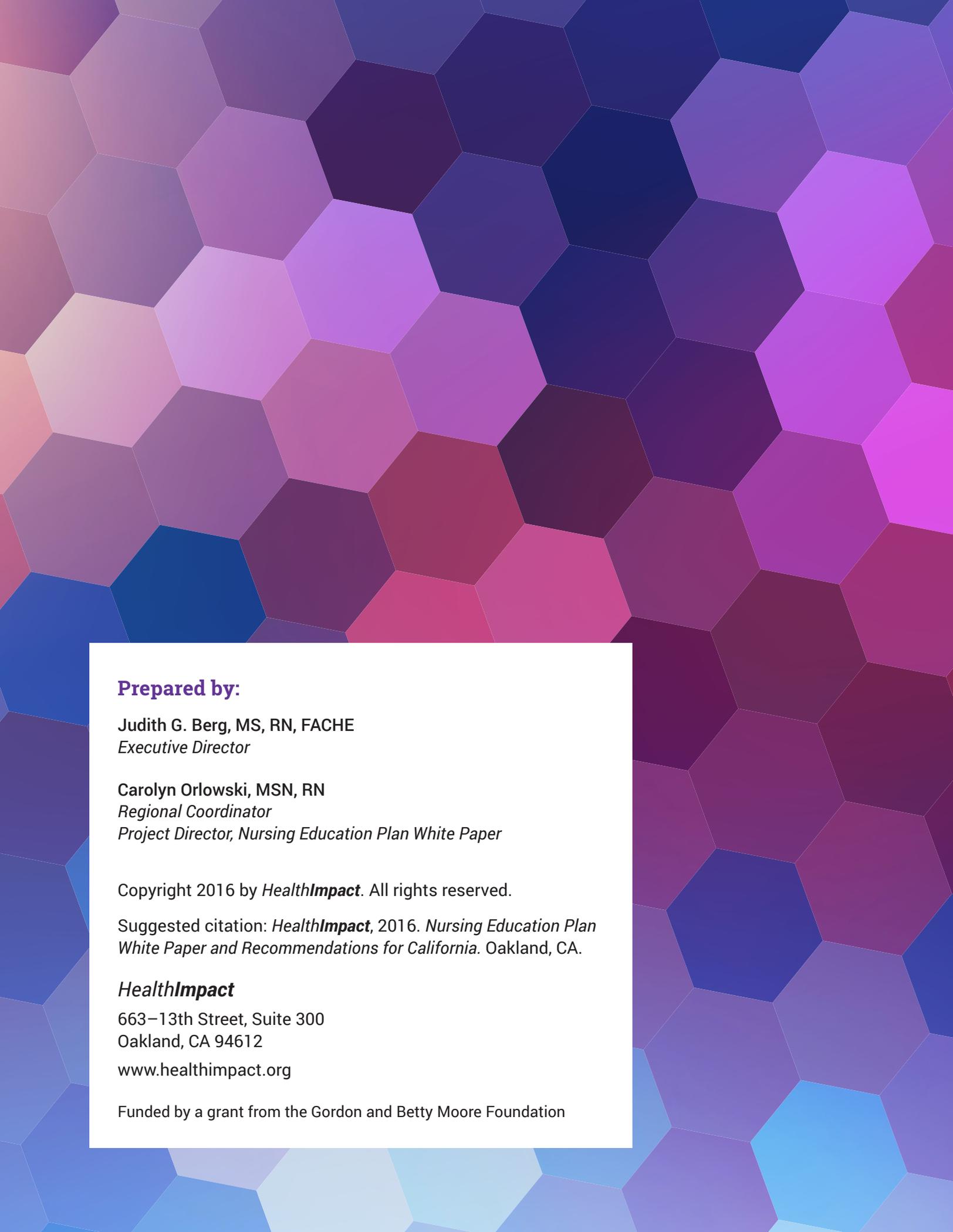# Nursing Education Plan White Paper and Recommendations for California

HealthImpact
Optimizing health through nursing

AUGUST 2016

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Acknowledgements

We are grateful for the funding provided by the Gordon and Betty Moore Foundation and their commitment to advancing nursing education in California.

We also extend gratitude to the statewide advisory organizations and appreciation to the leaders from these organizations that provided exceptional vision that informed planning, engaged stakeholders, and encouraged bold ideas.

Fifty thought leaders across California were core contributors to this process, representing academia, a variety of practice settings, healthcare organizations, policy and regulatory agencies, and diverse nursing and healthcare roles. Their dedication to improving the health of Californians through collaborative partnerships is a cornerstone of this project and foundational to the continued pursuit of excellence in nursing education across the state. A special thank you to co-leaders of the action teams in guiding the development of recommendations and strategies.

More than 350 leaders from nursing, education, healthcare services, and the community participated in six regional meetings held throughout California in summer 2015. We value their passion in exploring new ideas, their openness to propose bold options, and their commitment to champion the adoption of statewide priorities for change.

Executive Summary

Massive changes in healthcare delivery are driving the need to transform how Registered Nurses (nurses) are prepared. As the largest provider group in the state, nurses must practice and lead in a variety of settings, in new roles, and in an environment that is shifting from providing care to managing health.

This document provides recommendations and strategies to prepare nurses for these changes and serves as a call to action for nursing education and practice. The recommendations support multiple entry points into nursing education, influence nurses to continue their education, and promote lifelong learning.

In January 2015, *HealthImpact* launched a statewide initiative in partnership with California's leading nursing organizations: American Nurses Association, California; Association of California Nurse Leaders/ California Nursing Student Association; California Board of Registered Nursing (BRN); California Association of Colleges of Nursing; and California Organization of Associate Degree Nursing Program Directors North and South.

In addition, thought leaders across the state were invited to help lead the effort. They conducted extensive literature reviews, identifying innovative programs and best practices, and obtained input from a wide range of local, statewide and national experts to assess the changing landscape in healthcare, nursing practice, and education. In regional meetings, more than 350 additional healthcare leaders in education, practice, and policy arenas contributed their expertise and perspective.

Through this large-scale effort, five areas of recommendation were identified as central to nursing education redesign for the future. Each recommendation is accompanied by evidence-based strategies. The Nursing Education Plan is an important roadmap for transforming nursing education to better meet evolving health needs of populations. The aim of this document is to engage policymakers in robust implementation of the plan, inform and enlist funders, and align diverse stakeholders about priorities for change, ultimately strengthening shared investments in nursing education.

RECOMMENDATIONS

I. Academic-Practice Partnerships:
Build strong academic-practice partnerships along the continuum of care.

II. Advancing Nursing Education:
Promote academic progression for all Registered Nurses in California to obtain a BSN or higher degree by 2030.

III. Faculty Recruitment and Development:
Create career pathways, develop programs, and provide resources to assure a well-prepared and diverse nursing faculty.

IV. Transition Programs and Residencies:
Establish transition-to-practice programs and residencies for all new graduates and nurses transitioning to new specialties and roles.

V. Preparing Nurses for the Future:
Provide transformative learning opportunities that prepare nurses for evolving roles in rapidly changing interprofessional practice environments.

