For 60 years, nurses in education, research and practice in the Western states have come together in the organization we celebrate this year, to achieve more than any of us would have accomplished on our own (Western Institute of Nursing, 2016). A review of the past 60 years substantiates the leadership the Western Institute of Nursing (WIN) and its predecessor organizations have shown in anticipating and responding to important trends in nursing practice, research and education. This paper highlights examples of major initiatives that have advanced nursing education in the West, identifies the forces currently shaping the future of nursing education, and suggests specific directions for WIN as we begin our 7th decade.

The timeline of the organization reveals the relationship between changing conditions in health and health care delivery and the responsiveness of our organization (Western Institute of Nursing, 2016). Between 1965 and 1975, in the context of the civil rights movement and the women’s movement, the Western Commission on Higher Education in Nursing (WCHEN) launched several initiatives targeting development of programs for leadership, faculty development, continuing education, research, and cultural diversity. After 1965, as the passage of Medicare changed the financing for hospitals and drove the demand for greater specialization in nursing, the Western Society for Nursing Research (WSRN) was founded, prioritizing clinical research and faculty development.

Between 1975 and 1985, nursing care became more complex with increasing acuity of hospitalized patients and the introduction of new technology in care at the bedside. Changing business models in health care, towards DRGs, brought greater scrutiny to nursing practice and staffing models. Our organization evolved to the Western Institute of Nursing (WIN), focused on the partnership of practice and education to advance quality of care. During the period of 1985 - 1995 demand for health care increased, costs escalated, and the electronic health record became widespread. Graduate programs grew across the West, with deepening collaboration in research across our region. Between 1995 and 2005, the greying of the workforce became a greater concern, with the average age of nurses in practice reaching the late forties and nursing faculty in the late fifties. The demand for both nursing faculty and leaders in nursing practice was met with the growth of doctoral programs, both the PhD and then the DNP. In 2004, the NEXus (Nursing Education Exchange: Partnering to increase the capacity of nursing PhD programs) was launched as a partnership between the Western Institute of Nursing (WIN) and the Western Interstate Commission on Higher Education’s (WICHE) Northwest Educational Outreach Network (NEON), with support from the Fund for the Improvement of Postsecondary Education (FIPSE), US Department of Education. This project increased regional capacity to offer doctoral nursing programs, by sharing courses in a distance format, enhancing access to faculty across multiple organizations, and promoting efficient delivery of specialty content. With additional funding from the US Department of Health and Human Services, Health
Resources and Services Administration (HRSA) in 2008, NEXus added DNP programs to the portfolio.

As we celebrate the sixtieth anniversary of our organization, three major factors shape our priorities in education: trends in health care, trends in higher education, and the learner, depicted in Figure 1. Our programs contribute to the health care professions workforce in four important ways by preparing: Nurses for clinical roles at the individual, family, community and global level; Nurse researchers to advance nursing science and inform practice and education; Nurse Educators to optimize learning; and Nurse Leaders to advance organizations, programs and policy.

Figure 1: Factors shaping Nursing Education

Health and Health Care
The nursing profession exists in a social contract to improve the health of the population, to promote health, prevent illness, and care for those who are ill and suffering. Our practice is shaped by major population health trends, both demographic changes and the prevalence of health conditions. Our population is aging and becoming more diverse (Centers for Disease Control and Prevention, 2013). Disabled adults live into old age, with complex health conditions. Most older adults have at least two to three chronic conditions, and have a range of needs from behavioral/life style adjustment to complex care. The aging of the population has implications on many fronts: the readiness of our communities to provide the appropriate environment to optimize health for older adults, the capacity of family and friends to provide informal supports, and the preparation of the health care work force and delivery system to address the particular needs of older adults and the associated increased prevalence of chronic conditions. New demands are being placed on both formal health care and the informal caregiving network. Chronic disease absorbs 75% of all health care
costs and threatens quality of life. Mental illness and substance abuse are major issues and are often comorbid with other health conditions, negatively affecting health outcomes. Our focus must shift to prevention and management that includes physical health, mental health, and social determinants of health across the lifespan. More care is delivered at home and in the community, and individuals and families need support from nurses to enact these new and increasingly complex roles (National Academies of Sciences, 2016a; Reinhard & Young, 2016).

