

Nursing during an era of change: A challenge and opportunity

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Abstract

Healthcare in the United States and other nations is changing dramatically at an unprecedented pace. In the United States, these sweeping changes are partially a result of the Affordable Care Act. Across the world including the United States, the other driving forces include an aging population, increasing prevalence of chronic, lifestyle related diseases, advances in technology, and pressures to lower costs. Nursing has always led and adapted to changes in healthcare delivery. Based upon a review of the literature and an analysis of forecasted changes, this paper outlines seven driving forces of change confronting nurses today. These changes are presented as both challenges and opportunities. These changes redefine the role of nurses today. Five specific changes in role are discussed as well as seven specific actions for nurses to take to embrace the vast changes characterizing healthcare today and shaping healthcare tomorrow. The key for nurses is to take deliberative action to seize opportunities arising from these changes, to reshape challenges embedded in these changes, and to stimulate a change agenda aligned with the unique role and competencies of nursing as a profession.

Key words

Affordable Care Act, Healthcare change, Healthcare innovation, Unique roles, Population health

Introduction

The healthcare landscape is changing in ways that are different from the past. The size, scale, scope, and seriousness of the change will radically shift the very nature of what all types of healthcare professionals do in their work. Nurses are no exception to this emerging trend. The Affordable Care Act is not the only driver of change but certainly represents a catalyst for innovation and change. In March of 2010, President Barack Obama signed landmark legislation mandating that individuals and small employers with more than 50 full-time workers offer health insurance or face a tax penalty. Other nations are also enacting legislation and other types of health reform such as The National Health and Hospitals Reform Commission in Australia ^[1] and the National Health Service in the United Kingdom ^[2]. The impact on health reform is not limited to politicians and policy makers but eventually hits the front lines. Salmela and colleagues ^[3] assert that nurse leaders enact changes when politicians cut healthcare costs.

It will be argued here that the stimulus for change is more than cutting costs. Jeffers and Astroth ^[4] have discussed the role of clinical nurse leaders in this era of healthcare reform. The focal point here will be not just nurse leaders but all nurses. In

a recent biennial survey of nurses^[5], the conclusion was that this new era of healthcare reform would be emphasize teams, care coordination, and payment incentives for more than volume including patient safety, quality, and efficiency.

Hence, the aim of this article is to identify the driving forces underlying these changes in the design, delivery and financing of health care, to describe the unique role that nursing can play in this changing landscape, and to explain specific actions that nurses can initiate in improving the health and well-being of individuals, families and most of all, communities. Auerbach and colleagues^[6] ask the following question when discussing this new era of health care reform: Will the nursing workforce be ready to respond to these challenges? This article responds in the affirmative and then presents several practical ways that nurses can respond to not just these challenges, but also the opportunities that emerge as a result of the reforms. This article seeks to build upon and expand previous work on the changing role of nurses such as the Institute of Medicine's report, *The Future of Nursing: Leading Change, Advancing Health*^[7]. Furthermore, this article will seek to make an explicit argument for an increased role and scope of responsibility for nurses as healthcare delivery in the United States and other nations in Europe shift resources away from the hospital while at the same time emphasize the contributions of a wider variety of health care professionals beyond physicians. Now is the time for nursing to stop trying to be mini-physicians and fit within the medical model and be true to the core values of nursing and help shape a wellness and healthcare delivery model.

Driving forces behind paradigm shift: From individual to population health

There are seven specific driving forces behind the increasing importance of community health and population health. These driving forces are largely based upon the observations of the author with empirical support to the extent possible given the fact that many of these forces are currently in motion or have yet to take place.

First, the Internal Revenue Service (IRS), the tax authority in the United States, is scrutinizing tax exempt, not-for-profit hospitals and healthcare organizations in ways that are distinct from the past. Specifically, healthcare organizations must not only demonstrate community benefit but also conduct a community health needs assessment every three years, set goals based upon the needs assessment and formulate strategies to achieve those goals. A 2010 decision of the Illinois Supreme Court, *Provena Covenant Medical Center v. Department of Revenue*^[8], spurred considerable discussion about community benefit policies and programs. Consequently, there has been increasing attention regarding the linkage between community benefit and population health^[9]. The potential impact on nursing is that they will be more involved in formulation and delivery of population health initiatives based upon a community health needs assessment^[10].

Second, the Patient Protection and Affordable Care Act (PPACA) or the Affordable Care Act (ACA) accelerated and legitimized a new type of organizational structure and new occupation onto the scene. The Accountable Care Organization (ACO) is the new organizational structure which was originally conceived by^[11] and the new occupation is a community health worker. ACOs are responsible for the health of a defined population of patients. Furthermore, financial incentives and disincentives are tied to how well the ACO meets the individual and population health needs of the defined population. Regarding community health workers, they will go into the community to conduct screenings, to engage in case finding and to deliver care aligned with their education and training. Community health workers work as part of a multidisciplinary team, along with nurses in various roles. Section 5313 of PPACA explicitly mentions the role of CHWs as an integral part of the healthcare team. Martinez and colleagues^[12] argue based upon a review of the literature that the full utilization of CHWs will lower the costs of healthcare primarily due to the emphasis on prevention but also the substitution of a higher cost worker with a lower cost worker. The potential impact on nursing has been previously discussed by Dovlo^[13] who describes how tasks are shifting from nurses to community health workers.

