AONE Future Care Delivery Toolkit

This toolkit has been designed with nurse executives in mind and will serve as a valuable resource in the design, implementation and evaluation of future patient care delivery systems.

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■ About AONE and Future Care Delivery

AONE believes that nurse leaders are recognized leaders in the design, implementation and evaluation of future patient care delivery systems that effectively leverage human, financial and technological resources to produce safe, effective, patient-centered, timely, efficient and equitable health care[1]. We will not have enough health care workers to deliver care using the same models we use today. To make the changes needed, dramatic transformation and revolutionary thinking are imperative. Although we cannot predict the future, what we do in the present to influence nursing practice and care delivery systems will affect future scenarios in significant ways.

Nursing is established as a science and a discipline, and thus the essential perspective of the discipline can be articulated and will continue to define the nature of nursing work in the future. As a discipline with a social mandate, nursing can and must take responsibility for health care delivery transformation.

■ Objective
In 2000, AONE began work on visioning for the workforce and work environment of the future recognizing that health care delivery system transformation will be significant in the next two decades. Factors driving the need for transformation include workforce shortages, patient safety concerns, rising consumerism and the cost of health care.

■ Action Steps
The first step in the visioning process was the development of the Nursing Workforce Model,[2] which approached workforce issues from a system's perspective and created a model of the key factors influencing the nursing workforce shortage and issues related to the overall health care workforce.

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[1] Institute of Medicine. (2001). Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academies Press.
[2] AONE. (2001). Nursing Workforce Model. Accessed at www.aone.org
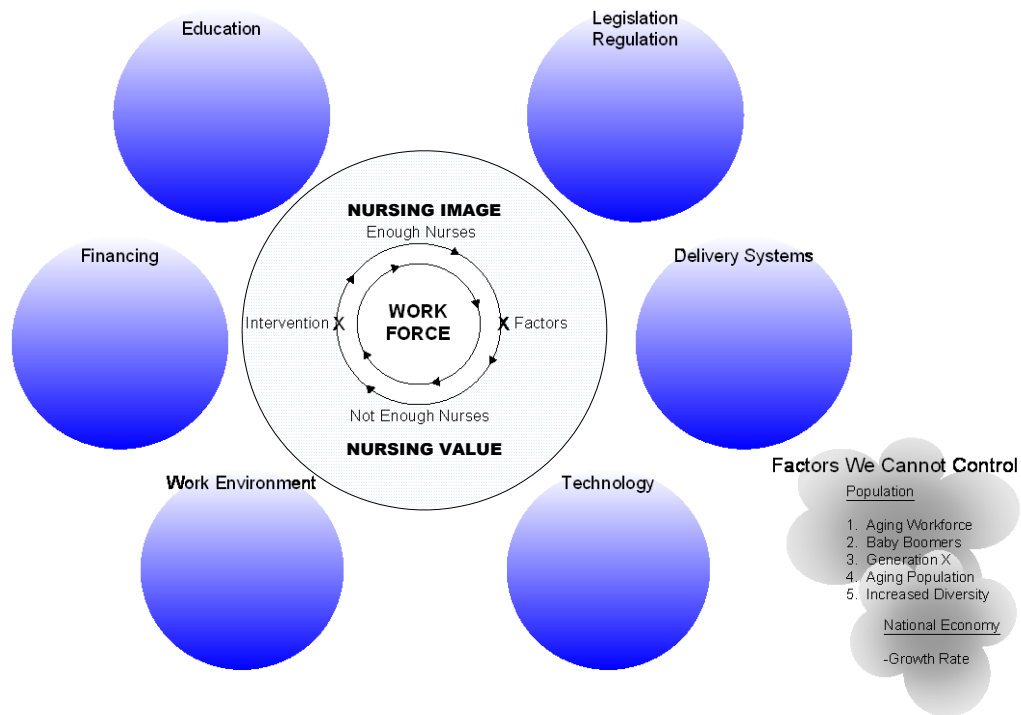
The key factors that if influenced will either positively or negatively affect the quantity and quality of the workforce are in six areas: education; legislation and regulation; financing; technology; delivery systems; and work environment.

The latter two areas are the key factors that nurse leaders have the greatest potential to influence, and it is in these two areas—delivery systems and work environment—that AONE has focused most heavily. The culmination of the visioning process was the development of assumptions and guiding principles to assist nurse leaders in addressing the transformation of delivery systems for the future.

The second step was to define the future patient care delivery model in terms of where we want to be (future); where we are (present); and how to bridge the gap. Once the gap was understood, then action steps on how to move to the future state can be identified. Identifying how to get to our desired future requires the articulation of the assumptions about the future.

1. Using the same care models that we use today, we will not have enough professional nurses in the future to deliver care.
2. We will be increasingly caring for patients, families, and communities both inside and outside of the acute care setting and across the health-wellness continuum. The work of the future that is needed to meet patient needs will redefine the education and the roles needed to do that work. We will leverage technology to achieve desired outcomes as expressed by users of health care.
3. Experimentation, breakthrough thinking and innovation are imperative tools for forecasting future models of care.
4. We ground our planning in the science of complex adaptive systems with an emphasis on systems thinking, recognizing that experimentation and innovation are the ongoing tools needed.

5. We are committed to evidence-based practice and to build a robust research base that transforms our delivery model.
6. Innovations and evidence-based alternative methodologies from other fields and sciences will inform our work. The delivery models for the future will require that we work collaboratively with interdisciplinary teams.
7. A grounding framework for any delivery system are the six aims set forth by the Institute of Medicine (IOM): safe, efficient, effective, equitable, timely, patient centered.
8. Nursing, through a caring framework and firsthand knowledge of patient care processes, provides essential input into system design.

After articulation of the assumptions, AONE framed the discussion by defining the work of the future and the role of nurses in the future model of care delivery. The result was the Guiding Principles for the Role of the Nurse in Future Patient Care Delivery[3], which delineates the key responsibilities for future nurses at the point of care. Those elements are that:

1. The Core of Nursing is Knowledge and Caring:

- Understanding of person, health and environment drives nursing practice of caring for patients. Knowledge of science and technology and commitment to the therapeutic relationship are catalysts influencing the clinical and caring decisions that nurses make. In illustrating the full scope of nursing, knowledge and caring are consistently linked as its core.
- Application of ethical principles guides patient advocacy and provision of end-of-life care. In this capacity the nurse serves as consultant to the patient, family and other members of the health care team.
- Within their social mandate to serve others and society, nurses lead in providing clarity to patients in a complex health care setting; they are present for others and take actions for others in a changing and expanding environment navigating the continuum of care over the life span regardless of the venue—hospital or in any community setting (e.g., home health, long-term care, ambulatory care, future virtual settings, etc.).
- Nurses use their knowledge to empower others and drive system change. Nursing knowledge is evidence-based and dynamic, and lifelong learning is required for its continued application.
- Nurses drive the development of structures and processes used by organizations to build, expand upon, or advance nursing knowledge through research.
- Nurses use an interdisciplinary approach to drive translation of new knowledge into practice, positively influencing patient outcomes.

2. Care is Patient and Family Centered:

- Patients are becoming more knowledgeable and informed, using information technology for research and taking care into their own hands. Nurses serve as patient strategists and guides as they navigate the health care system, advocating for those patients who cannot or choose not to speak for themselves.
- Nurses initiate and promote a safe healing care environment. The caregiver-patient partnership is built on mutual trust, respect and communication and provides physical and emotional safety when meeting the unique needs of each patient and family.

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[3] AONE (2004, 2010). Guiding Principles for the Role of the Nurse in Future Patient Care Delivery. Accessed at www.aone.org.

- Nurses act according to the nursing code of ethics and use cultural competence and leadership skills to support a style of care in which the patient is at the center of each care conversation. Nurses intentionally empower patients to actively plan and manage their own care, including prevention of illness, promotion of wellness and health, and management of chronic disease. In a consultative role, nurses strategize and guide care according to patients' preferences.
- Nurses are guests in the patient's world regardless of the venue—hospital or community. This role framing positively impacts the experience for both the patient and the nurse.

3. Knowledge is Access Based:

- Although there is a foundation of nursing knowledge, medical science and technological advances require a lifelong learning process. Nurses are accountable for keeping pace with expanding evidence and knowledge, by knowing how to access, assess and apply the information and knowledge he/she needs in order to practice.
- Nurses recognize when there is an indication to access additional resources from the interdisciplinary team. Resources include consultants such as advanced practice nurses, pharmacists, social workers and other allied health professionals.
- Nurses practice in an active and changing environment, openly sharing and evaluating best practices and gaining knowledge with interdisciplinary teams, coordinating care that is based on the user and accessed by the patient.
- This method of practice ensures evidence-based care and leads to a continuous path of discovery and innovation.

4. Knowledge is Synthesized:

- Nurses in all practice areas (e.g., hospital, community, etc.) synthesize many pieces of information using creativity and intuition and going beyond medical analysis done by physicians. Nurses synthesize knowledge by evaluating the information they have on hand at the point of decision-making. This knowledge often is gained with the help of technology, communicating with a colleague, or speaking with the patient, family or other significant caregiver.
- Advances in technology, nursing science, biological sciences and genetic science require nurses to synthesize more information with more depth. Nurses routinely evaluate complex and sometimes ambiguous patient care scenarios in different provider settings and with interdisciplinary teams to ensure safe, excellent patient care. This knowledge allows nurses to embrace the role of strategist of care versus implementer of care. This role includes planning, monitoring, documenting, evaluating and revising the plan of care as indicated.
- Development of nursing knowledge will focus on formation and a transition from traditional "decontextualized knowledge to an emphasis on teaching for a sense of salience, situated cognition, and action in particular situations."

5. Relationships of Care:

- Nurses have the exquisite privilege to serve as partners in care. Nurses encounter and create many levels of relationships of care with patients, colleagues and themselves that are healing and intentional. They also establish professional and personal relationships with each other through collegial negotiation and teamwork and bring these experiences to their patient encounters.
- Nurses model interdisciplinary recognition and appreciation that the patient's family and social support systems are integral to the healing environment.
- These relationships, established in changing practice environments, will continue to be forged in new ways and are crucial to preserve the patient experience and achieve positive outcomes. The value of the therapeutic and social relationship between the nurse and patient is as important as

the clinical relationship. As advancements in technology reframe the definition of presence, whether virtual or in person, the patient remains at the center of care. Nurses bring legitimacy to presence however it is defined.

- A patient's needs are the basis by which both the virtual and at-the-bedside relationship can be equally considered as caring. Nurses acknowledge and value presence-based care, regardless of the medium and venue—hospital or community—in which care is delivered.
- Nurses recognize the importance of generational issues. Both new and experienced nurses respond appropriately and effectively to a patient's needs while working in virtual environments such as telenursing (i.e., eICUs).

6. Managing the Journey:

- Nurses are accountable to integrate all contributions to patient care and serve as strategists and managers of the patient's journey—not only their responsibilities, but also the interdisciplinary hand-offs throughout the patient care process.
- Interdisciplinary teams help achieve better patient outcomes. As strategists and managers of the patient's journey, nurses clarify, integrate and coordinate the roles of the interdisciplinary team.
- The role of strategist and manager ensures that what the patient has negotiated with his/her caregivers is carried out appropriately and that the nurse-patient team stands above all the model for care delivery.
- The nurse creates an environment that empowers the patient to become an engaged participant in his/her own care.
- As members of an interdisciplinary team, nurses are accountable for clinical and financial empirical outcomes of care.

7. Quality and Safety:

- Nurses serve as boundary spanners, ensuring continuity of care when hand-offs and transfers are necessary.[4]
- Nurses drive health care policy development and revision in a manner that results in better outcomes for patients and communities.
- The nurse acts as a synergist, integrating complexity science principles assuming the need to encompass a non-linear approach to problem solving given the web of interactions embedded in patient care.
- The nurse directs the continual improvement of quality, safety and value of health care by knowing how to identify good care from the scientific evidence; knowing the actual measured performance in the context where the health professional is learning/practicing and the nature of the gaps; and what activities are necessary—if any—to close the gap(s).
- Nurses are accountable to steer nursing's professional "identity" not only to include caring, knowledge, honesty and integrity but also knowledge and commitment to quality and safety.
- Nurses drive the identification and mitigation of non-value-added interruptions.
- The nurse guides design of technology that is nurse-friendly, supportive of nursing work, accessible and mobile.[5]
- Nurses lead the shift from an emphasis on critical thinking in practice to an emphasis on clinical reasoning and reasoning in transition.
- The nurse demonstrates mindful attention of regulatory and accreditation requirements.
- Nurses spearhead the selection, development, implementation, evaluation and modification of the electronic medical record (EMR) and other technologies such as bar coding of medications, blood transfusions and laboratory specimens.

- Nurses lead interdisciplinary teams with knowledge of and integrating the six Institute of Medicine (IOM) aims for improvement: safe, effective, efficient, personalized, timely and equitable.
- Nurses accelerate evidenced-based practice (EBP) capacity (e.g. EBP model review and integration, active and innovative journal clubs, request and obtain access to nursing research/ EBP experts and mentors).
- The nurse integrates EBP into practice, policy and procedure.

The full set of Guiding Principles with references can be found at:
http://www.aone.org/aone/resource/PDF/AONE_GP_Future_Patient_Care_Delivery.pdf

The development of the assumptions about the work of the future and the role of nurses has led to the articulation of a position statement by AONE about the educational preparation of the nurse of the future.[4] The nurse of the future will face a highly complex health delivery environment. Research indicates the shortage of professional nurses will continue to grow as the patient population ages and places increasing demands on the health care system. Technology will assist nurses in providing safer patient care environments but will also require nurses to monitor, synthesize and manage greater amounts of information for the patients entrusted to their care. The demanding role of the nurse of the future will require that professional nurses possess an expanded skill portfolio and mastery of competencies that support highly complex patient care management in collaboration and partnership with an interdisciplinary team. This role requires preparation at the baccalaureate level. This level of educational preparation will prepare the nurse of the future to function as an equal partner, collaborator and manager of the complex patient care journey that is envisioned by AONE, and given that the role in the future will be different, it is assumed that the baccalaureate curriculum will be re-framed.

Discussion about the role of nurses has led to identification of the need to develop a framework for delineation of the roles for other health care team members in the inpatient setting. These roles need to focus on reducing the number of "cognitive shifts" experienced by nurses at the point of care, and care models that will allow nurses more concentrated time to focus on the professional aspects of their role. Two potential team roles are a technology assistive role and a point of care assistive role. Further work in this area is needed, and the time to begin experimentation is now.

Principal characteristics of the current work environment that must be present to support patient-centered care and future care delivery models are:
- The model of care is unique to the setting.
- One model of care does not fit all settings.
- Care models look different in different settings.
- The care model is centered around the patient and the place where care is provided.
- The patient provides input into the design of caregiver roles.
- The care models achieve the mutually established desired outcomes.
- These models of care resemble the work that has already been done by AONE.
- The essence of caring, central to the nursing role, is the fundamental characteristic of the model, regardless of the setting and the approach.

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[4] AONE. (2005). Position on the Education of the Nurse of the Future. Accessed at www.aone.org.

- The delivery model fully incorporates AONE's guiding principles for the role of the nurse in future patient care delivery.
- Access to just-in-time information is available to members of the care team and to the recipients of care.
- Crew relationships are collaborative and supportive, incorporating the guiding principles for relationships among nursing and support services in the clinical setting.[5]
- As models are implemented, ongoing improvement science is used to measure outcomes.
- Models are fluid, nimble and adaptive to change, evolving with the times.
- High levels of innovation and people skilled with managing innovation are needed.
- Nurse leaders are skilled in transformational leadership.
- Hand-offs are transformed into a seamless journey for the recipients of care.
- High reliability science is incorporated into the delivery model design.
- Navigation roles are developed to assist recipients of care in the seamless journey through the system.
- Simplicity is an overarching approach to innovation.
- The right people are "on the bus," with the focus on hiring for attitude and training for skills.
- A patient safety culture is pervasive.
- The nine elements of a Healthful Practice Environment[6] are incorporated in any care delivery model.
- Technology is leveraged to take demand out of the workplace and enhance the safety and quality of clinical practice.
- Resources are used in the most cost-effective manner.
- Diversity, as defined in the broadest sense, is at the core of this work.
- Care delivery is clinically integrated across roles and sites of care.
- Care teams engage in a coordinated approach to achieving system outcomes.
- Human caring is embedded in virtual practice.

The characteristics of the work environment were grouped into one of seven categories and displayed in the table on the following page:

1. Recipients
2. Providers
3. Processes
4. Values
5. Leadership
6. Safety
7. General Design Elements

Recipients	Providers	Processes	Values

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[5] AONE (2007). Guiding Principles for Relationships among Nursing and Support Services in the Clinical Setting, Accessed at www.aone.org.
[6] Nursing Organizations Alliance (2005). Principles and Elements of a Healthful Practice Environment. Accessed at www.aone.org.