Advancing Education

Faculty Development and Recruitment

Preparing Nurses for the Future

- New Roles
- Core Competencies
- Interprofessional Education and Simulation

Academic-Practice Partnerships

Transition to Practice Residencies

VALUE OF NURSES
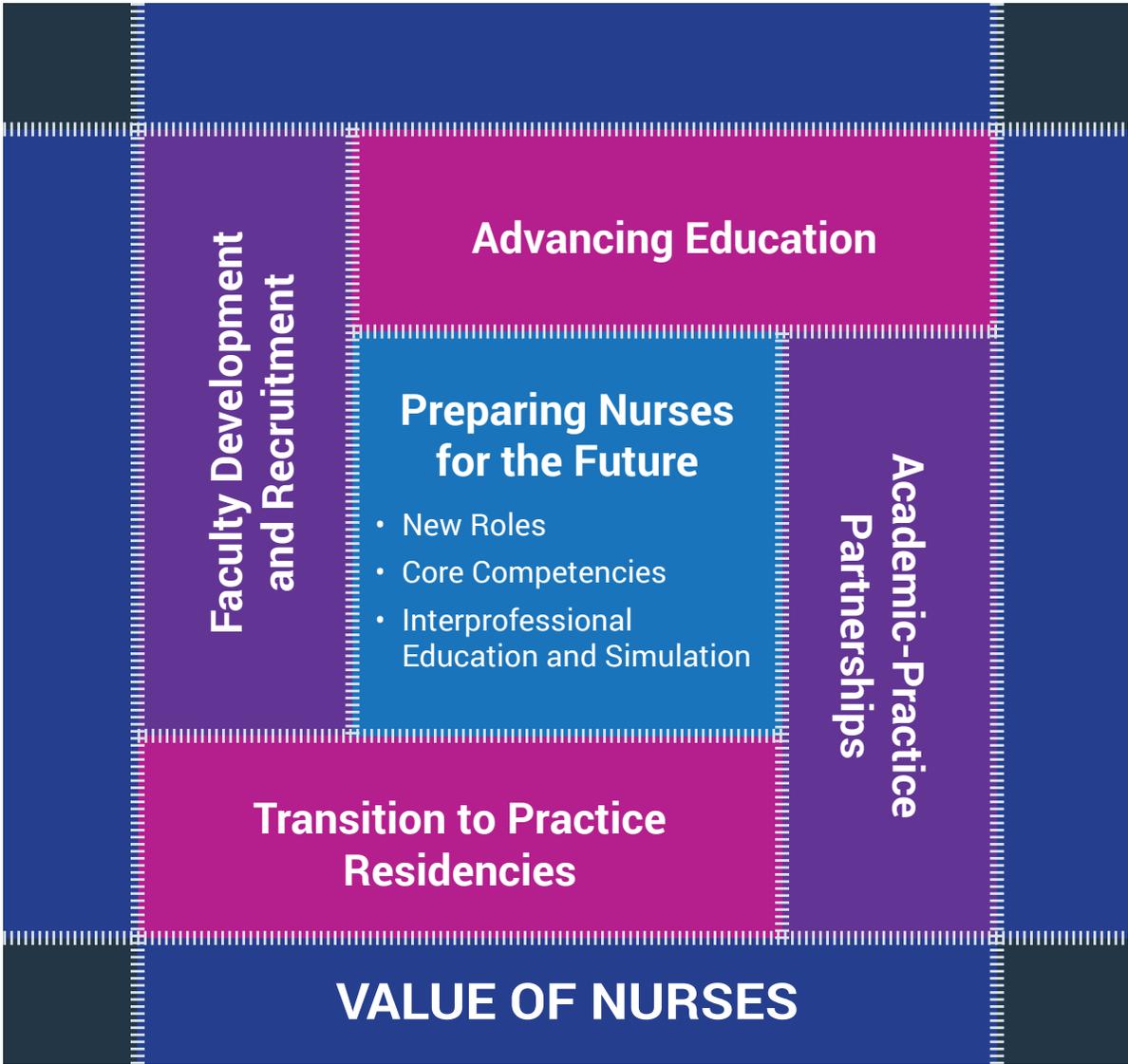
Driving Forces for Change

Multiple driving forces create an imperative to develop a nursing education plan that addresses priorities, reflects new directions, and extends partnerships in change. The most prominent forces are discussed below.

The Future of Nursing (Institute of Medicine)

In 2010, the Institute of Medicine released a landmark report, The Future of Nursing: Leading Change, Advancing Health (IOM, 2010). The document, which remains the most widely read IOM report, outlined four key messages and eight recommendations for addressing "the increasing demand for safe, high-quality, and effective health care services":

1. Remove scope-of-practice barriers;
2. Expand opportunities for nurses to lead and spread collaborative improvement efforts;
3. Implement nurse residency programs;
4. Increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020;
5. Double the number of nurses with a doctorate by 2020;
6. Ensure that nurses engage in lifelong learning;
7. Prepare and enable nurses to lead change to advance health; and
8. Build an infrastructure for the collection and analysis of interprofessional healthcare workforce data.

A subsequently convened IOM committee examined changes in nursing and assessed progress in the five years since the 2010 recommendations. The resulting report, *Assessing Progress on the Institute of Nursing Report* (2015a), highlighted the importance of foundational changes in nursing education to the transformation of the healthcare system. The committee recommended expanded efforts to: 1) support academic pathways toward the baccalaureate degree; 2) explore ways to create and fund transition-to-practice residency programs; 3) promote the pursuit of doctoral degrees, emphasizing the PhD; and 4) promote interprofessional and lifelong learning (IOM, 2015b).

Nurses play a critical role in optimizing health outcomes through traditional and evolving focus in areas such as care coordination, health promotion, and quality improvement. The IOM recommendations are an important resource for the profession to meet an increasing demand for safe, high-quality, patient-centered, and equitable healthcare services.

Educating Nurses— A Call for Radical Transformation (Carnegie Foundation)

A report calling for radical transformation in nursing education was also issued in 2010 by the Carnegie Foundation for the Advancement of Teaching (Benner, Sutphen, Leonard, & Day, 2009). The report acknowledges the tremendous pressure arising from sweeping social and technological changes in the context and substance of nursing practice. Nurses work in highly technical areas within complex healthcare delivery systems, managing major medical therapies delivered in acute care hospitals, as well as in ambulatory care settings, in patients' homes, and throughout the community.

The report includes twenty-six recommendations to improve nursing education aimed at fulfilling "the professional promise nursing offers society." They relate to education entry and pathways, student population, the student experience, teaching, entry into practice, and national oversight. The report concludes with a call to action, encouraging a united approach and bold action to achieve excellence in nursing education.

The Patient Protection and Affordable Care Act

In 2010, the US Congress enacted sweeping legislation with the goal of providing health insurance for more Americans and changing healthcare delivery to address the triple aim of improving health, improving the care experience, and lowering costs. The Patient Protection and Affordable Care Act (ACA) led to increased demand for health insurance; in California, more than three million additional individuals acquired coverage. To manage increased demand for services, providers began creating new care delivery models emphasizing prevention, wellness, and community-based services.

In California, provider and insurer partnerships are forming accountable care organizations to provide high-quality, efficient, and convenient healthcare and to strengthen services in community settings. Care is moving out of high-cost acute care hospitals into community settings where people live and work. The demand for nursing roles in primary care will continue to rise with opportunities for nurses to practice at all levels. Technology is vital as more consumers use smart phones and other devices to communicate with providers. The value of primary care is underscored as prevention, education, and health coaching become central to both improving care and reducing costs. The location of chronic care management is shifting from institutions

to patients' homes, which will become increasingly important as a growing elderly population seeks to "age in place."

Value-based payment reform

In 2015, the Center for Medicare and Medicaid Services (CMS) introduced value-based payment, aiming to slow escalating healthcare costs by transitioning the basis for hospital payments from quantity to quality (Rambur, 2015). A variant of fee-for-service reimbursement, value-based payment is tied to quality metrics, such as the absence of pressure ulcers or blood stream infections with many quality metrics directly related to nursing, particularly in acute care.

Under fee-for-service reimbursement, little incentive exists for avoiding unnecessary services because each element of care generates a fee for providers. Consequently, interest is also increasing in bundled payments providing fixed reimbursement by episode, condition, or insured individual. Bundled payments typically target expensive care or populations that frequently use health services and incentivize integrated delivery, prevention, and providing health services in the least costly settings. Care can also be outsourced from one provider to another. Any provider capable of providing needed services can do so, including nurses.

New roles for nurses as models of care delivery change

As healthcare reform incentivizes a shift in focus from providing care to managing health, new roles for nurses are emerging (Berg & Dickow, 2014). These roles are primarily community-based because wellness and prevention are emerging as key strategies to avoid costly care. New roles include care coordinator, nursing informatics specialist, community nurse, faculty team leader, and primary care partner. With a core emphasis on

prevention, wellness, and maximizing health in all settings, nurses make a pivotal contribution to the health of individuals and communities.

New nursing roles require new competencies and skill sets. Innovative ways of learning and acquiring experience, such as through simulation, will become critical as the content and application of new knowledge becomes increasingly complex. Expanding academic nursing involvement in healthcare systems through involvement in Advanced Practice Registered Nurse (APRN) roles, conducting research, teaching, implementing new models of care, improving quality, and developing changes in practice will strengthen the continued evolution of new roles.

Social determinants of health

Recognition is growing that the primary drivers of health outcomes are factors other than access to providers and services ("Health policy brief," 2014). Aside from genetics, these factors, generally referred to as social determinants of health, fall into three broad categories:

→ Health behaviors

→ Social and economic factors

→ Physical environment

To impact health outcomes, strategies must address the choices people make and the social and physical environments in which they live, work, and play. Because of their knowledge of the physical, social and behavioral sciences, nurses are well positioned to partner with consumers to improve health outcomes. The Institute of Medicine released a report, "A Framework for Educating Health Professionals to Address the Social Determinants of Health," that will be helpful in guiding this work (IOM, 2016).

The rapid growth in healthcare technology

Arguably, nothing will change the way nursing is practiced more than explosive advances in healthcare technology (Huston, 2013). Technology is part of nursing practice in every setting along the continuum of care and ranges from complex diagnostic and treatment equipment to creative smart phone use. Rather than requiring consumers to travel to centralized locations, virtual and in-person care are increasingly delivered to them, improving convenience, value, and safety. New skills are required to adeptly use technology to facilitate mobility, communication, and relationships, and nurses will also be expected to possess expertise in knowledge acquisition and distribution and in genomics as genetic testing becomes widespread. As the use of remote monitoring tools and consumer expectations for convenience grow, virtual practice settings such as care at home will become the norm. Academic and practice environments alike are responsible for the initial preparation of a technology-adept nursing workforce and its continuing competence in technology-aided practice.