Third, a paradigm shift is occurring in which the demand for healthcare is being placed on the agenda of healthcare delivery organizations in a way that has never been the case in the history of healthcare in the United States. There was a significant increase in the population from the end of World War II through the 1960s^[14]. This age cohort of individuals

is often referred to “Baby Boomers”^[15]. Not only is this age cohort aging but also enjoying an increase in life expectancy and sadly an increase in increasing life chronic, lifestyle related diseases^[16]. An American Hospital Association report titled “When I’m 64, How Boomers Will Change Health Care”^[17] argues that to meet the health care challenges of this age cohort “...will require more resources, new approaches to health care delivery and a greater focus on wellness and prevention.” Given this increase in the actual population exacerbated by the declining health status of this generation, it is clear that if health and well-being are to be improved for this generation and other generations, then healthcare must be designed and delivered in innovative ways. Three examples of innovation are ACOs, retail health clinics such as Walgreen’s Take Care Clinics, a clinic housed in a retail pharmacy store, and patient centered medical homes. Rohr and colleagues^[18] define a retail walk-in clinic as serving patients with low acuity conditions and staffed largely by nurse practitioners and physician assistants. Another innovation is the policy and fiscal support of nurse-managed health centers^[19]. This paradigm shift places costs and the management of healthcare costs as part of the role of not only healthcare administrators but providers of all types including community health nurses. The conceptual road map for transforming the healthcare delivery system in the United States is the Triple Aim^[20]. The Triple Aim contains three elements: enhancing population health, improving the experience of care, and lowering the per capita cost of care^[11]. One of the elements of the Triple Aim is cost per case. The key is to balance cost with access and quality. Even trickier is to align patient, provider, and individual/family behaviors with the Triple Aim. The potential impact for nursing amidst this changing delivery paradigm is for the health care system to become less hospital centric and physician centric and more health centric, community centric and health care professional centric.

Fourth, the payment system is shifting from a volume-based reimbursement system to a value-based reimbursement system. However, it appears that a mixed model consisting of both types of reimbursement systems will be the norm. This means that healthcare organizations general will no longer be solely incentivized to produce more services. In fact, they will be incentivized to keep individuals from being patients by keeping them healthy and symptom free. They will also be incentivized to reduce hospital re-admissions and hospital infection rates. Furthermore, they will now be put into the position to treat those who traditionally lacked health insurance and to treat a projected 16 million additional patients covered by Medicaid^[21]. The potential impact for nursing is the creation of unique opportunities and challenges such as the increasing recognition by health insurance companies of Advanced Practice Nurses as autonomous providers.

Fifth, budgets are being reduced in the federal government as well as states, counties, and local municipalities. These cuts are spread across the continuum of healthcare from prevention to quaternary care. As such, healthcare organizations are forced to do “more with less”. Part of the drive to lower and contain costs is due to the reality that healthcare represents 17% of the gross domestic product^[22]. The pressure to contain if not reduce costs will become more pronounced when an estimated 32 million^[23] Americans will have access to health insurance coverage by 2019 with expanded coverage beginning in January of 2014. In fact, it has been estimated that by 2019 due to an increase in coverage, that annual primary care visits will increase anywhere between 15.07 and 24.26 million visits keeping physician productivity constant^[24]. Given this sudden increase in the number of patients with coverage, it will be even more challenging to provide to provide safer, higher quality prevention and treatment services. The potential impact for nursing will be to develop systems and processes aimed at coordinating care with the aim of high quality, lower cost, and high patient satisfaction.

Sixth, community as a geographic place, remains to be an important focal for the delivery of preventive and treatment services. Virtual communities are rapidly increasing. These communities leverage technology. In particular, there are more communities online such as Facebook and on smartphones such as Twitter. As an example, Katz and colleagues^[25] demonstrated that a community-based mHealth diabetes self-management program using cell phones resulted in improved diabetes standard of care adherence, reduced hospital admissions, and decreased emergency department visits among those individuals who did not drop out of the investigation. This does not mean that traditional settings such as Federally Qualified Health Centers are destined to decline. To the contrary, the Affordable Care Act mandates funding for additional centers. More specifically, an \$11 billion Community Health Center Trust Fund spanning 5 years is part of the ACA^[26]. As the notion of community is broadened beyond a particular geographic place, the challenge is to design and deliver

healthcare services to these virtual communities. The potential impact for nursing will be to design and delivery tele-health, e-health and mobile health services to assess, treat, and educate the e-patient^[27].

Seventh, there are societal concerns such as the environment and violence, which have an impact on maintaining the health of the population. Regarding the environment, hydraulic fracturing or fracking is big business. Fracking occurs when "...chemical mixtures are injected into wells to break up rock formations and release gases"^[28]. Fracking results in high paying jobs^[29]. Steady employment improves the economic health of the community. This often improves mental and physical health outcomes. However, the potential health effects of fracking, such as contaminated water, on the environment are not fully appreciated, known or understood. However, it has been asserted by researchers^[30] that fracking may have long-term health effects, although it is well-recognized that further research is warranted before any definitive conclusions can be drawn. The challenge is how to balance two competing needs; need for high paying jobs and the need for a safe environment. The potential impact of nursing as advocates in general but related to natural gas drilling has been described by Lauver^[31].

