



California Institute for Nursing & Health Care
Optimizing the Health of Californians through Nursing Excellence

**NURSING EDUCATION REDESIGN FOR CALIFORNIA:
White Paper and Strategic Action Plan Recommendations**

*Collaboratively Creating an Emerging Future for Excellence in Health Care
Through Excellence in Nursing Education*

Submitted by
The California Institute for Nursing & Health Care
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PREFACE

The intent of this document is to provide educators, clinical leaders, policy makers, and key decision stakeholders with essential information and recommendations for transforming nursing education in California. Thought Leaders throughout California worked collaboratively to inspire the *White Paper on Nursing Education Redesign for California*. The collective vision of these Thought Leaders is to build collaborative, systematic, ongoing, and evidence-based approaches that assure a well-prepared nursing workforce will take the lead in optimizing the health of Californians today and in the emerging future.

The call for “curriculum revisions within nursing” was first voiced over 20 years ago and we continue to be challenged by an ongoing dilemma: How do we move from rhetoric to action to transform nursing education? (Tanner, 2007) The convening of key stakeholders to build collective wisdom, commit to collective intentions, and set priorities for action has been an important step and primary aim of this project.

We recognize and thank the front-line clinical educators and faculty, the unsung heroes of nursing education, who dedicate their professional lives to improving health outcomes through nursing education. It is our intention to take strategic action to support their success in critical roles as teachers, mentors, and leaders.

FOREWARD

The process leading up to the *White Paper for Redesigning Nursing Education in California* has furthered our understanding of the problems facing nursing. During the period when Thought Leaders were convening to discuss and formulate many of these issues and strategies, we were grateful for the opportunity to present our findings from *The Carnegie Foundation National Nursing Education Study* and hear the feedback and reactions from educators and administrators from schools and clinical settings all over the state. Additionally, we discussed our recommendations for changing nursing education on a national scale. The Thought Leaders took up and tailored several of our recommendations for the California context.

The White Paper and The Carnegie Foundation National Nursing Education Study throw into relief many of the challenges we face in moving forward, including the need for solutions to curtail faculty shortage, the need for faculty development, and the need for robust partnerships between academia and all types of clinical settings, in particular those serving local communities.

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We wish to acknowledge the significant contribution of The Gordon and Betty Moore Foundation, which funded this project through the Betty Irene Moore Nursing Initiative (BIMNI). By developing a larger, more highly skilled RN workforce and implementing more effective care delivery practices, the BIMNI seeks to improve the quality of patient outcomes in acute care hospitals in the Bay Area. Recognizing the important role that nurses play in patient safety and outcomes, this support made it possible for California's nurse leaders to come together to strategize on how nursing education in California should evolve to optimally contribute to improved health care quality and safety through the quality of new graduates from schools of nursing.

Monumental work and relationship-building has occurred in the past year through the gatherings of the Nursing Education Redesign Thought Leaders. It is our intention that this investment will enable the California nursing education system to lead the country in demonstrating the power of committed leaders from nursing practice, education, research, and leadership to collectively improve the quality of health care provided to all consumers.

We extend deep gratitude to the co-sponsoring organizations for the project: American Nurses Association\California (ANA\C); California Organization of Associate Degree Nursing Program Directors, North and South (CO-ADN); Association of California Nurse Leaders (ACNL); California Association of Colleges of Nursing (CACN); and California Board of Registered Nursing (BRN).

The core contributors to this process were the Thought Leaders that represented academia, service, regulatory and service agencies, labor and workforce development, and co-sponsoring professional organizations. A full listing of these leaders is provided at the end of this document. Their shared commitment, wisdom, courage, and dedication to education redesign for safe and quality care was evident throughout the process. California is in the good hands of experienced and intelligent nurse leaders who are open to collaboration and who collectively will move nursing education forward. Special thanks are due to the chairpersons of the Action Groups for the many hours of volunteer time to bring forward the recommendations of the workgroups.

