We then proposed a basis for evaluating the impact of these strategies to facilitate replication.

Cangelosi, P. R. (2006). "Mentoring program for tenure-track faculty: One school's experience." Annual Review of Nursing Education **4**: 375-391.

This article examines the controversy surrounding tenure. The purpose is to describe one school's experience with assisting faculty in understanding, pursuing and achieving tenure. Background information related to tenure and scholarship and the role of mentoring in this process are presented; as well as barriers and aids to developing scholarly writing. The potential challenges and rewards of a mentoring program are also addressed.

Flak, N. L. (2006). "Strategies to enhance retention and effective utilization of aging nurse faculty." Journal of Nursing Education **46**(4): 165-169.

Society faces an unprecedented shortage of nurses. One driver for the deficit is a shortfall in the number of faculty members available to educate current and future nurses. Another driver is the increasing age of nurse faculty. With the average age of master's and doctoral faculty older than age 50, nurse educators face short-term and long-term decisions about work and retirement. Aging faculty members bring intellectual capital, wisdom, leadership expertise, and a wealth of skills and abilities to the workforce. The nursing community, patients, and society will benefit by retaining aging nurse faculty in the workforce on a full-time or part-time basis. This article examines nurse faculty workforce issues and suggests strategies to enhance the retention and effective utilization of aging nurse faculty.

Johnson, B. H. (2009). "Empowerment of nurse educators through organizational culture." Nursing Education Perspective **30**(1): 8-13.

Presenting the findings of a correlational study, the author discusses the implications of organizational culture and empowerment within a nurse faculty sample. The findings of the study indicate that organizational culture has a significant impact on empowerment of associate degree nursing faculty. The knowledge gained from this research may be useful in creating environments in which nurse educators emulate empowering behaviors for future graduates. Recommendations for further research are provided.

Kowalski, S. D., K. Dalley, et al. (2006). "When will faculty retire? Factors influencing retirement decisions of nurse educators." Journal of Nursing Education **45**(9): 349-355.

This cross-sectional study surveyed a random sample of 129 nurse educators teaching in 61 U.S. schools of nursing. After the educators indicated their desire to participate, the survey instrument was e-mailed to them for completion; a 37.6% response rate was obtained. Demographically, the typical respondent was a healthy, 52-year-old, Caucasian female with a PhD in nursing. Outcomes reflected that respondents' mean anticipated age of retirement was 64.4; however, the optimal age of retirement desired by respondents was younger (62.4). The most influential factor affecting the timing of retirement was financial status. Workplace issues, personal and family health, and attitudes about retirement were other factors that affected participants' retirement decisions. The study findings indicate that nurse educators, as a group, do not plan to work beyond age 65.

Lewallen, L. P., P. B. Crane, et al. (2003). "An innovative strategy to enhance new faculty success." Nursing Education Perspectives **24**(5): 257-60.

Faculty stress is a factor in the current shortage of nursing faculty. New faculty members in schools of nursing are subject to stress from many sources. This article reports on an innovative strategy that decreases stress for new faculty while facilitating faculty tenure success.

Long, K. A. (2007). "Nursing PhD consortia: A model for maximizing scarce resources." Journal of Professional Nursing **23**(5): 262-266.

Doctoral (PhD) education in nursing is costly and requires scarce resources: qualified faculty, qualified students, research funding, and infrastructure. This article discusses the development and implementation of a five-school consortium for delivery of an established PhD in Nursing Science program throughout north Florida. Factors that contributed to the success of the Consortium, including communication, history of shared work, collaborative approaches, and a formal agreement, are described. Challenges, such as maintaining curricular integrity across settings and selecting web-based formats, are considered. Results to date have been a viable consortium with a 4-year history, three PhD consortium graduates, 22 PhD students enrolled via the consortium, and success in attracting both federal and private funding. Consortia are proposed as a strategy for the effective use of limited resources, and suggestions are provided for the development of successful consortium models capable of delivering high-quality, PhD nursing education.

MacPhee, M., P. Weir, et al. (2009). "Practice and academic nurse educators: finding common ground." International Journal Nursing Education Scholarship **6**(1): Article 32.