Another concern is the persistent deaths of youth in our cities due to a drug culture, entrenched poverty, ready access to firearms and gang warfare. In December of 2012, deaths by firearms appeared in an unfamiliar place and impacted atypical murder victims. This place was Newtown, Connecticut and the victims were middle class elementary school children. These societal concerns, which have an impact on health, cannot be addressed by the biomedical model but can be addressed by the social determinants model which involves a new way of thinking as described by others^[32, 33]. Willensky and Satcher^[34] define the social determinants of health as including "...the effects of poverty, education, early childhood education, treatment of women, employment opportunities, and individual empowerment on human's health status and life expectancy (page w194)." More recently, Hacker and Walker^[35] argue that the social determinants of disease, such as poverty and housing, must be addressed if the health of the population is to be improved. Regarding the role of nurses, Mahony and Jones (2013) conclude, "For nurses of the 21st century to improve the health of U.S. citizens and promote health equity effectively, we must first intently address the social determinants of health in our current nursing educational models, research agendas, and public health policies (page 280)."

All of the seven driving forces point to the same direction as described by Halfon and Conway^[37] when describing the goal of the healthcare system today, "A health system's goal should be to optimize health and minimize disease burden over the life span, for both individuals and the population (page 1569)." The prevention and treatment of osteoarthritis (OA) will be used an illustrative example of how these seven driving forces are changing the role of nurses.

Luong and colleagues^[38] describe how SDH is related to both the development and outcomes of OA. There are currently no pharmacological approaches to treating OA^[39]. Hence, it is recommended that an integrative approach be used in the prevention and treatment of OA^[39, 40]. Sciamanna and colleagues^[41] developed a web-based, personalized system aimed at improving OA quality of care. The results confirmed the utility of this web-based, personalized system.

Murphy and Helmick^[42] write, "As the largest occupational group in health care delivery, nurses can be a force in changing how OA is perceived and managed on health care's front lines (page 88)." It will be argued here that nurses not only have a unique role to play with regard to OA but also other diseases and illnesses.

Unique role of nursing: Moving beyond the bed

Nurses are uniquely qualified to assume a leadership role in addressing each one of these seven driving forces of the changing healthcare landscape. Each one of these roles rests on a solid foundation of 2.8 million registered nurses (RNs) who provide healthcare services in diverse settings^[6]. Yet, despite the fact that RNs represent the largest proportion and absolute number of healthcare workers in the United States, the U.S. Department of Health & Human Services^[43] projects a shortage approaching one million RNs by 2025. To narrow the gap between the increasing demand for health care services, partially as a result of increasing coverage due to the enactment of the PPACA, and the growing shortage of RNs,

it has been suggested by Brennan and Marx ^[44] that to close this gap “...require the engagement for nurses with innovations and community-based services...(page 456).” This is a formidable number to magnify the impact of these roles particularly as it relates to community health, advocacy and change management. Five distinct roles will be identified here.

- Leading and managing community health workers (CHWs).
- Developing, disseminating, and evaluating prevention and utilization communication messages across multiple platforms.
- Serving as advocates.
- Acting as agents of change and innovation.
- Working as financial stewards.

Leading and managing CHWs

CHWs are not new. They have been around for nearly 60 years ^[45]. Furthermore, the positive impact of CHWs has been described such as promoting more efficient use of health care services from a cost perspective by emphasizing primary and preventive care ^[12]. The ACA provides for funding to increase the number of CHWs. Felix and colleagues ^[46] found that the cost of care was decreased when community health workers were used in care models which served as community-based alternatives to institutional care for the elderly. Braun and colleagues ^[47] discuss the potential of further leveraging the skills and scope of community health workers by utilizing mobile technologies.

Nurses who embrace collaborating with CHWs may experience some of the same benefits as other health care providers such as nurse practitioners and physicians. As an example of the benefits, Allen and colleagues ^[48] concluded that NP/CHW teams are cost effective delivery mode for patients with existing CVD or at high risk of developing CVD. According to Hoyert and Xu ^[49], relying upon vital statistics from the Center for Disease Control, diseases of the heart are ranked as the largest cause of mortality in the United States. In fact, cardiovascular disease has been found to be the leading cause of death not only in the United States but also other developed and developing countries ^[50]. The role of CHWs in narrowing this mortality gap by focusing upon community-based interventions aimed at reducing risk factors such as hypertension have been described elsewhere ^[50]. In fact, the American Society of Hypertension has launched a community outreach program in which the role of CHWs is clearly defined. Nurses will not only be called upon to lead NP/CHW teams but all types of teams. Auerbach and colleagues ^[6] include leading and managing teams as one of the emerging roles of nurses in this era of health care reform.

Gary and colleagues ^[51] describe how CHWs are closely supervised by nurses. As an illustrative example and given the fact that heart disease is the leading cause of death in the United States ^[52], Travis and colleagues ^[53] describe the positive impact on quality of life based upon model of care focusing upon a nurse managed population based managed care clinic for patients with heart failure. The specific improvements in quality of life were measured by the SF-12 assessment as well as measures of physical and mental functioning. Peers for Progress ^[54] show the specific duties of CHWs below in Table 1.

Table 1. Definition of CHWs in the ACA (§5313)

An individual who promotes health or nutrition within the community in which the individual resides:

- A. By serving as a liaison between communities and health care agencies.
- B. By providing guidance and social assistance to community residents.
- C. By enhancing community residents’ ability to effectively communicate with health care providers.
- D. By providing culturally and linguistically appropriate health and nutrition education.
- E. By advocating for individual and community health.
- F. By providing referral and follow-up services or otherwise coordinating care.
- G. By proactively identifying and enrolling eligible individuals in federal, state, and local private or nonprofit health and human services programs.