Interprofessional education, practice, and research

The standards of major accrediting bodies now require interprofessional approaches, but great variability remains in how these standards are met. Many leaders in academic and practice settings agree that team-based care leads to improved outcomes; however, curricula often lack relevant content and practice settings lack guidelines and implementation policies (Interprofessional Education Collaborative, 2011). Interprofessional education has a dynamic relationship with practice needs and improvements, but healthcare education is isolated from practice and the realities of practice have not yet motivated fundamental changes in health professions education

(Interprofessional Education Collaborative, 2011). Practice issues emerging over the past decade have generated broad-based support for changes in health professions education aimed at developing competencies in teamwork and team-based care.

Tremendous opportunity exists for nurses in academic and practice settings to work collaboratively with other health professions and consumers to implement core competencies in curricula and practice. California nurses can improve health outcomes by collaborating to identify and implement core knowledge and skills supporting team-based approaches to care.

The forces described above have radically changed consumers' views on health, access to care, and expectations about their experiences of both health and care. Additionally, as the focus of care shifts from providers to consumers and from treatment to managing health, the status of acute care settings as the hub of the healthcare industry is diminishing.

Together, these forces call for transformation in nursing education. To partner with consumers in all settings, nurses must rely on technology and on unique expert knowledge grounded in the physical, social, and behavioral sciences. Entry-level and higher nursing education must prepare nurses to work with people at any point along the continuum of care and systematically support their continued educational advancement. Nurses must understand how healthcare funding influences consumer and provider decisions. Most importantly, nurses must assume increasing accountability for achieving measurable health outcomes by implementing best practices, advancing knowledge and new approaches to care, and working collaboratively in healthcare teams. Nursing education must prepare nurses who are well-equipped to function and lead competently and confidently in a rapidly

evolving environment focusing on health, not disease.

Achieving these aims requires strong academic-practice partnerships between all schools and their practice partners and development of a diverse and well-prepared faculty providing seamless academic progression between associate degree (AD), baccalaureate (BSN), masters (MSN), and doctoral (PhD/DNP) programs. Communication and collaboration among schools, across academic systems, and with health plans and consumers are essential. Nursing education and practice can both look to other industries for change strategies. Piloting, disseminating, and adopting innovative ideas involving new teaching formats and methods is a strategic priority.

Ensuring transition to practice for newly licensed nurses requires effective residency programs for all new graduates regardless of practice setting. Curricula preparing future nurses must address core competencies through interprofessional education positioning nurses for emerging roles within collaborative practice healthcare teams and apply simulation experiences to enhance learning. A concept foundational to every endeavor is a clear understanding of the unique value of nursing to the wellbeing of communities and the people within them.

Identifying Priorities

The Nursing Education Plan reflects a collaborative effort representing public and private education systems and diverse nursing education programs, professional organizations, policy agencies and a range of healthcare organizations.

A core group of thought leaders was identified by an advisory team from established statewide organizations: American Nurses Association, California; Association of California Nurse Leaders/California Nursing Student Association; California Board of Registered Nursing (BRN); California Association of Colleges of Nursing; and California Organization of Associate Degree Nursing Program Directors North and South (Appendix A). Thought leaders included deans, directors, faculty, students, clinical service executives, clinical educators, advanced practice specialists, and stakeholder representatives from policy and regulatory agencies, the state licensing board, industry partners, and philanthropic organizations (Appendix B).

The Nursing Education Redesign for California: White Paper and Strategic Action Plan Recommendations (Boller & Jones, 2008) established key priorities and strategies for action eight years ago. The recommendations in that document and evidence of subsequent progress were used as a starting point for this work.

Between January and March 2015, the first steps in identifying recommendations and strategies included:

→ Conducting an assessment of progress in advancing nursing education since 2008 and capturing the current "state of the state" for key recommendations (Appendix C);

→ Examining major drivers in healthcare to identify the nature and pace of change required in nursing education;

→ Determining which prior recommendations and strategies showed evidence of progress and successful outcomes indicating best practices to be continued and sustained; and

→ Identifying opportunities for change in new areas important to future success.

Thought leaders reviewed information in light of emerging priorities and challenges arising from new drivers in healthcare and the escalating pace of change. Extensive discussion led to an agreement to retain and update five of the 2008 white paper recommendations: academic-practice partnerships, advancing education, faculty recruitment and development, simulation, and transition-to-practice residency programs. In addition, two new themes emerged: the strategic evolution of new nursing roles and the importance of interprofessional education in preparing future nurses for participation in integrated healthcare teams.

The next phase of work, beginning in April 2015, consisted of identifying emerging needs and issues that would inform the development of recommendations by:

→ Establishing action teams to conduct focused reviews in selected areas: researching emerging trends, identifying regional and national best practices, generating ideas for change, and preparing initial recommendations and strategies;

→ Engaging subject matter experts to guide planning in selected areas, encourage bold ideas, and support innovative strategies and practices (Appendix D); and

→ Identifying and prioritizing new recommendations and strategies based on emerging trends, evidence-based best practices, and promising innovations.

Following the development of initial recommendations, the next phase engaged regional stakeholders in June and July 2015 by:

→ Conducting six regional statewide stakeholder meetings attended by more than 350 leaders from nursing, education, healthcare services, and the community to review preliminary findings, discuss key drivers and emerging priorities for change, provide feedback, and contribute new ideas; and

→ Building broad consensus within nursing education and across nursing education and practice regarding priorities for action, recommendations, and strategies.

The process strengthened initial recommendations and was valuable in building early consensus and support for change. New topics identified during regional meetings were recommended for inclusion during a thought leader team meeting in August. First, core competencies related to the importance of health outcomes and new nursing roles were emphasized. Second, as health and payment reform continue to drive change, it is critical to demonstrate that new concepts and competencies and emerging roles are valuable to the goal of preparing nurses to participate in new ways to improve health outcomes. Practice changes already under way provided further impetus for a special project on the value of nursing, supported with shared funding from the California Hospital Association (CHA), *HealthImpact*, and Kaiser Permanente. This project extended the involvement of the thought leaders to a separate but related Value of Nursing project, which informed planning across both projects.

The planning phase concluded in December 2015. Each action team presented final recommendations and strategies to the full thought leader team. A draft of the updated plan for nursing education was disseminated in spring 2016 for review and finalization by:

→ Distributing the report to the thought leaders for their review and input;

→ Inviting leaders from state and national organizations and key experts to review and provide feedback on preliminary recommendations (Appendix D);

→ Using a web-based questionnaire to obtain specific feedback on each recommendation and broad comments on the report as a whole;

→ Compiling input for review by the Advisory Team in April 2016, which subsequently agreed on final priorities, recommendations, and strategies, and formally endorsed the report.

The approach used to generate the report facilitated synthesis of diverse ideas and strategic prioritization of change initiatives, strengthening future implementation by policymakers, informing funders, and aligning diverse stakeholders about priorities for change and investments in nursing education.

Recommendations and Strategies

As the largest group of healthcare providers in the state, nurses have tremendous potential and an opportunity to improve the health of Californians. The following recommendations and strategies address factors central to ensuring a well-prepared nursing workforce.

I. Build strong academic-practice partnerships along the continuum of care.

RATIONALE

Nursing schools, educators, and academic leaders are partners and change agents in transforming healthcare with nurses and healthcare professionals in practice settings. Partnerships between these entities support nurses in achieving educational and career advancement and provide mechanisms for lifelong learning and structures for effective transition to practice (AACN, 2013). Although progress has been made in aligning academic-practice collaboration, shared commitment to these partnerships remains imperative to the ability of the nursing profession to respond to change and promote advances driven by research and technology.

STRATEGIES

1. Expand academic nursing involvement in healthcare systems, including involvement in APRN roles, conducting research, teaching and implementing new models of care, improving quality, and developing changes in practice (AACN, 2015).
   → Use academic-practice partnerships to increase the number of nurses with BSN, masters, and higher degrees in nursing, including doctorally prepared educators.
   → Identify funding sources and strategies to support academic-practice partnerships and address the increasing costs of equipment, training, and supervision.

2. Establish forums for dialogue to align thinking and planning with current and future healthcare stakeholders including health and industry partners and healthcare consumers.

3. Establish collaborative approaches that address identified and emerging nursing education and workforce needs, including projected supply and demand related to community-based healthcare needs. Use information systems, such as geographic information system (GIS) mapping, to inform strategic planning by addressing:
   → Location and distribution of nursing schools and types of pre-licensure and graduate programs;
   → Practice site locations and current and planned scope of services;
   → Community demographics; and
   → Healthcare needs assessments.