• Recipient/person/individual centered • Centered around the place where care is provided (e.g., geriatrics, etc.) • Person decides what the role of the provider is • Achieves the mutually established outcomes we want	• The delivery model fully incorporates the Guiding Principles for the role of the nurse in future patient care delivery. • Hire for attitude and train for skill • Care teams engage in a coordinated approach to system outcomes	• Fluid, nimble and adaptive to change and evolve with the times • High level of innovation and people skilled with managing innovation • Integrates the hand-offs into a seamless journey for recipients of care • There are identified roles for navigation through the system • Technology is leveraged to take demand out of the workplace and enhance practice • Care delivery is integrated	• Builds upon AONE's future of patient care delivery work • The essence of caring, central to the nursing role, is the fundamental characteristic of the model regardless of the setting and approach • High level of innovation and people skilled with managing innovation • Simplicity is an overarching approach to innovation. Diversity is at the core

Leadership	Safety	General Design Elements
• Transformational leadership	• High reliability science is incorporated into the delivery model design • Patient safety culture	• Unique to their setting • One size does not fit all • Looks different in different settings • Access to just-in-time knowledge/information is available to whole team and patient • Team and crew relationships are collaborative and supportive • As we implement models, we will use ongoing improvement science to measure outcomes • High level of innovation and people skilled with managing innovation • High reliability science is incorporated into the delivery model design • Patient safety culture • Incorporates the nine elements of a Healthful Practice Environment • Technology is leveraged to take demand out of the workplace and enhance practice • Uses resources in the most cost-effective manner • Care delivery is integrated

The graphic relationship among the major elements of the Future Patient Care Delivery Model is depicted as:
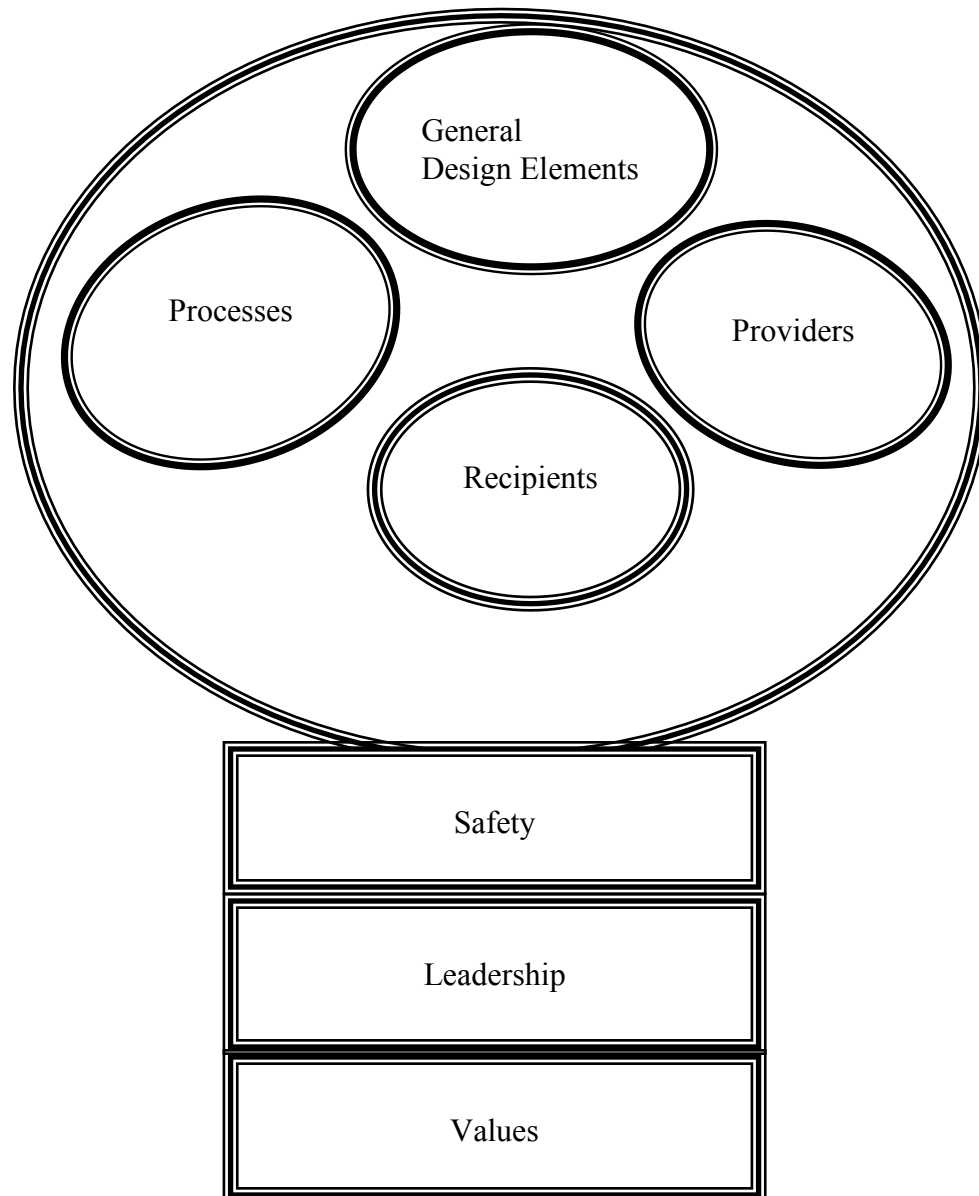
The latest step in the process was in 2010. The AONE Future Patient Care Delivery Committee delineated the assumptions underpinning the role of nurse leaders in transforming care delivery. Those assumptions are:

Assumption 1: The role of nurse leaders in future patient care delivery systems will continue to require a systems approach with all disciplines involved in the process and outcome models.

Principle:
Participate in the design and management of delivery systems focusing on coordinated care along the continuum.

Assumption 2: Accountable Care Organizations will emerge and expand as key to defining and differentiating health care reform provisions that will impact differing care delivery venues.

Principles:
- Prevention and management of acute illness and chronic disease will be achieved through transformation of the current primary care model, and models of care delivery will shift from being hospital based to community based.
- The paradigm will shift from consumer as patient to consumer as partner.
- Virtual care processes that have no location boundaries will be supported by mobility and portability of relationships and interactions.

Assumption 3: Patient Safety, Experience Improvement and Quality Outcomes will remain a public, payer and regulatory focus driving work flow process and care delivery system changes as demanded by the increasingly informed public.

Principle:
Patient Safety:
- Venue-specific work flow and physical layout modification will be required to enable a downsized workforce to provide a safe patient care continuum.
- General secured access to common electronic medical record (EMR) platforms and/or personal health records will prevent hand-off errors between organizations/health care entities including home care environments and safe care administration using technology such as bar coding for medication and blood administration.
- Active family involvement in patient care will provide an additional patient safety checkpoint.
- E-nursing units will enable 24-hour patient visualization and remote monitoring of vital signs. Equipment data will become the norm in managing projected in-patient volumes such as telemonitoring for patients and health care providers.

Principle:
Quality Outcomes:
- Core measures will expand; financial penalties for non-compliance will accelerate in severity.
- Regulatory agencies will align and ultimately integrate with Centers for Medicare and Medicaid Services (CMS) creating one national quality organization controlling reimbursement based on achievement of specific quality metrics; transparency public reporting will define industry performance.
- Nurses will be required to comfortably abstract and use information from electronic systems, heightening the importance of continuous learning while linking individual competency and performance to quality outcomes.

Principle:
Experience Improvement:
- Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) public reporting will expand from in-patient measurement to primary and secondary health care settings with improved analysis and rigorous target setting.
- Consumer expectation for seamless care across systems/processes will drive industry technology redesign.
- Quality data will drive consumer access-to-care decisions in all settings.

The American Organization of Nurse Executives

Assumption 4: Health care leaders will have knowledge of funding sources and will be able to strategically and operationally deploy those funds to achieve desired outcomes of improved quality, efficiency and transparency.

Principles:
Funding:
- There will be significant funding from the Americans Recovery and Reinvestment Act of 2009 to provide incentives for health care providers to adopt and become "meaningful users" of electronic health records by 2014.

Funding Purpose: EHR
- This funding is part of a $20 billion allocation for Health Information Technology (HIT). Over $17 billion is intended to offer providers and hospitals incentives to help offset the costs of implementation/adopting electronic health records. Approximately $2 billion is set aside for grants and awards under Health and Human Services to states and other entities to support the development of HIT.
- In February, 2010 the above act approved $385 million with allocations to 40 states and State Designated Entities (SDEs) and in April 2010 an additional installment to 16 states and qualified SDEs.

Assumption 5: The joint education of nurses, physicians and other health professionals will become the norm in academia and practice promoting shared knowledge that enables safer patient care and enhancing the opportunity for pass-through dollars to apply to APN residencies and/or related clinical education.

Principles:
- Nurses, physicians and other students in the health professions share common coursework in the educational process to explore the delivery of outstanding patient care (e.g., quality/improvement science). These courses will be targeted toward promoting understanding of the roles of nurses, physicians and other health care professionals and how excellent communication and relationships can be forged and sustained in practice.
- Nurses, physicians and other health care professionals will be oriented to the health care organization together so that each can develop an appreciation for how their roles complement each other.
- Multidisciplinary educational offerings are provided within the organization on a regular basis to help raise awareness and develop shared knowledge about how the physician and nurse each contribute to patient care and shared goals for patient care.
- Expanded use of interdisciplinary simulation laboratories.
- Multidisciplinary rounds and patient care conferences will be the standard of practice.

The full set of Guiding Principles with references can be found at:
http://www.aone.org/aone/resource/PDF/AONE_GP_Future_Patient_Care_Delivery_2010.pdf

■ **Getting Started**

The Getting Started section provides resources with information that nurse leaders can use to engage teams and leaders, remove barriers and engage policy makers in redesigning patient care delivery of the future.

■ **How to: Engage Teams and Leaders**

a. Mackoff, B. (2010) *Nurse Manager Engagement: Strategies for Excellence and Commitment.*

Published in April 2010, Barbara Mackoff, EdD, completed a research study on nurse manager engagement that is discussed in this book as well as strategies for excellence and commitment. The Transforming Care at the Bedside (TCAB) PowerPoint detailing this study is available here.
https://www.associationstores.org/OA_HTML/ibeCCtpItmDspRte.jsp?section=10280&item=5160&s259722ch3el08_ahagld=tRNEkGDE2WyAJTYiAgy2PJT8:S&s259722ch3el08_ahagld_pses=s259722ch3el08_ahagld%3DtRNEkGDE2WyAJTYiAgy2PJT8%253AS%7E

b. Mathera, K. (March 2002) Investing in Nurse Leaders: An essential part of engaging nurse leaders is investing in them.

1. Nursing Manager Leadership Skills. *JONA, 32* (3), 136-142.

Abstract: Nurse managers are internal stakeholders who play essential roles in managing change, cultural integration, retention and direction of staff attitudes toward changing health care structures. The challenges facing them as they attempt to understand and support employees during times of change are monumental. They frequently assume expanded roles and responsibilities without adequate education, resources or support. The author reports on variables that are keys to the success of the role and areas of education that may influence that success.

2. <Drucker, P. Management Challenges for the 21st Century (Harper Collins 1999).

First Paragraph: History's Great Achievers—A Napoleon, a daVinci, a Mozart have always managed themselves. That, in large measure, is what makes them great achievers. But they are the rare exceptions, so unusual both in their talents and their accomplishments…Most people think they know what they are good at. They are usually wrong…. A person can perform only from strength…

Taylor Moss, M. (2005). *The Emotionally Intelligent Nurse Leader*. San Francisco: John Wile & Sons, Inc.

Book description: *The Emotionally Intelligent Nurse Leader* offers nurse managers, health care leaders, and emerging leaders a useful guide for identifying, using and regulating their emotions (emotional intelligence). As the author clearly demonstrates, harnessing the power of emotional intelligence can transform the work environment and the nursing profession as a whole. This important resource combines a strong theoretical base with illustrative case examples and practical insights. Everyday nurse leaders must resolve conflict, form alliances and coach others in a complicated health care environment.

c. CE Module (2007). Power and Empowerment in Nursing: Looking Backward to Inform the Future. *OJIN, 12* (1).

Abstract: There are compelling reasons to empower nurses. Powerless nurses are ineffective. Powerless nurses are less satisfied with their jobs and more susceptible to burnout and depersonalization. This article begins with an examination of the concept of power then moves on to a historical review of nurses' power over nursing practice. It concludes with a discussion on the current state of nursing empowerment. Empowerment for nurses may consist of three components: a workplace that has a requisite structure to promote engagement; a psychological belief in one's ability to be empowered; and acknowledgement that there is power in the relationships and caring that nurses provide. A more thorough understanding of these three components may help nurses to become empowered and use the power for better patient care.

■ **How to: Engage Policy Makers**

Engaging policy makers takes place at regional, state and federal levels and can be one-on-one or in groups. Collaborating with aligned professional organizations such as AONE, state level ONE's or hospital associations often allow for a more powerful message. The following websites/links are examples of online availability tools:

a. National Level: AONE—Public Policy and Advocacy Goals
   http://www.aone.org/aone/advocacy/home.html
   - Build, support and work with groups that promote a unified agenda for addressing the most pressing issues facing the nursing profession.
   - Continue to work and collaborate with AHA, The Nursing Community, Americans for Nursing Shortage Relief (ANSR), the Tricouncil and others to address healthful practice environments.
   - Effectively represent the nurse leader perspective in all aspects of the practice environment.
   - Continue to support efforts of ongoing partnerships and the AHA Readiness Team to ensure adequate funding of first-line defenders.
   - Advocate for and support programs and initiatives that will ensure a safe and quality driven environment for patients and patient care providers.
   - Develop, evaluate and support legislation that will foster the nurse executive's leadership role in the management of the care environment, especially in areas related to staffing, information technology and patient care services.
   - Collaborate with quality partners such as the JCAHO, the National Quality Forum and the Federal government to ensure that proposed regulatory changes achieve desired results.
   - Work within task forces and other aligned groups and associations to ensure nurses, as knowledge-base professionals, are able to function within their full professional capacity.

b. National Level: AONE—Advocacy Resources

http://www.aone.org/aone/resource/home.html

- Capitol Hill 101
  http://www.aone.org/aone/resource/Docs/Advocacy/Capitol Hill 101.doc
- Letter to Leaders
  http://www.aone.org/aone/resource/Docs/Advocacy/Letter to Leaders.doc
- Lobbying 101
  http://www.aone.org/aone/resource/Docs/Advocacy/LObbying 101.doc
- Sample Agenda
  http://www.aone.org/aone/resource/Docs/Advocacy/Sample Agenda.doc
- Sample Letter
  http://www.aone.org/aone/resource/Docs/Advocacy/Sample Letter.doc
- Sample Talking Points
  http://www.aone.org/aone/resource/Docs/Advocacy/Sample Talking Points.doc

c. National Level: American Association of Critical Care Nurses (AACN) —
Health Policy Links
http://www.aacn.org/wd/practice/content/publicpolicy/healthpolicy.pcms?menu=practice&lastmenu=

Sampling of Links:
- U.S. Government websites: http://www.usa.gov/
- Citizen's' Health Care Working Group—Purpose, origins and plans for initiative: http://govinfo.library.unt.edu/chc/
- Health Law Hippo—Collection of policy and regulatory materials related to health care: http://hippo.findlaw.com/hippohome.html
- Health Resources and Services Division of Nursing (HRSA):
- http://bhpr.hrsa.gov/ Health Statistics—Alphabetical index compiled by the National Council for Health Statistics: http://cdc.gov/nchs/fastats/default.htm
- Journal of Health Politics Policy and Law: http://jhppl.dukejournals.org/
- Library of Congress—United States Congress legislative information. Bill search site: http://thomas.loc.gov
- Project Vote-Smart—National nonpartisan, nonprofit site researches, tracks and provides to the public independent factual information on over 13,000 candidates and elected officials: http://www.vote-smart.org/?checking=
- Roll Call—Congressional news source with leading stories, editorials, election news and commentaries: http://www.rollcall.com
- State Legislators' Home Pages: http://www.ncsl.org/public/sitesleg.htm#legislators
- FirstGov.gov—The United States government's official web portal: http://www.usa.gov

d. State Level: Massachusetts Organization of Nurse Executives—Position Statements

http://www.monedev.org/PositionStatements.aspx

Sampling of statements:
- Mandatory Overtime Updated Version, October 2007
  http://www.monedev.org/pdf/PS_Mandatory_Overtime_4_05.doc
- Nurse Staffing Debate in the Massachusetts Legislature, June 2006
  http://www.monedev.org/pdf/PS_Staffing_debate_2006.pdf
- Management of Emergency Department Patients Awaiting Admission
  http://www.monedev.org/pdf/PS_Management_of_ED.pdf

e. State Level: Northwest Organization of Nurse Executives—Strategic Plan
Related to Legislative and Regulatory Goals:
http://www.nwone.org/about/Strategic%20Direction/strategic-plan-1/2009-
2010_StrategicPlan.pdf

5. Foster Proactive & Strategic Nurse Leader Involvement with Regulatory & Legislative Activity in the Northwest Region	• Maintain formal linkages with the WSHA and OAHHS related to legislative activity
	• Continue to produce, promote and grow member involvement in the Legislative Boot Camps
	• Establish forums for nurses to discuss key issues with legislators and build relationships with these legislators
	• Maintain full support for the Ruckelshaus Steering Committee in Washington
	   ○ Two NWONE representatives to attend one full day meeting a month
	   ○ NWONE members to lead the education and rapid response pilot project subgroups
	   ○ NWONE to assist members in monitoring the success of their staffing committees and assisting as needed
	   ○ Educate Ruckelshaus members, especially unions, about the TIC project and the need to build healthy work environments for staff to practice in.

f. State Level: Washington State Hospital Association—Policy and Advocacy
Links: http://www.wsha.org/page.cfm?ID=policyadvocacy

- 2010 Policy/Advocacy Documents:
  http://www.wsha.org/page.cfm?ID=policyobjectives
- Policy/Advocacy Team: http://www.wsha.org/page.cfm?ID=policyadvocacyteam
- Policy/Advocacy Agenda and Issue Briefs:
  http://www.wsha.org/page.cfm?ID=policyadvocacyagenda
- Federal Health Reform: http://www.wsha.org/page.cfm?ID=0301
- Medicaid News: http://www.wsha.org/page.cfm?ID=medicaid
- Medicare News: http://www.wsha.org/page.cfm?ID=medicare
- Department of Health (DOH) News: http://www.wsha.org/page.cfm?ID=DOHnews

g. State Level: Health Care Association of New York State—Advocacy Tools:
http://www.hanys.org/policy/

Federal
- Federal Advocacy Agenda, 2009:
  http://www.hanys.org/communications/publications/2009/2009_hanys_fed
  eral_issues_book.pdf
- Federal Advocacy Agenda, 2008:

http://www.hanys.org/upload/080401_2008_federal_issues_book_advocacy_agenda.pdf

State

- State Advocacy Agenda, 2008:
  http://www.hanys.org/publications/upload/REAL-Reform-HANYS-2008-State-Advocacy-Agenda.pdf

h. State Level: Washington State Hospital Association—Delivering Effective Testimony

Washington State has one of the most open legislatures in the country. Every bill has a public hearing before Senate and House committees before it is considered on the floor of the Senate or House—and citizens are invited to testify at these committee hearings.