As shown in Table 1, the definition of community is centered on a geographic place. The caution moving forward is that community is larger than a geographic place. The opportunity for nurses is to fully leverage the expertise of CHWs by both allowing and encouraging them to work at the “top of their license.” The Institute of Medicine has recommended that registered nurses attain a bachelor degree for many reasons ranging from providing acute care for the increasing number of patients and evidence suggesting that a bachelors baccaluate-prepared nurses are associated with better surgical outcomes than those without a bachelor’s degree ^[55]. In the United States, CHWs similar to other health care professionals are licensed and regulated by each of the 50 states and territories ^[56]. Moreover, the IOM’s *Future of Nursing: Leading Change, Advancing Health* ^[7] report also recommends that nurses obtain higher levels of education.

Beyond providing direct care, the role of nurses will move upstream to address the social determinants of health (SDH) as previously discussed here from a US perspective. The World Health Organization defines SDH as “the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels” ^[57].

Developing, disseminating, and evaluating prevention and utilization communication messages across multiple platforms

The opportunities and challenges in the utilization of m-health technologies in health care and within nursing have been discussed elsewhere. However, it is agreed here that these mobile technologies have the potential to fundamentally change the design and the delivery of healthcare ^[58] and the role of nurses ^[59].

The role of nurses ought to be not only to critically evaluate the efficacy, efficiency, and costs of these novel mobile technologies but also to continue to develop and pioneer these technologies given the unique knowledge and training of nurses.

As it stands right now, since these technologies are relatively new, a fair question is whether they are safe, efficacious and affordable. However, based upon a systematic review, mobile health interventions are showing some promise particularly as it relates to using this technology to make diagnoses, remind patients of appointments and support providers with respect to both diagnosis and management ^[60]. In one investigation of nurses using m-health technologies, it was found that these technologies had a positive impact on care as well as quality of work life ^[61]. Hence, for nurses is to embrace the promise of these novel technologies remembering that current technology such as the digital thermometer at one point in time was novel and even controversial. Beyond advancing technologies, it is relatively well-established that it takes far too long to translate research findings into nursing practice ^[62]. Nurses have a role to play in translation knowledge from research into practice. This role necessitates that nurses both view themselves and act as agents of change and innovation.

Acting as agents of change and innovation

Our survival as a human race depends upon the ability to manage change. This is the case within healthcare organizations. Adults in the United States receive less than 55% of recommended care ^[63]. The role of nurses in innovating and changing not just nursing care but healthcare at the level of the individual patient, the family, and the community has never been more challenging and exciting. Everett and Sitterding ^[64] comment about the changing role of nurses with regard to innovation below:

“By the year 2020, as hospitals morph into entirely different kinds of service providers, nurses too will look altogether different. Those with the capacity to embrace disruptive innovation, along with the unknowns that accompany it, will be successful at guiding their organizations into the future (page 194).”

As an illustration of nurses acting as agents of change, Marshall and colleagues ^[65] concluded, “Using nurses as agents of change will help standardize nutritional practices and ensure that critically ill patients are optimally fed (page 186).” This conclusion was based upon observing how nurses leveraged nutritional guidelines as members of a multi-disciplinary team

and made clinical innovations in the critical care unit which resulted in improved outcomes and eventually a new way of providing nutrition to critical care patients.

All too often, it is wrongly assumed that innovation and change management are managerial actions. This is not the case. However, the role of clinical nurse leaders is paramount to creating an environment in which nurses feel comfortable and supported to innovate and instigate changes. This role on the part of clinical nurse leaders is portrayed by Buerhaus and colleagues ^[5].

“If RNs are provided with strong clinical leadership, participate in developing an achievable vision of the future, and if supported to take risks and innovate to improve the quality and efficiency of care delivery, then the profession is likely to thrive rather than struggle during the health reform years that lie ahead (page 6).”

Richer and colleagues ^[66] regard all health care workers, including nurses, as agents of change. Ackerman ^[67] categorized organization change into three types: developmental; transitional; and transformational. Nurses can become involved in any of these three types of change. In fact, nurses have been found to initiate change ^[66]. One of the changes that nurses may have to initiate is to raise the issue of not just the cost of care from the provider perspective but also the affordability of care from the patient perspective. In fact, the IOM's *Future of Nursing: Leading Change, Advancing Health* ^[7] report recommends that nurses collaborate with physicians and other healthcare professionals to redesign care.

Working as financial stewards

There is a link between quality, cost and affordability. For instance, Adams and Kaplow ^[68] assert, “Maintaining quality while being financial stewards is essential in today's health care climate (page 83).” They further describe the role of nurses in saving \$1.2 million per year by implementing a sitter program without having a negative effect on fall rates ^[70]. Sitters are individuals who sit alongside patients to reduce falls ^[69]. Another example of the role of nurses as financial stewards occurs when nurses are part of multidisciplinary value-based purchasing teams who may compare different types of shoulder implants ^[70]. These types of teams which include nurses have been shown to be successful with spine surgery ^[71]. The difference in financial results has been attributed to many factors including the use of interdisciplinary teams which include nurses in key roles.

Allen and colleagues ^[48] found in an investigation of a nurse practitioner/community health worker team with CVD patients that lowering systolic BP by 1% resulted in a cost reduction of \$157 and by lowering diastolic BP by 1% resulted in a cost reduction of \$190. And cost saving were also found with a cost reduction of \$140 per 1% drop in Hb A1c and \$40 per 1% drop in low-density lipoprotein cholesterol ^[48]. These results compare to the usual care without a community health worker. The key challenge for nurses moving forward is to reframe lowering costs for the provider organization to making needed preventive, diagnostic, treatment and rehabilitation services more affordable. Coverage without affordability creates a barrier to access and utilization. Barriers to access and utilization have an impact on health status and eventually cost.