4. Establish a shared dashboard of academic and practice measures and metrics to monitor, evaluate, and improve nursing education and practice outcomes.

5. Implement processes that stimulate shared knowledge and improved patient quality outcomes, involving academic-practice partnerships in curricula and practice development processes that ensure systematic and timely review and adoption of new knowledge.

6. Develop a comprehensive, evidence-based approach with shared responsibility in preparing students while optimizing the evaluation and use of clinical education sites.

7. Develop shared political advocacy strategies that focus on emergent academic practice-partnership goals and workforce development needs.

8. Develop a plan of action that provides for shared education, preparation of faculty, and utilization of resources and simulation facilities by academia and practice.

II. Promote academic progression for all registered nurses to obtain a BSN or higher degree by 2030.

RATIONALE

Consistent with recommendations in The Future of Nursing Report (IOM, 2010), California is working toward a goal of 80% of nurses in the workforce having a BSN or higher degree by 2020. There is an increasing body of evidence that the BSN-or-higher-prepared nurse increases the quality and safety of care and is best prepared to work across the care continuum. As a broad concept, academic progression encompasses related goals to double the number of nurses prepared at the doctoral level and to embrace lifelong learning for all nurses as essential to advancing the profession.

STRATEGIES

1. Evaluate statewide needs, aggregate capacity, and program options for expanding BSN and RN-to-BSN programs across nursing schools and academic systems. Identify opportunities for strategic development and enlisting support from diverse stakeholders and considerations for resource allocation.

   → Consider the best use of resources to strategically expand regional access and statewide capacity.

   → Evaluate and expand innovative program models, including the California Collaborative Model of Nursing Education (CCMNE), that show evidence of successful outcomes across California.

   → Monitor strategies and program models adopted in other states, including pilot programs under way through nine states as part of the Academic Progression in Nursing (APIN) program.

   → Evaluate the status and outcomes of nursing schools outside of California that currently award a BSN at the community college level. Track progress of California Community College pilot programs in other fields.

2. Assure all CSUs, UCs, and private universities in the state have formal agreements in place with ADN programs for academic progression of students that include articulation agreements, formal pathways, roadmaps, or collaborative education models supporting seamless progression providing dedicated options to the BSN degree. Assure all ADN programs have agreements in place that provide for academic progression with one or more RN-to-BSN programs.

3. Evaluate, modify, and adopt seamless models for academic progression to advance BSN to MSN and doctoral education, expanding education capacity and workforce capability of nursing leaders, APRNs, educators, and researchers.

4. Assure nurses in practice are able to advance their education to meet the health needs of the future population of California.

   → Evaluate barriers for advancement and provide resources, including schools, faculty, and financial aid for students.

   → Remove policies that impede opportunities while extending commitment to practices that meet shared goals. These practices include options for program scheduling, distance education methods, and employer-based policies and practices supporting working nurses in obtaining further education, such as tuition assistance, flexible work scheduling, and defined opportunities for learning and professional growth.

III. Create career pathways, develop programs, and provide resources to assure a well-prepared and diverse nursing faculty.

RATIONALE

An adequate supply of highly qualified nurse educators and academic leaders is critical to achieving successful educational outcomes. A shortage of nursing faculty has the potential to be the major barrier to educating highly qualified nurses. Current vacancy rates, the increasing use of part-time faculty, and anticipated retirement of a large segment of nursing faculty will accelerate the growing crisis (Nardi, 2013). In addition, faculty demographics must more closely reflect the characteristics of students and communities.

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 (Feldman, 2015). Well-prepared educators produce well-prepared nurses. The opportunity to address significant barriers to faculty recruitment, retention, and satisfaction, including disparate salaries, excessive workloads, and limited mentoring for career development, is a compelling priority for action (Fang, 2014).

STRATEGIES

1. Adopt innovative approaches for faculty recruitment facilitated through academic-practice partnerships and collaborative programs that support career pipeline for nurses to move into faculty roles.

   → Establish a database of faculty availability and vacant faculty positions and a faculty staffing registry. Develop local and regional networks for collaboration among schools to coordinate sharing faculty.

   → Provide and extend programs and resources to support the transition of experienced nurses from clinical practice or leadership roles to academic positions. Target executive nurse leaders and APRNs for partnerships or joint appointments to faculty positions.

   → Establish formal mechanisms for joint faculty and clinical appointments across academic and healthcare organizations.

   → Assure dedicated professional practice time for faculty as part of their academic roles. Structure options commensurate with faculty professional role development and scope, including advanced practice clinical, education, leadership, and research functions (AACN, 2015).

   → Accept all doctoral degrees as terminal degrees at academic institutions.

   → Collaborate with the BRN to streamline the statewide process for new faculty to be approved to teach specialty areas and adopt consistent strategies and practices for targeted remediation.

2. Adopt a range of approaches to strengthen, expand, and prepare nurses for faculty roles and evolving academic practices.

   → Align academic salaries with those of nurses in practice settings with comparable education, experience, and scope of role.

   → Establish programs to support experienced nurses transitioning from clinical practice or leadership roles to academic positions. Include flexible distance options for nurses new to clinical faculty roles, providing online didactic components and local practicum experience with experienced faculty mentors that are accessible throughout California.

   → Prepare and support academic faculty to teach and practice in new settings and gain experience with evolving healthcare systems, emerging nursing roles and specialties.

IV. Establish transition-to-practice residency programs for all new graduates and nurses transitioning to new specialties and roles.

RATIONALE

As nurse residency programs become more widespread, they provide evidence that all newly licensed nurses, regardless of educational preparation, should participate in nurse residency programs as part of their entry into practice. Recommendation 3 of the IOM Future of Nursing Report (2010) asserts that boards of nursing, accrediting bodies, the U.S. government, and healthcare organizations should take actions to support nurses' completion of a transition-to-practice residency after graduating from a prelicensure or advanced practice degree program or when transitioning into new clinical practice areas. National nursing associations such as the Commission on Collegiate Nursing Education (2015) and the American Nurses Credentialing Center (2016) support this recommendation and offer accreditation of residency programs.

Evidence shows that students need guided clinical experience over time to effectively move from novice to expert levels of practice. Providing safe and quality care in today's complex healthcare environments calls for radical transformation in nursing education (Benner, Sutphen, Leonard, and Day, 2009). The National Council of State Boards of Nursing (NCSBN) committee unanimously voted that sufficient evidence existed to support a regulatory transition model (NCSBN, 2008). Skilled preceptors, mentors, evidence-based residencies, and transition programs are needed to guide both newly licensed RNs as they begin practice and experienced RNs as they move to new roles and practice environments. Such programs prepare nurses to provide quality and safe patient-centered care in the current healthcare environment and provide sustainable models to strengthen preparation for emerging practice roles that may arise in the future (Spector, 2015).

STRATEGIES

1. Adopt consistent definitions and standards for transition-to-practice residency programs and transition-in-practice programs.

   → Work with the California Action Coalition, schools of nursing, and employers to develop evidence-based program guidelines for nurses in prelicensure and advanced practice degree programs and for nurses in practice when transitioning into new clinical practice areas or roles.

   → Compile materials from successful evidence-based transition-to-practice programs to develop programs that are positioned to meet established national accreditation standards, with the option to seek formal approval.

2. Establish academic and practice partnerships in collaboration with state regulators to foster the development, planning, coordination, and implementation of residency programs as the standard for entry into practice and advanced practice.

   → Require programs for new graduates across prelicensure and advanced practice programs.

   → Enlist support from key stakeholders, including policymakers and employers.

   → Conduct programs within the context of academic-practice partnerships, including options for collaboration and shared resources across employers, new graduates, and nursing programs.

3. Conduct programs across various practice environments to support new roles for nursing.

   → Establish transition-to-practice programs at appropriate levels for newly licensed nurses and newly graduated APRNs and transition-in-practice programs for experienced nurses moving from one practice environment or specialty to another.

   → Develop and implement specialty programs in selected geographic areas to strategically address specific workforce needs.

4. Establish and monitor metrics within academic-practice partnerships to evaluate and improve transition-to-practice programs, including impact on nurse-sensitive measures, return on investment related to improved retention of nurses, evidence of confidence and competencies, and demonstrated patient outcomes.

5. Explore the feasibility of sustainable funding strategies to cover direct program costs and options for participant compensation.

   → Consider CMS model to support residency programs for APRNs in nursing.

   → Explore the redirection of CMS medical education funds for diploma nursing programs to support the development and implementation of nurse residency programs across all practice settings.

   → Develop options that distribute cost and coordinate efficient use of resources thorough academic-practice partnerships. Establish specialty education pathways provided within nursing programs (eg, elective and capstone courses) as dedicated bridges to employment and practice site programs.

