Leading in Times of Complexity and Rapid Cycle Change
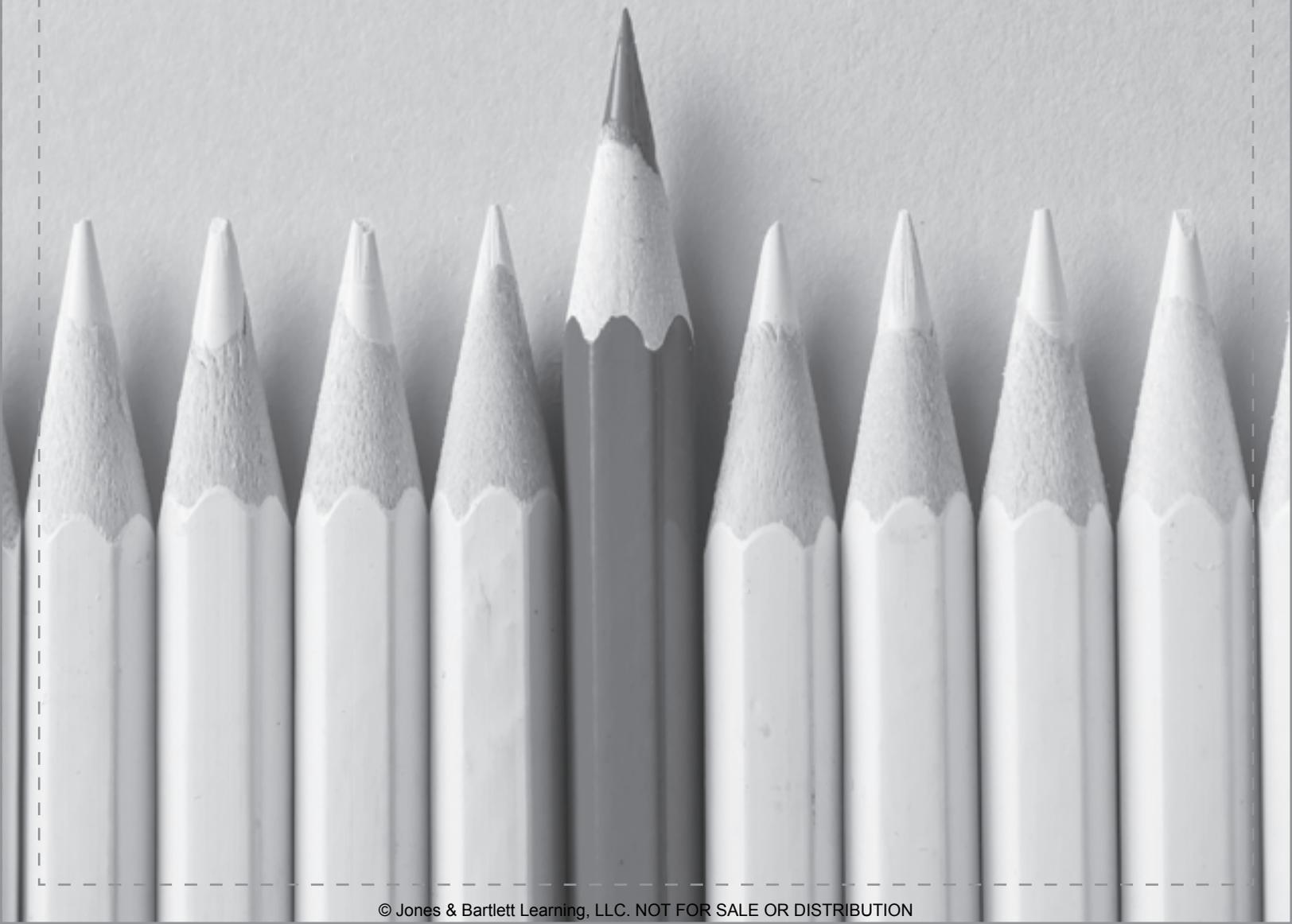
Forces Influencing Nursing Leadership

Linda Roussel

LEARNING OBJECTIVES

1. Discuss current trends in healthcare management and their impact on quality, safety, and value-added care (care delivery).
2. Envision care delivery systems for the future.
3. Discuss major influences—specifically, Institute of Medicine (IOM), Agency for Healthcare Research and Quality (AHRQ), Institute for Healthcare Improvement (IHI), Magnet, Baldrige, and other major stakeholders—in healthcare systems.
4. Identify how ethics relates to managing healthcare services.