Serving as advocates

Advocacy is part of the DNA of nursing and nurses as discussed by Selanders and Crane ^[72] who write, “Effective use of an interpersonal tool, such as advocacy, enhances the care-giving environment. Nightingale used advocacy early and often in the development of modern nursing ^[73] categorizes nursing advocacy as falling into four branches: patient advocacy, issues advocacy, community and public health advocacy, and professional advocacy. The key for nurses is to adopt a balanced approach to advocacy. This is important to be perceived as credible and interested in more than what is best for the profession of nursing. What is best for the medically underserved?”

Another concrete area for advocacy is the inclusion of advanced practice nurses serving as operational heads of Accountable Care Organizations ^[19]. Although not expressly forbidden by the Affordable Care Act, physicians seem to be

in the driver's seat. This advocacy and lobbying agenda fits squarely with one of the recommendations from the IOM's *The Future of Nursing: Leading Change, Advancing Health*^[7] report. This area for advocacy can be framed from each of the four branches of nursing advocacy. First, from a patient advocacy point of view, the emphasis can be placed upon increasing access. Second, from an issues advocacy perspective, the focal point can be that one of the cornerstones of a new delivery model is the ACO and hence this model must be designed based upon the best available evidence. Third, from a community/public health standpoint, if access is increased particularly for preventive services, then the burden of disease is lessened and quality of life is increased. Fourth, from a professional advocacy viewpoint, the central issue would be to fight for nurses to have a legitimate place in the new care delivery models based upon their education, training, experience and outcomes rather than politics, posturing and profit protection.

Global implications: Nursing in a new era of health care delivery

The focus of this paper has been on the ever-increasing and expanding role of nurses in not simply providing nursing care but in the redesign of the health care delivery system itself beginning with health promotion and ending with palliative care/hospice. The World Health Organization^[58] emphasizes the changing role of primary care across the globe and how these changes mandate a shift in both the design and staffing of primary care delivery models. Sherman and colleagues^[74] note that many of the nursing leadership challenges across the globe are more similar than they are different. Given that the emphasis in this paper is on the United States, there are important lessons for nurses in other nations just as there are important lessons for U.S. nurses from other countries.

Specific actions for nursing in a new era of health care delivery

The foundation for these four specific actions is based upon the well-established fact that community health nurses have played an instrumental role in the provision of health education and promotion services^[75-77]. The emphasis on health education and promotion is not limited to public health professionals or community health nurses. In this new delivery of not medical care and not just health care but also wellness, the role of nurses must be expanded beyond the diagnosis and treatment of diseases. This does not diminish the importance of clinical nursing in any way.

Accordingly, nurses ought to consider the following specific actions to not only keep pace with the changing tide of healthcare delivery but to actually serve as innovators and change agents on behalf of individual patients, their families, the community, and the profession of nursing.

- 1) Incorporate the Triple Aim into your daily work as a nurse regardless of your particular setting and specific role.
- 2) Move upstream to prevent the underlying risk factors at the individual, family, community, and social level either serving as a causal factor for chronic disease such as Type II diabetes or exacerbating the health status of those who suffer from chronic disease.
- 3) Embrace the changing dialogue about healthcare as noted by changes in vocabulary such as the shift from "medical care" to "health care" and even "well care" as well as the shift from "non-physicians" to "caregivers."
- 4) Catalyze innovations and changes on behalf of patients and those individuals who should never become patients if they prevent or manage their underlying risk factors.
- 5) Advocate on behalf of nursing and patients their families, the community and society rather than primarily being the passive recipient of political rhetoric, legislative mandates, accreditation standards, and board edicts.
- 6) Recapture the care and compassion of nursing which makes nursing truly distinctive among all professions not just health care professions.
- 7) Care for the caregiver and help the helper.