National experts in nursing education and clinical practice informed the work of the group to assure a broader perspective of issues around nursing education and to tap on current research and evidence-based educational practices. Their wisdom and guidance have been invaluable. These expert consultants included: Chris Tanner, Paula Gubrud-Howe, and Louise Shores, from the Oregon Consortium for Nursing Education; Patricia Benner and Molly Sutphen, from The Carnegie Study on the Preparation of the Professions; Maria O'Rourke, expert on Professional Role-Based Practice; and Nancy Spector, from the National Council on State Boards of Nursing.

We also wish to acknowledge the response panelists who received drafts of this document for review and provided valuable input. We are grateful, in particular, for the input received from Geraldine Bednash and Sally Brosz Hardin from the American Association of Colleges of Nursing and Beverly Malone, Toni Bargagliotti, and M. Elaine Tagliareni, National League for Nursing. A full listing of reviewers is located in Appendix D.

PROJECT OVERVIEW

The development of the White Paper and Strategic Action Plan for Nursing Education Redesign for California (White Paper), was funded by the Gordon and Betty Moore Foundation under the leadership of the California Institute of Nursing & Health Care (CINHC), a nonpartisan, not-for-profit organization dedicated to optimizing the health of Californians through nursing excellence. CINHC is moving forward efforts to complete a statewide nursing Master Plan that addresses **four priority goals:**

- An educational system that provides an adequate supply of well-educated nurses prepared for the evolving health care delivery system;
- A workforce representative of California's rich ethnic and racial diversity;
- A working environment that supports quality, safe care, and professional development; and
- A recruitment strategy that benefits all health care providers and patients.

The statewide nursing Master Plan emphasizes **six focus areas:** Data, Diversity, Education, Nursing Practice, Recruitment, and Work Environment. **Goal 1** of the Master Plan, *Building Education Capacity in California Schools of Nursing*, (Jones & Leach, 2005) and **Goal 2**, *Increasing Diversity in California's Nursing Workforce* (Adams & Napper, 2007) have informed this project. This White Paper will inform **Goal 3** of the Master Plan: *Redesigning Nursing Education for California*.

The White Paper and Strategic Action Plan for Nursing Education Redesign in California was developed through the collaborative efforts of a group of Thought Leaders representing nursing education, service (employers of nurses in clinical care delivery settings), professional organizations, policy agencies, and the state RN licensing board. The intent was to tap into the best convergent thinking of leaders of key constituencies to build consensus on action strategies for nursing education redesign in California. Evidence-based consensus-building, strategic action planning, and improvement processes, including appreciative inquiry, relationship-based collaboration, Delphi technique, participatory action planning, critical reflection, and the IHI model for improvement were utilized for generating strategic priority recommendations for redesign.

The process for developing the White Paper included:

- Examination of major forces driving the need to reshape nursing education in California schools of nursing;
- Identification of key factors that have served as barriers in nursing education redesign;
- Analysis of current best practices and evidence-based innovations in nursing education;
- Process for building broad-based consensus within nursing education and practice around education redesign;
- Recommendations on the elements of nursing education to be redesigned, drawing on the findings and recommendations of the Carnegie National Nursing Education Study and other evidence-based education practices;
- Action steps to accomplish the redesign;
- Exploration of funding options to finance redesign; and
- Plan for education and information for policy makers and potential funders on education redesign needs and priorities.

The Action Priorities identified in this White Paper reflect the work of Strategic Action Workgroups of the Nursing Education Redesign Thought Leaders and key stakeholders from across the state, and other statewide and national organizations, who contributed valuable insight and perspectives regarding nursing

education redesign. Thought Leaders met face-to-face in March, July, and August (2007) to engage in a consensus-building process for change, utilizing evidence-based processes for building consensus around improvement.

Seven priority areas were identified for redesign and early in the process working subgroups were formed to develop recommended Action Plans for the following priorities:

1. Forging Strong Academic/Service Partnerships
2. Core Professional and Clinical Role Competencies for the Nurse of the 21st Century
3. Collaborative Education Model for Seamless Educational Advancement
4. Faculty Development and Recruitment
5. New Graduate Transition: Residencies
6. Simulation, Technology, & Informatics
7. Out-of-the-Box Innovations and Evaluation of Educational Effectiveness

Drafts of the priorities were distributed to a wider circle of stakeholders in July and September for essential input and feedback prior to final synthesis of the Thought Leader recommendations for nursing education redesign. The Action Plans for these seven groups are located in Appendix B (separate attachment) and informed the final recommendations and strategies presented at the end of this document. These recommendations and strategies will shape the direction that the California Institute for Nursing & Health Care will take in addressing Goal 3 of its Master Plan: *Nursing Education Redesign for California*. The White Paper and Master Plan will guide the Institute's work to serve as a catalyst for nursing redesign efforts, which are strategically essential for improving the health of Californians by preparing a workforce of well-educated and highly-qualified registered nurses.