AONE KEY COMPETENCIES

I. Communication and relationship building
II. Knowledge of the healthcare environment
III. Leadership
IV. Professionalism
V. Business skills

AONE KEY COMPETENCIES DISCUSSED IN THIS CHAPTER

II. Knowledge of the healthcare environment
III. Leadership
IV. Professionalism

II. Knowledge of the healthcare environment
- Clinical practice knowledge
- Patient care delivery models and work design knowledge
- Healthcare economics knowledge
- Healthcare policy knowledge
- Understanding of governance
- Understanding of evidence-based practice
- Outcomes measurement
- Knowledge of, and dedication to, patient safety
- Understanding of utilization and case management
- Knowledge of quality improvement and metrics
- Knowledge of risk management

III. Leadership
- Foundational thinking skills
- Personal journey disciplines
- Ability to use systems thinking
- Succession planning
- Change management

IV. Professionalism
- Personal and professional accountability
- Career planning
- Ethics
- Evidence-based clinical and management practices
- Advocacy for the clinical enterprise and for nursing practice
- Active membership in professional organizations

FUTURE OF NURSING: FOUR KEY MESSAGES

1. Nurses should practice to the full extent of their education and training.
2. Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
3. Nurses should be full partners with physicians and other health professionals in redesigning health care in the United States.
4. Effective workforce planning and policy making require better data collection and information infrastructure.

Introduction

According to GOV2020 (n.d.), we can expect a number of changes with the dominant 2020 healthcare trend: health care everywhere. Noteworthy are trends in mobile health applications, telemedicine, mhealth, remote monitoring, and ingestible sensors generating robust streams of data. This data allows providers and patients themselves to track sleep patterns, heart rates, activity levels, and caloric output in real time. GOV2020 identify categories for healthcare leaders to be on the alert for: health care in developing countries, healthcare systems, next-generation care, patient-powered health care, and the data revolution. For example, when considering health care in developing countries, frugal health care is a dominant theme. Specifically, universities, medical technology giants, and even mobile phone companies are developing portable diagnostic tools that can created for just 1% of the cost of traditional medical devices. Good examples include developing countries pursuing a back-to-basics approach to prevent disease, such as washing umbilical cords with antiseptic to reduce infections among newborns. No-nonsense models such as Aravind Eye clinic and Narayana Hrudalaya in India, and franchise "clinic-in-a-box" models such as Unjani in South Africa, provide affordable care augmenting overstretched public healthcare systems (GOV2020, n.d.). Health systems are changing with such examples as communities as healthcare providers and expanded definitions of health. Skilled healthcare professionals are experiencing shortages (around the globe) particularly with an aging population and expanding disease burden. To address these issues, the community is stepping up and increasingly providing community outreach, peer-support initiatives, and greater partnering with patients and families to expand care options. Notable are developing nations who are using community healthcare workers (with minimal training) to provide education and supportive treatments using diagnostic

devices and delivering medicines allowing specialty providers' time to handle complex tasks. Expanding the definition of health is evolving from "sick care" to wellness with nutrition and behavioral, environmental, and social networks serving as vital foundations to health. Specifically, health care cannot only be defined by care that facilities provide but more important by the status of consumers' health. "2020 sees the convergence of allopathic and alternative medicine, and of physical and behavioral medical management. Government promotes wellness care through incentives, requirements and payment models, particularly in countries where it is the primary payer" (GOV2020, n.d.). The category of next-generation care encompasses "futuristic" strategies such as specialized surgeons performing holography-assisted surgery to treat patients remotely and instruct other physicians on operating procedures (think *Star Wars*). Research purports that holography makes surgery less invasive and offers better outcomes for patients while also freeing up surgeon time. For example, Philips and RealView Imaging have developed live three-dimensional (3D) visualizations that can be touched and marked up to help doctors during surgeries. Israeli doctors have piloted a series of cardiac operations guided by live 3D holographic images of the patient's heart (Montgomery, 2013). Patient-powered health care, with increased patient engagement and activation, has gained momentum. For example, Mobile Lifesavers Apps such as PulsePoint and Good Sam affords anyone with a smartphone to locate trained first-aid personnel and dispatch them to nearby medical emergencies. In the future we can expect that this technology will integrate with emergency services systems. When 911 or other emergency services receive a call for help, the apps will automatically locate first-aid personnel in the surrounding area, alert them, and request their response. Responders could be individuals with first-aid training or police officers, firefighters, and paramedics who might use the app when they are off duty. The data revolution continues to evolve with greater patient participation and engagement, particularly with patients using their own health data to make better decisions. For example, patient-centered information networks, such as *Crohnology* for Crohn's disease, assist people to better manage their health, share best practices with fellow patients, and lower medical costs by tapping into the wisdom of the crowd (GOV2020, n.d.).