References

- [1] Betihavas V, Newton PJ, Du HY, Macdonald PS, Frost SA, Stewart S, Davidson PM. Australia's health care reform agenda: Implications for the nurses' role in chronic heart failure management. *Aust Crit Care*; 24: 189-197. PMID:20951057 <http://dx.doi.org/10.1016/j.aucc.2010.08.003>
- [2] Doherty C. A qualitative study of health service reform on nurses' working lives: Learning from the UK National Health Service (NHS). *Int J Nurs Stud*. 2009; 46: 1134-1142. PMID:19249783 <http://dx.doi.org/10.1016/j.ijnurstu.2009.01.014>
- [3] Salmela S, Eriksson K, Fagerstrom L. Nurse leaders' perceptions of an approaching organizational change. *Qualitative Health Research*.
- [4] Jeffers BR, Astroth KS. The clinical nurse leader: Prepared for an era of healthcare reform. *Nurs Forum* 2013.
- [5] Buerhaus PI, DesRoches C, Applebaum S, Hess R, Norman LD, Donelan K. Are nurses ready for health care reform? A decade of survey research. *Nurs Econ*. 2012; 30: 318-329. PMID:23346730
- [6] Auerbach DI, Staiger DO, Muench U, Buerhaus PI. The nursing workforce in an era of health care reform. *N Engl J Med*. 2013; 368:1470-1472. PMID:23594001 <http://dx.doi.org/10.1056/NEJMp1301694>
- [7] Institute of Medicine The Future of Nursing: Leading Change, Advancing Health, 2010. Available from: <http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>
- [8] Supreme Court of Illinois: Provena Covenant Medical Center v. Department of Revenue. Available from: <http://www.state.il.us/court/Opinions/SupremeCourt/2010/March/107328.pdf>
- [9] Martin, M. Community benefit: beyond health fairs and form 990. *Healthcare Financial Management*. 2013; 67(1): 84-90.
- [10] Stanhope, M. & Lancaster, J. *Public health nursing: Population-centered health care in the community* 8th edition 2011. New York: Elsevier.
- [11] Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Affair*. 2008; 27: 759-769. PMID:18474969 <http://dx.doi.org/10.1377/hlthaff.27.3.759>
- [12] Martinez, J., Ro, M., Villa, N.W., Powell, W., & Knickman, J.R. Transforming the delivery of care in the post-health reform era: What role will community health workers play. *Am J Public Health*. 2011; 101(12): e1-e5.
- [13] Dovlo D, Using mid-level cadres as substitutes for internationally mobile health professionals in Africa. A desk review. *Hum Resour Health*. 2004; 2(7).
- [14] U.S. Department of Health & Human Services. A profile of older Americans: 2010. Available from: http://www.aoa.gov/aoaroot/aging_statistics/profile/2010/docs/2010profile.pdf
- [15] Holtzman, D. & Anderson, L.A. Aging and health in America: A tale from two Baby Boomers. *Am J Public Health*. 2012; 102(3): 192. PMID:22390499 <http://dx.doi.org/10.2105/AJPH.2011.300647>
- [16] Anderson, L.A., Goodman, R.A., Holtzman, D., Posner, S.F. & Northridge, M.E. Aging in the United States: opportunities and challenges for public health. *Am J Public Health*. 2012; 102(3): 393-395. PMID:22390500 <http://dx.doi.org/10.2105/AJPH.2011.300617>
- [17] American Hospital Association. When I'm 64. How Boomers will change health care, 2012. Available from: www.aha.org/content/00-10/070508-boomerreport.pdf
- [18] Rohr, J.E., Angstman, K.B. & Garrison, G. Early return visits by primary care patients: A retail nurse practitioner clinic versus standard medical care. *Pop Health Manag*. 2012; 15(4): 216-219. PMID:22409532 <http://dx.doi.org/10.1089/pop.2011.0058>
- [19] Tillet, J. Practicing to the full extent of our ability: The roles of nurses in healthcare reform. *Journal of Perinatal and Neonatal Nursing*. 2011; 25(2): 94-98.
- [20] Institute for Healthcare Improvement (2012). Triple Aim Initiative. Available from: <http://www.ihl.org/offerings/Initiatives/TripleAim/Pages/default.aspx>
- [21] Congressional Budget Office: Estimates for the Insurance Coverage Provisions of the Affordable Care Act Updated for the Recent Supreme Court Decision. Available from: <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43472-07-24-2012-CoverageEstimates.pdf>
- [22] Truffer C J, Keehan S, Smith S, Cylus J, Sisko A, Poisal JA., et al. Health spending projections through 2019: The recession's impact continues. *Health Affair*. 2010; 29: 522-529. PMID:20133357 <http://dx.doi.org/10.1377/hlthaff.2009.1074>
- [23] Elemendorf D. H.R. 4872, Reconciliation Act of 2010. Congressional Budget Office and Staff of the Joint Committee on Taxation. Available from: <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/113xx/doc11379/amendreconprop.pdf>
- [24] Hofer AN, Abraham, JM, Moscovice I. Expansion of coverage under the Patient Protection and Affordable Care Act and Primary Care Utilization. *Milbank Q*. 2011; 89(1): 69-89. PMID:21418313 <http://dx.doi.org/10.1111/j.1468-0009.2011.00620.x>
- [25] Katz R, Mesfin T, Barr K. Lessons From a Community-Based mHealth Diabetes Self-Management Program: "It's Not Just About the Cell Phone". *J Health Comm*. 2012; 17(sup1): 67-72.
- [26] Hawkins, D. & Groves, D. The future role of community health centers in a changing health care landscape. *Journal of Ambulatory Care Management*. 2011; 34(1): 90-99. PMID:21160356 <http://dx.doi.org/10.1097/JAC.0b013e3182047e87>