Following are some basic elements of delivering effective testimony. Your goal should be to create and deliver a message that is clear, compelling and concise. Generally, when giving testimony, you should be prepared to deliver your message in about three minutes or less.   You may also want to shorten your testimony if earlier testifiers have made the same points, or if the committee seems favorable to your position. Do not read written testimony, but speak from notes. If you have written testimony, give copies to the committee staff.

1. Who are you?	- State your name and position. - Are you affiliated with an organization? Which one? How many members?
2. What is your issue? Why is it important?	- Describe your issue briefly and plainly. - Assume the legislator is unfamiliar with the issue; do not use acronyms or jargon. - Explain why this issue is important.
3. Why do you care? Why should legislators care?	- Communicate your passion about the issue. - Why does this issue matter to you? Why does it matter enough for you to take the time to advocate it? - How will it change your life or the lives of people in your community and in the state? - Tell a short personal story or anecdote about the issue.
4. What do you want legislators to do?	- Have a clear call to action—a request that legislators can do. - Be specific in your request; do not just ask for "support." For example, ask them to amend the bill in a particular way, or for a "yes" or "no" vote on a specific bill.
5. Respond to questions.	If you do not know the answer, do not guess. Say you will find out and get back to the

	legislators.
	• If legislators ask you for something, be sure to follow up. WSHA can help you.
6. Say, "Thank you."	• Thank the legislators for listening.
7. Remember, you are representing all hospitals.	• Remember you are representing all hospitals in Washington State, not just your own facility. • Coordinate your testimony with other testifiers so you are not repetitive. • WSHA staff can help you develop your testimony and talking points. • You may get follow-up questions or comments from legislators or legislative staff. If you do, please be sure to let WSHA staff know about these conversations.

i. Interview with Anna Dermenchyan, ICU Staff Nurse, Ronald Reagan UCLA Medical Center, March 2010

http://www.aacnboldvoicesonline.org

Question: "Why should nurses get involved in health policy?"

Anna: Because "any time there is something we are not able to do at the bedside because of a rule or regulation, then it hurts the patient and our practice." This is a lesson to all of us in terms of engaging policy makers and future patient care delivery.

■ **How to: Remove Barriers**

a. Fuller Handout AONE Pre-Conference 2009
   - **Presentation to**: American Organization of Nurse Executives, Annual Meeting Preconference, April 15, 2009, San Antonio, Texas
   - **Presenter:** Jill Fuller, R.N., Ph.D., Chief Nursing Officer, Prairie Lakes Healthcare System, Watertown, South Dakota, fullerj@prairielakes.com
   - **Presentation Objectives:**
     1. Explore how future forecasting can influence today's challenge to redesign care delivery systems.
     2. Illustrate how thinking differently about how we work and lead can transform patient care delivery.
     3. Discuss the lessons learned about transformation from the complexity theory "toolkit."
   - **Description:** TCAB—Evolution of a movement—supports imagining the Future through Cultural Change, Leadership and Transformation.

b. AONE Discussions October 2009 Smart Room Presentations

   - October 2009 Smart Room Presentation
     http://online.krm.com/iebms/reg/reg_p1_form.aspx?oc=10&ct=00300263P&eventid=16030

c. Nursing Satisfaction with Support Services (NS3) Survey

This benchmarking tool provides hospitals with the opportunity to quantify nursing satisfaction with support services in order to build a more collaborative work environment. The survey tool will be especially useful for hospitals that want to positively impact patient care, build a more collaborative work environment, assimilate new nursing or support service leadership, pursue Magnet status or establish baselines to measure future performance and set improvement targets. Participating hospitals will receive eight customized reports that can be compared against a provided national benchmark report.

d. Nursing Workplace Environment Assessment Tool

Based on the AONE/Nursing Organizations Alliance (NOA) Principles and Elements of a Healthful Practice/Work Environment, the tool will measure and assess nurse executive and staff nurse perceptions of the practice environment.

e. Wang, M. C., Hyun, J. K., Harrison, M. I., Shortell, S. M. & Fraser, I. (2006). Redesigning Health Systems for Quality: Lessons from Emerging Practices. *Joint Commission Journal on Quality and Patient Safety*.*32* (11), 599-611(13).

Background: It has been five years since the Institute of Medicine (IOM) report, *Crossing the Quality Chasm,* proposed system wide changes to transform our health care system. What progress has been made? What lessons have been learned? How should we move forward?

Methods: Semi-structured telephone interviews were conducted with 16 health care providers and researchers at organizations involved in system redesign. The findings were supplemented with a focused literature review and discussions from a national expert meeting.

Results: Many promising and innovative examples of redesign were identified. However, even delivery systems that are redesigning care in pursuit of the six IOM aims face daunting challenges, reflecting the need to align system changes across multiple levels and to integrate redesign efforts with ongoing system features. Four success factors were reported by providers as crucial in overcoming redesign barriers: (1) directly involving top and middle-level leaders, (2) strategically aligning and integrating improvement efforts with organizational priorities, (3) systematically establishing infrastructure, process and performance appraisal systems for continuous improvement, and (4) actively developing champions, teams and staff. A framework that integrates these success factors to facilitate a system's approach to redesigning health care organizations and delivery systems for improved performance is provided.

Conclusions: Successful system redesign requires coordinating and managing a complex set of changes across multiple levels rather than isolated projects.

e. Ball, M.J., Weaver, C. & Abbott, P.A. (2003) Enabling technologies promise to revitalize the role of nursing in an era of patient safety. *International Journal of Medical Informatics. 69* (1), 29-38.

The application of information technology (IT) in health care has the potential to transform the delivery of care, as well as the health care work environment, by streamlining processes, making procedures more accurate and efficient, and reducing the risk of human error. For nurses, a major aspect of this transformation is the refocusing of their work on direct patient care and away from being a conduit of information and communication among departments. Several of the technologies discussed, such as physician order entry and bar code technology, have existed for years as standalone systems. Many others are just being developed and are being integrated into complex clinical information systems (CISs) with clinical decision support at their core. While early evaluation of these systems shows positive outcome measurements, financial, technical and organizational hurdles to widespread implementation still remain. One major issue is defining the role nurses themselves will play in the selection and implementation of these systems as they become more steeped in the knowledge of nursing informatics. Other challenges revolve around issues of job satisfaction and the attraction and retention of nursing staff in the midst of a serious nursing shortage. Despite these concerns, it is expected that, in the long run, the creation of an electronic work environment with systems that integrate all functions of the health care team will positively impact cost-effectiveness, productivity and patient safety while helping to revitalize nursing practice.

■ Building the New Practice Environment

This Building the New Practice Environment section provides information that nurse leaders can use to transform the work environment and lessen the work burden for staff.

Fairman, J.A., Rowe, J.W., Hassmiller, S., Shalala, D.E. (2011). *Broadening the Scope of Nursing Practice*. The New England Journal of Medicine. 364(3): 193-196.

Key Points:
Summarizes points made in the IOM (2010) report on The Future of Nursing with respect to nurse practitioners. Focuses on the critical factors limiting NPs' capacity to practice to the full extent of their education, training and competence because of state imposed regulatory barriers. The article notes that data are available that demonstrates positive quality and financial outcomes of NP practice. Despite the rationale for broadening NPs' scope of practice, key medical organizations oppose the idea. These include the American Medical Association, the American Osteopathic Association, the American Academy of Pediatrics and the American Academy of Family Physicians.

Naylor, M. & Keating, S.A. (2008). *Transitional Care*. AJN, 108(9), 58-63.

Key Points:
Moving patients from one care setting to another. Transitional care encompasses a board range of services and environments designed to promote the safe and timely passage of patients between levels of health car and across care settings. High quality transitional care is especially important for older adults with multiple chronic conditions and complex therapeutic regimens, as well as for their family caregivers. These patients typically receive care form many providers and more

frequently within health care settings. Many factors contribute to gaps in care during critical transitions. Poor communication, incomplete transfer of information, inadequate education of older adults and their family caregivers, limited access to essential services and the absence of a single point person to ensure continuity of care all contribute. Language and health literacy issues and cultural differences exacerbate the problem.

■ Transformational Leadership

Robbins, B. & Davidhizar, R. (2007). Transformational Leadership in Health Care Today. *The HealthCare Manager*, *26* (3), 23-36.

Key Points:
Nursing management is in a state of revolution based upon positive transformational leaders. Nursing employees are interested in working with and for managers who lead in a positive and encouraging manner. Nurse leaders who utilize the elements of transformational leadership reduce turnover, improve retention and increase their patient satisfaction scores. Health care organizations see that with an increase in transformational leadership skills, patient satisfaction trends over time not only improve but are able to be sustained. The authors state that three characteristics are transforming nursing leadership:

1. A healthy communication style that is transparent and collaborative
2. A positive attitude towards change
3. A dedication to improve the work environment

The article concludes that individual nurse managers who promote transformational leadership qualities have greater staff satisfaction, staff retention and patient outcomes.

Murphy, L. (2005). Transformational leadership: A cascading chain reaction. *Journal of Nursing Management*. 13, 128-136.

Key Points:
Transformational leadership is heralded as new criterion for nurse managers, and can be achieved through training, education and professional development in key leadership competencies. To achieve a chain reaction, charismatic transformational leaders espouse intellectual stimulation and individual consideration to empower staff and enhance patient care. Nurse managers that develop and foster transformational leadership can surmount oppressive traditions and confidently navigate a complex and rapidly changing health care environment. The major concepts of professional development and intellectual stimulation, empowerment, management of attention, management of meaning, management of trust and management of self are explored and identified as key indicators of a transformational leader's success.

Murphy notes that through her research, she has concluded that transformational leaders must be visionary, balanced, self-aware and confident of breaking existing professional boundaries to develop a multidisciplinary team approach to patient care. Through a chain reaction, their charismatic persona can empower

staff. This can be realized through individual consideration, intellectual stimulation and effective communication, which inspires, motivates and encourages staff to achieve organizational goals.

Wylie, D. & Gallagher, H. (2009). Transformational Leadership behaviors in Allied Health professionals. *Journal of Allied Health*, *38* (2), 65-73.

Key Points:
This study explored self-reported transformational leadership behavior profiles within six large allied health profession groups in the National Health Service in Scotland and attempted to determine whether factors such as seniority of grade, locus of employment and/or leadership training have a positive influence on transformational leadership behaviors. The study identified significant differences in transformational leadership behaviors between individual allied health professions. Seniority of grade significantly influenced the scores, with higher-graded staff reporting greater leadership behaviors ($p < 0.001$). Prior leadership training also positively influenced transformational behaviors ($p < 0.001$). However, locus of employment within a primary or secondary care setting or even a multidisciplinary or unidisciplinary team had no effect. The research concluded that significant differences in transformational leadership behaviors between individual allied health professions indicate that some professional groups are inherently advantaged in embracing the modernization agenda. This highlights an as-yet missed opportunity for effectively targeting and evaluating multidisciplinary leadership training programs across the allied health professions. An important note of this research is that interdisciplinary development of leadership skills appears to have a greater impact upon transformational leaders than a sole discipline educational effort.

Porter-O'Grady, T. (2009). Creating a Context for Excellence and Innovation: Comparing Chief Nurse Executive Leadership Practices in Magnet and Non-Magnet Hospitals. *Nursing Administration Quarterly*. *33* (3), 198-204.

Key Points:
Chief Nurse Executives create a context for leadership, innovation and practice in hospitals. It is valuable to understand the nurse executives' perceptions regarding their leadership practices and how they value them. Furthermore, it is of interest to see if there is significant differentiation in these perceptions between chief nurse executives in Magnet hospitals and those in non-Magnet hospitals. The author discusses a study of the leadership practices of these two groups' leadership practices and identifies key strategies that are directly linked to the effort and ability of Nurse Executives to become transformational leaders in a Magnet organization.

Management Literature Application of Transformational Leadership

Wright, B. (2009). *Journal of Public Administration Research and Theory Advance Access. 20* (1), 75-89. Originally published online on April 30, 2009, *Journal of Public Administration Research and Theory 2010.* http://part.oxfordjournals.org

Key Points:
This study contributes to our understanding of leadership in public sector organizations by investigating the effect of organizational structure on the transformational leadership practices of municipal chief administrative officers. Using data from a national survey of senior managers in local government, the findings of this study suggest a number of possible explanations for why public sector organizations exhibit higher levels of transformational leadership than what scholars traditionally expect. The findings suggest that the structure of these organizations may not be as bureaucratic as commonly believed and that some bureaucratic characteristics had little, if any, adverse affect on the prevalence or practice of transformational leadership behaviors. In particular, although organizational hierarchy and inadequate lateral/upward communication were associated with lower transformational leadership, no relationship was found between transformational leadership behaviors and two types of organizational red tape. Contrary to expectations in the mainstream leadership literature, however, the use of performance measurement by municipal organizations was associated with a significant increase in reported transformational leadership behaviors.

Nemanich, L. & Keller, R. (2007). Transformational leadership in an acquisition: A field study of employees. *The Leadership Quarterly. 18* (1), 49-68.

Key Points:
This is a robust study of employees involved in a major acquisition integration that addressed the relationships that leadership and climate had with subordinate acquisition acceptance, performance, and job satisfaction in an uncertain environment. Transformational leadership was positively related to acquisition acceptance, supervisor-rated performance and job satisfaction. Transformational leaders also impacted subordinate outcomes through the perceived climate they created for goal clarity and support for creative thinking. Both goal clarity and support for creative thinking partially mediated the relationship between transformational leadership and job satisfaction. Goal clarity did not impact the relationship between transformational leadership and performance, but was positively related to performance. Support for creative thinking fully mediated the relationship between transformational leadership and acquisition acceptance. Transformational leadership styles in managers who were responsible for employee acquisitions were most notably successful when compared to non-transformational leadership styles.

Jung, D., Chow, C. & Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *The Leadership Quarterly. 14* (4-5), 525-544.

Key Points:
A wide range of factors has been found to affect organizational innovation. Of these, transformational leadership was identified as being one of the most, if not *the* most, important. Few studies have empirically examined the link between this factor and innovation at the organizational level. This study examines the extant

literature to propose four hypotheses about how top managers' leadership styles directly and indirectly affect, via empowerment and organizational climate, their companies' innovation. The findings supported a direct and positive link between a style of leadership that has been labeled as "transformational" and organizational innovation. They also indicate that transformational leadership has significant and positive relations with both empowerment and an innovation-supporting organizational climate. The former is found to have a significant but negative relation with organizational innovation, while the latter has a significant and positive relationship.

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Bono, J.E., Anderson, M.H. (2005). The advice and influence networks of transformational leaders. *The Journal of Applied Psychology, 90* (6), 1306-1314.

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Meredith, E.K., Cohen, E. & Raia, L.V. (2010). Transformational leadership: Application of Magnet's new empiric outcomes. *The Nursing Clinics of North America, 45* (1), 49-64.