Health care is a moving target with forces for change having an impact on outcomes for quality, safety, and value-added care. These forces include shifting population demographics, finance reform, consumerism, and personalized medicine. Quality, safety, and translational science are at the heart of future trends, focusing on interprofessional teams and patient-centered care. Based on the evidence, healthcare systems have made limited progress in improving the patient experience and meeting the IHI triple aims (Stiefel & Nolan, 2012).

In the past decade, health care has experienced dramatic swings, including a change in social demographics; advancements in medical technologies; heightened consumer awareness; and greater demand for high-quality, efficient, and cost-effective care. This consumer-driven, competitive environment proclaims a transformation that all healthcare organizations must embrace to succeed and be sustainable. Quality improvement, evidence-based practice, translational science, the patients' experience, and systems thinking are essential to sustaining a competitive edge. The traditional hierarchical, bureaucratic, and insulated organizational models no longer make sense in this new business of health care. An evolving model needs to be flat, innovative, nimble, just in time, and responsive to change. If a healthcare organization is to survive at today's frenetic pace, greater flexibility and the ability to deal with ambiguity are essential (Porter-O'Grady & Malloch, 2015).

Being great, or going from good to great, takes the courage of one's convictions, vision, and energy, according to *Good to Great: Why Some Companies Make the Leap . . . and Others Don't*, a management book by James C. Collins. We are charged with keeping up with trends that affect short- and long-term planning. Collins (2001) contends that visionary companies have better management development and succession planning than comparable companies, thereby ensuring

greater continuity in leadership talent grown from within. Collins's research contends that Level 5 leadership does matter.

According to Collins (2001), a Level 5 leader is a person who harmonizes extreme personal humility with intense resolve. In his 5-year research study, Collins discovered that Level 5 leaders combined traits that served as catalysts for transforming a good company into a great one. Using Level 5 as the highest level in a hierarchy of executive capabilities, Levels 4, 3, 2, and 1 follow in this leveling process. Leaders in the four other levels can have some measure of success; however, it is not enough to move from mediocrity to sustained greatness. Collins contends that a company cannot go from good to great without Level 5 leadership (Executive) at the helm. To better understand Level 5 leaders (builds greatness), it is useful to understand Levels 1 through 4.

Level 4 is described as an effective leader who is able to stimulate teams to high performance standards by demonstrating commitment to aggressive pursuit of a compelling vision. Level 3 has been identified as a competent manager able to organize people and material resources effectively and efficiently using stable objectives, often predetermined by executive leaders. Level 2 illustrates a contributing team member able to add to the achievement of team objectives and to demonstrate effective group work in a variety of cultures and settings. Level 1 leaders are identified as highly capable individuals who demonstrate productive activity through talent, knowledge, skills, and good work habits. Collins (2015) contends that individuals do not proceed sequentially through each level of the hierarchy to reach the top; however, fully evolved Level 5 leadership does require the capabilities of Levels 1 through 4, along with special characteristics of Level 5 (humility, resolve).

Visioning and futuristic thinking embrace an openness to change. In the 21st-century workplace that is driven by innovation and technological transformation, new knowledge, skills, and abilities are demanded from everyone. New roles to address the demands are critical. A high level of trust, encouraging the heart, authentic leadership, and relationship-based care are important in balancing safe and quality health care, efficiency, and costs.