Our population is also growing more diverse, and our health-care workforce does not reflect the communities we serve, nor do our programs take into account rich and diverse cultural differences. Health disparities persist across many dimensions, including gender/gender identity, sexual orientation, racial, ethnic and socioeconomic groups, veteran status, disability, and age, as well as by geography (Agency for Healthcare Research and Quality, 2016; United Health Foundation, 2016). Lack of access is a problem across communities, leaving many individuals and families without the comprehensive care they need.

Health care, at over 18% of the gross domestic product, is a major societal priority and an issue for those delivering care, receiving care, and paying for care. The Triple Aim makes explicit the direction necessary to improve population health (Berwick, Nolan, & Whittington, 2008). Major shifts are underway to a more consumer-driven model of care, increasingly delivered in homes and community settings by transdisciplinary teams, enabled by technology and in partnership with individuals, families and communities (Chow, 2016). Health care at the macro and micro levels is increasingly data driven integrating clinical, patient generated, genomic, metabolomic and environmental data. Reimbursement changes are driving new partnership across health care settings, changing practice to follow the person rather than remain within one setting. The pace of change in health care is accelerating at a time when future policy is even more uncertain. Finally, the scope of practice of health professionals will evolve and teams will include more unlicensed personnel, such as community health workers to expand access (Young & Siegel, 2016).

Educators of the largest health care profession have the opportunity to assure that the nurses we prepare for the upcoming decades are equipped to address both population health priorities and health care delivery challenges in a rapidly changing world.

**Trends in Higher Education**

Health care and education share the call for improvements in the areas of access, affordability, quality, inclusion, and equity. With rising costs of education and escalating student debt, coupled with a challenging job market, the popular press reflects societal questions about the return on investment for higher education (Cassidy, 2015). State support for universities has declined over the past decade, at a time when costs of delivering high quality education have increased, escalating tuition and fees. Diversity, equity and inclusion are major goals in higher education, to promote student success, a vibrant democracy and an effective workforce (Association of American Colleges and Universities, 2016). The faculty and student bodies of most universities do not yet reflect the diversity of their communities.

The Association of American Colleges and Universities (AACU) calls for both increased access to and greater excellence in higher education. This report is relevant to nursing education as it lays out the core learning outcomes for college education for all disciplines: Knowledge of human cultures and the physical and natural world; Intellectual and practical
skills, including inquiry and analysis, creative and critical thinking, communication and teamwork skills; Personal and social responsibility including civic knowledge and engagement, intercultural knowledge, ethical reasoning and foundations for lifelong learning; and integrative learning with synthesis and advanced knowledge (Association of American Colleges and Universities, 2010). Acquisition of these learning outcomes requires new approaches to teaching and learning that engage students in conversation with one another, exploring different perspectives, and building skills in teamwork to understand and solve complex problems (Millis, 2010).

Technology is transforming higher education, with an array of new resources for collecting and aggregating data for analytic purposes, and making materials available to faculty and students through open educational resources (Mintz, 2014). Decisions can now be driven by data about the students and their performance, the delivery and uptake of learning activities, and the outcomes of different approaches. Curricula are becoming more data driven, taking into account learning outcomes and successes of students, coupled with priority content for each discipline. Flipped classrooms, enabled by technology, shift the focus to application of content obtained prior to coming to class, on-line or in pre-assigned activities. Virtual reality, collaborative tools and simulation are in common use to promote learning clinical and communication skills, yet systematic evaluation of these new approaches lags (Neill & Wotton, 2011). With greater expectations by accrediting agencies to measure learning outcomes, technology such as dashboards and e-portfolios, will become more important for tracking student progress and can also perform predictive analytics to guide decisions about admission, course selection, remediation, and potential resources to promote student success.