6. Build regional pilot programs with the future goal of adapting/adopting this model as a statewide standard.

→ Continue to develop and expand transition-to-practice programs through collaborative partnerships between one or more accredited healthcare organizations or systems and one or more accredited academic nursing programs.

→ Establish and expand transition-to-practice programs through regional coalitions to review needs, structure programs, and provide access for all newly licensed RNs and newly certified APRNs to include:

→ Development through academic-practice partnerships with a focus on QSEN competencies— Patient-Centered Care, Teamwork & Collaboration, Evidence-Based Practice;

→ Management and delivery of quality patient care, professional role including interprofessional collaborative practice, and leadership; and

→ Preceptorship that supports increasing levels of autonomy and independence throughout program participation.

7. Establish and adopt transition-in-practice programs for nurses who change practice settings, role and/or population focus after licensure and employment to include:

→ Development through academic-practice partnerships with a focus on QSEN competencies – Patient-Centered Care, Teamwork & Collaboration, Evidence-Based Practice;

→ Content to be determined from national specialty association standards and guidelines;

→ Preceptorship, debriefing, and mentoring supporting increasing levels of autonomy and independence throughout program participation; and

→ Program structure and process options targeting emerging community/ ambulatory sites with few or no RNs to serve as preceptors or support a transitioning nurse.

V. Provide transformative learning opportunities that prepare nurses for evolving roles in rapidly changing interprofessional practice environments.

RATIONALE

The contribution of nursing to health promotion and health outcomes requires effective partnerships among students, faculty, practitioners, policy makers, employers, and consumers. To ensure nurses have the knowledge, skills, and attitudes needed to coordinate care across the continuum while participating in interprofessional teams in new settings and environments, academic programs must position graduates for a continuously transforming future. Prelicensure curricula must fluidly respond to rapid changes in the practice setting, and graduate curricula must prepare nurses to lead change, produce new knowledge, and advance health.

Although competencies established by health-related public and private organizations are intended to guide nursing education and practice, there remains a need to adopt a set of core competencies that graduates from any level of prelicensure program will be able to perform in any practice setting employing newly licensed nurses. Competencies should further reflect the additional knowledge, skills, and attitudes unique to nurses entering practice with baccalaureate and entry-level master's degrees.

STRATEGIES

1. Assure all nursing curricula incorporate emerging issues and contemporary trends, with a central focus on patient-centered and consumer-based care.
   → Design curricula with the capacity to fluidly accommodate the evolving healthcare environment and emerging nursing roles encompassing the continuum of care.
   → Seek opportunities for timely review and approval processes of substantive curriculum change at departmental and academic institution levels, by the BRN, and with accrediting agencies.

2. Adopt evidenced-based core competencies for prelicensure nursing education that support and encompass nursing roles across the continuum of care including acute, post-acute, ambulatory, primary care, and public health practices, emphasizing primary prevention and health maintenance.
   → Differentiate the roles of baccalaureate- and masters-prepared nurses in community/population health, care coordination, and transition of care management consistent with distinct levels of education.

3. Design curricula to include interprofessional education integrated throughout programs that prepare nurses for collaborative practice roles (IOM, 2015b).

   → Incorporate simulation methods, including prioritization, leadership, organization, and delegation skills (Hayden, 2014).

   → Conduct debriefing forums as core activities promoting team understanding and clinical relevance.

4. Establish a statewide interprofessional organization responsible for developing the professional partnerships and institutional engagement central to advancing interprofessional education and collaborative practice in California.

   → Facilitate relationships among schools and practice settings to establish, strengthen, and extend the collaboration needed within and across disciplines.

   → Use the expertise and resources provided through the National Center for Interprofessional Education and Practice to develop evidence-based education models for faculty, curricula in schools of nursing and residency programs, and practice models for adoption by clinical agencies and healthcare providers. Enlist the talent of experts and consultants in the field to guide coordinated planning.

   → Promote the importance of interprofessional education and collaborative practice partnerships to achieving improved health outcomes, targeting academic and practice leadership (C-suite) and using evidence of value-based outcomes to leverage support, partnerships, and shared resources.

Plan Moving Forward

The Nursing Education Plan and Recommendations for California strengthens the essential contribution nurses make to health outcomes and addresses a central question during a time of massive transformation in health care: "What changes in nursing education are needed to prepare nurses for the future?" Moving forward with a shared vision for nursing education by implementing recommendations and strategies contained in the plan will require statewide, regional, and local commitment, prioritization, and collaborative leadership. New partnerships are needed and existing ones must be broadened and strengthened.

Each recommendation includes a set of interrelated and interdependent strategies. Putting these strategies into action will involve combined effort among schools of nursing and other health professions, professional organizations, health policy bodies, and healthcare employers to design interventions, implement pilot programs, and evaluate results. Pilot programs will guide large-scale replication and broad adoption encompassing system, program, and policy changes for sustained impact.

Key Steps

Key steps in moving the Nursing Education Plan forward throughout California include:

1. Disseminating the white paper to local, regional, statewide, and national audiences by:

   → Preparing communication tools and materials to support broad awareness and access to information;

   → Formally communicating the plan through presentations to state and national conferences, academic-practice meetings, and organizations employing nurses;

   → Continuing dialogue to expand awareness and engage participation in change; and

   → Building consensus among key stakeholders from statewide nursing organizations, academic institutions, public and private nursing programs, other health professional education programs, employers and practice organizations, policy makers, regulatory agencies, funders, and foundations.

2. Establishing and strengthening collaborative partnerships to support strategies aimed at creating broad structural, system, or policy change by linking work plans, demonstration projects, pilot programs, change initiatives, and measures of progress. Specific steps include:

→ Convening statewide meetings to monitor and advance academic progression in nursing that identify evolving needs, establish processes and systems to support progress, and prioritize resources across entities to address enrollment capacity at local, regional and statewide levels;

→ Implementing statewide definitions for transition-to-practice/residency programs, identifying essential evidence-based program components, and recommending adoption in all such programs as the standard of practice;

→ Developing and providing statewide availability for an online clinical faculty preparation program to support nurses in preparing for and transitioning into faculty roles;

→ Appointing a broad-based academic-practice team to review established competencies from national standards and regulatory bodies and develop a set of core competencies for newly licensed RNs that recognizes evolving roles and practice settings. Competencies will be leveled by academic degree and recommended for formal adoption by all nursing pre-licensure programs in California;

→ Convening a statewide stakeholder meeting to address development, progress, and evaluation of best practices for interprofessional education and collaborative practice across California; and

→ Identifying related strategies, programs, or systems in California and other states and internationally to support evidence-based change leading to success.

3. Identifying required and available resources for implementing initiatives, evaluating outcomes, and sustaining change by:

→ Identifying short-term funding needs and sources including grants, contributions, and in-kind resources for implementing pilot programs to establish evidence of success and increase the potential for wide-scale adoption;

→ Identifying, obtaining, and allocating resources to support mid- to long-term sustainability; and

→ Identifying opportunities for effective use of shared resources, including prioritizing and reallocating existing resources to create aggregate efficiencies in achieving shared goals.

Development and implementation of the Nursing Education Plan and Recommendations for California will require refinement as strategies continue to evolve within the context of ongoing change. Initiatives involving small-scale effort will move forward quickly, demonstrating essential short-term results. More complex changes, occurring in stages, may evolve over several months and be refined over a period of years to maximize continued impact. Monitoring progress, sharing best practices, and continued learning will be part of the journey and are consistent with dynamic changes in healthcare.

References

American Association of Colleges of Nursing—American Organization of Nurse Executives Task Force on Academic-Practice Partnerships. (2010). Summary of literature related to academic-service partnerships. Retrieved from http://www.aacn.nche.edu/leading-initiatives/academic-practice-partnerships/SummaryLiteratureAcademic.pdf

American Association of Colleges of Nursing—American Organization of Nurse Executives Task Force on Academic-Practice Partnerships. (2012). Summary of Academic-Practice Partnerships Focus Group Results. Retrieved from http://www.aacn.nche.edu/leading-initiatives/academic-practice-partnerships/SummaryFocusGroupResults.pdf

American Association of Colleges of Nursing. (2015). *Advancing Healthcare Transformation:A New Era for Academic Nursing.* Washington, DC: American Association of Colleges of Nursing.

American Assocation of Colleges of Nursing. (2013). *Exceptional academic-practice partnerships.* Paper presented at the Implementing Successful Academic-Practice Partnerships, Chicago, IL.