According to Kouzes and Posner (2003), encouraging the heart is about keeping hope alive by setting high standards and by demonstrating authentic interest and optimism about the employee's capacity to achieve meaningful goals. High-performing managers are approachable and embrace diversity through timely feedback and by sharing their thoughts, feelings, and perceptions. Kouzes and Posner go on to describe seven essentials to encouraging the heart and include setting clear standards, expecting the best, paying attention, personalizing recognition, telling the story, celebrating together, and setting positive examples. Telling the story can serve to clarify standards and gives examples of best practices. "Stories are essential means of conveying that we are making progress. . . . Stories put a human face on success" (p. 105).

There is a different emphasis and skill set for nurse administrators today compared to those that dominated the past century. Logic, predictability, and linear reasoning were the order of the day and gave some measure of success in a stable environment. These skills alone are not enough and no longer serve us well in our complex, complicated systems (Porter-O'Grady & Malloch, 2015).

ORGANIZATIONAL SYSTEM: CONTEXT FOR TRENDS AND CHANGE

Considering trends in light of organizations and systems propels the nurse administrator to consider different, innovative ways to structure and redesign processes and outcomes that are necessary to transform care delivery. Organizations must move away from domination by an overly rational thinking machine that is focused on predictability; theorists of complexity and chaos show us that the natural world does not operate this way. Stacey (2010) purports that this revelation of the role of creative disorder in the universe needs to be taken to heart by managers. The consequences, as Stacey summarizes, turn management practices upside down. Considering

complexity theory and organizations as complex adaptive systems (CASs), Stacey (2010) postulates the following points:

- Analysis loses its primacy.
- Contingency (cause and effect) loses its meaning.
- Long-term planning becomes impossible.
- Visions become illusions.
- Consensus and strong cultures become dangerous.
- Statistical relationships become dubious.

The list continues to change. An organization seeking stable relationships within an unpredictable environment is a recipe for failure. An organization expecting predictable outcomes by focusing on its strengths, continuing what it does best, and making limited adjustments will likely be left in the dust by its innovative rivals. Successful strategies, in the long run, do not come by fixing organizational intention and circling around it; they emerge from complex and continuing interactions among people. According to Stacey (2010), the dominant 1980s approach to strategy, which distanced itself from the strategic planning paradigm of preceding decades, still managed to maintain the aim of strategic management as its intent. Theorists of complexity science emphasize the essential nature of openness to accident, coincidence, and serendipity. The emerging result is strategy.

Management in times of chaos requires a new way of thinking and being in the world. Managing in light of intense demands for greater quality, safety, efficiency, and effectiveness of patient care necessitates consideration of alternatives to business as usual. The unusual becomes the usual; the ordinary becomes the extraordinary. Both have a place in managing and leading organizations. Safety has become first and foremost in of healthcare delivery.

Results measurement emphasizes analyzing outcomes to evaluate the value of care. In this model, competition is value-based and therefore focused on outcomes. As a result, process measures and evaluations of specific procedures and episodes of care are not useful unless they provide knowledge to improve outcomes. Value can be determined only if outcomes are measured across the care cycle based on healthcare systems and medical conditions. The principles of value, results measurement, system restructuring, and value-based competition provide a promising framework for transforming health care. Value, rather than procedures, becomes the basis for reimbursement, which eliminates unhealthy competition and cost shifting. Effective outcomes are determined based on the care cycle rather than the episode.

PRINCIPLES TO CREATE FUTURE CARE MODELS

Value-Based Competition

To develop future healthcare models, value-based competition is one of the first principles that needs to be addressed. The concept of value-based competition was introduced by Porter and Teisberg (2006) as an alternative to what they describe as failed incremental changes in both the healthcare system and financing structure. They contend that competition has promoted progress in other industries but not in health care. Health care has fallen victim to zero-based competition, which is defined as winning at the expense of another and operating in a system where cost shifting has benefited neither providers nor patients. Vlasses and Smeltzer (2007) set forth three interrelated principles to drive healthcare transformation:

- Positive-sum competitors
- System restructuring
- Rewards management

A transition to positive-sum competition in health care is based on value or health outcomes per dollar spent. Positive-sum competition incentivizes improved results based on clinical

outcomes, as opposed to volume or length of stay. To restructure the healthcare system, Porter and Teisberg (2007) proposed a system organized around medical conditions and care cycles rather than provider specialties such as cardiology or endocrinology. Medical conditions reflect the set of sequelae commonly seen with a particular diagnosis that is addressed in an integrated way. An integrated care unit is then equipped to deliver care along the continuum based on the patient's experience of the disease.