The Learner

The Future of Nursing report called for both transforming nursing education and increasing diversity in nursing, two major areas pertinent to our learners. The Campaign for Action, through state Action Coalitions and investments in Academic Progression, is bringing these recommendations to life, with increases in diversity and the proportion of nurses with baccalaureate degrees (now at 51%) and a doubling in the number of nurses with doctorates (from 8,267 in 2009 to 21,280 in 2014)(Campaign for Action, 2016). The most recent racial/ethnic profile of nursing students reported by the National League for Nursing revealed the following percentages of minority students: 12.2 % African American, 8.1% Hispanic, 5.9% Asian/Pacific Islander, 1.5% Native American, and 7.5% other, for a total of over 30% (National League for Nursing, 2015). The American Association of Colleges of Nursing reports similar statistics, and also notes an increase in enrollment in baccalaureate and graduate programs attributed to calls for more highly educated nurses (American Association of Colleges of Nursing, 2011).

Nursing education still takes place over many years. Students over 30 years of age represent 18% of baccalaureate enrollees, 60% of master’s enrollees, and 84% of doctoral enrollees, suggesting that nurses work for a period prior to returning to university for graduate degrees. These statistics mean that faculty are teaching students with a wide range in age, and with generational differences that influence learning preferences (Billings, Skiba, & Connors, 2005). It also means that learners in graduate programs bring extensive life and work experience, adding the potential richness of the classroom experience. However, with the changing trajectories of nursing education, including accelerated programs, many doctoral students may have less clinical experience than in years past requiring the addition of clinical opportunities in PhD programs.
Just as technology is transforming higher education, personal use of technology is changing expectations of learners. With resources at our fingertips at any time, located in small devices, access to information to deliver care, understand evidence, and communicate has profoundly changed the student experience and expectations. Models of information delivery relying on fixed times and uni-directional flow from expert to novice are obsolete – students expect greater flexibility in schedule and timing of learning, access to varied media to understand information, and enhanced opportunities to interact with information and apply knowledge to practice.

**Implications for Nursing Education**

The changes in health care and population health shift the competencies required to practice, teach and conduct research effectively. Beyond clinical competencies, our graduates need to possess skills and expertise in leadership, cultural inclusiveness, health disparities, effective communication, collaboration, and teamwork and use of enabling technology. With the emphasis on quality and value, our graduates must have an understanding of improvement methods and systems engineering, an appreciation for evidence based practice, and a strong commitment to engaging those we serve (Presidental Council of Advisors on Science and Technology (PCAST) Workgroup, 2014). Success in the rapidly health care system requires both flexibility and dedication to lifelong learning and enacting leadership at every level.

Our schools and colleges are nested in the broader context of higher education and the learning outcomes identified by the AACU are highly aligned with nursing. In fact, nursing is a field that encompasses the basic arts and sciences with a social contract to advance health. As members of our university communities, we have an obligation to address these national priorities. The complexity of human health and wellness and the therapeutics of our field are ideally suited to innovative teaching methods with endless possibilities for student engagement, team work, and critical thinking that not only increase their capacity in the field, but simultaneously promote personal intellectual and ethical development. It is imperative that our schools create an inclusive environment for all learners so that we can attract and graduate students from diverse backgrounds and we can be more effective in addressing social determinants of health. This involves optimizing the culture of the organization, curricular design, and all the learning activities in a strategic fashion (National Academies of Sciences, 2016b).

The West is home to some of the most influential thought leaders in nursing education. Benner and colleagues (Benner, Sutphen, Leonard, & Day, 2009) call for a radical transformation in nursing education, from admissions through curricular and clinical design. Core to the recommendations are approaches that deepen the connection between classroom learning and clinical experiences, promoting application and synthesis of knowledge as it applies to the complexities of practice and the variation in human experience of health and illness. Students must develop skills of inquiry and research that underpin learning and practice for a lifetime. Because care occurs in systems, students must be prepared to understand and navigate their context so they can be agents of change. Reform is needed across all health professions to enhance interprofessional learning, focus on competencies, capitalizing on educational technologies and assuring faculty development, aligning education reform with health care delivery reform (Thibault, 2013).

