

# **DIALOGUE:**

Towards a New Framework  
for Nursing Education

# 67,000

**“There’s definitely a lot of people interested in nursing. The number of students who met all the requirements but weren’t admitted was over 67,000 students last year [in U.S. nursing programs]. People do want in, but there just aren’t enough seats”**

-- Robert Rosseter, Spokesman for the American Association of Colleges of Nursing in June 2011 *Washington Times* article



**Texas Tech University, Health Science Center, SimLife Center**

The SimLife Center is comprised of four major hospital room simulation environments: Simulated Primary and Acute Care, Standardized Patient Care, Advanced Patient Care, and Virtual Reality.

# DIALOGUE:

## Towards a New Framework for Nursing Education

Healthcare is in a period of great change and innovation. Healthcare reform, whatever its final version, will bring with it a paradigm shift in care delivery models. Nurses, with their holistic approach to patient care, will be critically important in the process of evaluating and selecting new healthcare delivery models and practices. To provide students with the skills needed to thrive in this rapidly evolving environment and contribute to these shifts, it is essential that nursing education lead the change process. This will require new pedagogical approaches, which will in turn require new thinking about the design of the facilities that will support this methodology.

As architectural design professionals deeply involved in both healthcare and higher education, SmithGroupJJR leadership is keenly aware of the need to understand how these new facilities should function to best support educators and students.

To this end, SmithGroupJJR hosted nine nursing school deans and administrators from across the country in a roundtable discussion of the challenges and opportunities confronting nursing education today. This document summarizes that conversation, and proposes strategies that would allow nursing schools to adapt to a quickly evolving health care system. As this group continues to meet, these concepts will be evaluated and refined, with the goal of creating a comprehensive education and facility design framework for nursing schools.

Perhaps the most striking feature of the discussion was the level of agreement among the members of the Roundtable as to the challenges facing nursing education now and in the future. No matter the individual differences in the type or size of their programs, Roundtable participants were in consensus regarding the major issues they must address.

# WHAT WE HEARD: Cha

## True inter-professional education

Inter-professional education (IPE) is not just interdisciplinary education. True inter-professional education teaches the skills required for listening to each other and working as teams. The challenge is reworking the current rigidly categorized educational model, and developing an approach that leads to true collaboration between various healthcare disciplines, not merely the ability to tolerate one another.

While there is a strong interest in inter-professional education, most of the existing programs are still small scale. Large scale implementation is hampered not just by inertia, but by the need to set standards, identify interested and qualified faculty, and secure funding for program development. Beyond this, other challenges related to true inter-professional education existing including scheduling, faculty development and evolving pedagogical models.

There are examples of inter-professional education to be found in settings other than traditional nursing schools. Some community colleges have developed highly flexible simulation centers that can support a wide range of allied health programs as well as nursing. Large health care systems, including Kaiser Permanente, Banner Health, and the Henry Ford Health System, are creating simulation centers that can be used not just for staff training, but also for evaluating new procedures and approaches.

# 3.1 million

**Nursing is the nation's largest healthcare profession, with more than 3.1 million registered nurses nationwide. Of all licensed RNs, 2.6 million or 84.8% are employed in nursing.**

-- American Association of Colleges of Nursing Fact Sheet

# llenges

80%

**“Future of Nursing Education”  
report calls for increasing the  
number of baccalaureate-  
prepared nursing in the  
workforce to 80% by 2020.**

-- Report by Institute of Medicine and  
Robert Wood Johnson Foundation

**Texas A&M University, Island Hall -- Nursing, Exercise & Kinesiology Expansion**

The project houses athletics, nursing, health science and kinesiology provide a crossroads for faculty, staff and students from four diverse campus departments.



### Mesa Community College, Health Wellness Building

Nursing & Exercise Science Programs are housed in the same facility to save space and encourage wellness initiatives.