Two university-based schools of nursing and two healthcare regions, supported by a nurses' union, have formed an inter-sectoral collaboration to develop a practice educator curriculum. The curriculum is designed to increase educator capacity and practice-academic relationships. This article describes the preliminary groundwork among inter-sectoral partners. Practice and academic educators do not always recognize each others' expertise or share resources effectively. An online survey and focus groups were conducted to identify educators' similar successes and challenges, their perspectives of key criteria necessary to establish practice-academic collaborations and learning environments, and intent to leave. The findings revealed many similarities across sectors, although practice and academic educators had different foci or perspectives that will need to be bridged by the collaboration. Strategies are suggested to maximize educators' commonalities, provide better supports to minimize intent to leave, and ensure sustainability.

Proto, M. B. and L. C. Dzurec (2009). "Strategies for Successful Management and Oversight of Nurse Faculty Workforce Initiatives: Lessons from the Field." Journal of Professional Nursing **25**(2): 87-92.

A looming shortage of nursing faculty is a major contributor to the growing national and international nursing workforce shortage. The American Association of Colleges of Nursing (AACN, 2006, October) highlighted strategies in use nationally to address the shortage of nursing faculty in a recently posted Web site. Summarized on that site are responses from state-level nursing program administrators to a questionnaire generated by the AACN Government Affairs Committee. The questionnaire addressed the state-level management of nursing faculty/workforce initiatives including loan repayment options,

scholarship rebates, in-state tuition benefits for out-of-state students, stipends, housing loans, and tax credits, intended to support nurse faculty recruitment and retention. Hermeneutic analysis of state-level descriptions suggested a set of strategies broadly representing ways to optimize success in managing faculty recruitment and retention. Specifically, the strategies were (a) inter-organizational collaboration, (b) recognizing and leveraging local networks, (c) aligning stakeholder priorities, (d) sidestepping barriers, (e) thinking big, and (f) refusing to give up. This report describes the characteristics of these thematic strategies.

Sarmiento, T. P., H. K. S. Laschinger, et al. (2004). "Nurse Educators' workplace empowerment, burnout, and job satisfaction: testing Kanter's theory." Journal of Advanced Nursing **46**(2): 134-143.

Background. Empowerment has become an increasingly important factor in determining college nurse educator burnout, work satisfaction and performance in current restructured college nursing programs in Canada. Aim. This paper reports a study to test a theoretical model specifying relationships among structural empowerment, burnout and work satisfaction. Method. A descriptive correlational survey design was used to test the model in a sample of 89 Canadian full-time college nurse educators employed in Canadian community colleges. The instruments used were the Conditions of Work Effectiveness Questionnaire, Job Activities Scale, Organizational Relationship Scale, Maslach Burnout Inventory Educator Survey and Global Job Satisfaction Questionnaire. Results. College nurse educators reported moderate levels of empowerment in their workplaces as well as moderate levels of burnout and job satisfaction. Empowerment was significantly related to all burnout dimensions, most strongly to emotional exhaustion ( $r = -0.50$ ) and depersonalization ( $r = -0.41$ ). Emotional exhaustion was strongly negatively related to access to resources ( $r = -0.481$ ,  $P = 0.0001$ ) and support ( $r = -0.439$ ,  $P = 0.0001$ ). Multiple regression analysis revealed that 60% of the variance in perceptions of job satisfaction was explained by high levels of empowerment and low levels of emotional exhaustion [ $R^2 = 0.596$ ,  $F(1, 86) = 25.01$ ,  $P = 0.0001$ ]. While both were significant predictors of perceived job satisfaction, empowerment was the stronger of the two ( $\beta = 0.49$ ). Conclusions. The results provide support for Kanter's organizational empowerment theory in the Canadian college nurse educator population. Higher levels of empowerment were associated with lower levels of burnout and greater work satisfaction. These findings have important implications for nurse education administrators.

## II. NURSING WORKFORCE

### a. Economics and Policy

Aiken, L. H. (2008). "Economics of nursing." Policy, Politics, & Nursing Practice **9**(2): 73-79.