Molero, F., Cuardrado, I., Navas, M. & Morales, J.F. (2007). Relations and effects of transformational leadership: A comparative analysis with traditional leadership styles. *The Spanish Journal of Psychology, 10* (2), 358-368.

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Resick, C.J., Whitman, D.S., Weingarden, S.M. & Hiller, N.J. (2009). *The Journal of Applied Psychology, 94* (6), 1365-1381.

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■ Transformational Change

Transformational change theory can be applied in a variety of perspectives, based on the theoretical constructs. The change literature is reviewed based on perspectives of four theorists, E.M. Rogers, J. Kotter, A. Lewin, and M. Stetler. This is not meant to be a comprehensive listing of references, rather a compilation of references that highlight the perspectives of various change theorists.

Everett M. Rogers:
Learn more about Everett Rogers by clicking the link below.
http://en.wikipedia.org/wiki/Everett_Rogers

a. Bigelow, B. & Arndt, M. (2005). Transformational change in healthcare: Changing the question. *Hospital Topics, 83* (2), 19-26.

Key Points:
Reengineering is introduced as an example to challenge hospitals to reevaluate the questions that are asked and the solutions that are offered, and is defined as fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such

as cost, quality, service and speed. Transformational change focuses on ways to break the current organizational frame and to think outside the box of dominant ideas. The article provides a description of the dimensions that define transformational change.

Goes and colleaguesdeveloped a model that classifies change along three dimensions: level of change, type of change and mode of change.

- Level of change reflects where the change occurs, at the organizational level or at the industry.
- Type of change represents a continuum from continuous, incremental to radical, discontinuous change.
- Mode of change that is deterministic or voluntaristic.

Transformational change is described as a complete rethinking of how the organization is structured and managed, and a rejection of the norms and practices of the larger environment in which the organization operates.

b. Caroselli, C. (2010). Evolutionary emergent: Chief nursing executives as chief vision officer. *Nursing Service Quarterly, 23* (1), 72-76.

Key Points:
This article describes the important position of the System Chief Nurse Executive (SCNE) in the contemporary health care system. The author suggests that the CNE role can be enriched by utilizing Barrett's power theory as a framework for practice and provides examples for applying the theory.

c. Hendrich, A., Chow, M.P. & Goshert, W.S. (2009). A proclamation for change: Transforming the hospital care environment. *Journal of Nursing Administration, 39* (6), 266-75*.*

Key Points:
Findings from a large-scale study of the nurse work environment suggest that nurses spend only a minority of their time in direct patient care. The results of those efforts were the development of the Proclamation for Change. The Proclamation for Change contains four basic tenants for transformational change of the hospital care environment: patient-centered design; system wide, integrated technology; seamless workplace environments and vendor partnerships.

Experts convened to create a set of evidence-based recommendations for the transformation of the hospital work environment. The authors state that transformational change requires true system wide, interdisciplinary cooperation and integration.

d. Henrickson, K., Keyes, M., Stevens, D. & Clancy, C. (2006). Initiating transformational change to enhance patient safety. *Journal of Patient Safety**, 2* (1), 20-24.

Key Points:
The focus of the paper is the need for transformational change to enhance patient safety. The authors refer to transformational change as the process of taking an organization or work unit that has probably performed well enough to maintain the status quo but now needs to "reinvent" or transform itself into an entity that is much better equipped to respond to the challenges of a rapidly changing external environment.

Transformational change processes are identified as: recognizing the need to change, developing a vision, developing commitment and trust and implementing and sustaining change.

e. Kitson, A.L. (2008). The need for systems change: Reflections on knowledge translation and organizational change. *Journal of Advanced Nursing*. Theoretical Paper; 217-228.

Key Points:
The author explores the underlying assumptions and theories used to describe health care systems and how knowledge is translated into practice. Kitson outlines 12 elements of the innovation journey and describes nursing innovations in relation to the management of innovation. The implications for practice and/or policy are listed.

f.   Lukas, C.V., Holmes, S.K., Cohen, A.B., Restuccia, J., Cramer, I.E., Schwartz, M. & Charns, M.P. (2007). Transformational change in health care systems: an organizational model. *Healthcare Management Review*, *32* (4), 309-320.

Key Points:
This article describes a model for moving organizations from short-term, isolated performance improvements to sustained, reliable, organization-wide and evidence-based improvements in patient care. Comparative case studies were conducted in 12 health care systems over three and a half years using the elements identified as critical to successful transformation.

Five interactive elements appear critical to successful transformation of patient care:
1. Impetus to transform
2. Leadership commitment to quality and change
3. Improvement initiatives that engage staff in problem solving
4. Alignment
5. Integration

The conceptual model described holds promise for guiding organizations in their efforts to pursue fundamental system redesign for improving patient care.

g. Wright, S. (2010). Dealing with resistance, *Nursing Standard*, *24* (23), 18-20.

Key Points:

Wright describes how to identify the key people to help effect change and outlines E.M. Rogers' description of how people adapt to change. He describes that Innovators comprise one to two percent of the group, Early Adopters 10-15 percent, Late Adopters are at 30 percent, Late Majority are at 30 percent and Laggards comprise 15-20 percent. The author suggests learning the organization's key players and how to lobby them to support the changes.

C.B. Stetler:
Cheryl B. Stetler, Ph.D., R.N., F.A.A.N., is a consultant in evidence-based practice/evaluation/implementation science who is based out of Amherst, Mass. She is widely published and recognized in these fields and advocates for more rigorous study of the implementation of evidence-based practice in nursing.

One of the pioneers of the use of evidence-based practice to inform nursing practice, Stetler presents a practitioner-oriented model for research utilization to inform changes in professional nursing practice.

a. Herold, D.M., Foder, D.B., Caldwell, S. & Lin, Y. (2008). The effects of transformational change leadership on employees' commitment to change: A multilevel study. *Journal of Applied Psychology*, *93* (2), 346-357.

Key Points:
The authors examine the simultaneous effects of behaviors associated with change leadership and transformational leadership on employees' commitment to actual changes being implemented by their leaders in their organizations and hypothesized and studied the following:

- Transformational leadership style will be positively related to an individual's commitment to a specific change.
- Change leadership will be positively related to an individual's commitment to a specific change.
- Change leadership will moderate the positive relationship between transformational leadership and commitment to a change.
- The impact of the focal change on a follower's job will moderate the relationship between the interactive effects of change leadership and transformational leadership on change commitment.

The authors conclude that if successful organizational change requires leadership and leadership is about facilitating change, then there is a need to converge the concepts of leadership and change.

b. Malone, J.R., Harvey, G., Seers, K., Kitson, A., McCormack, B. & Titchen, A. (2004). An exploration of the factors that influence the implementation of evidence into practice. *Journal of Clinical Nursing* 13 (8), 913-924.

Key Points:
The article describes the challenges of implementing evidence-based practice and describes a framework that represents multiple factors that may influence

the implementation of evidence into practice. The study addresses questions such as: What factors do practitioners identify as the most important in enabling implementation of evidence into practice? What are the factors practitioners identify that mediate the implementation of evidence into practice? Do the concepts of evidence, context and facilitation constitute the key elements of a framework for getting evidence into practice?

Key issues that emerged in relation to the implementation of evidence into practice were: the nature and role of evidence, relevance and fit with organizational and practice issues; multi-professional relationships and collaboration; role of the project lead and resources.

c.   Pinch, W.J. (2001). Improving patient care through the use of research, *Orthopaedic Nursing*, *20* (4), 75-81.

Key Points:
The author describes a systematic eight-step method to research-based clinical practice. Rewards for engaging in research as well as its limitations are addressed in the article.

d. Stetler, C.B., Ritchie, J.A., Malone, J.R., Schultz, A., & Charns, M.P. (2009). Institutionalizing evidence-based practice: An organizational case study using a model of strategic change. *Implementation Science,* 4:78.*;* 1-19.

Key Points:
Stetler and colleagues explain the challenges regarding how to make evidence-based practice (EBP) a reality. The authors use an explanatory case study to identify elements and associated strategic approaches required for integrated, routine use of EBP institutionally. Their findings provide evidence of key contextual elements that require attention if institutionalization of EBP is to be achieved.

Arthur Lewin:
To learn more about Dr. Lewin, click on this link:
http://en.wikipedia.org/wiki/Kurt_Lewin.

Lewin's Theory of Change Model

REFREEZE   UNFREEZE

CHANGE

The American Organization of Nurse E
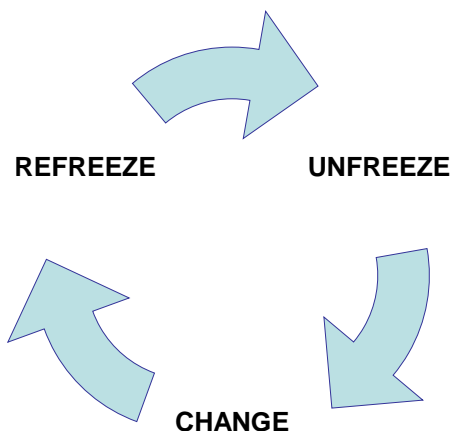
John Kotter:
To learn more about John Kotter, click on this link:
http://en.wikipedia.org/wiki/John_Kotter.

Kotter's Model of Change

Create Urgency

Form a Guiding Coalition

Communicate the Vision

Develop Vision and Strategy

Enable Action, Remove Obstacles

Generate Short-Term Wins

Hold Gains, Build on Change

Anchor Change
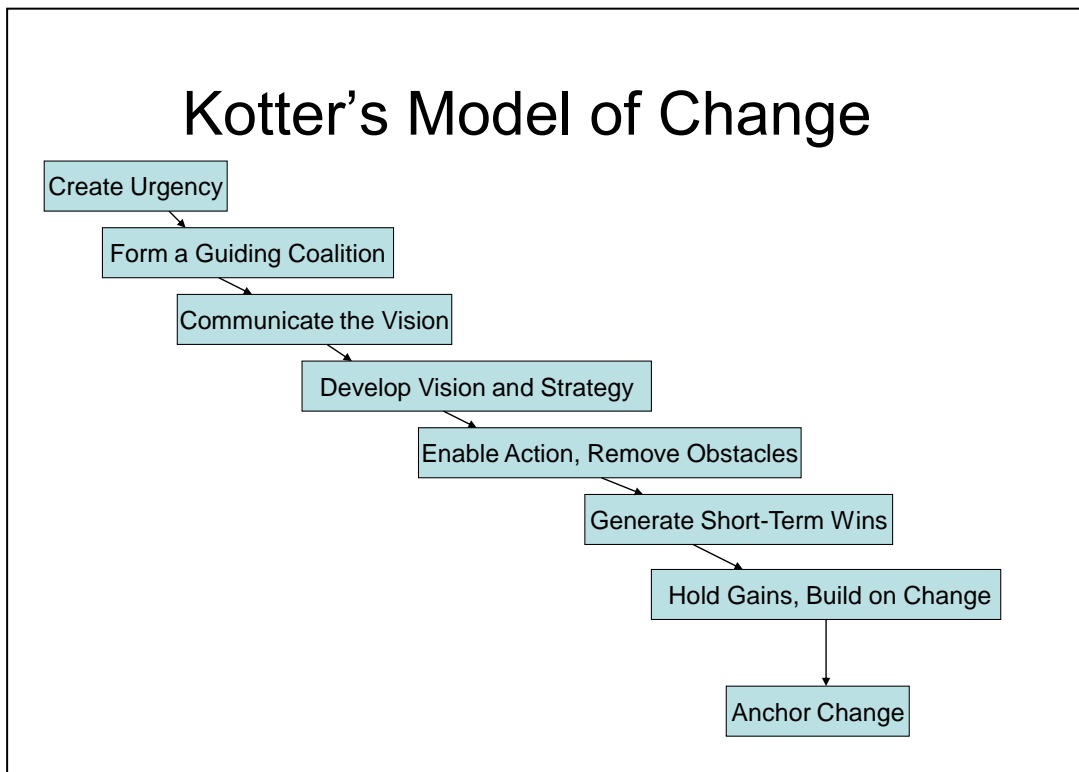
Lewin's Theory of Change	Kotter's Theory of Change

Lewin's basic change model of unfreezing, changing, refreezing. Also called Lewin's Force-Field Theory because of the two forces of "driving" and "restraining."	Eight principles of how to manage change: 1. Create urgency 2. Form a powerful coalition 3. Create a vision for change 4. Communicate the vision 5. Remove obstacles 6. Create short-term wins 7. Build on the change 8. Anchor the change into the corporate structure
Seminal Work: *Field Theory in Social Science,* (1951) New York: Harper Row	Seminal Work: *Leading Change,* (1996) Boston, MA: Harvard Business School
Behavioral Theory (1946)	*Management Science Theory* (1996)
Present condition is a dynamic social equilibrium that is a state of balance maintained by active driving and resisting of social forces. Change consists of altering the driving and resisting forces to a new level of equilibrium.	Leaders must articulate an emotional vision that will motivate others to follow. Complacency of the organization stalls the inertia of change.
Key Points: Change is planned; adopt a mentality of "action research."	Key Points: Leadership over management. Change is managed by leaders.
Applications: Group-oriented professions, human resources	Applications: Organizational leaders at all levels
How to Implement: Strategic planning	How to Implement: Lead by example, motivation through communication

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Other Articles Providing Good Nursing Examples

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■ **Forecasting**

Paul Saffo:

According to Paul Saffo, "The goal of forecasting is not to predict the future but to tell you what you need to know to take meaningful action in the present." The forecaster looks for hidden currents in the present that signal possible changes in direction. It is these uncertainties, once mapped, that allow present actions to influence their future. Good versus bad uncertainties must be determined and the rules for effective forecasting include the following:

1 Define a cone of uncertainty used to map out the possibilities and unexamined assumptions.
2. Look for the S-curve of change, because it rarely happens in a straight line. The job of the forecaster is to look for patterns and trends, predicting the inflection point where the curve takes off.
3. Embrace the things that don't fit, for the leading-edge line of the S-curve is like a string hanging down from the future. By becoming attuned to the things that don't fit or are being rejected, the forecaster can glimpse the future, as new innovations truly don't fit anywhere. (e.g., Second Life and the use of avatars).
4. Don't over-rely on one piece of seemingly strong information, as it may block reception of other indicators of changing patterns and trends. Forecast often, and be the first one to prove yourself wrong.
5. Look back twice as far as you look forward to analyze the texture of past events to connect the dots of present indicators. The patterns that emerge may not repeat themselves, but may have some rhyming patterns.
6. Know when not to make a forecast, by understanding the things that are unchanging, or will take time to change. The understanding of the concept of "tipping point" is helpful here to illustrate that it's sometimes all about the timing of change in forecasting.

Examples of forecasting tools for serious professional forecasters include speculation on future markets, online expert aggregations, computer-based simulations and horizon scanning software. Executives should become sophisticated and participative consumers of forecasts. The World Futures Society, for example, speculates regularly on emerging trends in all areas.

Focal points are particular moments in time of events in the health care delivery system. The following are some of the focal points affecting health care delivery and some examples of these focal points that have occurred, signaling or heralding the change in the cone of uncertainty:

1. "Left shifting" of health care delivery
    a. Care delivery out of the hospital
    b. Elimination of the concept of "patient"
    c. Accountable Care Organizations
    d. Medical Homes
2. Hospital workplace transformation
    a. Transformational leadership
    b. Collaborative connections
    c. Self-directed teams
    d. Staff nurses as change agents (TCAB)
    e. Flat organizations
3. Virtual care delivery
    a. Home telemonitoring
    b. Virtual care (e.g., e-ICU; virtual nursing care/practice)
    c. Outsourcing of services
    d. Not-hospital
    e. Hospital closures
4. Values-based purchasing
    a. Expense management
    b. Outcome management
5. The health information exchange
    a. Communication technology
    b. Electronic databases
    c. EHRs
    d. Wired patient rooms—webcast capability
    e. Medical device interfaces
6. Interdisciplinary care teams
    a. Aging workforce planning
    b. Care teams
    c. Rapid response teams
    d. Interdisciplinary rounds
7. Human factors engineering
    a. Elimination of work-arounds
    b. Efficiency
    c. Workspace without chaos/interruptions
    d. Elimination of manual labor (e.g. use of lifts, robots, etc.)
8. Robotics
    a. Supply and medication delivery
    b. Precursors—mail delivery via truck-based systems (Chrysler)
    c. Precursors—pneumatic tube systems
9. Defect-free care
    a. Bar coding of medications
    b. Technology
    c. Facility design

   d. Collaborative teams
   e. Information management
  10. Evidence-based practice
    a. Elimination of individualized physician orders via standing orders, critical pathways, CPOE order sets and nurse-run protocols

Focal points provided by Jill Fuller PhD, RN, CEO of Prairie Lakes Hospital, Watertown, South Dakota.