Safety: Where Are We Now?

Safety and quality go hand in hand, with greater incentives to reduce adverse events and improve the patients' experiences. A study in the *New England Journal of Medicine* reported data from North Carolina hospitals that showed there had been minimal progress in reducing harm from unsafe medical care between 2002 and 2007 (Landrigan et al., 2010). In another study, James (2013) found that between 200,000 and 400,000 Americans die each year from unsafe medical care, making it the third leading cause of death in the United States behind heart disease and cancer. Additional evidence was noted in an eye-opening November 2011 report on adverse events in hospitals. The Office of Inspector General (OIG) in the U.S. Department of Health and Human Services found that 5% of Medicare patients suffered an injury in a hospital that prolonged their stay or caused permanent harm or death. Another 13.5% of Medicare patients suffered temporary harm, such as an allergic reaction or hypoglycemia. Taken together, the evidence purports that more than one in four hospitalized Medicare beneficiaries suffer some type of injury during their inpatient stay, much higher than previous rates. The OIG report also noted that unsafe care contributes to 180,000 deaths of Medicare beneficiaries each year, and that Medicare pays at least $4.4 billion to treat these injuries. Despite all the focus on patient safety, it seems we have not made much progress at all (Committee on Health, Education, Labor, and Pensions, 2014).

Although this is not good news, there are areas in which we have made notable gains, most notably with healthcare-associated infections. These gains have been attributed to the work of Dr. Peter Pronovost, of Johns Hopkins University, and the Centers for Disease Control and Prevention (CDC). Pronovost created a simple five-item checklist that was tested in more than 100 intensive care units in Michigan to reduce rates of central line infections. Pronovost found that each of these infections can incur up to $50,000 in treatment costs, necessitating an average of seven additional days in the hospital. While central line infection is complex and expensive, Pronovost's checklist intervention is simple by comparison. Using the checklist, the hospitals involved in the project reduced their central line infection rates to essentially zero in 3 months. Individual providers were not the focus; rather, the system was the primary focus for improvement. The checklist improved the care delivery system by notably reducing the number of infections. The checklist program was disseminated to more than 1,100 intensive care units across the country and is saving lives and resources daily (Brody, 2008).

The CDC is the other major player in the improvement effort. It established the National Healthcare Safety Network (NHSN), which is a voluntary online system that tracks healthcare-associated infections nationwide. Through the NHSN, the CDC established standard metrics for assessing and reporting healthcare-associated infections (HAIs), affording providers the opportunity to track their own data and report it anonymously and directly to the CDC. These efforts have been instrumental in helping providers, healthcare executives, and policy makers keep up with infection rates and ensure that requisite preventive procedures are carried out. The NHSN allows hospital leaders to benchmark their facilities against others to determine where improvement is critical to better outcomes. The NHSN purports that good metrics, offered in a timely way, make a significant contribution to provider performance. Rates of central line infections from 2008 to 2012 decreased by 44%. Specifically, rates of infection in the 10 most common surgical procedures fell by 20%. All told, there has been progress in reducing infection rates caused by the healthcare system.

In a number of ways, the problems described here do not tell the story of medical errors. Although much attention has focused on acute hospitals, there has been relatively limited attention paid to discharged patients and care transition. In another report, the OIG found that 22% of Medicare beneficiaries in skilled nursing facilities (SNFs) experienced a medical injury that increased their length of stay or caused death or permanent harm. The same report found that an additional 11% suffered a temporary medical injury. The OIG estimates that adverse events cost Medicare roughly $2.8 billion per year, and about half of these events are preventable. The OIG report is cause for concern given that about 20% of hospitalized Medicare patients go to an SNF after discharge. There is a clarion call to improve patient safety as a national priority (Conway, 2013).