This project also builds upon the results of a joint project of the Deans and Directors of California schools of nursing and ACNL through a "World Café" consensus building process in 2004. Action-focused key recommendation themes from the 2004 World Café were:

- Innovation in Education
- Collaboration
- Improved Work Environment, Recruitment and Retention
- Faculty Recruitment/Retention
- Regulatory Restrictions
- Funding for Nursing Education

THE CASE FOR NURSING EDUCATION REDESIGN: DRIVING FORCES

The need to build educational capacity in schools of nursing has been identified as California's most urgent nursing workforce need. However, as we build educational capacity, particular attention must be given to the needs of nursing education, ensuring that the quality preparation of nurses is not compromised in the rush to educate more students and that education evolves with the ever-changing health care delivery system. Nursing education must be able to effectively prepare nurses to provide safe and quality patient care in today's health care settings, and adapt in a timely manner to prepare nurses to practice in tomorrow's health care environment.

Four major factors are converging and driving the imperative that nursing education be critically examined to identify the best teaching modalities and develop more effective and efficient methods to educate nursing students.

Patient Care Delivery System

The ever-changing delivery care system, with its increasing complexity, evolving technology, and focus on patient safety, creates high expectations for our educational systems (Hassenmiller & Cozine, 2006; Porter-O'Grady, 2001). The practice setting (service) requires that nurses demonstrate highly developed critical thinking and problem-solving skills; the ability to exercise clinical judgment with the know-how to practice from an evidence-based and outcome-driven perspective; the foundation for adaptation to using new technology; and the ability to move effectively from a novice to expert nurse in competency achievement (American Organization of Nurse Executives, 2005; Bolton, 2007 b; Chaffee, & McNeill, 2007). At the same time the needs of service are reported as not being met by the current educational curricula in many schools of nursing. There is increased interest in the need for formal mentorships or residencies as part of the educational process, to facilitate the bridging of a new nurse from the academic to the service setting into the role of a practicing nurse.

Clinical Simulation

The use of clinical simulation in nursing education provides a timely opportunity to reevaluate how we educate nurses as clinical simulation has the potential to actually transform nursing education. Clinical simulation is a teaching method designed to produce learning exercises that closely mimic real life situations, utilizing both low-tech and high-fidelity mannequins, skill tasks, virtual reality trainers, and computer-based simulators and scenarios. Learning through high-fidelity simulation has been used for sometime in the aeronautics and defense industries, as well as medical schools, but it is a newer mode of learning for nursing education.

Although in its infancy, the value of clinical simulation in nursing education is acquiring high regard. It is reported to enhance critical thinking, problem-solving, clinical judgment, and rapid response skills. It provides the student the opportunity to learn in a safe environment through scenarios mimicking real-life patient situations. In some circumstances, clinical simulation may actually give the student the opportunity to have “patient” experiences they might not get in the clinical setting. However, in order for the effectiveness of clinical simulation to be realized, learning scenarios need to be built, faculty must learn new ways of teaching students, and curricula revised to incorporate clinical simulation. The infrastructure to implement and support clinical simulation, e.g., technical support and maintenance, faculty training (initial and ongoing), and dedicated institutional funding, must be developed and supported (Jeffries & Rizzo, 2006; Larew, Lessanes, Spunt, Foster, & Covington, 2006; Rodehorst, Wilhem, & Jensen, 2005).