Pay-for-performance initiatives have renewed interest in payment reform as a vehicle for improving nurse staffing and working conditions in hospitals because of research linking investments in nursing and better patient outcomes. This article addresses the economics of nursing from a broad perspective that considers how both national policies such as hospital prospective payment and managerial decisions within institutions impact the outcomes of nurses and patients. Cost offsets are considered from the perspective of savings in patient-care resources that accrue from investments in nursing. Cost offsets are also considered from the perspective of the interactions among different strategies for investing in nursing, including the impact of staffing levels on patient outcomes with varying educational levels of nurses and varying quality of practice environments.

Aiken, L. H., Cheung, R.B., & Olds, D.M (2009). "Education policy Initiatives to address the nursing shortage in the United States." Health Affairs **28**(4): 646-656.

Employment opportunities are expected to grow much faster for registered nurses (RNs) than for most other occupations. Yet a major shortage of nurses is projected by 2020. A nurse faculty shortage and financially strapped colleges and universities are limiting the ability of U.S. nursing schools to take advantage of historically high numbers of qualified applicants. Increased public subsidies are needed to provide greater access to nursing education, with a priority on baccalaureate and graduate nursing education, where job growth is expected to be the greatest.

## **b. Trends**

Buerhaus, P. I., Staiger, D.O., Auerbach, D.I. (2009). *The Future of the Nursing Workforce in the United States: Data, Trends, and Implications*. Sudbury, MA, Jones & Bartlett.

The *Future of the Nursing Workforce in the United States* provides a timely, comprehensive, and integrated body of data supported by rich discussion of the forces shaping the nursing workforce in the United States. Using plain, jargon-free language, the book identifies, explains, and describes the key changes in the current nursing workforce (such as the increasing age of RNs) and provides forecasts and insights about what is likely to develop in the future. This reference offers an in-depth discussion of specific policy options to help employers, educators, and policymakers design and implement actions aimed at strengthening the current and future RN workforce. The only book of its kind, this renowned author team presents extensive data, exhibits and tables on the nurse labor market, how the composition of the workforce is evolving, and changes occurring in the work environment where nurses practice.

## **c. Nursing Shortage**

(2001). "Strategies to reverse the new nursing shortage." *Nursing & Health Care Perspectives* **22**(2): 103-103. Retrieved on May 19, 2010 at <http://www.aacn.nche.edu/publications/positions/tricshortage.htm>

There is no simple description of the status of the nursing workforce shortage - present and future. Discussion surrounding this issue is complex and interrelated. It is not possible to isolate single factors or solutions. Rather, a systems perspective review gives the greatest depth and understanding of the relationships between multiple variables. It is critical to include the systematic issues in education, health delivery systems and the work environment. Further, the impact of reimbursement, legislation, regulation and technological advances must also be considered. Failure to consider the relationships among these aspects limits the full appreciation of the nursing workforce shortage complexity.

Buchan, J. A., L.H. (2008). "Solving nursing shortages: A common priority." *Journal of Clinical Nursing* **17**: 3262-3268.

This paper provides a context for this special edition. It highlights the scale of the challenge of nursing shortages, but also makes the point that there is a policy agenda that provides workable solutions. An overview of nurse: population ratios in different countries and regions of the world, highlighting considerable variations, with Africa and South East Asia having the lowest average ratios. The paper argues that the 'shortage' of nurses is not necessarily a shortage of individuals with nursing qualifications; it is a shortage of nurses willing to work in the present conditions. The causes of shortages are multi-faceted, and there is no single global measure of their extent and nature, there is growing evidence of the impact of relatively low staffing levels on health care delivery and outcomes. The main causes of nursing shortages are highlighted: inadequate workforce planning and allocation mechanisms, resource constrained undersupply of new staff, poor recruitment, retention and 'return' policies, and ineffective use of available nursing resources through inappropriate skill mix and utilization, poor incentive structures and inadequate career support. What now faces policy makers in Japan, Europe and other developed countries is a policy agenda with a core of common themes. First, themes related to addressing supply side issues: getting, keeping and keeping in touch with relatively scarce nurses. Second, themes related to dealing with demand side challenges. The paper concludes that the main challenge for policy makers is to develop a coordinated package of policies that provide a long term and sustainable solution. This paper highlights the impact that nursing shortages has on clinical practice and in health service delivery. It outlines scope for addressing shortage problems and therefore for providing a more positive staffing environment in which clinical practice can be delivered.