References on Forecasting

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Forum on the Future of Nursing
ACUTE CARE
Institute of Medicine
2010

- The U.S. cannot adequately address the challenges facing its health care system without addressing the challenges facing the nursing profession. As the largest segment of the health care workforce, the link between nursing care and patient outcomes is firmly established.
- Looming nursing shortages, limited resources, fragmented care models and lack of opportunities for educational advancement are barriers to promoting health reform. Three areas were the focal points:
    1. Quality and safety
    2. Technology
    3. Interdisciplinary collaboration

- Three forums were held in late 2009 and early 2010 in Los Angeles, Houston and Philadelphia for intensive information gathering. Site visits preceded the forums, which included interviews with staff, other providers and administrators.
- Current and future state—Highlighted the inefficient use of nurses' time based on the Hendrich and colleagues (2008) study of medical-surgical nurses in 36 units. Spoke to the working conditions as stressful and frequently interrupted, involving much hunting and gathering. Imagining the future for nursing involves five key concepts:
    1. Leverage the power of the EHR
    2. Achieve a balance among technologies, disruptive business models and human needs
    3. Implement rapid translation teams and interdisciplinary teams of designers
    4. Create an infrastructure for rapid network exchange of successful design innovations
    5. Institutional and policy changes:
        a. Learn from disruptive models and repurpose solutions found elsewhere
        b. Change payment systems to recognize time nurses spend with patients
        c. Implement care delivery models that provide patient-nurse continuity (e.g., clinical nurse leaders, primary nurses, navigators, transitional care model, etc.).

Quality and Safety—Highlighted six priorities:
1. Redesign care to optimize professional expertise and knowledge.
2. Focus on transformational leadership at all levels.
3. Work together to ensure safe and reliable care in acute settings.
4. Build systems and culture that encourage support, and spread vitality and teamwork in all areas of nursing.

5. Put structures and processes in place to ensure patient-centered care.
6. Create a national learning system to make all models and prototypes accessible to all nurses at all levels everywhere in the country.

Three points that would make a great impact on the future of nursing:
1. The courage to stop doing work that is not value added.
2. The ability to build reliable nursing care delivery systems.
3. The redesign of care teams led by nurses.

Technology

- Technology-enabled innovation is defined as changes in practice, procedures or models that have technology at their heart. Five areas that hold promise include:
  1. Technologies related to ergonomics (e.g., lift equipment, bariatric equipment, mobile diagnostic and therapeutic equipment, etc.)
  2. Education and training (e.g., e-learning, distance learning, simulation)
  3. Productivity (e.g., PCT, wireless location systems, facility design)
  4. Efficiency (e.g., telemedicine, remote monitoring, care management)
  5. Clinical Practice (e.g., ambulatory ICUs, family care units)

- EHRs are considered foundational technology (considered as a floor, rather than a ceiling) and are important for a wider segment of the health care team than nursing. The opportunity with technologies in general is to improve diffusion of the technology to the individual level.
- Nurses tend to be passive consumers of technology, rather than active developers, and are seeking functionality that exists in consumer technologies being built into point-of-care technologies (e.g., voice activated, handheld, biometrics, and portable devices). Nursing workflow is very complex, so introduction of technology should not add inefficiency to the flow. In addition, reduction in the amount of time spent in documentation is a priority with technology development, as nurses now spend around 35 percent of their time in this activity.

Interdisciplinary Collaboration

- Models of interdisciplinary collaboration began initially in the critical care units and have evolved from there. Universities have begun providing some interdisciplinary education to promote a team approach among professionals. The IOM report, *Keeping Patients Safe: Transforming the Work Environment of Nurses* (IOM, 2004), recommended adopting mechanisms such as interdisciplinary rounds and ongoing education in interdisciplinary collaboration.
- Disruptive behavior, nursing care and patient safety was also discussed and Rosenstein and O'Daniel (2005) found that 60-70 percent of the adverse events that happen to patients can be traced to problems in communication, and approximately 50 percent of physicians are not good communicators.
- Although a longstanding issue, bureaucracy, hierarchies and politics have stymied efforts to deal with it, despite the link between disruptive behavior and undesirable outcomes. A survey from 2002-2009, conducted by the VHA West Coast of all types of healthcare team members linked adverse events

(66 percent), errors (71 percent), patient safety (53 percent), quality of care (72 percent), patient mortality (25 percent), and patient satisfaction (76 percent) to disruptive behavior within the practice environment. The need for early intervention programs and advanced training was considered paramount, in order to impact this issue.

Innovative Care Models Compendium
The Edge – Sg2
2009

- Sg2 provided a compendium of eight innovative care delivery models being used to enhance patient care throughout the inpatient and outpatient continuum. They are:

  1. **Acuity adaptable rooms.** Inpatient rooms equipped and staffed to accommodate variations in patient acuity. Patients remain in place throughout their stay and appropriately trained staff provide the different levels of care required by the patient.
  2. **Acute Care Nurse Practitioners.** Educated to adequately assess and manage the care of acute and critical patients. ACNPs practice in ICUs, trauma centers and EDs.
  3. **Care collaboration units.** Teams led by an experienced R.N. and supported by a novice RN or LPN/LVN and a CAN. A team based care delivery model maximizes the skills of all team members and yields cost savings through LOS reductions and prevention of complications.
  4. **Collaborative education models.** Affiliation of academic medical centers between nursing and medical schools. Education is integrated to improve team relationships and understanding of roles.
  5. **The Medical Home.** A patient-centered delivery model that provides an ongoing relationship with a team of clinicians to ensure well-coordinated, readily-accessible care. With chronically ill patients, the goal is more cost-effective care. Nurses play key roles in direct patient care, outreach and case management.
  6. **Patient and family-centered care.** An organizational philosophy that focuses on patient and family education as well as the physical environment as integral components of the healing process. Patients and families take an active role in the management of the care and may even be involved in committees, task forces and work groups, alongside hospital team members.
  7. **Telemedicine.** Nurse outreach via technology to patients, especially in poorly served and rural areas to chronically ill patients to manage them without costly hospital admissions.
  8. **Transitional care models.** Involve a trained RN or geriatric nurse practitioner following the plan of care from an inpatient to an outpatient environment for patients at risk for frequent readmission following discharge. The provider goes to the patient's home and assesses the patient on a planned basis for a defined period of time.

Managing Variability

- The Institute for Healthcare Optimization (IHO) is an independent nonprofit research, education and service organization focused on bringing the science and practice of Operations Management to health care delivery in order to

improve quality and access and simultaneously decrease cost. The Institute combines knowledge of Operations science and its non-proprietary Variability Methodology with clinical, analytic and organizational expertise to drive practical, high-impact changes in health care.
http://www.ihoptimize.org/index.htm

- Learn about Operations Management methods such as queuing, simulation and variability methodology that can be used to increase patient throughput, improve quality and safety, and decrease nursing stress via better control of staffing and patient placement.
- Have a better understanding of how and why poor patient scheduling practices and mismanagement of patient demand impacts nursing care, and are at the root of the stress and waste experienced in many service areas of the hospital.

AONE Webinars and Conferences
- Webinars http://www.aone.org/aone/edandcareer/webinars.html
- Conferences http://www.aone.org/aone/edandcareer/home.html

The Top 10 Trends of *The Extreme Future*
Dr. James Canton

1. **Fueling the Future**. The energy crisis, the post-oil future and the future of energy alternatives like hydrogen. The critical role that energy will play in every aspect of our lives in the 21st century.
2. **The Innovation Economy**. The transformation of the global economy based on the convergence of free trade, technology and democracy, driving new jobs, new markets, globalization, competition, peace and security. The Four Power Tools of the Innovation Economy are Nano-Bio-IT-Neuro.
3. **The Next Workforce**. How the workforce of the U.S. is becoming more multicultural, more female and more Hispanic. Why the future workforce must embrace innovation to become globally competitive.
4. **Longevity Medicine**. The key forces that will radically alter medicine such as nanotech, neurotech and genomics, leading to longer and healthier lives.
5. **Weird Science**. How science will transform every aspect of our lives, culture and economy—from teleportation to nanobiology to multiple universes.
6. **Securing the Future**. The top threats to our freedom and our lives, from hackers to terrorists to mind control. Defining the risk landscape of the 21st century.
7. **The Future of Globalization**. The new realities of global trade and competition; the rise of China and India; the clash of cultures and ideologies; and the cultural-economic battle for the future.
8. **The Future of Climate Change**. How the environment is changing and how we need to prepare for increased global warming, pollution and threats to biodiversity.
9. **The Future of the Individual**. The risks and challenges from institutions, governments and ideologies in the struggle for human rights and the freedom of the individual in the 21st century.

10. **The Future of America**. The power of America and its destiny to champion global democracy, innovation, human rights and free markets.

■ Resources

Nurse leaders are already redesigning care delivery models to respond to the current and anticipated changes in health care. Much of the redesign work is focusing on creating an environment that supports change, changing the roles for health care providers and developing highly integrated care teams. A few leaders have developed innovative models of care that support patient- and family-centered care, leverage the use of technology to change the work burden for care providers and move the location of care from acute care to outpatient and community-based sites of care. The exemplars included in the toolkit are examples of the redesign work now underway. Additional exemplars will be added as the redesign work continues to evolve.

■ Definitions for Redesign of Care Delivery Criteria

- Left shift—less complicated, simpler
- Workplace transformation—innovative care delivery processes
- Virtual care delivery—indirect "presence"
- Value-based purchasing—improving quality, decreasing costs
- Shared information—open network to provide information to all providers
- Interdisciplinary care—integrated, interprofessional care processes
- Human factors engineering—understanding what is known about human capabilities and limitations to the design of products, processes, systems and work environments
- Robotics—use of technology to replace human effort
- Defect-free care—highly reliable and safe care
- Evidence-based practice (EBP)
- Future care scenarios—anticipation of care delivery trends
- Reducing cognitive shifts—mental process of redirecting the focus of attention
- Care team innovations—using the care team differently
- Innovative roles—new roles

■ Additional Resources

- AAN Edgerunners© at www.aannet.org/i4a/pages/index.cfm?pageid=3303
- AHRQ Healthcare Innovations Exchange at www.innovations.ahrq.gov
- RWJF TCAB Resource Center at www.rwjf.org/pr/product.jsp?id=31512
- Innovative Care Models at www.innovativecaremodels.com

■ Exemplars
The following exemplars describe problems that hospital unit innovations are designed to address and define the strategic goal or vision that the innovation is meant to address.

1. **Mercy Medical Center (Cedar Rapids, Iowa)**. Care models involving interdisciplinary teams and new models of care that significantly decrease length of stay or need for inpatient stay.
2. **Lawrence & Memorial Hospital (New London, Conn.)**. Articulate a vision statement that was co-created with front-line nurses, support staff, nursing leadership and the CNO that is suitable for complex adaptive systems like the patient care unit and nursing organization.
3. **Prairie Lakes Healthcare System (Watertown, S.D.)**. A self-organized agile team model of care to allow the team to organize for complexity and to empower frontline staff as owners of patient care processes, activities and outcomes.
4. **University of Pittsburgh Medical Center (Pittsburgh, Pa.)**. The UPMC Care Team in 2007 evolved into phase two with a focus geared toward the spread of implementation across the system and to spread a patient-centered care delivery model across the system and weave it into the hospital's culture.
5. **UPMC Shadyside (Pittsburgh, Pa.)**. A care management redesign pilot was initiated with a team of hospital leaders, PCCs, social workers, unit directors, frontline nurses and improvement specialists from the UPMC's Donald D. Wolff Jr. Center for Quality Improvement and Innovation. The primary goal was to address the need for greater communication with patients, families, physicians and coworkers across disciplines to promote more effective and efficient patient care.
6. **Saint Barnabas Medical Center (Livingston, N.J.)**. The goal is to impact patient satisfaction and employee satisfaction with an hour of healing time by increasing patient satisfaction scores (HCAHPS) in the categories of noise level, hospital environment, response of staff, and recommending hospital. The second goal would be to see a reduction in call bell usage.
7. **Seton Family of Hospitals (Austin, Tx.)**. Provide role clarity, appropriate oversight, team collaboration and enhance patient partnerships in care delivery nursing leaders by developing the Primary Care Team Professional Nursing Practice model.
8. **NYU College of Nursing (New York, N.Y.)**. Draft a bill of rights for hospitalized older adults to acknowledge specific knowledge, skills and actions necessary to provide quality of care to this population.
9. **Hartford Hospital (Hartford, Conn.)**. Decrease orientation which previously had been 10 weeks to nine weeks to save on costs for the unit as well as relegating one preceptor for two new nurses.
10. **Florida Hospital (Orlando, Fla.)**. To address the lack of practical tools for nurses to engage in shared governance, a series of studies in practice settings led to the development of the Nursing Practice Council Effectiveness Scale and Toolkit. The NPC Toolkit is a turnkey system for nursing practice councils at the unit level and guides unit councils through a continuous improvement process of self reflection, goal definition, focused action and progress monitoring. This Toolkit may be used to initiate new nursing practice councils or increase the effectiveness of experienced councils.
11. **Hansten Healthcare (Port Ludlow, Wa.)**. For effective transformation of patient care delivery, the crucial skills (planning, delegation and

supervision and teamwork, how to give initial direction, handoffs, periodical checkpoints and supervision feedback) must be focused on patient/family outcomes. A mental vision of a preferred future is necessary for expert critical thinking, and this goal orientation is key for prioritization and efficiency throughout the interdisciplinary team.

12. **Johns Hopkins University School of Medicine (Baltimore, Md.**). Implement Hospital at Home (HaH), an acute hospital-level care that is provided in a patient's home as a complete substitute for an acute hospital admission for older adults with certain acute illnesses. Services provided include intravenous medications and fluids, oxygen therapies, respiratory therapies, blood testing, EKGs, basic radiographs and ultrasound, durable medical equipment, nursing aides.

13. **Clarian Health (Indianapolis, Ind.)**. Clarian ePartners is a remote critical care unit, sometimes described as a "bunker," staffed with certified, experienced critical care registered nurses who serve 24/7 as a safety net, historically monitoring and supporting 11 critical care units.

14. **VA Tennessee Valley Healthcare (Nashville, Tenn.)**. This group creates forward thinking, transformational partnerships that address health care challenges both clinically and financially that will result in actions that are sustainable and measurable. Through a series of actions, the Clinical Nurse Leader (CNL) role was introduced, implemented and spread to various points of care throughout the VA's health care system.

15. **Cedars Sinai Medical Center (Los Angeles, Calif.)**. The goal was to reduce the readmission rate for congestive heart failure patients to 5 percent or less, by implementing a multi-dimensional approach to educate patients and caregivers. The intervention was developed according to Orem's Self-Care Model incorporating evidence-based elements of CHF self-care and preventive behaviors.

16. **Mercy Medical Center (Cedar Rapids, Iowa)**. Implement the "ABCD's of Care" concept to assist the health care professional in providing patient care that is guided by evidence-based practice. This concept assists in achieving high reliability in delivering nationally established standards of care.

■ Special Topics

■ Cognitive Work

Bisantz, A. & Burns, C. (2008). *Applications of Cognitive Work Analysis*, CRC Press.

Bittner, N. & Gravlin, G. (2009). Critical thinking, delegation, and missed care in nursing practice. *JONA, 39* (3), 142-46.

ABSTRACTS: OBJECTIVE: The aim of this study was to understand how nurses use critical thinking to delegate nursing care. BACKGROUND: Nurses must synthesize large amounts of information and think through complex and often emergent clinical situations when making critical decisions about patient care, including delegation. METHOD: A qualitative, descriptive study was used in this article. FINDINGS: Before delegating, nurses reported considering patient

condition, competency, experience and workload of unlicensed assistive personnel (UAP). Nurses expected UAP to report significant findings and have higher level knowledge, including assessment and prioritizing skills. Successful delegation was dependent on the relationship between the RN and the UAP, communication, system support and nursing leadership. Nurses reported frequent instances of missed or omitted routine care. CONCLUSION: Findings from this project provide insight into factors that influence delegation effectiveness. These can guide CNOs and frontline nurse leaders to focus on implementing strategies to mitigate the consequence of missed care. Ineffective delegation of basic nursing care can result in poor patient outcomes, potentially impacting quality measures, satisfaction and reimbursement for the institution.

Burns, C.M., Enomota, Y. & Montanans, K. (2007). Proceedings of the 12th World Congress on Health (Medical) Informatics; Building Sustainable Health Systems. The Cognitive Work of Nursing.

Dane, E., Pratt, M. (2007). Exploring Intuition and Its Role in Managerial Decision Making. *Academy of Management Review. 32* (1), 33-54.

ABSTRACT: We review and reconceptualize "intuition," defining intuitions as affectively charged judgments that arise through rapid, nonconscious and holistic associations. In doing so, we delineate intuition from other decision-making approaches (e.g., insight, rational). We also develop a model and propositions that incorporate the role of domain knowledge, implicit and explicit learning and task characteristics on intuition effectiveness. We close by suggesting directions for future research on intuition and its applications to managerial decision making.

DeLucia, P., Ott, T.E. & Palmieri, P. (2009). *Interruptions and Cognitive Processes in Nursing: Review, Analysis, Recommendations*. Human Factors and Ergonomics Society Annual Meeting Proceedings, *53* (11), 743.