Education Program Collaboration and Articulation

There is renewed interest in collaboration and articulation between associate and baccalaureate degree nursing programs. The demand for nurses educated at higher levels is growing, driven by the evolving complexity of the health care delivery system and the need for nurses with baccalaureate and higher degrees in clinical, education, research, and leadership roles. Seventy percent of the state's new nursing graduates are from associate degree programs. Although these graduates are encouraged to continue their education by completing RN-BSN programs offered by many public and private universities, insufficient numbers of associate degree nurses are continuing their education to meet the state's demand for nurses educated at a higher level. In 2007, 26% of these nurses were reported to continue with their education to obtain a BSN or higher. This is higher than the national average, which is about 20%.

In California, articulation between community college associate degree and state university baccalaureate programs is now an expectation; however, the articulation process is often cumbersome, serving as a barrier to many who seek to advance their education. The demand for a higher educated workforce,

building upon associate degree nursing education as a foundation, requires a more seamless model of articulation between the different levels of nursing education.

Nurse Shortage

California is forecasted to have a shortfall of 116,000 FTE (full time equivalent) registered nurses by 2020. California is currently 50th in the U.S. in terms of RNs per capita, with 580 RNs employed per 100,000 population. The national per capita average of RNs employed is 825 (U.S. Department of Health and Human Services, 2004). Recent research has demonstrated the positive influence of RN practices on health outcomes, and, more specifically, the positive influence of nursing education on patient outcomes, (Aiken, Clarke, Cheung, Sloane, & Silber, 2003; Tourangeau, et al., 2007). These findings support conclusions that California is headed into a serious nurse shortage-related health care crisis as the supply of well-prepared health professionals dwindles.

A major limiting factor in increasing the supply of nurses is a serious shortage of faculty. In 2006, California nursing schools had a faculty vacancy rate of 6.6% or 193 positions (Spetz, 2007). Graduate-level education is required for teaching in nursing schools. A major disincentive to seeking advanced degrees and education are salaries offered to nursing faculty, which have not kept pace with the rising salaries of nurses employed in the service settings. It is not uncommon for an entry-level faculty member with 20 years of clinical experience to receive a salary at 50% of what she/he could earn in a clinical area. New graduates earn more at an entry level salary than many seasoned faculty members (American Association of Colleges of Nursing, 2007c, 2007g, 2008; Brady, 2007; Brendtro & Hegge, 2000).

We cannot continue to educate nurses using traditional strategies such as state and private funding sources to build educational capacity. New models for educating nurses are evolving. These include entry-level accelerated programs for second degree students at the baccalaureate level, entry-level Masters, distance learning, clinical simulation centers, web-based education, a new curriculum model for associate degree programs, and collaborative initiatives with multiple schools sharing a common curriculum and faculty. Other emerging trends include the education of older nursing students with more life experience, a focus on a more ethnically diverse workforce and more men in nursing, the education of health care providers to utilize interventions requiring advanced technology, and the use of alternatives such as “contract education” to overcome bureaucratic barriers to expanding educational capacity.

Additional major educational challenges to expanding educational capacity include insufficient clinical placement sites; high student attrition rates; slow and/or inconsistent adoption of innovative, evidence-based, teaching approaches focused on student-centered, and active learning approaches, including the use of distance learning and integration of informatics; and insufficient funding to support the growth demand.

The convergence of these multiple factors provides a unique and timely opportunity to examine the way we educate nursing students. It is time to reshape nursing education in California by adopting a statewide plan, with strategic priorities action steps, to prepare those nurses who will care for Californians throughout the 21st century.

STRATEGIC PRIORITIES

The diagram on the next page depicts the seven recommended priority areas of strategic action for nursing education redesign in California. Our guiding vision is a workforce of well-prepared professional registered nurses who are leaders in improving the health of Californians. The strategic action areas are critical elements for reaching our collective goal. These strategies will serve as a guide to assist educators, academic and service leaders, policy makers, funders, and other leaders in paving the way for excellence in nursing education.

Action Plan Recommendations for each strategic priority, developed by the seven Thought Leader Action Groups, are located in Appendix B. A full listing of references utilized during the project, organized by content area, is provided in Appendix C.



**NURSING EDUCATION REDESIGN FOR CALIFORNIA:
STRATEGIC PRIORITIES**

VISION:

Professional registered nurses are well prepared to practice in the evolving health care delivery system, leading Californians to better health.