Chartier, K. (2004). "Fighting the shortage with strong retention strategies--University of Michigan Health System model." *Nephrology News Issues* **18**(8): 28, 79.

This editorial discusses the University of Michigan's effort to curb shortages by forming a nurse retention team to develop proactive strategies to ease and eliminate the nursing shortage in their hospital.

Feldman, H. R. (2003). "The nursing shortage; strategies for recruitment and retention in clinical practice and education." Nursing Education Perspectives: 254.

This book presents an overview of innovative initiatives to combat the nursing shortage that are being pioneered in a number of states, schools of nursing, and health care institutions. Among the strategies described are preceptor and mentoring arrangements, scholarship/work payback agreements, private and public funding initiatives to support the education of future nurses, and service/education partnership models. An international perspective is added by a chapter on initiatives in a hospital in Iceland.

Goodin, H. J. (2003). "The nursing shortage in the United States of America: an integrative review of the literature." Journal of Advanced Nursing **43**(4): 335-350.

The aims of this paper are to review the literature to determine what factors are contributing to the nursing shortage in the United States of America (USA) and discuss possible solutions to this current and future nursing shortage. The need for nurses is often depicted as cyclical in nature. Throughout history, the USA has experienced a series of nursing surpluses and shortages. However, the current shortage has been characterized as being unlike those experienced in the past. Trends of an ageing Registered Nurse (RN) workforce and limited supply to fill the impending vacancies are some of the unique aspects that bring a new dimension to an old problem. Today's nursing shortage will not be resolved by simply returning to the solutions of yesteryear, and strategies to reduce its impact will have to be more creative and focus on the long-term. Integrative literature review of published literature on the current nursing shortage in the USA from 1999 to 2001. Four main areas were identified as the major contributors to the nursing shortage in the USA: the ageing RN workforce; declining enrolment; the changing work climate; and the poor image of nursing. Solutions to the shortage followed similar themes to the contributing factors and encompassed four main areas: exploring recruitment efforts; exploring retainment efforts; improving the image of nursing; and supporting legislation that helps to rectify the shortage. Conclusion: There is firm evidence that the USA amidst a nursing shortage. Much is known about the many contributing factors but now nurses need to become proactive to help secure the future of their workforce. By forming partnerships within the profession and with other influential parties, nurses can be in the forefront of resolving their workforce issues.

Langan, J. C., R. A. Tadych, et al. (2007). "Exploring incentives forms to return to practice: A partial solution to the nursing shortage." Journal of Professional Nursing **23**(1): 13-20.

Although many have suggested strategies to resolve the nursing shortage, few have considered inactive RNs. This pilot study investigated reasons why nurses leave the practice, the type of work environment and resources necessary to entice RNs to return to practice, and the specific skills required to assist RNs in feeling confident and competent to return to practice. Herzberg's Two-Factor Theory was used to study motivation and hygiene factors enticing RNs to practice. A screening questionnaire was sent to 1,004 randomly selected RNs in Missouri to determine who were licensed but not practicing. Fifty-two full questionnaires were mailed and 33 (63%) were returned. Quantitative data were analyzed using SPSS, whereas qualitative data were coded and analyzed using manifest content analysis. The lack of motivators such as recognition of one's work and achievements was one reason why RNs left the practice. The hygiene factors of money, improved working conditions, refresher courses, and health insurance would motivate RNs to return to practice. Those wishing to entice inactive nurses to practice will need to offer sign-on bonuses or make the hourly wages and benefits package very competitive. This study indicates that nurses value flexible working hours, part-time opportunities, and consideration of family lives and positive relationships with administrators.

Tanner, C. A., P. Gubrud-Howe, et al. (2008). "The Oregon Consortium for Nursing Education: a response to the nursing shortage." Policy, Politics, & Nursing Practice **9**(3): 203-9.

The Oregon Consortium for Nursing Education (OCNE) is a statewide coalition designed as a long-term solution to the nursing shortage and in response to the need for a new kind of nurse to care for Oregon's aging and increasingly diverse population. It is an effort to increase capacity in schools of nursing by making the best use of scarce faculty, classrooms, and clinical training resources in the delivery of a standard curriculum on 13 campuses, including 8 community colleges and the 5 campuses of the OHSU School of Nursing. This article describes the development of OCNE, including infrastructure development, creation of the shared curriculum, and redesign of clinical education, faculty development, and plans for evaluation. If OCNE is successful in achieving its goals, it holds substantial policy implications for the

development of nursing education systems, design of curricula, use of simulation as a component of clinical education, and delivery of clinical education.