- [27] Innocent, K. Tech talk: mobile apps for nurses. *Nursing 2013 Critical Care*. 2010; 5(5): 45-47.
<http://dx.doi.org/10.1097/01.CCN.0000387741.89111.e1>
- [28] Brown VJ. Industry Issues: Putting the Heat on Gas. *Environ Health Perspect*. 2007; 115(2): A76. PMID:17384744
<http://dx.doi.org/10.1289/ehp.115-a76>
- [29] Mitka M. Rigorous evidence slim for determining health risks from natural gas fracking. *JAMA: JAMA*. 2012; 307(20): 2135-2136. PMID:22618904 <http://dx.doi.org/10.1001/jama.2012.3726>
- [30] Colborn T, Kwiatkowski C, Schultz K, Bachran M. Natural gas operations from a public health perspective. *Human and Ecological Risk Assessment: An International Journal*. 2011. 17(5): 1039-1056. <http://dx.doi.org/10.1080/10807039.2011.605662>
- [31] Lauver LS Environmental health advocacy: An overview of natural gas drilling in northeast Pennsylvania and implications for pediatric nursing. *J Pediatr Nurs*. 2012; 27(4): 383-389. PMID:22703686 <http://dx.doi.org/10.1016/j.pedn.2011.07.012>
- [32] Marmot, M. & Wilkinson, R.G. Z. Social determinants of health. 2nd edition. Oxford, UK: Oxford University Press, 2006.
- [33] Satcher D. Include a social determinants of health approach to reduce health inequities. *Public Health Rep*. 2010; 125(Suppl 4): 6.
- [34] Willensky GR, Satcher D. Don't forget about the social determinants of health. *Health Affairs*. 2009; 28(2): w194-198. PMID:19151007 <http://dx.doi.org/10.1377/hlthaff.28.2.w194>
- [35] Hacker K. & Walker DK. Achieving population health in accountable care organizations. *Am J Public Health*. 2013: e1-e5.
- [36] Mahony, D. & Jones, EJ. Social determinants of health in nursing education, research, and health policy. *Nurs Sci Q*. 2013; 26(3): 280-284. PMID:23818478 <http://dx.doi.org/10.1177/0894318413489186>
- [37] Halfon N, Conway PH. The opportunities and challenges of a lifelong health system. *N Engl J Med*. 2013; 368: 1569-1571. PMID:23614582 <http://dx.doi.org/10.1056/NEJMp1215897>
- [38] Luong ML, Cleveland RJ, Nyrop KA, Callahan LF. Social determinants and osteoarthritis outcomes. *Aging health*. 2012; 8(4): 413-437. PMID:23243459 <http://dx.doi.org/10.2217/ah.12.43>
- [39] Sevani S, Grogan SP. Osteoarthritis: detection, pathophysiology, and current/future treatment strategies. *Orthop Nurse*. 2013; 32(1): 25-36. PMID:23344487 <http://dx.doi.org/10.1097/NOR.0b013e31827d96da>
- [40] Robbins L, Kulesa MG. The state of the science in the prevention and management of osteoarthritis. *Am J Nurs Social determinants and osteoarthritis outcomes*. 2012; 112(3 Suppl 1): S3-S11.
- [41] Sciamanna, CN, Harrold LR, Manocchia M, Walker NJ, Mui S. The effect of web-based, personalized, osteoarthritis quality improvement feedback on patient satisfaction with osteoarthritis care. *Am J Med Qual*. 2005; 20(3): 127-137. PMID:15951518 <http://dx.doi.org/10.1177/1062860605274518>
- [42] Murphy L, Helmick CG. The impact of osteoarthritis in the United States: a population-health perspective. *Am J Nurs*. 2012; 112(3): S13-S19. PMID:22373741
- [43] U.S.Department of Healthh & Human Services (2009). Health professions, 2009. Available from:
<http://www.iom.edu/~media/Files/Report%20Files/2009/Redesigning-Continuing-Education-in-the-Health-Professions/RedesigningCEreportbrief.pdf>
- [44] Brennan AMW, Marx-Sullivan E. The paradigm shift. *Nurs Clin North Am*. 2012; 47: 455-462. PMID:23137598
<http://dx.doi.org/10.1016/j.cnur.2012.09.001>
- [45] Balcazar H, Rosenthal E L, Brownstein JN, Rush CH, Matos S, Hernandez L. Community health workers can be a public health force for change in the United States: Three actions for a new paradigm. *Am J Public Health*. 2011; 101: 2199-2203. PMID:22021280 <http://dx.doi.org/10.2105/AJPH.2011.300386>
- [46] Felix HC, Mays GP, Stewart MK, Cottons N, Olson M. The CARE SPAN: Medicaid savings resulted when community health workers matched those with needs to home and continuity of care. *Health Affairs*. 2011; 30(7): 1366-1374.
- [47] Braun R, Catalani C, Wimbush J, Israelski D. Community health workers and mobile technology: A systematic review of the literature. *PLoS One* 8(6): e65772. PMID:23776544 <http://dx.doi.org/10.1371/journal.pone.0065772>
- [48] Allen J, Dennison C, Szanton S, Frick, K. Cost-effectiveness of nurse practitioner/community health worker care to reduce cardiovascular health disparities. *J Cardiovasc Nurs*, 2013.
- [49] Hoyert DL, Xu J. Deaths: preliminary data for 2011. *National Vital Statistics Report*. Available at:
http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf
- [50] Ferdinand KC, Patterson KP, Taylor C, Fergus IV, Nasser SA, Ferdinand DP. Community-based approaches to prevention and management of hypertension and cardiovascular disease. *The J Clin Hypertens* 14 (5): 336-343. PMID:22533661
<http://dx.doi.org/10.1111/j.1751-7176.2012.00622.x>
- [51] Gary TL, Batts-Turner M, Yeh HC, Hill-Briggs F, Bone LR, Wang N, Brancati F. The effect of a nurse case manager and a community health worker team on diabetic control, emergency department visits, and hospitalizations among urban African Americans with type 2 diabetes mellitus: a randomized controlled trial. *Arch Intern Med* 169 (19): 1788.
- [52] Centers for Disease Control. Deaths: final data for 2009. Available from:
http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_03.pdf