1. Forge strong academic/service partnerships to assure quality, safe, and successful nursing education outcomes.

CALIFORNIA COALITION FOR NURSING EDUCATION REDESIGN

2. Clarify clinical and professional role competencies and plan for development of professional nurses.

*PROFESSIONAL AND CLINICAL ROLE FORMATION AND DEVELOPMENT
BASED ON A NOVICE-TO-EXPERT CONTINUUM*

3. Create a collaborative education model for “seamless” advancement to higher degrees in nursing: ADN, BSN, Graduate/Doctoral levels.

CALIFORNIA NURSING EDUCATION HIGHWAY

4. Collaborate to recruit, develop, and retain a well-prepared and diversified faculty.

NURSING EDUCATION WORKFORCE DEVELOPMENT PLAN

5. Integrate high-fidelity simulation, technology, and informatics into nursing education.

*STATEWIDE ALLIANCE FOR CLINICAL SIMULATION USERS
& COLLABORATION WITH THE “TIGER INITIATIVE”*

6. Assure safe and effective transition from pre-licensure graduate to entry-level practice through evidence-based residencies for new graduate transitions.

STATEWIDE MANDATE FOR NEW GRADUATE RESIDENCIES

7. Create a centralized nursing education resource center and data repository to support continuous innovation and evaluation of education interventions and outcomes.

CALIFORNIA CENTER FOR NURSING KNOWLEDGE

OUTCOME:

A nursing workforce well-prepared for the evolving health care delivery system.

NURSING EDUCATION REDESIGN FOR CALIFORNIA Action Plan Objectives and Strategies

Objective 1:

Forge a strong and stable coalition of academic, service, policy, and industry partners to shape nursing education in California.

Establish a stable coalition of academic, service, policy, and industry partners to:

- Set the processes
- Request input
- Promulgate the information
- Establish evaluation metrics
- Manage a central clearinghouse of data
- Seek resources for sustainability

Rationale:

Substantial agreement exists on the imperative to **forge academic/service partnerships** that will collaboratively build solutions for the pressing issues around quality nursing education. A strong unified voice, possible through these partnerships, is imperative to set statewide standards and oversee the process of education redesign and the implementation of the recommendations of the White Paper.

Strategies:

1. Engage stakeholder organizations in shaping a coalition to serve as champions for redesign.
 - Select redesign champions, representing service and academia from all regions of the state, as well as sponsor and key stakeholders. These champions will drive effective redesign.
2. Seek funding for the redesign plan, including a project leader to oversee the process and to support the workgroups that actualize the plan.
3. Support actualization of academic/service partnerships that optimize clinical learning experiences along the continuum of learning, from novice to expert levels of practice.
 - Set standards to optimize clinical education through academic/service partnerships.
 - Service partners will define, plan, and deliver effective strategies for creating a practice environment that fosters optimum clinical education for students.

Objective 2:

Establish core competencies and guide clinical and professional role formation and development based on a novice-to-expert continuum.

Rationale:

Curriculum redesign must align with evidence-based practices that assure safe and effective health care, based upon achieving the required core competencies of the graduate. Agreement by both academia and service is needed on core clinical and professional role competencies for new graduates, to serve as a guide to delineate academic and service accountabilities for educating nurses, thus effectively closing the “gap” between education and service. These competencies will also guide curriculum redesign for education and the transition of a new graduate into the practice setting and moving to proficient and expert levels of development.

Strategies:

1. Establish core competencies for professional and clinical roles, tapping into the work of other statewide and national collaboratives and professional organizations.
2. Apply Carnegie Study recommendations on integrative teaching/curriculum approaches for professional role formation and development.
3. Develop curriculum frameworks in nursing programs that meet the core competencies needed for new graduates.
4. Collaborate to create learning and practice environments that foster professional and clinical role development.

Objective 3:

Provide a coordinated statewide system for increased access to RN education and seamless advancement to BSN, graduate, and doctoral degrees.