#### **d. Workforce Development**

(2008). A strategic plan for the state of Texas to meet the nursing workforce needs of 2013.

The purpose of this Strategic Plan to Address Nursing Education Capacity in Texas is to provide comprehensive strategies, which address the complexity of nursing education capacity for the State of Texas, and the need to increase the number of graduates to meet demands projected for 2013 and ultimately 2020 by the Texas Center for Nursing Workforce Studies (TCNWS).

Cluskey, M., J. E. Jackson, et al. (2006). "Summer residential program: a university model for recruiting high school students to nursing." Nursing Education Perspectives **27**(6): 324-6.

As the nursing shortage continues, nurse educators must develop creative strategies to recruit high school students. A midsize university in the Mid-west has found a one-week summer residential enrichment program, offered annually since 1990, to be a successful tool for introducing students to the wide variety of nursing roles and career opportunities. Participants tour various clinical settings and have hands-on clinical experiences in the nursing laboratory. Housed in dormitories with peers who are interested in other fields, they have the opportunity to experience university life. Nurse faculty, alumni, local nursing organizations, and university staff collaborate in offering this program.

Cohen, R., K. Burns, et al. (2006). "The Kids into Health Careers (KIHC) initiative: Innovative approaches to help solve the nursing shortage." Journal of Nursing Education **45**(5) 186-189.

In 2001, the Northern Illinois University School of Nursing was awarded a grant from the Division of Nursing of the Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services, to enhance the School's advanced practice nursing program. As a recipient of this grant, the School of Nursing was required to incorporate activities to meet the goals of the "Kids into Health Careers (KIHC) Initiative" to encourage children into health care careers. This article describes the strategies developed by the School of Nursing to meet the KIHC goals and encourage children, especially those from minorities, into health care careers. The School's approach was multifaceted and included collaboration with a variety of community organizations and groups. While there is a tremendous amount of work to be accomplished in encouraging middle and high school students to consider nursing as a career, creative strategies through which nurses take an active role in helping resolve the problem are suggested.

Heller, B. R. and L. P. Lichtenberg (2003). "Addressing the shortage. Strategies for building the nursing workforce." Nurse Leadership Forum **8**(1): 34-9.

For more than two decades, nursing educators and administrators have grappled with issues of declining student enrollments and the concurrent "defection" of nurses from the labor market. This article describes both short- and long-term strategies for addressing the nursing shortage and identifies new opportunities for collaboration in building the nursing workforce of the future.

Hinds, L. E. (2008). "Expanding diversity in the nurse educator workforce." Educational Perspectives **29**(3):185.

The work of the think tank was framed within the context of the NLN's strategic plan and congruent with the NLN's mission and core values of caring, integrity, diversity, and excellence. The value and complexity of the work to be done were acknowledged, along with the importance of diversifying the nursing academic collective in order to prepare a workforce that provides safe, culturally appropriate clinical practices. The need to address change in organizational culture in order to create systems that value and promote diversity was acknowledged as critical to this process.

Hofler, L. D. (2008). "Nursing education and transition to the work environment: A synthesis of national reports." Journal of Nursing Education **47**(1): 5-12.

Over the past 10 years and longer, national entities have worked within their organizations and with coalitions of other stakeholders to address issues facing the nursing profession. As a part of this work, the

current state of the educational system for preparation of nurses has been discussed, as well as the need for strategies to enhance nursing students' transition from the academic environment to the work environment. This article presents a review and synthesis of national reports published from 1995 to April 2005 that contain recommendations for nursing education and the transition of nurses to the work environment. Common themes and recommendations across reports are identified and reported. Educators and others can learn from the collective wisdom of previous work and use this information to aid in development of plans and policy initiatives for development of the future nursing educational infrastructure.

Kishi, A., & Green, A. (2008). "A statewide strategy for nursing workforce development through partnerships in Texas." Policy, Politics, & Nursing Practice **9**(3): 210-214.