## An increased focus on wellness

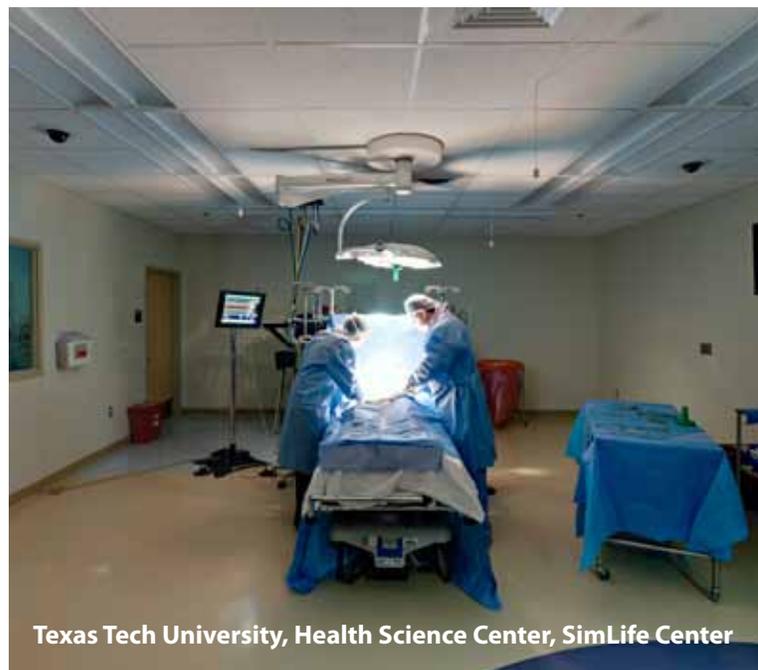
With their emphasis on caring for the whole patient, nurses are uniquely able to support patients' efforts to achieve and sustain wellness. A focus on wellness will also prepare nurses to sustain their own well-being throughout a physically and emotionally challenging career. Nurses continue to take the lead in creating a culture of health and wellness. Nursing school design should create opportunities for wellness, for both students and the community in which they serve.

# 32 million

**With passage of the Patient Protection and Affordable Care Act, more than 32 million Americans will gain access to healthcare services including those provided by RNs and APRNs** -- American Association of Colleges of Nursing

# The effective integration of technology

Students today are increasingly comfortable with technology, and expect a higher level of technological sophistication in their classrooms. Online education has exploded. Virtual reality has developed to the point where it may begin replacing some traditional hands-on environments like cadaver labs. Technology that would allow students to “walk-through” a virtual human body is already available. The challenge is to use technology in effective ways that improve the quality of education, and to provide faculty with the support they need to maximize the value of their technological tools.



# 880

**In 2010, a total of 880 faculty vacancies were identified in a survey of 556 nursing schools with baccalaureate and/or graduate degree programs across the country (a 70.3% response rate)**

-- *Special Survey on Vacant Faculty Positions* released by AACN

**Central Michigan University, Herbert H. and Grace A Dow, College of Health Professions**  
High technology classroom enables students to remotely watch surgeries and procedures.

# The smart use of simulation

Simulation has proven to be an effective teaching method, and one well suited to inter-professional education. Students can be taught in teams much like those in which they will actually practice. The challenge facing an inter-professional approach to simulation is that different specialties need different types of simulation training. Nursing's approach to simulation emphasizes skills related to handling the environment, assessing the situation, critical thinking and critical action. In nursing education, the specific simulation tool being used is not as important as how that tool is utilized by the teacher. Both high and low fidelity simulation can provide valuable learning experiences if they are properly implemented.

In contrast, surgical simulation concentrates on teaching technical skills with multi-million dollar systems, but places less emphasis on contextual learning or team practice. A true inter-professional simulation center must therefore include spaces that can support a wide range of technological requirements. No matter the spaces initially provided, the working assumption in any simulation center design must be that the technology will continue to change, and that spaces will need to adapt to those changes.



**Mesa Community College, Health Wellness Building**

The facility houses simulation and human performance labs in addition to state-of-the-art classrooms and faculty offices.



Arizona State University, College of Nursing & Health Innovation

Flexible classroom design allows for different pedagogies and teaching styles..

# 581,500

**According to the U.S. Bureau of Labor Statistics, Registered Nursing is the top occupation in terms of job growth from 2008-2018 with more than 581,500 new RN jobs created.**

-- American Association of Colleges of Nursing Fact Sheet

## Uncertainty requires flexibility

The rate and scope of change in healthcare have increased exponentially. Technology is ever evolving. Best practices are ever changing. Patients' expectations continue to rise, while cost containment strategies require ever more efficient practice. Change has become a constant, and nursing education must be prepared to respond. Facilities too narrowly designed for a particular style of pedagogy or a particular sort of technology will quickly become outdated. Facilities should be designed with features that allow technology to be added or adapted over time. These may be as simple as additional space in server rooms, or as extensive as modular wall systems and raised access floors.