Rationale:

Associate degree programs produce 70% of California's new nursing graduates; however, demand for nurses with higher levels of education continues to increase to meet the expectations of health care industry employers and to serve as faculty in schools of nursing. Despite statewide efforts to address this problem of access and articulation between levels of education, substantial obstacles continue to exist around equitable access to RN-entry programs. Other states have taken action to assure seamless advancement of education to BSN and graduate levels through collaborative education models, as well as opening up the pipeline for more qualified and diverse entry-level students. California can build upon the learning from other states to educate more nurses with higher degrees in nursing, without compromising the contribution that the associate degree level of education makes to the nursing pipeline.

Strategies:

1. Sponsor demonstration projects to actualize collaborative partnerships between community colleges and colleges/universities granting baccalaureate degrees in nursing to provide for seamless and efficient articulation between programs.
 - Seek funding sources to support collaborative education demonstration projects that can be accomplished in 12-24 months.
2. Identify perceived barriers to the collaborative model and identify action steps to address those barriers.
 - Collaborate with California Community Colleges and California State University Chancellors Offices on policy initiatives to overcome barriers.
3. Build diversity in students with advanced degrees by increasing access of community college students to higher education.

Objective 4:

Collaborate to recruit, develop, and retain a well-prepared and diversified faculty.

Rationale:

A sufficient supply of highly qualified nurse educators is the most critical factors in achieving successful educational outcomes. Insufficient numbers of nursing faculty has the potential to be the major barrier in educating sufficient numbers of highly qualified nurses. Current vacancy rates, the growing use of part-time faculty, and the looming retirement of the majority of nursing faculty all drive the growing crisis associated with the shortage of nursing faculty. Significant resource investment is required to

assure novice-to-expert development of high-performing nurse educators: preceptors, mentors, clinical instructors, early- and mid-career faculty, and nursing education executives. Well-prepared educators produce well-prepared nurses. Significant barriers to faculty recruitment, retention, and satisfaction include disparate salaries, excessive workloads, and limited mentoring for career development.

Strategies:

1. Develop a faculty workforce plan to assure that we have faculty needed to educate nurses over time and optimize utilization of limited faculty resources.
2. Prepare a White Paper providing an in-depth analysis of barriers and solutions to recruiting and retaining faculty.
3. Implement innovative solutions to address faculty salary disparities.
 - Identify successful practices in increasing faculty salaries.
4. Conduct a statewide campaign to promote nursing education as a desired career path.
 - Identify incentives for nurses to become educated as faculty.
5. Create and implement plans to develop faculty to be responsive to new educational modalities appropriate for 21st century students.
 - Assess and evaluate faculty development activities.

Objective 5:

Integrate clinical simulation, technology, and informatics into nursing education curriculum.

Rationale:

High-fidelity clinical simulation has the potential to transform nursing education. Simulation, along with technology, and informatics offers new opportunities for educators to teach more effectively and for students to learn safely and with minimal risk to patients. However, simulation, technology, and informatics also offer formidable learning challenges to faculty and students as they must learn new ways to learn, practice, and teach.

Strategies:

1. Develop a statewide alliance for nursing clinical simulation users to enhance and foster the development of simulation as a modality to transform the education of registered nurses.
 - Create training and mentoring programs that assure proficiency in the use of simulation in nursing education.
 - Create an ongoing forum and process to ensure Academic/Service collaboration for simulation scenario development, incorporating standards and role-based competencies and best practice components.
 - Establish a centralized web-based, reference repository for high-fidelity simulation.
2. Work collaboratively with the national TIGER Initiative (Technology Informatics Guiding Education Reform) to integrate technology and informatics into academic and clinical education curricula on a statewide basis.
3. Facilitate faculty development to incorporate high-fidelity simulation, technology, and informatics into education pedagogy and curriculum design.

Objective 6:

Assure safe and effective transition from pre-licensure graduate to entry-level practice through evidence-based residencies for new graduate transitions.

Rationale:

Health care in the evolving health care delivery system is too complex for new graduates who enter the workforce as beginners to safely practice independently. The evidence shows that it takes guided experience over time to move to the proficient level of practice necessary to function safely and effectively in today's complex health care environment. Skilled preceptors, mentors, evidence-based residencies, and transition programs are needed to guide newly licensed RNs to proficient levels of practice.