Statewide efforts and partnerships were used for nursing workforce development to address the nursing shortage in Texas. A statewide strategic action plan was developed where partnerships and collaboration were the key components. One of the most important outcomes of these statewide partnerships was the passage of the Nursing Shortage Reduction Act 2001. Through this legislation, the Texas Center for Nursing Workforce studies and its advisory committee were established. This article describes how a statewide infrastructure for nursing workforce policy and legislative and regulatory processes were further developed. An overview is provided on the contributions made by the organizations involved with these strategic partnerships. The ingredients for establishing successful, strategic partnerships are also identified. It is hoped that nursing and health care leaders striving to address the nursing shortage could consider statewide efforts such as those used in Texas to develop nursing workforce policy and legislation.

Krugman, e. a. (2006). "The national post-baccalaureate graduate nurse residency program: a model for excellence in transition to practice." Journal of Nurses in Staff Development **22**(4): 196-205.

The Chief Nursing Officers (CNOs) of the University Health Systems Consortium (UHC) of Academic Hospitals desired to increase the numbers of baccalaureate graduate nurses hired by their facilities and provide a more consistent, uniform transition into practice for these graduate nurses. A partnership between the UHC CNOs and the American Association of Colleges of Nursing (AACN) led to establishing a National Post-Baccalaureate Graduate Nurse Residency Program. The structure, curriculum, and outcomes measures were developed and the program was implemented, with growth from six original pilot sites to 34 academic hospitals. Outcomes from the first year of program operation at these six sites show a high rate of retention, decreased stress by graduate nurses over time, improved organization and prioritization of care, and increased satisfaction in the first year of practice.

Kuhar, P. A., D. Miller, et al. (2004). "The meaningful retention strategy inventory - A targeted approach to implementing retention strategies." Journal of Nursing Administration **34**(1): 10-18.

The present and projected shortage of registered nurses mandates that administrators implement workplace incentives to retain current staff. Although several articles and studies exist on job satisfaction among nurses, few have examined retention strategies. The authors developed, tested, and implemented a tool, the Meaningful Retention Strategy Inventory, in a multihospital system. Results from the Meaningful Retention Strategy Inventory were used to guide decisions in the implementation of site-specific retention strategies.

Kutney-Lee, A., McHugh, M.D., Sloane, D.M., Cimiotti, J.P., Flynn, L., Neff, D.F., & Aiken, L.H. (2009). "Nursing: A Key to Patient Satisfaction." Health Affairs **28**(4): 669-677.

Patient satisfaction is receiving greater attention as a result of the rise in pay-for-performance (P4P) and the public release of data from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. This paper examines the relationship between nursing and patient satisfaction across 430 hospitals. The nurse work environment was significantly related to all HCAHPS patient satisfaction measures. Additionally, patient-to-nurse workloads were significantly associated with patients' ratings and recommendation of the hospital to others, and with their satisfaction with the receipt of discharge information, improving nurses' work environments, including nurse staffing, may improve the patient experience and quality of care.

Mion, L. C., C. Hazel, et al. (2006). "Retaining and recruiting mature experienced nurses - A multi-component organizational strategy." Journal of Nursing Administration **36**(3): 148-154.

The aging and impending retirement of the nursing work force will worsen the nursing shortage. Because nurses retire for a variety of reasons, retaining older nurses or delaying their retirement requires a multi-factorial method. The authors describe one medical center's multifaceted approach and subsequent strategies to create a work environment conducive to retaining the mature, experienced nurse.

Royse, M. A. and S. E. Newton (2007). "How gaming is used as an innovative strategy for nursing education." Nursing Education Perspectives **28**(5): 263-7.

Gaming is an innovative teaching strategy that research has shown to be effective for improving nursing student learning outcomes. Specifically, gaming enhances retention of knowledge, promotes problem-based learning, and motivates nursing students to become more engaged in their learning. The literature also indicates that the use of gaming during nursing education promotes active learning, encourages critical thinking, makes learning more exciting, and can replicate real-life scenarios. However, empirical support for these advantages is lacking. This manuscript discusses the literature related to gaming, describes its use as a teaching strategy, and addresses implications for nursing education.