Ebright, P. (2010) *The Complex Work of RNs: Implications for Healthy Work Environments*. OJIN: The Online Journal of Issues in Nursing, *15* (1).

Fesler-Birch, D. (2010). Perioperative nurses' ability to think critically. *Quality Management Health Care. 19* (2), 137-46.

ABSTRACT: AIMS: The purpose of this quantitative descriptive correlational study was to assess for presence and degree of critical thinking skills among perioperative (OR) nurses. BACKGROUND: Critical thinking has become a multidisciplinary "buzz phrase"; however, critical thinking, reflective thinking or mental discipline was discussed among educators as early as 1912. As nurses' roles change in response to the dynamics of managed care and an increase in use of biotechnology in health care, more is expected of nurses in terms of both psychomotor and cognitive skills.Thus, critical thinking may be central to nurses' ability to meet the care expectations of patients and the skill expectations of managers, peers and themselves. SETTING: Data were collected from one university-affiliated medical center, one non-university-affiliated medical center

and three ambulatory surgicenters. Data were collected over a 12-month period from 2008 to 2009. SAMPLE: Convenience sample of 92 OR nurses. The sample comprised nurses with various educational levels for entry into practice: diploma, associate, and Bachelor of Science in Nursing degrees. Subjects' clinical experience ranged from one month to 40 years. INSTRUMENTS: Administered California Critical Thinking Disposition Inventory; Assessment of Critical Thinking Skills of Perioperative Nurses, an investigator-developed tool; and a demographic survey. ANALYSES: Descriptive statistics, multiple regression, and step-wise regression were performed; power of 80 percent with a medium effect size was calculated. RESULTS: Aggregate (N = 92) for the dependent variable (level of critical thinking) and predictor variables (dispositions) were not significant. The group (medical center 1) indicated that as the level of critical thinking increased, the level of truth increased. Also, as the level of critical thinking increased, the level of open-mindedness decreased. In groups 2, 4 and 5 (surgicenters) coefficient indicated that none of the predictors were significant. A stepwise regression was calculated for group 3 (medical center 2) to find the best predictor model. As the level of critical thinking decreased, open-mindedness increased. CONCLUSIONS: Critical thinking skills may be related to organizational culture, geography and/or specialization. Specialization competencies may act as barriers to the development of critical thinking skills. This could be highly detrimental to the anticipation of significant negative patient outcomes within an OR setting.

Huckabay, L. (2009). Clinical reasoned judgment and the nursing process. *Nursing Forum. 44* (2), 72-78.

ABSTRACT: Every nursing school student is taught the nursing process as a systematic framework for processing patient information to make clinical decisions. This article provides a model for integrating a conceptual model of critical thinking into the nursing process, with the goal of enabling nurses to think critically, reason accurately and make appropriate clinical decisions about their patients. Eight elements of critical thinking provide the universal structure of thought processes: clarity, accuracy, precision, relevance, depth, breadth and logic. The model provides nurses with a practical approach for making effective clinical decisions.

Ives Erickson, J. (2010). *Overview and Summary: Promoting Healthy Work Environments: A Shared Responsibility*. OJIN: The Online Journal of Issues in Nursing *15* (1).

Lopez, K.D., Gerling, G.J., Cary, M.P. & Kanak, M.F. (2010). *Cognitive work analysis to evaluate the problem of patient falls in an inpatient setting.* Journal of the American Medical Informatics Association, *17*(3):313-21.

McLane, S., Turley, J. P., Esquivel, A., Engebretson, J., Smith, K. A., Wood, G. L. & Zhang, J. (2010) *Invitation to Dialogue on Nursing Essentials: Original Article. Concept Analysis of Cognitive Artifacts.* Advances in Nursing Science, *33*(4): 352-362.

Pingenot, A. & Shanteau, J. (2009). *Description of Inpatient Medication Management Using Cognitive Work Analysis.* CIN: Computers, Informatics, Nursing, 27(6): 379-392

Potter, P. (2004). Mapping the nursing process: a new approach for understanding the work of nursing. *JONA, 34* (2), 101-109.

ABSTRACT: The work of nursing is nonlinear and involves complex reasoning and clinical decision making. The use of human factors engineering (HFE) as a sole means for analyzing the work of nursing is problematic. Combining HFE analysis with qualitative observation has created a new methodology for mapping the nursing process. A cognitive pathway offers a new perspective for understanding the work of nursing and analyzing how disruptions to the nursing process may contribute to errors in the acute care environment.

Potter, P. (2005). Understanding the cognitive work of nursing in the acute care environment. *JONA*, 35(7/8), 327-335.

ABSTRACT: OBJECTIVE: To combine human factors engineering techniques with qualitative observation of nurses in practice to analyze the nature of nurses' cognitive work and how environmental factors create disruptions that pose risks for medical errors. BACKGROUND: Few researchers have examined the nature of nurses' cognitive work while in practice with patients. Researchers have described the broad range of thinking processes required in the acute care work setting, but have failed to examine how such processes are conducted and influenced by the complex care environment. A combined research methodology enables researchers to better understand how the nursing process becomes disrupted and the potential influence of this disruption on the safe and effective care of patients. METHODS: An ethnographic study, using mixed-methodological approaches, involved seven staff registered nurses. The quantitative and qualitative data collection included field observation and summarative interviews. FINDINGS: A high number of cognitive shifts and interruptions, and a nurse's cumulative cognitive load, create the potential for disrupting a nurse's attention focus during care of patients. A majority of interruptions occurred as nurses performed interventions, particularly medication preparation. CONCLUSION: New attention must be given to how care systems and work processes complement or interfere with nurses' cognitive work.

Potter, P., Wolf, L., Boxerman, S., et al. (2005). An analysis of nurses' cognitive work: A new perspective for understanding medical errors. *Advances in Patient Safety: From Research to Implementation,* 1*,* 39-52.

ABSTRACT: Health care researchers agree that the acute care hospital environment is filled with numerous distractions. Within this environment, professional nurses make clinical judgments about their patients, whose conditions may change minute by minute. As a result, nurses constantly organize and reorganize the priorities and tasks of care to accommodate patients' fluctuating status. To date, little attention has been given to how interruptions in the workplace influence nurses' ability to anticipate and carry out the actions directed by their clinical judgment. This paper describes an ongoing research

study aimed at exploring the effect of interruptions on the cognitive work of nursing. A methodology combining human factors techniques and qualitative observation of nurses in practice has produced a cognitive pathway. The pathway is a unique visual graphic that offers a perspective of the nature of nurses' work and the relationship interruptions and cognitive load may have on omissions and errors in care. The approach to analyzing the cognitive work of nurses has important implications for understanding the origins of medical errors.

Potter, P., Wolf, L., Boxerman, S., et al. (2005). Understanding the cognitive work of nursing in the acute care environment. *JONA, 35* (7/8), 327-35.

Redding, D., Robinson, S. (2009). Interruptions and geographic challenges to nurses' cognitive workload. *Journal of Nursing Care Quality, 24 (*3), 194-200.

ABSTRACT: The cognitive workload of nurses needs to be protected from interruptions as much as possible to prevent untoward patient outcomes. In this study, the type and frequency of work interruptions for nurses in medical-surgical units in a Midwestern tertiary care medical center were identified. In addition, nurses' travel patterns were observed and recorded as they provided care. The intent was to identify methods for reducing interruptions and improving nurses' cognitive work efficiency.

Simmons, B. (2010). Clinical reasoning: concept analysis. *Journal of Advanced Nursing,* 66 (5), 1151-1158*.*

ABSTRACT: AIM: This paper is a report of a concept analysis of clinical reasoning in nursing. BACKGROUND: Clinical reasoning is an ambiguous term that is often used synonymously with decision-making and clinical judgment. Clinical reasoning has not been clearly defined in the literature. Health care settings are increasingly filled with uncertainty, risk and complexity due to increased patient acuity, multiple comorbidities and enhanced use of technology, all of which require clinical reasoning. DATA SOURCES. Literature for this concept analysis was retrieved from several databases, including CINAHL, PubMed, PsycINFO, ERIC and OvidMEDLINE, for the years 1980 to 2008. REVIEW METHODS: Rodgers's evolutionary method of concept analysis was used because of its applicability to concepts that are still evolving. RESULTS: Multiple terms have been used synonymously to describe the thinking skills that nurses use. Research in the past 20 years has elucidated differences among these terms and identified the cognitive processes that precede judgment and decision-making. Our concept analysis defines one of these terms, "clinical reasoning," as a complex process that uses cognition, metacognition and discipline-specific knowledge to gather and analyze patient information, evaluate its significance and weigh alternative actions. CONCLUSION: This concept analysis provides a middle-range descriptive theory of clinical reasoning in nursing that helps clarify meaning and gives direction for future research. Appropriate instruments to operationalize the concept need to be developed. Research is needed to identify additional variables that have an impact on clinical

reasoning and what are the consequences of clinical reasoning in specific situations.

Tanner, C. (2006). Thinking like a nurse: a research-based model of clinical judgment in nursing. *J Nurs Educ, 45* (6), 204-211.

ABSTRACT: This article reviews the growing body of research on clinical judgment in nursing and presents an alternative model of clinical judgment based on these studies. Based on a review of nearly 200 studies, five conclusions can be drawn: (1) Clinical judgments are more influenced by what nurses bring to the situation than the objective data about the situation at hand; (2) Sound clinical judgment rests to some degree on knowing the patient and his or her typical pattern of responses, as well as an engagement with the patient and his or her concerns; (3) Clinical judgments are influenced by the context in which the situation occurs and the culture of the nursing care unit; (4) Nurses use a variety of reasoning patterns alone or in combination; and (5) Reflection on practice is often triggered by a breakdown in clinical judgment and is critical for the development of clinical knowledge and improvement in clinical reasoning. A model based on these general conclusions emphasizes the role of nurses' background, the context of the situation and nurses' relationship with their patients as central to what nurses notice and how they interpret findings, respond and reflect on their response.

Yu, P. (2006). Working knowledge mining by principles for deep knowledge. *International Journal of Information Technology & Decision Making, 5* (4), 729-738.

ABSTRACT: We usually use a set of ideas, thinking paradigms and judgment rules, including alternatives, criteria, outcomes and preferences to make decision. This set, known as actual domain (working knowledge) of habitual domain, will be stabilized over time unless extraordinary events occur. As such, our working knowledge cannot be broad and deep. Inevitably, we could get into decision traps, which lead us to making wrong decisions or solving wrong problems. The actual domain is only a small part of our potential domain, the collection of all thoughts, ideas, thinking paradigms, etc. that have ever been encoded in our brain. In this paper, we will describe nine principles for deep knowledge, so that, we could expand and enrich our working knowledge by utilizing the potential domains of ourselves and other participants in the decision making. As a consequence, good ideas for solving challenging decision problems can be obtained or created. These principles are: the deep and down principle, the alternating principle, the contrasting and complementing principle, the revolving and cycling principle, the inner connection principle, the changing and transforming principle, the contradiction principle, the cracking and ripping principle and the void principle.

- **Complexity Theory**

Clancy, T. (2008). Control: what we can learn from complex systems science. *JONA, 38* (6), 272-274.

Clancy, T. (2008). Independence: what they did not teach you in statistics 101. *JONA, 38* (9), 367-370.

Clancy, T. (2008). Fractals: nature's formula for managing hospital performance metrics. *JONA, 38* (12), 510-513.

Clancy, T. (2009). Putting it altogether: improving performance in heart failure outcomes. *JONA, 39* (6), 249-254.

Clancy, T. (2009). In search of elegance: making the complex simple. *JONA, 39* (12), 507-510.

Clancy, T. (2010). Diamonds in the rough: positive deviance and complexity. *JONA, 40* (2), 53-56.

Guiliano, K. (2005). Unity of knowledge in the advancement of nursing knowledge. *Nursing Science Quarterly, 18* (3), 243-248.

ABSTRACT: During the past 20 years, we have witnessed an explosion in nursing knowledge providing the discipline with diverse and multifaceted theoretical frameworks and paradigms. One knowledge theme that pervades the dialogue in the scholarly literature is that of multiple ways of knowing. With the acknowledgement that the fundamental nature of nursing knowledge is grounded in the understanding of human nature and its response to its environment, comes an imperative for a consilience of knowledge. The purpose of this article is to present such a unified worldview by articulating a vision of nursing knowledge, a meaning of unity of knowledge, and a challenge to the discipline to embrace inclusive rather than exclusive ways of knowing.

Haigh, C. (2008). Using Simplified Chaos Theory to Manage Nursing Services. *Journal of Nursing Management*, *16*(3): 298-304.

Lindberg, C. & Clancy, T. (2010). Positive deviance: an elegant solution to a complex problem. *JONA, 40* (4), 150-153.

Lindberg, C., Nash, S. & Lindberg, C. (2008). *On the edge: nursing in the age of complexity*. Bordentown, NJ: PlexusPress.

Ray, M. (1998). Complexity & Nursing Science. *Nursing Science Quarterly, 11* (3), 91-93.

ABSTRACT: Today, nursing practice is driven by a complex system of economics, technology and multimodal organizations. Traditional economics addresses issues and analyzes events related to the efficiency and effectiveness of goods, money, and services where maximum satisfaction related to need or want is the outcome. Economics uses facts and perceived logic, stories and metaphors to communicate (McCloskey, 1990). The rush toward economic globalization has forced a fundamental redesign of the world's political and economic arrangements, with the deployment of large-scale versions of

economic theories, strategies and policies benefiting corporate leaders and some governments while leaving others, such as the poor, in dire distress (Mander & Goldsmith, 1996). Economic metaphors can be pushed too far as different models of the U.S. economy have shown, resulting in "storytelling nonsense" (McCloskey, 1990) and "economic insanity" (Terry, 1995). As health care costs in the United States exceeded 14 percent of the gross national product, health care has not remained in isolation from economic reform (Williams & Torrens, 1999). Cost containment has had a significant impact on health care structures and delivery of service. While movements for compulsory health insurance with public financing in the United States have floundered, the corporatization of health care has flourished. Large multiunit corporations have gained a major position in the design of HMOs, and interests are determined by the rate of return on investments (Coile, 1997; Starr, 1982). Religious health care systems, public hospitals and public health agencies cannot shield themselves from the impact of economic restructuring. U.S. health care is now dominated by corporate conglomerates in conjunction with government regulated Medicare and Medicaid policies.

Zimmerman, B., Lindberg, C. & Plsek, P. (2008). *Edgeware: lessons from complexity science for health care leaders* (3rd ed.). Bordentown, NJ: PlexusPress.

http://www.plexusinstitute.org/
This is a very comprehensive website on complexity science, applications and many more resources for those interested in learning more or becoming involved with the Plexus Institute. There are research articles, links to conferences and much more.

■ **Disruptive Technologies**

Badzek, L., Turner, M. & Jenkins, J. (2008). Genomics and nursing practice: Advancing the nursing profession. *The Online Journal of Issues in Nursing*, *13* (1).

Ben-Natan, M., Ben-Safer, E. & Ehrenfeld, M. (2009). Medical tourism: A new role for nursing? *The Online Journal of Issues in Nursing, 14* (3).

Bolen, K. (2009). Swallowing the innovator's prescription. *Pharmaceutical Executive, 29* (7), 55-59.

ABSTRACT: "When angioplasty was introduced, it captured the imagination of cardiologists and surgeons differently. Surgeons were skeptical about this new procedure. Cardiologists saw this as an incredible opportunity to treat patients with ischemic heart disease." This comment, made several years ago by the chief of cardiothoracic surgery at a hospital in Miami, summarizes the driving force behind the rapid ascent of angioplasty—and the decline in the number of bypass surgeries. Were we to go back to him today, we'd likely hear a similar story of how statins reduce demand for angioplasty by preventing the buildup of arterial plaque. This series of irrevocable market shifts from one solution model

to another (often a cheaper, easier-to-adopt solution) is called "disruptive innovation"—and it will save America from our looming health care crisis. This article provides a brief introduction to the latest thinking in this area, based on the research completed in support of *The Innovator's Prescription: A Disruptive Solution for Health Care*, a new book by Clayton Christensen, Jerome Grossman, and Jason Hwang. We will also offer suggestions on proven, practical actions pharmaceutical leaders can take to not merely survive the current disruption, but thrive.

Brook, R. (2009) Disruption and innovation in health care. *JAMA, 302* (13), 1465-1466.

ABSTRACT: This paper explains the theory of disruptive innovation and describes how disruptive technologies must be matched with innovative business models. The authors present a framework for categorizing and developing business models in health care, followed by a discussion of some of the reasons why disruptive innovation in health care delivery has been slow.

Christensen, C. (2009). *The innovators prescription: A disruptive solution for healthcare*. New York, NY: McGraw Hill.

Christensen, C.M. (2008). Innovation: disruptive & constructive? *Health Affairs, 27 (*5), 1328.

Christensen, C.M., Armstrong, E.G. (1998). Disruptive technologies: a credible threat to leading programs in continuing medical education. *Journal of Continuing Education in the Health Professions, 18* (2), 69-80.