Pedagogical approaches that place the student at the center, using individual learning style and preferences as a basis for design of the learning experience will optimize learning. A number of methods can enhance learning and cultural inclusiveness, including integrated case-based scenarios and simulation in which students apply and synthesize knowledge in
teams to appreciate the complexity of the problem and potential solution. Well-designed scenarios offer the opportunity to hone both analytical skills and develop capacity for compassionate and ethical care. Inclusion of other disciplines and professions in the classroom and clinical setting is essential to effective practice, education and research. Ideally, learning activities, coupled with student evaluation, build on one another to promote mastery (Cook, Brydges, Zendejas, Hamstra, & Hatala, 2013). With the proliferation of methods for education, nursing education research is even more vital. For example, while competency based education has been widely adopted in medicine, the outcomes and applicability to all aspects of the curriculum remain controversial (Morcke, Dorman, & Eika, 2013; Norman, Norcini, & Bordage, 2014).

The West has also led in conceptualizing new approaches to streamlined academic progression. Tanner and colleagues (Tanner, Gubrud-Howe, & Shores, 2008) imagined and developed the Oregon Consortium for Nursing Education that brought together educators from community colleges and universities across the state to create a shared curriculum that optimized faculty, clinical sites, and classroom resources while offering a seamless path for advancing educational attainment. This model addresses health disparities by providing a means for qualified applicants to remain in their communities for education, and then to continue in practice. Importantly, it demonstrated the power of collaboration in achieving innovation and excellence and aligned with a major recommendation of the Future of Nursing report to streamline education through better articulation (including course alignment and transfer agreements) with community colleges (Institute of Medicine, 2010). It has become a national model that inspires excellence.

Sixty years ago, the WIN collaboration of educators, institutions of higher education, public agencies and foundations propelled nursing education, nursing practice and nursing science forward to address pressing societal needs for health and health care. At the core, nursing leadership in WIN recognized that “…the greatest single obstacle in nursing is the lack of nurses with preparation to do research” (Coulter & Western Interstate Commission for Higher Education, 1963). Preparation of nursing researchers and faculty are still vital for our profession. PhD enrollment is declining in the U.S., at a time when research for our practice is even more needed. Recruitment, rigorous research training, and mentorship into a research career are high priorities for assuring a strong future for nursing research. The upcoming faculty shortage is a call to recruit talented students and colleagues in practice to faculty roles and include preparation for education in graduate programs. PhD students who value teaching and research and have had faculty mentorship are drawn to academia, while financial considerations and negative views of academia impede interest (Fang, Bednash, & Arietti, 2016). This underscores the importance of deliberate outreach and mentorship to grow tomorrow’s faculty. It is also an opportunity to develop new faculty roles that include practice and to develop innovative approaches for faculty retention.

Clearly each doctoral program cannot address all areas of nursing science, suggesting greater focus within programs and increased collaboration across programs to build the science broadly. Further, to increase PhD preparation in Nursing Science, our schools could collaborate with other health sciences to target those students who want academic/research careers in health sciences and offer an integrated undergraduate/graduate program, coupled with mentorship to support this aspiration. Such programs could embrace common curricula that bring together individuals interested in PhD-DVM-RN-MD academic careers, providing opportunities to collaborate in team science and streamlining research education (Young, 2016).
The transformation envisioned, as well as the increasing diversity of our student population requires investment in faculty development and opportunities for practice of both teaching and nursing. As we prepare students for a world of rapid change, faculty must also be nimble, flexible, culturally inclusive, and act as lifelong learners to be ready to offer strong learning environments. Faculty will have to work more effectively as interprofessional colleagues to make crucial decisions about curriculum priorities that add value rather than more content so that students obtain foundational knowledge about current health issues of highest priority in global and local communities. Administrators of nursing schools and programs must promote the structures and processes that best support and retain faculty, value the diversity of needs that faculty have, provide appropriate faculty development and reward excellence in teaching.

Substantial and thoughtful investments in technology are central to teaching for the future, including software and hardware, simulation resources, and collaborative learning platforms. With the expense of these investments, strategic planning and partnerships, as well as education research are essential to assure value. A stellar example of regional collaboration began in 2004, with the launch of NEXus (Nursing Education Exchange: Partnering to increase the capacity of nursing PhD programs). This project increased regional capacity to offer doctoral nursing programs, by sharing courses in a distance format, enhancing access to faculty across multiple organizations, and promoting efficient delivery of specialty content.