# WHAT WE HEARD: Fram

## Nursing can take the lead

Both curricula and teaching environments need to be re-imagined to teach practitioners how to keep the patient's needs front and center. Nursing, with its emphasis on holistic, patient-centered care, can take a leadership role in developing new approaches to healthcare education.

The idea that nursing should take the lead may challenge the traditional, hierarchical model of healthcare practice. While this may create resistance in the short term, the pressing need to adapt to the unprecedented level of change in the healthcare environment may provide the incentives needed to overcome old ways of thinking.



### University of Nevada Las Vegas, Simulation Center

The interior build-out phase includes modifying 31,200-square-feet of existing shell space into medical classrooms, laboratories, hospital simulation spaces, offices and study rooms.

# Network Strategies

## Moving out of silos will create a true inter-professional approach

Too often, students in different healthcare fields are trained only to tolerate each other, not cooperate with each other. There is real value in teaching students to function together as true patient care teams, and for this value to be fully realized, some basic foundational strategies must be put in place.

Standardized metrics must be determined so there can be confidence in how to design and evaluate IPE curricula. Similarly, standards for shared decision-making must be in place. Faculty and curricula certification procedures must be established.

There is also a question of what fields should be involved. IPE discussions generally center on nursing, physician, and traditional allied health disciplines. However, other fields such as social work, pharmacology, dentistry and business can play an important role in patient care. The level and type of involvement these fields should have in IPE remains to be determined.

Anecdotally, IPE works best now when it focuses on the personal and social skills needed to cooperate within small teams, and when frequent, thoughtful feedback is provided by teachers and learners. Students need intense, well-planned small group work experiences with immediate debriefings and frequent self-evaluation. Best practices that would allow the scalability of this model must be developed.

# 4

**AACN is continuing to work closely with four colleague associations – the Association of American Medical Colleges (AAMC), American Dental Education Association (ADEA), Association of Colleges of Osteopathic Medicine (AACOM), and American Association of Colleges of Pharmacy (AACCP) – to develop a national collaboration on interprofessional education.**

-- American Association of Colleges of Nursing, 2010 Annual Report

# Technology requires and enables flexibility

Unprecedented technological change has provided the opportunity for entirely new forms of teaching. Online education, high fidelity simulation and virtual reality provide options unheard of only a few years ago. The rapid pace of technological advancement will continue, providing ever evolving opportunities, but also challenging schools to create environments that make the best use of current technology without precluding the introduction of new innovations.

The flexibility required to respond to new technology is two-fold. The space within which the technology will be used must be flexible, but the pedagogy that uses the advanced systems must also be able to adapt to change.

Higher levels of online education may reduce demand for lecture halls or classrooms, leaving more space for tech labs, simulation facilities, and other needs. Similarly, online education will require a different approach to teaching and curricula design.

There is room to explore the possibilities of virtual training. Existing labs rarely capitalize on students' experience with consumer technology and virtual worlds, particularly video games and avatar-based software. These options will require teachers who are comfortable with using the technology and spaces that can provide the necessary systems support.

Simulation provides a case study of how technology can change pedagogy. The introduction of high-fidelity mannequins required that educators develop an entirely new skill set—that of writing and running simulation scenarios. The use of scenarios required construction of entirely new spaces in which to run the scenarios. As new types of simulators become available, the skill set of faculty and students along with the physical spaces must evolve to support them.



University of Nevada Las Vegas, Simulation Center



# 260,000

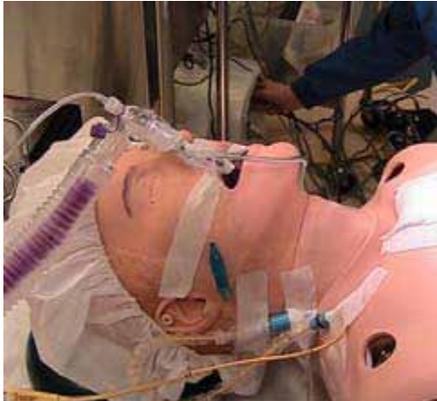
**Dr. Peter Buerhaus and coauthors site that U.S. nursing shortage is expected to grow to 260,000 RNs by 2025.**

-- July/August 2009 *Health Affairs*

# 62%

**In 2011, Dr. Peter Buerhaus and coauthors find a 62% increase in number of 23-26 year olds who become RNs. However, the study does not conclude that the shortage is over. Other considerations include the retirement of baby boomer RNs, healthcare reform, economic downturn, and continued interest by students in the profession.**

-- December 2011 *Health Affairs & AACN Talking Points*



At Kaiser Permanente, simulation training has been implemented across the entire organization from simple role playing used to improve communication skills to sophisticated critical events team training, which uses high-fidelity manikins to reproduce real world situations.