ABSTRACT: Recent research into the history of some of the most prominent and successful firms in the for-profit sector has shown that industry leadership is extraordinarily fragile. Over and over, in industries as diverse as microelectronics, steel, motorcycles and software, leading firms whose management practices at one point were widely admired and imitated have stumbled badly and even failed. The factor that consistently has triggered these failures has not been complacent, arrogant, or bureaucratic management. It has been the emergence in their markets of disruptive technology—simple, convenient-to-use innovations that initially are used only by unsophisticated customers at the low end of markets. Ironically, two of the fundamental paradigms of good management—the importance of listening closely to customers and the necessity of bringing to market a regular flow of improved products that can be sold at higher profit margin—are the reasons why well-managed companies have consistently failed when confronted by disruptive technologies in their markets. This paper asserts that in a very analogous way, disruptive innovations in continuing education for managers and for health care professionals pose a significant threat to the impact and profitability of the continuing education programs of the leading schools of medicine and business. Through their focus on the leading edges of technology, therapy and practice, many of these programs have lost sight of a very different set of educational needs among the fastest growing health care institutions in our environment. The

paper suggests that unless leading providers of continuing medical education at medical schools aggressively begin offering courses that are customized to the needs of specific health care providers, in formats and venues that are conveniently accessible, they will increasingly be displaced by new providers of these services.

Christensen, C.M., Bohmer, R. & Kenagy, J. (2000). Will disruptive innovations cure health care? *Harvard Business Review, 78* (5), 102-112.

ABSTRACT: The U.S. health care industry is in crisis. Prestigious teaching hospitals lose millions of dollars every year.Health care delivery is convoluted, expensive and often deeply dissatisfying to consumers. Managed care, which evolved to address some of these problems, seems increasingly to contribute to them—and some of the best managed-care agencies are on the brink of insolvency. We believe that a whole host of disruptive innovations, small and large, could end the crisis—but only if the entrenched powers get out of the way and let market forces play out. If the natural process of disruption is allowed to proceed, we'll be able to build a new system that's characterized by lower costs, higher quality, and greater convenience than could ever be achieved under the old system.

Falsafi, N. (2007). Telehealth for chronic disease management (Part 1of 3). *ANIA Caring Newsletter*, ,June 22.

Falsafi, N. (2007). Telehealth for chronic disease management (Part 2 of 3) *ANIA Caring Newsletter*, September 22.

Falsafi, N. (2007,). Tlehealth for chronic disease management (Part 3 of 3) *ANIA Caring Newsletter*, December 22.

Frabotta, D. (2002). One system's disruptive trash is another's enabling treasure. *Managed Healthcare Executive, 12* (12), 36.

Glabman, M. (2009). Disruptive innovations that will change your life in healthcare. *Managed Care, 18* (1), 19-21.

Hwang, J. (2008). Disruptive innovation in health care delivery: a framework for business-model innovation. *Health Affairs, 27* (5), 1329-1335.

Hwang, J. (2009). Keynote address – the innovator's prescription. *Pathology & Laboratory Medicine, 133* (4), 513-520.

Lee, P.V., Lansky, D. (2008). Making space for disruption: putting patients at the center of health care. *Health Affairs, 27* (5), 1345-1348.

ABSTRACT: "Disruptive innovation" will only stimulate the transformation of health care when the regulatory and payment environment allows consumers to

set our society's priorities for value. Legislators need to put patients' interests before those of the powerful lobbies that are in front of them every day. Purchasers must hold their health plans to higher, more patient-centered standards. Both government and private payers need to reset the rules to allow into their networks "disrupters" that will deliver more cost-effective care for patients.

Mullin, K. (2009). Considering retail health clinics. *Journal of Nursing Administration*, *39* (12), 531-536.

Murphy, J. (2009). The future of nursing: How HIT fits in IOM/RWIF initiative. *Journal of Health Information Management, 24 (2*), 8-12*.

Pauly, M.V. (2008). We aren't quite as good, but we sure are cheap: prospects for disruptive innovation in medical care and insurance Markets. *Health Affairs, 27* (5), 1349-1352.

ABSTRACT: The concept of "disruptive innovation" by new products of moderately lower quality and much lower cost is useful for the medical care sector. Such products are rarely offered, and when they are (as in the case of health maintenance organizations), they are subject to intense criticism. This perspective argues that both the legal system and accepted discourse in public policy have inhibited discussion of such alternatives; indeed, the paper by Jason Hwang and Clay Christensen loses its focus on them at the end. The applicability of this concept is quite limited but, given sufficient changes in framing and regulating, might be helpful in the future.

Rabkin, M., Levin-Scherz, J., Brown, M., et al. (2001). Letters to the editor. *Harvard Business Review, 79* (2), 150-153.

Sandy, L.G. & Schroeder, S.A., (2003). Primary care in a new era: disillusion and dissolution? *Annals of Internal Medicine, 138* (3), 262 – 267. .

ABSTRACT: The current dilemmas in primary care stem from: 1) the unintended consequences of forces thought to promote primary care and 2) the "disruptive technologies of care" that attack the very function and concept of primary care itself. This paper suggests that these forces, in combination with "tiering" in the health insurance market, could lead to the dissolution of primary care as a single concept, to be replaced by alignment of clinicians by economic niche. Evidence already exists in the marketplace for both tiering of health insurance benefits and corresponding practice changes within primary care. In the future, primary care for the top tier will cater to the affluent as "full-service brokers" and will be delivered by a wide variety of clinicians. The middle tier will continue to grapple with tensions created by patient demand and bureaucratic systems but will remain most closely aligned to primary care as a concept. The lower tier will become increasingly concerned with community health and social justice. Each primary care specialty will adapt in a unique way to a tiered world, with general internal medicine facing the most challenges. Given this forecast for the future, those concerned about primary care should focus less on workforce issues and

more on macro health care financing and organization issues (such as Medicare reform); appropriate training models; and the development of a conception of primary care that emphasizes values and ethos, not just function.

Skiba, D. (n.d.). Preparing the next generation of nurses to practice. Retrieved from http://www.himss-socal.org/HIMSSPublic.pdf

Smith, M.D. (2007). Disruptive Innovation: can health care learn from other industries? A conversation with Clayton M. Christensen. *Health Affairs, 26*, 288-295.

ABSTRACT: Clayton Christensen is one of America's most influential business thinkers and writers. A professor at Harvard Business School, Christensen is perhaps best known for his writings on disruptive innovation in such books as *The Innovator's Dilemma* and *The Innovator's Solution.* In this interview with the California HealthCare Foundation's Mark Smith, he argues that the answer for more affordable health care will come not from an injection of more funding but, rather, from innovations that aim to make more and more areas of care cheaper, simpler, and more in the hands of patients. Christensen has been an adviser to several new companies in health care.

The TIGER Initiative. Retrieved from http://tigersummit.com/uploads/TIGER_collaborative_exec_Summary_040509.pdf

1. http://www.interactiveinsightsgroup.com/blog1/hospital-examples-added-to-social-media-case-studies-superlist/
   This is a website containing many links to different examples of hospitals utilizing social media outlets such as Facebook and Twitter for communication with staff and patients as well as marketing, etc.

2. http://vizedu.com/2009/01/twitter-and-health-20/
   This is an interactive site demonstrating how health care providers could utilize social media now and in the future.

■ **External Factors**

1. http://my.barackobama.com/page/content/benefitsofreform?source=issues

2. http://www.healthreform.gov/
   A website with links to many important documents, videos, and commentary regarding the specific details of the health reform plan and its impact on women, children, seniors, and others. Also includes links to articles about the impact of health reform on the health care workforce.

3. *AACN Bold Voices.* (2010). Key provisions for nurses in health reform legislation. *2* (5): 9.
   A very brief article detailing some of the impacts on nurses, including areas of expansion and funding for nursing education.

4. Milstein, B., Homer, J. & Hirsch, G. (2010). Analyzing national health reform strategies with a dynamic simulation model. *American Journal of Public Health, 100* (5), 811-9.
An interesting study in which the authors ran various scenarios and combinations of tactics in the health care reform model through simulation to determine which combination yields the most significant efficiencies and cost savings.

5. Lubell, J. (2010). CMS outlines reductions: Health reform, coding changes among reasons for cuts. *Modern Healthcare, 40* (17), 10.
A brief description of CMS reductions for fiscal year 2011 and what it means for hospitals and care providers.

6. Bauer, J.C. (2010). Nurse practitioners as an underutilized resource for health reform: Evidence-based demonstrations of cost effectiveness. *Journal of the American Academy of Nurse Practitioners*, *22* (4): 228-31.
This article details the ways in which Nurse Practitioners will be a valuable resource as our health care delivery system changes. It was written prior to the passing of the health reform law.

7. http://www.murphyjoneslaw.com/tag/healthcare-reform-impact-on-nursing
This is simply an opinion article from a law firm that represents nurse practitioners stating the case for nurses to fill an important role in the delivery of primary care in the coming years.

8. http://www.rwjf.org/pr/product.jsp?id=41752
A link to a policy brief on the role of nursing in future health care delivery written in 2009, prior to the passing of the health reform law.

9. http://www.jointcommission.org/
The link to the main website of the Joint Commission which contains numerous links and resources detailing their standards, accreditation guidelines, updates, sentinel events and opportunities to post and ask questions of the Joint Commission.

10. http://www.cms.gov/
The homepage for the Centers for Medicare and Medicaid Services (CMS), containing details on their provided services, regulations, research, and forums for communicating with other health care providers and directly with representatives of CMS.

11. http://www.hrsa.gov/
This is the homepage for the U. S. Department of Health and Human Services Health Resources and Services Administration (HRSA). The site contains various links and information about the services funded and provided by HRSA as well as links to grant and loan opportunities for individuals and organizations to improve health care.

12. http://www.whitehouse.gov/healthreform/timeline
    This is a direct link to the timeline of the implementation of the Affordable
    Care Act with details of what is planned and included in the plan beginning
    now and through 2015.

13. http://www.qualityforum.org/
    Homepage for the National Quality Forum

14. http://www.ahrq.gov/
    Homepage for the Agency on Healthcare Research and Quality

■ **Future Care Teams**

This list includes several links to resources regarding the future of health care
and what teams will need to be in place to be successful. Included are links to
sites and other resources detailing the Medical Home concept as well as the
concept of Health Care Telematics.

1. http://www.cerner.com/newsroom.aspx?id=2147484671&blogid=2147483710
   This is a link to information related to the joint efforts between Cerner and the
   University of Missouri related to Medical Home.

2. http://www.sciencedaily.com/releases/2009/01/090106181735.htm
   Another article describing the work on the medical home and "aging in place"
   at the University of Missouri.

3. http://www.springer.com/computer/communication+networks/book/978-3-540-
   69914-9
   A link to the book "Smart Homes and Health Telematics" which details work
   from the 2008 International Conference on Smart Homes and Telematics.

4. http://www.icost2010.org/
   This link provides information on the 2010 International Conference on Smart
   Homes and Telematics and allows viewers to see presentation topics and
   speakers to gain more information on what innovations are being looked at
   and discussed and ultimately to learn some key names and contact
   information for those involved.

5. https://portal.health.fgov.be/portal/page?_pageid=56,512847&_dad=portal&_s
   chema=PORTAL&_MENU=menu_5
   This is a very informative website on the concept of telematics and
   healthcare. Includes recommendations for what IT systems should and could
   look like along with many helpful links.

6. http://www.ehto.org/
   This is the website for the European Health Telematics Observatory and
   describes the vision for health care in Europe and successes and innovations
   that are currently in place. This is helpful in understanding what our care
   teams will look like in the future.

7. http://www.technologyreview.com/biomedicine/25086/?a=f
An article from MIT detailing what the authors feel are the 10 most important emerging technologies in healthcare, including implantable and dissolvable medical devices to monitor chronic disease. It highlights issues that will change the role of healthcare providers in the future.

8. http://www.zygbotics.com/2009/03/27/robot-nurses-to-care-for-japanese-elderly-within-five-year/
This is an article detailing the plans and steps in Japan towards use of robotic nurses within five years.

9. http://www.rwjf.org/pr/product.jsp?id=44748
This site details the work from the Robert Wood Johnson Foundation and the Institute of Medicine in defining the future work of nursing. There are several helpful links, including a link and invitation to join the chat on this work on Twitter. Several thought provoking questions and innovative solutions are highlighted.

10. http://www.iom.edu/Reports/2010/A-Summary-of-the-October-2009-Forum-on-the-Future-of-Nursing-Acute-Care.aspx
A link to the Institute of Medicine report "A Summary of the October 2009 Forum on the Future of Nursing: Acute Care." The report is available for purchase or is available to be read free online.

11. http://www.iom.edu/Global/Media%20Room/Updates.aspx?t=%7b1AC367E0-C7A0-4457-A805-FEBDF5C32190%7d%7c%7bDE49DD61-623A-438F-932B-6921E7BE9F6A%7d%7c%7bF41F0DA6-1C6F-4B9A-B1AF-A4DD17336E54%7d
This is a direct link to the form one can fill out to receive updates on areas of interest from the Institute of Medicine, including the above mentioned Robert Wood Johnson Forum on the Future of Nursing.

■ **Human Factors Engineering**

This is a list of resources, including websites, articles and books related to human factors engineering and the closely related topic of crew resource management.

1. http://www.aorn.org/PracticeResources/ToolKits/HumanFactorsInHealthCareToolKit/
This is a toolkit available on the AORN website. Contact hours are available for completion, but you must be a member of AORN to access.

2. http://www.saferpatients.com/crew-resource-management.htm
This is a vendor for the CRM training/services website that is filled with lots of valuable links and history of CRM as well as ideas for use and success stories in health care.

3. Gaffney, A., Harden, S. & Seddon, R. (2005) *The Flight Plan for Lasting Change in Patient Safety* HCPro, Inc.
   This is a book often referenced and recommended on the various CRM websites.

4. http://crewresourcemanagement.net/
   This website contains an excellent seven module tutorial on crew resource management that is available for free .

5. Stone, F.P. (2000). Medical team management: improving patient safety through human factors training. *Military Health System Health Care Reengineering.* HCR Reference Number: 00080. 2000.

6. Pizzi, L., Goldfarb, N.I. & Nash, D.B. (2001). Crew resource management and its applications in medicine. In: Shojana, K.G., Duncan, B.W., McDonald, K.M., et. Al., editors. Making health care safer: a critical analysis of patient safety practices. Rockville, MD: U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality; 2001. 501-510.

7. Gore, D.C., Powell, J.M., Baer, J.G., Sexton, K.H., Richardson, C.J., Marshall, D.R.;, Chinkes, D.L.& Townsend, C.M. Jr. (2010). Crew resource management improved perception of patient safety in the operating room. *American Journal of Medical Quality, 25* (1): 60-63. Citation only available (includes abstract).

8. Mahlmeister, L.R. (2010)Human factors and error in perinatal care: the interplay between nurses, machines, and the work environment. *Journal of Perinatal & Neonatal Nursing, 24* (1): 12-21. Citation only available (includes abstract).

9. Wickens, C.D., Lee, J.D., Liu, Y.D. & Gordon-Becker, S. (2004). *An Introduction to Human Factors Engineering* (2nd Edition). Upper Saddle River, NJ: Pearson/Prentice Hall, Inc.

10. Boston-Fleischhauer, C. (2008). Enhancing healthcare process design with human factors engineering and reliability science, part 1: setting the context. *Journal of Nursing Administration, 38* (1), 27-32. Citation only available (includes abstract).

11. Boxton-Fleischhauer C. (2008). Enhancing healthcare process design with human factors engineering and reliability science, part 2: applying the knowledge to clinical documentation systems. *Journal of Nursing Administration, 38* (2): 84-9. Citation only available (includes abstract).

12. Dekker, S. (2009). Ten Questions about Human Error: A New View of Human Factors and System Safety. CRC Press.

13. http://reliability.sandia.gov/Human_Factor_Engineering/human_factor_engineering.html

This website explains and describes human factors engineering and has several links to four key sub-topics.

14. http://www.hfes.org/web/Default.aspx
The website for the Human Factors and Ergonomics Society is filled with many resources and helpful links on the topic.

■ **Left Shifting**

Menninger, B. (2009). Reinventing health care delivery: innovation and improvement behind the scenes. *California Healthcare Foundation Issue Brief,* September, 1-14.

ABSTRACT: Hamstrung by an increasingly complex, costly and disorganized system of care, health care organizations are following the lead of the corporate world and embracing innovation as a way to overcome the seemingly intractable problems that have undermined U.S. health care delivery for decades. Today's innovation centers—most of which are affiliated with large hospitals or health systems—range in scope from modest internal programs to large, formalized organizations with dedicated physical space, sizable staffs and external clients. Key areas of emphasis include facility design, operational efficiency optimized information technologies, improvements in the patient experience and care quality. In 2009, leaders at health care innovation organizations nationwide were interviewed to learn more about how the centers operated, the objectives they were pursuing and some of the challenges they faced.