Strategies:

1. Compile evidence-based standards for new graduate residencies to inform the employers of nurses as they design and develop or adopt residency programs.
 - Study demonstration models that show evidence congruent with these standards.
2. Articulate the business case for evidence-based residencies.
 - Engage service in the importance of residencies through making evident the business case based on demonstrated outcomes.
3. Develop a process to move toward a statewide mandate for evidence-based and effective residency programs for all entry-level RN graduates.
 - Explore long-term funding strategies for residencies.

Objective 7:

Create a centralized nursing education resource center and data repository to foster ongoing convergent thinking, consensus building, innovation, training, and research supporting and informing the advancement of effective nursing education.

Rationale:

An infrastructure must be in place to move these strategic priorities for education redesign forward. Education redesign is an ongoing process involving quality improvement, gathering of evidence-based best practices, education, research, and continuing education of faculty. Resources are required in order to move redesign forward, sustaining continuous nursing education quality improvement for the long run.

Strategies:

1. Create and implement a strategic plan for building wisdom and evidence on nursing education and practice.
 - Establish the California Center for Nursing Knowledge.
 - Convene regular gatherings of key stakeholders to build collective wisdom and strategic actions for ongoing improvement in nursing education.
 - Develop a curriculum for “intensives” and learning laboratories on transformational learning for faculty (e.g., faculty “boot/creativity camps”).
2. Design innovative economic models and mechanisms for sustainable quality education and innovation.
3. Link with other community, regional, statewide, and global alliances to foster nursing educational outcomes aligned with the evolving healthcare delivery system.
4. Explore strategies for innovative interdisciplinary and inter-professional education to improve health outcomes.
5. Serve as the catalyst for the integration of new thinking and knowledge into curriculum reform and advance these innovations into the mainstream of nursing education in California.



NURSING EDUCATION REDESIGN FOR CALIFORNIA
Plan for Moving Forward – 2008

1st Quarter 2008

- A. Disseminate White Paper and hold dialogue with key stakeholders
Continue to widen the circle of knowledge and input. Build consensus and community of professional nursing practice statewide
- B. Plan for convening of coalition cosponsors.
- C. Begin to identify potential champion leaders for major action strategies
- D. Begin process for soliciting grants to support objectives and strategies
- E. Prepare dissemination materials and publication plan for Nursing Education Redesign Speakers and Writers Bureau

2nd Quarter 2008

- A. Convene co-sponsors – form coalition plan
- B. Develop a plan, including how action teams will move forward
- C. Thought Leaders present at targeted stakeholder meetings
- D. Plan for Magic in Teaching 3 in 2009: Focus on patient safety and quality & evidence-based nursing education
- E. Identify project leaders and action teams
- F. Submit funding proposals based on coalition plan of targeted priorities
- G. Develop policy plan for strategic areas
- H. Present at National Conference of Nursing Workforce Centers meeting in Denver

3rd Quarter 2008

- A. Approve detailed strategic action plan for 2008: Measures & Milestones
- B. Initiate implementation of action plan
- C. Submit funding proposals to support implementation of action plan
- D. Submit manuscripts for publication to communicate California plan to broader audiences

4th Quarter 2008

- A. Action groups submit interim report & milestones:
 - Coalition formed, leaders identified, action groups convened, standards in development
 - Core competencies for consensus identified
 - Plan for collaborative education demonstration projects
 - Evidence-based standards for residencies and demonstration models identified
 - Statewide simulation users centralized web-based repository
 - Funding grant for faculty recruitment/retention in place
 - California Center for Nursing Knowledge established
- B. Continue publications, presentations, funding proposals, policy plan
- C. Approve plan for 2008/2009

CONCLUSION

We are excited about the potential of this Strategic Plan to transform education in California and impact nursing practice and health care from the bedside to the boardroom. We view our work as moving from disconnected islands of innovation in education practices, with wide variations in outcomes, to a systematic and coordinated statewide plan to support education outcomes that improve the safety and quality of health care for Californians.

We also know that there is substantial work to be done in a time of competing and pressing priorities and dwindling financial resources. The challenges are formidable. However, we believe our leverage is our shared commitment; our diverse and rich collective wisdom, experience, and expertise; and our plan for ongoing generative dialogue for action. Together, with partnerships involving a wide circle of key stakeholders throughout the state and across the country, nursing education redesign *will* transform care at the bedside and improve the health of our citizens.