# A new approach to pedagogy requires a new approach to space

As seen with the simulation example, the ability to respond to innovations in technology and pedagogy require that buildings be flexible enough to adapt to change quickly and at a manageable cost. Some of these approaches have been pioneered at facilities like the Kaiser Permanente simulation lab, where modular and movable walls allow the space to be quickly reconfigured.

Building characteristics that support student, faculty and even community wellness will also become more important. Attractive stairwells can provide opportunities for exercise. Views, natural light and garden spaces can provide moments of respite. Carefully designed public areas can provide the opportunities for informal social interaction. Taken together, these features create a building that reinforces a commitment to wellness.

If IPE is to succeed, the space in which it is conducted must facilitate continual interaction among the faculty and students of various departments. Classrooms and labs ought to support the teaching needs of a number of specialties. Office areas should promote informal contact. Shared student lounges and study areas can encourage interaction outside of class. A different approach to “ownership” of specialized instructional spaces must be considered so that these areas can be available to multiple departments or schools.

The nightmare any nursing school faces when developing a new facility is that it will quickly become outdated, or that the operating costs of the new building will not be sustainable. Nursing school leaders need a method of benchmarking and understanding their facilities. With this knowledge in hand, they can be effective advocates for their programs in the design process. Solid data that support specific design requirements can provide a defense against a short-sighted focus on first costs in project budgets.



### Kaiser Permanente Template Hospitals

Kaiser is facing a situation similar to many healthcare providers throughout the US; an increase in patient-demand, a complex regulatory environment, and escalating construction costs. Working with a multi-disciplinary team, Kaiser designed the solution—a template hospital with the ability to gain regulatory approval and complete construction in record time.

## Conclusion

Healthcare in America is facing a period of unprecedented change, and health sciences education must change with it. Nursing professionals are uniquely positioned to take a leadership position in influencing the direction that these changes will take. Inter-professional education can provide an opportunity to develop a patient-centered, holistic approach to nursing and health science education in general, but there are challenges. Technology, pedagogy, and space design must all adapt to the new paradigm.

Buildings will be expected to support evolving technologies, create an atmosphere of wellness, and adapt to shifting pedagogical approaches. As inter-professional education expands, new types of labs and teaching environments will be needed. The design process itself must also evolve to provide nursing school administrators with the data they need to advocate for their programs and evaluate alternatives. The best nursing school buildings will not just contain their programs, but will actively support a flexible, technologically sophisticated and holistic pedagogy.

# 76%

**An overwhelming percentage of the public - 76% - believes that nurses should have four years of education or more past high school to perform their duties.**

-- Nationwide Harris Poll conducted in June 1999

# Acknowledgements

SmithGroupJJR is grateful to the nursing leaders who took the time to attend our Roundtable and graciously shared their concerns and strategies with us. Participants included:

- Michael Bleich, PhD, RN, NEA-BC, FAAN, Oregon Health & Science University
- Paulette Burns, RN, PhD, Texas Christian University
- Sharon Decker, PhD, RN, ANEF, FAAN, Texas Tech University
- Barbara A. Ihrke, PhD, RN, Indiana Wesleyan University
- Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FNAP, FAAN, The Ohio State University
- Barbara Medvec, RN, BSN, MSN, MSA, Oakwood Healthcare System
- Dianne Morrison-Beedy, PhD, RN, WHNP-BC, FNAP, FAANP, FAAN, University of South Florida
- Christine M. Pacini, PhD, RN, University of Detroit Mercy
- Janet Wessel Krejci, PhD, RN, Illinois State University

Special thanks to Bernadette Mazurek Melnyk of The Ohio State University who provided invaluable assistance with assembling the Roundtable.

9

**We'd like to thank the  
nine dedicated nursing  
professionals for your  
participation and insights in  
this discussion on the future  
of nursing education.**

-- The SmithGroupJJR Team



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