American Assocation of Colleges of Nursing. (2014). Nurse residency program. Retrieved from http://www.aacn.nche.edu/education-resources/nurse-residency-program

American Nurses Credentialing Center. (2016). Practice transition accreditation program. Retrieved from http://www.nursecredentialing.org/Accreditation/PracticeTransition

Commission on Collegiate Nursing Education (2015). Standards for accreditation of entry-to-practice nurse residency programs. Retrieved from http://www.aacn.nche.edu/ccne-accreditation/CCNE-Entry-to-Practice-Residency-Standards-2015.pdf

American Association of Colleges of Nursing. (2015). Futures Task Force final report. Retrieved from http://www.aacn.nche.edu/downloads/meetings/2015/fall/Futures-Task-Force-Final-Report.pdf

American Association of Colleges of Nursing. (2013). *Public health: Recommended baccalaureate competencies and curricular guidelines for public health nursing.* Washington, DC: American Association of Colleges of Nursing.

American Nurses Association. (2014). *Public health nursing: Scope and standards of practice.* New York, NY: American Nurses Association.

American Nurses Association. (2015). *Nursing: scope and standards of practice, third ed.* New York, NY: American Nurses Association.

Auerbach, D. I., Buerhaus, P. I., & Staiger, D. O. (2015). Do associate degree registered nurses fare differently in the nurse labor market compared to baccalaureate-prepared RNs? *Nursing Economic$, 33*(1), 8-12, 35; quiz 13.

Beal, J. A., Alt-White, A., Erickson, J., Everett, L. Q., Fleshner, I., Karshmer, J., Swider, S., & Gale, S. (2012). Academic practice partnerships: a national dialogue. *Journal of Professional Nursing, 28*(6), 327-332. DOI: 10.1016/j.profnurs.2012.09.001

Benner, P. (1984). *From novice to expert: Excellence and power in clinical practice.* Menlo Park, CA: Addison-Wesley.

Benner P., Sutphen M., Leonard V., and Day L. (2009). *Educating nurses: A call for radical transformation.* Hoboken, New Jersey: John Wiley & Sons.

Berent, G. R., & Anderko, L. (2011). Solving the nurse faculty shortage: exploring retention issues. *Nurse Educator, 36*(5), 203-207. DOI: 10.1097/NNE.0b013e3182297c4a

Berg, J.G., & Dickow, M. (2014). Nurse role exploration project: the Affordable Care Act and new nursing roles. *Nurse Leader, 12*(5), 40-44. DOI:10.1016/j.mnl.2014.07.001

Berkow, S., Virkstis, K., Stewart, J., & Conway, L. (2008). Assessing new graduate nurse performance. *Journal of Nursing Administration, 38*(11), 468-474. http://dx.doi.org/10.1097/01.NNA.0000339477.50219.06

Berman, A., Beazley, B., Karshmer, J., Prion, S., Van, P., Wallace, J., & West, N. (2014). Competence gaps among unemployed new nursing graduates entering a community-based transition-to-practice program. *Nurse Educator, 39*(2), 56-61. http://dx.doi.org/ 10.1097/NNE.0000000000000018

Bleich, M. R., Cleary, B. L., Davis, K., Hatcher, B. J., Hewlett, P. O., & Hill, K. S. (2009). Mitigating knowledge loss: a strategic imperative for nurse leaders. *Journal of Nursing Administration, 39*(4), 160-164. http://dx.doi.org/10.1097/NNA.0b013e31819c9d12

Block, M. (2014). SB-850 Public postsecondary education: community college districts: baccalaureate degree pilot program. Retrieved from http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB850

Boller, J., & Jones, D. (2008). Nursing education redesign for California: white paper and strategic action plan recommendations. Retrieved from http://healthimpact.org/wp-content/uploads/2009/12/5_Nursing-Ed-Redesign.pdf

Brandt, B.F. (2015). Interprofessional education and collaborative practice: welcome to the "new" forty-year-old field. *The Advisor, 35*(1), 9-17.

Burke, K., Moscato, S., & Warner, J. (2009). A primer on the politics of partnership between education and regulation. *Journal of Professional Nursing, 25*(6), 349-351. http://dx.doi.org/10.1016/j.profnurs.2009.10.002

California Action Coalition. (2014). California Action Coalition. Retrieved from http://www.caactioncoalition.org/sites/caactioncoalition.org/files/3/_Transition%20to%20Practice.pdf

California Community Colleges. (2016). Doing what matters for jobs and the economy. Retrieved from doingwhatmatters.cccco.edu

Center for Excellence in Primary Care. (2015). *RN role reimagined: How empowering registered nurses can improve primary care.* Oakland: California Healthcare Foundation.

Colorado Center for Nursing Excellence. (2012). Colorado's nursing faculty shortage. Retrieved from http://coloradonursingcenter.org/nurse-educators/colorados-nursing-faculty-shortage

Cravetz, M., Krothe, J., Reyes, D., & Swider, S. (2011). Quad Council competencies for public health nurses. Retrieved from http://www.achne.org/files/QuadCouncil/QuadCouncilCompetenciesforPublicHealthNurses.pdf

Department of Consumer Affairs, State of California. Article 3. Prelicensure Nursing Programs 1426. Required Curriculum (Vol. Title 16, California Code of Regulations). Sacramento.

Fang, D., & Bednash, G. D. (2014). Attrition of full-time faculty from schools of nursing with baccalaureate and graduate programs, 2010 to 2011. *Nursing Outlook, 62*(3), 164-173. http://dx.doi.org/10.1016/j.outlook.2013.12.002

Feldman, H. R., Greenberg, M. J., Jaffe-Ruiz, M., Kaufman, S. R., & Cignarale, S. (2015). Hitting the nursing faculty shortage head on: strategies to recruit, retain, and develop nursing faculty. *Journal of Professional Nursing, 31*(3), 170-178. http://dx.doi.org/10.1016/j.profnurs.2015.01.007

Forbes, T. H., 3rd. (2014). Making the case for the nurse as the leader of care coordination. *Nursing Forum, 49*(3), 167-170. http://dx.doi.org/10.1111/nuf.12064

Forrester, D. A., O'Keefe, T., & Torres, S. (2008). Professor in residence program: a nursing faculty practice. *Journal of Professional Nursing, 24*(5), 275-280. http://dx.doi.org/10.1016/j.profnurs.2007.10.008

Gale, S.A., & Beal, J. (2013). Building academic-practice partnerships: sharing best practices. *Nurse Leader,* August.

Haas, S.W., Swan, B.A., & Haynes, T.S. (2014). *Care coordination and transition management core curriculum.* Pitman, NJ: American Academy of Ambulatory Care Nursing.

Hayden, J.K., Smiley, R.A., Alexander, M., Kardong-Edgren, S., & Jeffries, P.R. (2014). The NCSBN national simulation study: a longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation, 5*(2), 1-66.

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.

Health policy brief: the relative contribution of multiple determinants to health outcomes, *Health Affairs,* August 21, 2014.

Hong, C. S., Siegel, A. L., & Ferris, T. G. (2014). Caring for high-need, high-cost patients: what makes for a successful care management program? *Issue Brief (Commonwealth Fund), 19,* 1-19.

Huston, C. (2013). The impact of emerging technology on nursing care: warp speed ahead. *OJIN: The Online Journal of Issues in Nursing, 18*(2). http://dx.doi.org 10.3912/OJIN.Vol18No02Man01

Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health.* Washington, DC: National Academies Press.

Institute of Medicine. (2015a). *Assessing progress on the Institute of Medicine report: The future of nursing.* Washington, DC: National Academies Press.

Institute of Medicine. (2015b). *Measuring the impact of interprofessional education on collaborative practice and patient outcomes.* Washington, DC: National Academies Press.

Institute of Medicine. (2016). *A framework for educating health professionals to address the social determinants of health.* Washington, DC: National Academies Press. Doi: 10.17226/21923.

International Nursing Association for Clinical Simulation and Learning INACSL. Retrieved from http://www.inacsl.org/i4a/pages/index.cfm?pageid=1

Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: report of an expert panel.* Washington, D.C: Interprofessional Education Collaborative.

Jones-Bell, J., Karshmer, J., Berman, A., Prion, S., Van, P., Wallace, J., & West, N. (2014). Collaborative academic-practice transition program for new graduate RNs in community settings: lessons learned. *Journal of Continuing Education in Nursing, 45*(6), 259-264. http://dx.doi.org/10.3928/00220124-20140402-01

Jones-Schenk, J., Burnes Bolton, L., Swanson, J., Hassmiller, S., & Chow, M. (2015). Multistate Approach to Preparing Registered Nurses, *Journal of Nursing Administration, 45*(0), 462-466.

Kutzin, J., Waxman, K.T., Okupniak, C., Nichols, A., Hanberg, A., & Shinnick, M.A. (2011). Simulation partnership models: academia and service learning together. *Clinical Simulation in Nursing, 7,* e256

Massachusetts Action Coalition. (2013). IOM report: Future of Nursing: Massachusetts Action Coalition. Retrieved from http://slidegur.com/doc/1124105/iom-report--future-of-nursing-massachusetts-action-coalition

Maxworthy, J., & Waxman, K.T. (2014). Simulation alliances, networks and collaboratives. In J. Palaganas, J. Maxworthy, C. Epps & B. Mancini (Eds.), *Defining excellence in simulation programs.* Philadelphia: Wolters Kluwer.