**Is it time to reconceptualize nursing and health professions education?**

Interprofessional competencies and experiences are gaining traction in health science education, and still schools of health wrestle with the best ways to bring students from different disciplines together to learn from and with each other (Zierler, Ross, & Liner, 2010). The end goal is to graduate practitioners with the capacity to function at a high level within transdisciplinary teams. One approach to both accomplishing this goal and to enhancing the efficiency of health professions education would be to begin with an undergraduate health sciences major. This major could address prerequisites for all health professionals (nursing, medicine, pharmacy, physical therapy, veterinary medicine, etc.), and provide the foundation for a successful student experience as a clinician, addressing such areas as interpersonal communication, teamwork, ethics, leadership, health and public health, multi-cultural perspectives, quality improvement and the social determinants of health. Opportunities for exposure to clinical roles could facilitate selection of the target health profession. With a common undergraduate degree, students could then pursue further education as nurses, physicians, pharmacists, veterinarians, social workers and other health professions, equipped with the skills to collaborate effectively. A model such as this could streamline education and improve efficiency in common health science course delivery. Early admissions agreements could facilitate seamless progression and mentorship programs could enhance success for students from underrepresented groups.

The second phase of education, clinical preparation, could be more targeted to accomplish mastery of the registered nurse or advanced registered nurse practitioner role, focusing on academic-practice partnerships to optimize relevant learning (Young & Chow, 2016). Clinical sites that address pressing issues in population health can be prioritized to assure that we prepare nurses both for today’s system and the evolving needs of the population. For example, with the emerging effort for enhancing the role of registered nurses in primary care (Josiah H. Macy Jr. Foundation, 2016), it is important to increase exposure to ambulatory care settings for chronic disease management. Such shifts in traditional clinical sites often require advocacy and discussion with Boards of Registered Nursing who approve clinical rotations.
Vision for the Future
When people turn sixty, they are often grappling with questions about retirement and assuring a legacy, because, alas, this milestone definitely signals entry into the last half of life. When an organization turns sixty, it is a testament to its survival and relevance, and a reminder of the responsibility to continue to provide value to its stakeholders, with a potentially greater lifespan than any of its members. WIN has demonstrated a strong history of taking in contemporary and future trends and translating these into action for its members. As we celebrate WIN’s legacy and contributions, it is incumbent upon all of us who are members to join together in envisioning our future. As nursing educators, our influence extends many years into the future as those we teach go on to shape practice, conduct research, and educate the next generation. We are multipliers: What we do today will make a difference for decades to come.

For nursing education, WIN can be a forum for us to digest, interpret, and understand the imperatives of our time. Together we can share ideas for transformation, partnership, collaboration, and we can identify our priorities for research in education to advance our effectiveness. Because of the inclusion of practice, research and education in our mission, we can use our understanding of the forces shaping our profession to project future workforce needs in our region and we can use this information to prioritize our educational initiatives. The diversity of our population in the western states, along multiple dimensions, positions us to lead in inclusion and equity efforts and move towards a day when our profession represents the populations we serve. Our collective strength offers opportunities to influence both the national agenda and regulations at the state level that impede our progress towards our ideals. Finally, we can forge deeper collaborations across our region to accomplish higher quality and more efficient delivery of nursing education.

I remember my first meeting at WIN in 1987 as a doctoral student from the University of Washington, brought to the conference and inspired by my faculty, Joan Shaver, Nancy Woods, Marie Cowan, and Jeanne Benoliel. It was an introduction to the strengths of our region in nursing practice, research and education. The WIN meetings during my doctoral program solidified my interest in an academic career, and I had the chance to meet and learn from all the impressive researchers whose work I was reading in class. I can only imagine the hundreds of doctoral students who shared my experience. As a faculty and now as a dean, WIN has been a place to renew friendships, forge relationships and build ideas that span our organizations and address priorities in research, education and practice. I am honored to be a member of WIN and look forward to our bright future.
References


Western Institute of Nursing. (2016). WIN 50 Year Timeline. Portland, OR: Western Institute of Nursing.


Young, HM., & Siegel, EO. (2016). The Right Person at the Right Time to Ensure High Quality and Value Person-Centered Care for Older Adults: Scope of Practice and Other Systems-Level Factors. *Generations, 40*(1), 47-55.