- [53] Travis L, Hardin SR, Benton ZG, Austin L, Norris LW. A nurse-managed population based heart failure clinic: sustaining quality of life. *J Nurs Educ Pract.* 2012; 2(4): 1-9.
- [54] Peers for Progress. Opportunities for peer support in the Affordable Care Act. Issue Brief. 2013. http://peersforprogress.org/wp-content/uploads/2013/03/20130313_peer_support_and_the_affordable_care_act_3713.pdf (15 June date last accessed).
- [55] Kutney-Lee A, Sloane D, Aiken LH. An increase in the number of nurses with baccalaureate degrees is linked to lower rates of postsurgery mortality. *Health Affairs* 32 (3): 579-586. PMID:23459738 <http://dx.doi.org/10.1377/hlthaff.2012.0504>
- [56] National Health Care for the Homeless Council. Policy brief: Community health workers: financing & administration. August 2011. Available from: <http://www.nhchc.org/wp-content/uploads/2011/10/CHW-Policy-Brief.pdf>
- [57] World Health Organization. World Health Report 2008. Primary Health Care (Now More than Ever). World Health Organization. Geneva. Available from: <http://www.who.int/whr/2008/en/>
- [58] Patil, S. & Cross, R. Where we're going, we don't need appointments: the future of telemedicine in IBD. *Inflamm Bowel Dis.* 2012; 18: 2199-200. <http://dx.doi.org/10.1002/ibd.23014>
- [59] Doswell WM, Braxter B, Dabbs AD, Nilsen W, Klem ML. mHealth: Technology for nursing practice, education, and research. *J Nursing Educ Practice.* 2013; 3(10): 99.
- [60] Free C, Phillips G, Watson L, Galli L, Felix L, Edwards P, Haines A. The Effectiveness of Mobile-Health Technologies to Improve Health Care Service Delivery Processes: A Systematic Review and Meta-Analysis. *PLoS Med.* 2013; 10(1): e1001363. PMID:23458994 <http://dx.doi.org/10.1371/journal.pmed.1001363>
- [61] Petrucka P, Bassendowski S, Roberts H, Hernandez C. Enhancing Nurses' Care and Knowledge through Access to Technology: An International m-Health Exemplar. *Can J Nurs Res.* 2013; 45(1):74-91. PMID:23789528
- [62] Curran JA, Grimshaw JM, Hayden JA, Campbell B. Knowledge translation research: the science of moving research into policy and practice. *J Contin Educ Health Prof.* 31: 174-180. PMID:21953658 <http://dx.doi.org/10.1002/chp.20124>
- [63] McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med.* 2003; 348: 2635-45. PMID:12826639 <http://dx.doi.org/10.1056/NEJMs022615>
- [64] Everett LQ, Sitterding MC. Building a Culture of Innovation by Maximizing the Role of the RN. *Nurs Admin Quarterly.* 2013; 37(3): 194-202. PMID:23744465 <http://dx.doi.org/10.1097/NAQ.0b013e318295ed7f>
- [65] Marshall, AP, Cahill NE, Gramlich L, MacDonald G, Alberda C, Heyland DK. Optimizing nutrition in intensive care units: empowering critical care nurses to be effective agents of change. *Am J Crit Care.* 2012; 21(3): 186-194. PMID:22549575 <http://dx.doi.org/10.4037/ajcc2012697>
- [66] Richer M, Ritchie J, Marchionni C. If we can't do more, let's do it differently: using appreciative inquiry to promote innovative ideas for better health care work environments. *J Nurs Manag.* 2009; 17: 947-955. PMID:19941568 <http://dx.doi.org/10.1111/j.1365-2834.2009.01022.x>
- [67] Ackerman L. Development, transition or transformation: the question of change in organizations. In *Organization Development Classics 1997.* (D. Van Eynde & J. Hoy, eds.), pp. 45-59. Jossey Bass, San Francisco, CA.
- [68] Adams, J., & Kaplow, R. A sitter-reduction program in an acute health care system. *Nurs Econ.* 2012; 31(2): 83-89.
- [69] Spiva L, Feiner T, Jones D, Hunter D, Petefish J, Van Brackle L. An evaluation of a sitter reduction program intervention. *J Nurs Care Qual.* 27 (4): 341-345. PMID:22692004 <http://dx.doi.org/10.1097/NCQ.0b013e31825f4a5f>
- [70] Black, E. M., Higgins, L. D., & Warner, J. J. Value-based shoulder surgery: practicing outcomes-driven, cost-conscious care. *J Shoulder Elbow Surg.* 2013; 22(7): 1000-1009. PMID:23659804 <http://dx.doi.org/10.1016/j.jse.2013.02.008>
- [71] Weinstein JN, Brown PW, Hanscom B, Walsh T, Nelson EC. Designing an ambulatory clinical practice for outcomes improvement: from vision to reality—the Spine Center at Dartmouth-Hitchcock, year one. *Qual Manag Health Care.* 2000; 8: 1-20. <http://dx.doi.org/10.1097/00019514-200008020-00003>
- [72] Selanders L, Crane P. The Voice of Florence Nightingale on Advocacy. *Online J Issues Nurs.* 2012; 17(1).
- [73] Priest, C. Advocacy in Nursing and Health Care. Policy and Politics in Nursing and Healthcare-Revised Reprint. 5 2013.
- [74] Sherman R, Herrin-Griffith D, Gantz NR. Nurse workforce challenges from a global perspective: Implications for future work of the AONE international committee. *Nurs Lead.* 2011; 9(6): 17-22. <http://dx.doi.org/10.1016/j.mnl.2011.11.001>
- [75] Chan BC, Laws RA, Williams AM, Davies GP, Fanaian M, Harris MF. Is there scope for community health nurses to address lifestyle risk factors? The community nursing SNAP trial. *BMC Nursing.* 2012; 11: 4. PMID:22420868 <http://dx.doi.org/10.1186/1472-6955-11-4>
- [76] Runciman P, Watson H, McIntosh J, Tolson D: Community nurses' health promotion work with older people. *J Adv Nurs.* 2006; 55(1): 46-57. PMID:16768739 <http://dx.doi.org/10.1111/j.1365-2648.2006.03882.x>
- [77] Smith K, Bazini-Barakat N. A public health nursing practice model: melding public health principles with the nursing process. *Public Health Nurs.* 2003; 20(1): 42-48. <http://dx.doi.org/10.1046/j.1525-1446.2003.20106.x>