McHugh, M. D., Aiken, L. H., Eckenhoff, M. E., & Burns, L. R. (2016). Achieving Kaiser Permanente quality. *Health Care Management Review.* http://dx.doi.org/10.1097/HMR.0000000000000070

Mezey, M. D., Mitty, E. L., & Burger, S. G. (2008). Rethinking teaching nursing homes: potential for improving long-term care. *Gerontologist, 48*(1), 8-15.

Moorhead, S., Johnson, M., & Maas, M. (2004). *Nursing outcomes classification (NOC): measurement of health outcomes, 5th edition.* Maryland Heights, MO: Mosby.

Munkvold, J., Tanner, C. A., & Herinckx, H. (2012). Factors affecting the academic progression of associate degree graduates. *Journal of Nursing Education, 51*(4), 232-235. http://dx.doi.org/10.3928/01484834-20120224-04

Nardi, D. A., & Gyurko, C. C. (2013). The global nursing faculty shortage: status and solutions for change. *Journal of Nursing Scholarship, 45*(3), 317-326. http://dx.doi.org/10.1111/jnu.12030

National Council of State Boards of Nursing. (2008). *Regulatory model for transition to practice report.* Chicago, IL: NCSBN.

National League for Nursing. (2015). A vision for teaching with simulation. Retrieved from http://www.nln.org/docs/default-source/about/nln-vision-series-(position-statements)/vision-statement-a-vision-for-teaching-with-simulation.pdf?sfvrsn=2

North American Nursing Diagnosis Association. (2014). *NANDA nursing diagnoses, definitions and classification, 2015–2017.* Hoboken, NJ: Wiley-Blackwell.

Organization of Nurse Leaders: Massachusetts, R. I., New Hampshire, & Connecticut. (2016). Welcome to ONL. Retrieved from www.oonl.org

Palaganas, J, Maxworthy, J., Epps, C., & Mancini, M. (Eds.). (2015). *Defining excellence in simulation programs.* Philadelphia: Society for Simulation in Healthcare & Wolters Kluwer.

Perfetto, L.M. (2015). Facilitating educational advancement of RNs to the baccalaureate: what are they telling us? *Nursing Education Perspectives, 36*(1), 34-41

Raines, C.F., & Taglaireni, M.E. (2008). Career pathways in nursing: Entry points and academic progression. *The Online Journal of Issues in Nursing, 13*(3), http://dx.doi.org/10.3912/OJIN.Vol13No03Man01

Rambur, B., & Nickitas, D. M. (2015). Understanding health and payment reform--essential for the new world of nursing: an interview with Betty Rambur. *Nursing Economic$, 33*(3), 155-160, 181.

Ryrie, I., & Anderson, B. (2011). Tool to assess the cost and quality benefits of nursing innovation. *Nursing Management (Harrow), 18*(4), 28-31. http://dx.doi.org/10.7748/nm2011.07.18.4.28.c8592

Society for Simulation in Healthcare. (2014). Accreditation standards. Retrieved from http://www.ssih.org/Portals/48/Accreditation/14_A_Standards.

Spector, N.D. (2010). A regulatory model for transitioning newly licensed nurses into practice. *Journal of Nursing Regulation, 1*(2), 18-25. http://dx.doi.org/10.1016/S2155-8256(15)30346-X

Spector, N. D. (2015). Transition to practice study in hospital settings. *Journal of Nursing Regulation, 5*(4), 24-38. http://dx.doi.org/10.1016/S2155-8256(15)30031-4

Spetz, J., & Bates, T. (2013). Is a baccalaureate in nursing worth it? The return to education, 2000-2008. *Health Services Research, 48*(6 Pt 1), 1859-1878. http://dx.doi.org/10.1111/1475-6773.12104

Stanley, J. M., Capers, C. F., & Berlin, L. E. (2007). Changing the face of nursing faculty: minority faculty recruitment and retention. *Journal of Professional Nursing, 23*(5), 253-261. http://dx.doi.org/10.1016/j.profnurs.2007.07.005

The Advisory Board. (2008). *Bridging the preparation-practice gap.* Washington, DC: The Advisory Board Company.

The Robert Wood Johnson Foundation. (2015). *Lessons from the field: Promising interprofessional collaboration practice.* Princeton, NJ: RWJF.

Ulrich, B., & Mancini, B. (2014). *Mastering simulation: A handbook for success.* Indianapolis, IN: Sigma Theta Tau International.

Wallace, J., Berman, A., Karshmer, J., Prion, S., Van, P., & West, N. (2014). Economic aspects of community-based academic-practice transition programs for unemployed new nursing graduates. *Journal for Nurses in Professional Development, 30*(5), 237-241. http://dx.doi.org/10.1097/NND.0000000000000094

Wang, Y., & Liesveld, J. (2015). Exploring job satisfaction of nursing faculty: theoretical approaches. *Journal of Professional Nursing, 31*(6), 482-492. http://dx.doi.org/10.1016/j.profnurs.2015.04.010

Warner, J. R., & Burton, D. A. (2009). The policy and politics of emerging academic-service partnerships. *Journal of Professional Nursing, 25*(6), 329-334. http://dx.doi.org/10.1016/j.profnurs.2009.10.006

Washington-Brown, L., & Ritchie, A. (2014). The fundamentals of integrating service in a post-licensure RN to BSN program. *Association of Black Nursing Faculty Journal, 25*(2), 46-51.

Waxman, K.T. (2008). The development of evidence-based clinical simulation scenarios: guidelines for nurse educators. *Journal of Nursing Education, 49*(1), 29-35. http://dx.doi.org/10.3928/01484834-20090916-07

Waxman, K.T., & Delucas, C. (2014). Succession planning: using simulation to develop nurse leaders for the future. *Nurse Leader, 12*(5), 24-18. http://dx.doi.org/10.1016/j.mnl.2014.07.009

Waxman, K.T., & Miller, M. (2014). Faculty development to develop and implement simulations: strategies and possibilities. In Jeffries, P. (Ed.), *Advanced simulation in nursing.* Washington DC: National League for Nursing.

Waxman, K.T., & Telles, C. (2009). The use of Benner's framework in high-fidelity simulation faculty development: the Bay Area Simulation Collaborative model. *Clinical Simulation in Nursing, 6*(5). http://dx.doi.org/10.1016/j.ecns.2009.06.001

Waxman, K. T., Nichols, A. A., O'Leary-Kelley, C., & Miller, M. (2011). The evolution of a statewide network: the Bay Area Simulation Collaborative. *Simulation in Healthcare, 6*(6), 345-351. http://dx.doi.org/10.1097/SIH.0b013e31822eaccc

Welton, J. M. (2008). Implications of Medicare reimbursement changes related to inpatient nursing care quality. *Journal of Nursing Administration, 38*(7-8), 325-330. http://dx.doi.org/10.1097/01.NNA.0000323944.89640.c0

Welton, J. M. (2010). Value-based nursing care. *Journal of Nursing Administration, 40*(10), 399-401. http://dx.doi.org/10.1097/NNA.0b013e3181f2e9f4

West, N., Berman, A., Karshmer, J., Prion, S., Van, P., & Wallace, J. (2014). Preparing new nurse graduates for practice in multiple settings: a community-based academic-practice partnership model. *Journal of Continuing Education in Nursing, 45*(6), 252-256; quiz 257-258. http://dx.doi.org/10.3928/00220124-20140417-03

Yedidia, M. J., Chou, J., Brownlee, S., Flynn, L., & Tanner, C. A. (2014). Association of faculty perceptions of work-life with emotional exhaustion and intent to leave academic nursing: report on a national survey of nurse faculty. *Journal of Nursing Education, 53*(10), 569-579. http://dx.doi.org/10.3928/01484834-20140922-03

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Appendix C

California Progress Since 2008 Recommendations

RECOMMENDATION #1

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

Progress:

→ Wide dissemination and adoption of Nursing Education Redesign for California: White Paper and Strategic Action Plan Recommendations (Boller & Jones, 2008) provided a framework for developing consensus-driven partnerships among a broad stakeholder base to achieve shared academic-practice goals.

→ The white paper figured prominently in state legislative discussions regarding advanced practice registered nurse (APRN) full scope of practice and approval for California state universities to offer the DNP degree. The report was cited by baccalaureate nursing programs as evidence for extending ADN-to-BSN articulation agreements and piloting and advancing new academic progression models.

→ The California Action Coalition, established in November 2010, used established partnerships as a foundation for initiatives consistent with the National Campaign for Action.

→ Substantial funding was secured by demonstrating shared statewide nursing education priorities aligned with agreed-upon academic and practice goals. Resources were allocated from the state of California, from private foundations through grants, and as shared contributions from healthcare organizations partnering to support priority programs and changes.