REFERENCES

- Adams, B. & Napper, B. (2007). *Increasing diversity in California's nursing workforce*. Berkeley: California Institute for Nursing & Health Care.
- Aiken, L. H., Clarke, S. P., Cheung, R. B., Sloane, D.M., & Silber, J. H. (2003). Education levels of hospital nurses and surgical patient mortality. *Journal of the American Medical Association*, 290, 1617-1623.
- American Association of Colleges of Nursing. (2007c). *Nursing faculty shortage fact sheet*. Updated, October 3, 2007. Retrieved November 14, 2007 from: <http://www.aacn.nche.edu/Media/FactSheets/FacultyShortage.htm>.
- American Association of Colleges of Nursing. (2007g). *Faculty Vacancies Survey 2006-2007*. Retrieved July 5, 2007 from: www.aacn.nche.edu/IDS/pdf/vacancy07.pdf.
- American Association of Colleges of Nursing. (2008). *Fact Sheet: Nursing faculty shortage*, Updated March 2008. Retrieved March 31, 2008 from: <http://www.aacn.nche.edu/Media/FactSheets/FacultyShortage.htm>.
- American Organization of Nurse Executives. (2005). *AONE Guiding principles for future delivery toolkit*. Retrieved June 12, 2007 from: <http://www.aone.org/aone/resource/toolkit.html>.
- Bolton, L. B. (2007b, January/February). Raise the voice! Transforming America's health care system through nursing solutions. (Editorial). *Nursing Outlook*, 55(1), 3-4.
- Brady, M. S. (2007, June). Recruitment and retention of associate degree nursing faculty. *Journal of Nursing Education*, 46(6), 190-192.
- Brendtro, M., & Hegge, M. (2000). Nursing faculty: One generation away from extinction? *Journal of Professional Nursing*, 16(2), 97-103.
- Chaffee, M. W., & McNeill, M. M. (2007). A model of nursing as a complex adaptive system. *Nursing Outlook*, 55(5), 232-241.
- Gubrud-Howe, P., Shaver, K S., Tanner, CA, & Bennett-Stillmaker, et al. (2003). A challenge to meet the future: Nursing education in Oregon 2010. *Journal of Nursing Education* 42(4), 163-167.
- Hassenmiller, S. B., & Cozine, M. (2006). Addressing the nurse shortage to improve the quality of patient care. *Health Affairs* 25(1), 268-274.
- Jeffries, P. & 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*, 15.
- Jones, D., & Leach, L. S. (2005). *Building educational capacity in California schools of nursing*. Berkeley: California Institute for Nursing & Health Care.
- Larew, C. Lessans, S., Spunt, D., Foster, D. & Covington, B. G. (2006). Innovations in clinical simulation: Application of Benner's theory in an interactive patient care simulation. *Nursing Education Perspectives* 27(1), 16-21.
- Porter-O'Grady, T. (2001). Profound change: 21st century nursing. *Nursing Outlook* 49(4), 182-186.
- Rodehorst, T. K., Wilhem, S. L., & Jensen, L. (2005). Use of interdisciplinary simulation to understand perceptions of team members' roles. *Journal of Professional Nursing* 21(3), 159-166.
- Spetz, J. (2007). *Forecasts of the registered nurse workforce in California*. San Francisco: Center for California Health Workforce Studies. University of California, San Francisco.
- Tanner, C. A. (2007, February). The curriculum revolution revisited. *Journal of Nursing Education*, 46(2), 51-52.
- Tourangeau, A. E., Doran, D. M., Hall, L. M., Pallas, L. O, Pringle, D., Tu, J. V., et al. (2007, January). Impact of hospital nursing care on 30-day mortality for acute medical patients. *Journal of Advanced Nursing*, 57 (1), 32-44, 2007.
- U.S. Department of Health and Human Services: Health Resources & Services Administration. (2004). *The registered nurse population: National sample survey of registered nurses*. Retrieved August 18, 2007 from: <http://bhpr.hrsa.gov/healthworkforce/rnsurvey04>.

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