Wilkinson, R. (1997). A case for change: mental health and correctional transformation using non-traditional strategies. *The Correctional Psychologist,* April.

ABSTRACT: Surrounding the aftermath of the 11-day disturbance at the Southern Ohio Correctional Facility in April 1993, Governor George V. Voinovich appointed an eight-member committee to study the Ohio penal system and make recommendations for change. The Governor's Select Committee on Corrections convened on May 6, 1993 and established a goal of issuing recommendations "to make Ohio's prisons safer, more secure, less stressful environments for staff and prisoners, and for preventing and reducing inmate violence." One of the Governor's Select Committee's recommendations was that a review of the bifurcated delivery of mental health services in Ohio Department of Rehabilitation and Correction (DRC) be conducted. This recommendation, along with prison crowding and a mental health lawsuit, provided a catalyst for organizational change within DRC and the Ohio Department of Mental Health (DMH). The challenge was to design a process using non-traditional methods to effect fundamental change. Conflict resolution between the two agencies was key to successful change. This article reviews the basic history of the agency relationships and identifies the strategies used to bring about a revolution in the delivery of mental health care in Ohio's prisons.

■ **Patient Directed Care**

Bodenheimer, T. (2002). Patient self management of chronic disease. *JAMA, 288* (19), 2469-2475.

ABSTRACT: Patients with chronic conditions make day-to-day decisions about—self-manage—their illnesses. This reality introduces a new chronic disease paradigm: the patient-professional partnership, involving collaborative care and self-management education. Self-management education complements traditional patient education in supporting patients to live the best possible quality of life with their chronic condition. Whereas traditional patient education offers information and technical skills, self-management education teaches problem-solving skills. A central concept in self-management is self-efficacy—confidence to carry out a behavior necessary to reach a desired goal. Self-efficacy is enhanced when patients succeed in solving patient-identified problems. Evidence from controlled clinical trials suggests that: (1) programs teaching self-management skills are more effective than information-only patient education in improving clinical outcomes; (2) in some circumstances, self-management education improves outcomes and can reduce costs for arthritis and probably for adult asthma patients; and (3) in initial studies, a self-management education program bringing together patients with a variety of chronic conditions may improve outcomes and reduce costs. Self-management education for chronic illness may soon become an integral part of high-quality primary care.

Bolster, D. & Manias, E. (2010). Person-centered interactions between nurses and patients during medication activities in an acute hospital setting: Qualitative observation and interview study. *International Journal of Nurse Studies, 47,* 154-165.

ABSTRACT: BACKGROUND: There is increasing emphasis on person-centered care within the literature and the health care context. It is suggested that a person-centered approach to medication activities has the potential to improve patient experiences and outcomes. OBJECTIVES: This study set out to examine how nurses and patients interact with each other during medication activities in an acute care environment with an underlying philosophy of person-centered care. DESIGN: A qualitative approach was used comprising naturalistic observation and semi-structured interviews. SETTING: The study setting was an acute care ward with a collaboratively developed philosophy of person-centered care, in an Australian metropolitan hospital. PARTICIPANTS: Eleven nurses of varying levels of experience were recruited to participate in observations and interviews. Nurses were eligible to participate if they were employed on the study ward in a role that incorporated direct patient care, including medication activities. A stratified sampling technique ensured that nurses with a range of years of clinical experience were represented. Patients who were being cared for by participating nurses during the observation period were recruited to participate unless they met the following exclusion criteria: those less than 18 years of age, non-English speaking patients, and those who were unable to give informed consent. Twenty-five patients were observed and 16 of those agreed to be interviewed. RESULTS: The results of the study generated insights into the nature of interactions between nurses and patients where person-centered care

is the underlying philosophy of care. Three major themes emerged from the findings: provision of individualized care, patient participation and contextual barriers to providing person-centered care. While the participating nurses valued a person-centered approach and perceived that they were conducting medication activities in a person-centered way, some nurse-patient interactions during medication activities were centered on routines rather than individualized patient assessment and management. These interactions were based on nurses' perceptions of what was important for the patient and did not provide opportunities for patient participation. Two main contextual barriers in relation to a person-centered approach to medication activities were identified as multidisciplinary communication and time constraints. CONCLUSIONS: While some nurse-patient interactions during medication activities were consistent with the principles of person-centered care, the study results highlighted factors that influence the nature of these interactions, and identified opportunities to improve nursing practice. To ensure person-centered care is applied to medication activities, nurses should undertake ongoing assessment of patients' needs in relation to their medications and encourage opportunities for increased patient participation.

Damush, T. (2009). Implementing evidence-based patient self management. *Journal of General Internal Medicine, 25* (1), 68-71.

ABSTRACT: While many patient self-management (PSM) programs have been developed and evaluated for effectiveness, less effort has been devoted to translating and systematically delivering PSM in primary and specialty care. Therefore, the purpose of this paper is to review delivery system design considerations for implementing self-management programs in practice. As lessons are learned about implementing PSM programs in Veterans Health Administration (VHA), resource allocation by health care organizations for formatting PSM programs, providing patient access, facilitating PSM and incorporating support tools to foster PSM among its consumers can be refined and tailored. Redesigning the system to deliver and support PSM will be important as implementation researchers translate evidence-based PSM practices into routine care and evaluate its impact on the health-related quality of life of veterans living with chronic disease.

Edelman Health Engagement Barometer. Accessed May 2, 2010 at http://www.edelman.com/healthengagement/

Hendrich, A., Chow, M. & Goshert, W. (2009). A proclamation for change: transforming the hospital patient care environment. *JONA, 39* (6), 266-75.

ABSTRACT: Mounting evidence describes inefficiencies in the hospital work environment that threaten the safety and sustainability of care. In response to these concerns, diverse experts convened to create a set of evidence-based recommendations for the transformation of the hospital work environment. The resulting Proclamation for Change, now endorsed by multiple health systems and professional and consumer organizations, cites patient-centered design, system-

wide integrated technology, seamless workplace environments, and vendor partnerships as the cornerstones of transformational change.

Hunt, M. (2009). Patient-centered care and cultural practices: process and criteria for evaluating adaptations of norms and standards in health care institutions. *HEC Forum, 21* (4), 327-339.

ABSTRACT: It is widely recognized that health care providers and health care organizations need to take into account the cultural frameworks of patients. Such an orientation is consistent with patient-centered care that focuses on the particularity of individual patients (Stewart, 2001). In a patient-centered approach clinicians individualize the care they provide to each patient, and seek to develop and promote partnerships with patients. Eliciting and engaging a patient;s cultural values and perspectives is a key component of patient-centered care. An important body of scholarship has developed around the question of how attending to the needs of culturally diverse patient populations should affect the provision of clinical care and other health services (Betancourt, 2004). This discussion has led to many practical changes in how health care providers are trained. Today, educational programs in faculties of medicine, schools of nursing and schools of allied health incorporate cultural competence training in their curricula. Despite the increased focus in education and clinical practice on providing patient-centered and culturally sensitive care, challenging situations can arise when patients wish to perform practices that do not fit within institutional or clinical norms. In many such situations, health care providers and hospital administrators adapt institutional or clinical norms and structures. In other cases it may be difficult to decide whether particular adaptations should be made or not. Such scenarios may be sources of important concern and stress for patients, families and health care providers. The assessment of a given situation is rendered more complex when the adaptation being considered has the potential to infringe on the rights of others (such as other patients, visitors to the hospital, or health care providers). In this paper, the author proposes a328 HEC Forum (2009) 21(4): 327-339 process, including four evaluative criteria, for assessing such scenarios. This discussion is also relevant for considering practices that require adaptation of institutional or clinical norms, but which are not based in a specific cultural or religious framework. Given a commitment to respect autonomy, administrators and clinicians should also carefully consider requests for adaptation which patients associate with their own core beliefs and deeply held commitments.

Jasovsky, D., Morrow, M., Clementi, P. & Hindle, P. (2010). Theories in action and how nursing practice changed. *Nurs Sci Q., 23* (1), 29-38.

ABSTRACT: Rogers' theoretical framework of diffusion of innovation guided the successful infusion of the educational training and implementation of the Magis model of care at a 570-bed hospital in the Chicagoland area. The Magis model of care was derived from several nursing theories along with information from the Institute of Family-Centered Care. By incorporating the components that relate to the institution's values and Magnet theme, the stages of innovation were readily adopted and sustained over the first year of implementation. The model has

spread beyond the original and sister units as demonstrated by another department creating the Magnet poster with the various elements that they have incorporated into daily care delivery. What is so invigorating to the nursing administration is hearing how nursing staff articulates the care they give to the various components of the model and the theory that supports this practice.

Kramer, M., Schmalenberg, C., Maguire, P., et al. (2009) Walk the talk: promoting control of nursing practice and a patient-centered culture. *Critical Care Nurse, 29* (3), 77-93.

ABSTRACT: The article presents the results of research that pertains to the control of nursing practice and a patient-centered culture. The authors clarify the "walk the talk" metaphor as it applies to nursing practice. Structures that enable control of nursing practice, including shared governance and career ladder programs, are discussed. Best practices that promote control of nursing practice are also examined, including providing access to power and promoting widespread participation.

Matthews, R., Wilson, S., Valentine, J. & Nota, J. (2010). Involving patients in service improvement. *Nurse Management, 16* (10), 16-19.

ABSTRACT: This article describes the experiences of two multidisciplinary teams that took part in a national initiative to improve care through the implementation of research evidence. Both teams worked with patients with chronic illnesses. The patients required regular admissions to hospital for treatment and care, and had reported difficulties when moving between different services.

Robinson, J., Callister, L., Berry, J. & Dearing, K. (2008). Patient centered care and adherence: definitions and applications to improve outcomes. *J Am Acad Nurse Practice, 20* (12), 600-07.

ABSTRACT: PURPOSE: The implementation of patient-centered care (PCC) has been hampered by the lack of a clear definition and method of measurement. The purpose of this review is to identify the fundamental characteristics of PCC to clarify its definition, propose a method for measurement of PCC and recommend effective PCC practices. DATA SOURCES: Review of literature related to PCC, adherence and communication from Cinahl, PubMed Academic Search Premier and Cochrane Library databases. CONCLUSIONS: Research has shown that patient-centered interactions promote adherence and lead to improved health outcomes. The fundamental characteristics of PCC were identified as: (a) patient involvement in care and (b) the individualization of patient care. The use of a numeric rating scale to measure the presence of these characteristics allows quantification from the patient perspective. Effective PCC practices were related to communication, shared decision making and patient education. IMPLICATIONS FOR PRACTICE: PCC is a measure of the quality of health care. Understanding the characteristics of PCC facilitates its implementation and measurement. Promoting PCC activities will improve adherence and encourage patient responsibility for health status.

Scherger, J. (2009). Future vision: Is family medicine ready for patient-directed care? *Family Medicine, 41* (4), 285-288.

ABSTRACT: A growing number of Americans will soon have a Web-based personal medical home with connectedness to their chosen providers of care. The personal health record will become integrated with the electronic health record. Like other services on the Internet, patients will be able to direct much of their health care using clinical guidelines, such as prevention, chronic illness care, behavior change and arrangement for minor acute care. Physician control and autonomy will give way to greater patient control over their care, a major culture change in medicine away from paternalism. While the personal family physician will continue as a primary caregiver, there will be a shift toward greater patient involvement in the coordination of care. Family medicine educators should begin now to educate medical students and residents for this new model of care.

Society of Participatory Medicine. Accessed April 27, 2010 at: http://participatorymedicine.org/

Trust and authenticity are the enablers of health engagement. *Health Populi.* April 11, 2010. Accessed May 1, 2010 at http://www.healthpopuli.com/2010/04/trust-and-authenticity-are-the-enablers-of-health-engagement

Ursel, K. & Aquino-Russell, C. (2010). Illuminating person-centered care with Parse's teaching-learning model. *Nurs Sci Q.*, *23* (2), 118-123.

ABSTRACT: Person-centered care is illuminated in this paper through the lens of Parse's teaching-learning model for students who were engaged in patient-centered care during a practicum on an acute care unit. Students' perspectives changed as they tried on strategies for person-centered care and lived true presence with persons, while experiencing the satisfaction of knowing that they made a difference in the quality of life of the persons they were with.

■ Positioning Nurses for the 21st Century

Hebda, T. (2010). What nurse educators need to know about the TIGER initiative. *Nursing Educator, 35* (2), 56-60.

ABSTRACT: The Technology Informatics Guiding Education Reform (TIGER) initiative is designed to address a set of skills that is needed by all nurses who will practice in the profession in the 21st century. The skill set includes informatics competencies that range from basic computer skills to advanced-level information technology and literacy competencies and expertise. Despite the significance of the TIGER Initiative, few nurse educators have operationalized TIGER or adopted its plan to transform nursing practice and education to better prepare nurses to practice in a technology-rich health care environment. TIGER is currently in phase III: implementation. The authors outline the TIGER initiative as well as actions that nurse educators can take to develop and integrate

informatics competencies into the curriculum to prepare nurses for the high-touch, high-technology patient-centered care of the 21st century.

Institute of Medicine (2010). *The Future of Nursing: Leading Change, Advancing Health.* The National Academies Press, Washington, DC. www.thefutureofnursing.org

Long, K., (2004). Preparing nurses for the 21st century: re-envisioning nursing education and practice. *Journal of Professional Nursing, 20* (2), 82-88.

ABSTRACTS: Significant advances in biomedical science and in the complexity of health care, coupled with a worsening nursing shortage and numerous reports of unsafe and inadequate patient care, have prompted concerns about both nursing education and nursing practice. Beginning in 2000, the American Association of Colleges of Nursing (AACN) made a thorough study of nursing education, regulation and practice issues. Input and consultation were sought from AACN members, nursing practice leaders, regulators and other health professionals. Results of this work indicated the need for a new nursing professional, the clinical nurse leader, who could effectively coordinate, manage and evaluate care for groups of patients in complex health systems. Master's-degree education is proposed for piloting the preparation of clinical nurse leaders. Close coordination with nurse executives and administrators to develop the new education program and new models for care delivery is planned. Critical components of the pilot testing will be evaluation of the patient and nurse outcomes associated with the use of clinical nurse leaders and focused work to develop a new legal scope and credentials for them.

Milton, C. (2007). Information and human freedom: nursing implications and ethical decision-making in the 21st century. *Nursing Science Quarterly, 20* (1), 33-36.

ABSTRACT: With globalization and the increasing volume of health care information available to people, questions surface as nurses contemplate and envision what role and how our nursing theory-guided discipline ought to be lived with colleagues of other disciplines, each other and those we serve in the 21st century. This column begins a path of ethical exploration and possible implications for the opportunities and challenges associated with the information age in nursing research, practice and education. Discussion focuses on the disciplinary responsibilities for information giving and receiving; coming to know, human freedom, and decision-making in the human-universe-health process.

Perez, E., (2009). Ehealth: how to make the right choice. *Nursing Forum. 44* (4), 277-282.

ABSTRACT: TOPIC: The online health promotion phenomenon is a pivotal movement toward consumer empowerment. The challenges for the 21st century are to create meaningful, accurate online health communication interventions that successfully change behavior and improve health. PURPOSE. The Internet is a valuable tool for health promotion, self-care tools and decision aids components for a high-quality care. The nurse educator ensures e-health sites

used meet the criteria for achieving optimal wellness for the consumer. SOURCES. Published literature. CONCLUSIONS. It is crucial for nurses to use reputable e-health sites for consumer engagement and education. Researchers and practitioners are exploring the phenomenon of e-health to gain a better understanding of how to engage these consumers in health behavioral change programs.

Starck, PL (1999). 21st century leadership in nursing education: need for trifocals. *Journal of Professional Nursing, 15* (5), 265-269.

ABSTRACTS: In this qualitative study, deans of top-ranked graduate nursing schools were interviewed to examine how they are approaching leadership issues into the next century. Discussion focused on managing change, handling problems, communication/leadership styles, models of governance, research productivity and expectations of faculty. The picture that emerged suggested that deans must be able to see objects and events from different perspectives, analogous to wearing trifocal eyeglasses. Deans described current roles, which were labeled as Director, Sensor and Negotiator. However, future roles will require a different set of skills and competencies. Deans described these roles as Consensus Builder, Risk Taker and Interactive Empowerer. Deans will need to react based on multiple points of vision and accommodate rapidly to maintain excellence in all areas of the mission.

Thompson, S. (2009). Embracing quality and safety education for the 21st century: building interprofessional education. *Journal of Nursing Education, 48* (12), 698-701.

ABSTRACT: The education of health professions students is rooted historically in time-honored and silo-bound traditions of pedagogy and content not easily influenced by outside forces. However, the quality chasm work of the Institute of Medicine, Institute of Healthcare Improvement, Quality and Safety Education for Nurses and other groups has led to a remarkable willingness to change at one academic health sciences university. This article describes one university's strategies, challenges, and successes in delivering interprofessional educational programs. Four interprofessional learning activities, developed using a plan-do-study-act model and focused on teamwork, quality and safety, are presented. Challenges and successes encountered are described as well as a curricular framework to enhance sustainability.