→ Key accomplishments provided evidence of transformational change in the development and expansion of academic-practice partnerships foundational to the success of education redesign.

→ These partnerships remained essential to successfully addressing emerging initiatives and optimizing shared academic-practice learning arising from new levels of commitment and planning.

RECOMMENDATION #2

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

Progress:

→ Although wide variation exists across academic and practice settings in the use of competencies such as Performance-Based Development System, Professional Role-Based Development, Interprofessional Education Collaborative Competencies (IPEC), and Quality and Safety Education for Nurses (QSEN), core QSEN competencies were integrated into curricula to a substantial degree by 71% of nursing schools and 34% of practice settings statewide.

→ Academic settings used additional sources for competency assessment, including knowledge testing, National Council Licensure Examination (NCLEX), American Association of Colleges of Nursing (AACN) Essentials, Kaplan, Assessment Technologies Institute, and skills assessments. Practice settings more frequently used competency-based criteria

from national and internal sources.

→ An overwhelming majority (98.8%) of California nursing academic and practice leaders and educators believed this objective remained important to the future of nursing education, particularly as it related to the complexities of healthcare and shifting focus to health, prevention, and primary care.

→ Development of curricular frameworks in nursing programs meeting core competencies for newly licensed RNs remained an important area for ensuring that learning and practice environments foster development of diverse clinical roles.

RECOMMENDATION #3

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

Progress:

→ Demonstration projects launched to develop and implement the California Collaborative Model of Nursing Education received $3 million in foundation funding in 2008-2009, launching pilot programs and demonstration projects involving 13 California state universities (CSUs) and 29 community colleges.

→ The CSU Chancellor's Office established a system-wide nursing transfer policy requirement to expand articulation agreements with community colleges. Public universities universally adopted requirements prohibiting the repetition of prelicensure nursing content, adopted standardized statewide nursing prerequisites, and implemented roadmaps to streamline ADN-to-BSN programs.

→ Extensive progress occurred in the continued development and adoption of seamless models of ADN-to-BSN education

with sustained growth in academic progression across the state. Twenty university-based academic collaboratives have adopted a "dual enrollment" model, comprising fourteen CSUs and six private universities partnering with sixty-one community colleges providing a unique seamless model of education.

→ Annual aggregate school completions in the 2014-2015 academic year in pre- and postlicensure BSN and entry-level masters programs trended 12% higher than ADN completions in the 2013-2014 academic year.

→ The proportion of the nursing workforce with a BSN or higher degree increased 8% between 2012 and 2014, from 53.2% to 61.5%. Initiatives supporting new models of education, providing increased access, and continuing the advancement of nursing education remained a priority for action.

RECOMMENDATION #4

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

Progress:

→ More limited progress has occurred in faculty recruitment and development, as indicated by high vacancy rates, limited supply of experienced nurses with both required credentials and interest in an academic position, and continued salary disparities between academic and practice settings.

→ *HealthImpact* developed and offered grant-funded Clinical Faculty Development Programs across California (2007−2015) to prepare experienced nurses to become clinical faculty. These programs met the BRN requirement for new faculty to have completed a formal education program.

→ There remains a need for new strategies and innovative solutions to increase the

number and diversity of new nursing faculty and to develop current nursing faculty to prepare RNs for emerging roles within a rapidly evolving healthcare environment.

RECOMMENDATION #5

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

Progress:

→ A statewide California Simulation Alliance (CSA), initially grant-supported since its establishment in 2008, is now sustained by five non-grant revenue streams. The CSA website, launched in 2009, provides resources, information on best practices in simulation, and course information for faculty, clinical educators, and clinicians.

→ A faculty development program created and implemented by the Bay Area Simulation Collaborative was adopted and enhanced, providing statewide education within a novice-to-expert model in all seven regions of the state. More than 2,500 faculty, providers, and healthcare educators completed one or more courses and program levels conducted by a team of sixteen faculty members with expertise in simulation.

→ Four CSA-approved simulation centers in California provide a faculty apprentice program: Samuel Merritt University, The Center for Pediatric and Perinatal Education (CAPE) at Stanford, Loma Linda University, and Providence Little Company of Mary Medical Center.

→ Clinical simulation was successfully integrated as a core teaching methodology to enhance clinical education in 98% of California's 141 RN prelicensure programs.

→ More than seventy-five simulation scenarios written by academic and practice

faculty and educators include the QSEN competencies and are aligned with the International Nursing Association for Clinical Simulation and Learning standards available through the CSA.

→ Statewide surveys conducted every two years through the CSA indicate 98% of nursing schools use simulation, a 50% increase since 2008.

→ In 2014, the University of San Francisco launched a Masters of Science in Healthcare Simulation program, the first of its kind on the West Coast.

→ Opportunities remain to further strengthen simulation programs and faculty skills and integrate simulation methods involving interprofessional teams, diverse care environments, and evolving nursing roles.

RECOMMENDATION #6

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

Progress:

→ A new model of transition-to-practice programs for newly licensed RNs provided by nursing schools in partnership with one or more clinical facilities was successfully piloted and replicated by over 25 nursing schools since 2008. Programs were predominantly grant funded, offered as resources were available. Fifteen school-based transition-to-practice programs were active in California in 2015.

→ Employer-based transition-to-practice programs in California included national programs such as the University Health System Consortium/American Association of Colleges of Nursing Nurse Residency Program, the Versant Program, and employer-based programs developed internally.

→ A statewide new graduate employment survey conducted by *HealthImpact* in Fall 2015 indicated 45.6% of newly licensed nurses who became employed in the previous year participated in some type of transition-to-practice program provided by a school of nursing, their employer, or both. This indicated the level of current access of newly licensed RNs to transition-to-practice programs in California and established a baseline for further expansion.

→ Transition-to-practice programs showed promise in demonstrating cost effectiveness, supporting preparation of nurses for both acute and ambulatory settings, new roles, and fostering academic-practice collaboration in addressing RN preparation.

→ Adopting evidence-based strategies and standards to strengthen and expand transition-to-practice programs throughout California remains a priority for action.

RECOMMENDATION #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.

Progress:

→ This recommendation was no longer relevant, given the broader audience and more diverse stakeholders engaged in issues related to nursing education and practice.

→ *HealthImpact*, California's nursing workforce center, established programs targeted at improving the nursing workforce, and the California Action Coalition provided further structure and momentum for addressing the 2010 IOM recommendations. Relationships between nursing education and the communities it serves were established, extended, and strengthened, and continued to evolve.

→ Future conversation related to redesigning nursing education would appropriately take place in a larger shared arena, not through a single organization or entity.

→ Idea generation, innovation, and research remained imperatives for action within a broad and disseminated context. Data collected and used as evidence to support progress and outcomes available from multiple sources needed to be both linked and disseminated and adopted to advance nursing education and practice.

Appendix D

Experts, Advisors, and Review Panel

National experts in nursing education, clinical practice, healthcare workforce planning, and healthcare outcomes directly and indirectly informed the updated plan, linking California's experience to the broader perspective and highlighting emerging work and evidence-based strategies leading to sustained outcomes. Expert consultants engaged to inform and advise the project included Barbara Brandt, PhD, Director, National Center for Interprofessional Practice and Education; Kupiri Ackerman-Barger, PhD, RN, Assistant Professor at the Betty Irene Moore School of Nursing and expert on diversity, equity, and inclusion; John Welton, PhD, RN, FAAN, Professor at the University of Colorado and expert on the value of nursing; and Julie Willems Van Dijk, RN, PhD, Associate Scientist and Co-Director of the County Health Rankings and Roadmaps Program and expert in community health improvement planning.

We wish to acknowledge Deloras Jones, MSN, RN, and Jan Boller, PhD, RN for their expertise and leadership as advisors to the Project Team as we learned from the successful initial work. Ms. Jones was the Project Administrator for Nursing Education Redesign: White Paper and Strategic Action Plan Recommendations in 2008, and founding Executive Director for the California Institute for Nursing and Health Care (CINHC), now *HealthImpact*. Dr. Boller was the Project Director for the initial white paper and is currently an Assistant Dean and Director of the Doctor of Nursing Practice and Health Systems Leadership Programs in the College of Graduate Nursing at Western University of Health Sciences. We were fortunate to have a doctoral student, Sue Kwentus, MSN, RN, who researched information and provided articles and source documents to inform the project and the expertise of Jennifer Green, MS, RN, a professional writer and researcher, in preparing the final report.

This report was reviewed in draft form by state and national leaders selected for their expertise in nursing, education, practice, and health systems. The purpose of this independent review was to provide commentary, helping the project team finalize the published report. Reviewers were not asked to endorse the report's recommendations or conclusions, and their comments remain confidential. We wish to thank the following leaders for their review of this report:

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HealthImpact
Optimizing health through nursing