With safety front and center, what additional forces and trends can we anticipate as we navigate the future of health care? Forces to consider include technology, healthcare finance, personalized medicine, population-based health care, social networking, and consumerism.

Technology

Technology has far-reaching implications for reform because it affects both processes of care and the way organizations work. Technology also empowers consumers. Although some new technology may increase the cost of care up front, it has the potential to improve health and eventually decrease healthcare costs.

Among the broad-based effects of technology are the development of health information systems and the genomics that are contributing to biotechnical advances in care. Health information systems are increasingly being used to decrease healthcare costs by standardizing and improving data capture to support both billing practices and care decisions. Information systems can potentially reduce the rate of increase in healthcare costs, which were predicted to reach 19% of the gross national product (GNP) by 2014. Information systems enable leaders to more effectively capture cost and quality indicators that are used to improve practice and reward performance, thereby improving the efficiency and efficacy of health care. Users of healthcare services and the technology of health care will continue to be aligned with technology as a major driver of wellness and disease management. Connections between providers and patients will have more virtual and seamless interactions, with supporting technology enabling the provision of clinical services to patients remotely (Porter-O'Grady & Malloch, 2015). Just as technology is increasingly assisting caregivers with diagnosis and treatment, it also enables patients to assume more ownership of their health. Personalized medicine, which will become personalized health care over time, is one of the most exciting aspects of future health care. The continued development of personalized medicine will require not only a time commitment from nurse executives and their colleagues but also a paradigm shift from consumer as patient to consumer as partner.

Automation

Administrators and physician owners who are focused on preparing for the future do not dwell on today's healthcare problems. Although they still see reimbursement cuts and increased administrative tasks, they do not allow these issues to consume their work. Technology can provide greater efficiency. For example, a provider must consider the time it takes to standardize a process and then find the technology to automate the task.

Imaging Technology

New devices make imaging more portable and accessible to patients. For example, the Vscan from GE Healthcare can allow patients to take an ultrasound image of their heartbeat from home and send the visuals to their physician for review. Or a surgeon in a surgery center can use an ultrasound device over a patient's heart and determine abnormal rhythms or other anomalies in real time.

This changes the meaning of a visit. Additionally, surgery centers can regularly monitor a patient's condition remotely and provide timely alarms that could reduce risks and improve quality of life. In the same vein, data about a patient's weight or physical activity could be assessed through a device, such as an Internet-enabled scale or pedometer, and sent directly to the patient's records. Scans and radiological images could also be tracked and stored in the patient's health record.

Electronic Health Records

Electronic health records (EHRs) are mainly used as digital storage systems for patient records. Currently, EHRs do not have strong analytical capabilities, but in the future, they could assist healthcare providers by analyzing patient data and assisting in the process of care. The big data movement is upon us and will provide greater continuity of care and a smoother transition of care delivery. The use of big data sets could potentially connect the dots between patients and conditions and provide new insight to clarify the healthcare picture.

EHR implementation is a huge expense and takes time and energy for staff members to integrate the system into the healthcare center fully. However, the technology makes it easier to report quality data and serves as the basis for evolving toward the level of care coordination that is necessary to treat patients. As the learning curve decreases, healthcare providers are able to engage with their patients and health records at the same time by capturing videos and pictures for future review.

Robotic Technology

The precision that can be achieved with robotic technology allows physicians to transition more complex surgeries into outpatient procedures. The da Vinci Surgical System, which is used for several types of general and urological surgery procedures, has made a big impact on the field. Robotic technology requires a large capital investment, and a significant number of surgery centers have not taken the leap, especially since the robot does not bring higher reimbursement from insurance companies. Surgery centers that have invested in robotic technology have business models that attract high-acuity cases to their centers so they can maintain profitability and provide quality care.

Healthcare Finance

Considering the preferred future in health care, financial reform must be part of the conversation. Healthcare costs continue to rise, and cost shifting is occurring among employers, healthcare providers, workers, and insurers. The number of uninsured persons in the United States is reaching the nation's capacity to provide care. Cost, access, and quality will continue to be the triple charge that guides healthcare system redesign. Preventing medical errors and positioning higher safety standards also have an impact on financial commitments and cost constraints. The rapid pace of healthcare changes will affect how work is done. Community and outpatient care will dominate the healthcare market, with services moving out of the hospital at greater rates. Hospitals will no longer be the main point of care as services continue to be decentralized (Porter-O'Grady & Malloch, 2015).

Personalized Medicine

Personalized medicine is the development and treatment of disease, and disease propensity, with interventions based solely on a person's genetic profile. Making personalized medicine a reality will improve patient outcomes and necessitate changes in health care given the advances in genomic, pharmacokinetic, and computer technology. Personalized medicine underscores a

growing consumer expectation that health care in general should be tailored to the individual. Consumers are demanding individualized services.

According to the report *The New Science of Personalized Medicine: Translating the Promise into Practice* (PriceWaterhouseCoopers, 2009), the market for personalized medicine in the United States is already $232 billion and projected to grow 11% annually. Targeting individualized treatment and care based on personal and genetic variations is the focus of personalized medicine. This is disruptive innovation, and it is also creating a booming market with opportunities and challenges for traditional and emerging market participants.

With personalized health care, consumers take a more active role in their care. The Internet has had a significant impact on the trend toward self-help, with the growth of home diagnostics, advances in monitoring, and easy access to health information (Harvard-Partners Center for Genetics and Genomics, 2007).

Personalized medicine also implies that treatment will be customized, a trend that is already under way. Patients are expected to participate in the planning process for their health and share a plan of action for their own health care. Ideally, patients receive and evaluate information about their care before office visits. In a study of 12,878 participants, it was found that uninsured individuals with chronic disease were more likely than those who were privately insured to use the Internet for information (Vlasses & Smeltzer, 2007).

Population-Based Health Care

Population-based health care has always been important, and now more than ever, with social determinants of care, it has a greater impact. We know that factoring in social determinants makes care coordination more comprehensive and sustainable. An aging and increasingly diverse population is one major factor with immediate consequences for health care because it increases the demand for care and taxes the diminished workforce. The aging population requires chronic disease management, which incurs added costs for managing multiple disease processes and care transitions. With limited numbers of nurses, physicians, and other allied health professionals, healthcare leaders are charged with redesigning both systems and roles (Vlasses & Smeltzer, 2007).

Social Networking

Social networking techniques are most commonly associated with sites such as Facebook and MySpace, but social networking can have applications within health care. Health-related social networking, such as DailyStrength (https://www.dailystrength.org/), PatientsLikeMe (http://www.patientslikeme.com/), and Flu Wiki (http://flu.wikia.com/wiki/Flu_Wiki), led the CDC and the American Cancer Society, among other healthcare institutions, to use Second Life (http://www.secondlife.com), a popular virtual world site. Their presence on Second Life promoted awareness of disaster planning, good nutrition, cancer prevention, and other healthy behaviors. Social networking technologies can help providers as well as patients. An example of how social networking can be effective includes the LINK, which is a comprehensive school-linked health clinic with the capacity to provide preventive medical care, acute medical care, referrals, and health education in the schools as needed. Healthcare services through the LINK can have an impact on children's and adolescents' health (http://www.rockislandcounty.org/HealthDept/SchoolHealthLINK.aspx).

The Nursing and Midwifery Electronic Community of Practice (E-CoP), also known as the Global Alliance for Nursing and Midwifery (GANM), provides an example of community ownership and interactivity within the nursing social networking space. The E-CoP has more than 1,800 members in 132 countries, and its site contains a robust knowledge base of culturally sensitive and specific tools that members contributed. The site also includes open-source literature, a platform where members can interact to reduce isolation, and mechanisms to enhance access to online education.

Consumerism

Consumerism can be described in a variety of ways. It is a way of organizing means of individuals, groups, and governmental agencies to protect consumers from activities, policies, and practices that may violate their rights to fair trade and business practices. It has also been described as the ongoing and increasing consumption of goods and services which forms the basis of a sound economy. It can also be described by the continuation of acquiring goods and services and the wants and needs that drive this desire (Business Dictionary, 2015).

The future trend of consumerism in health care is about protection of consumers rights, as well as the understanding of how accelerating innovation to adapt to increasing consumption has an impact on individual deals; societal demands; and quality, safety, and financial viability of meeting healthcare needs. Partnerships, collaboration, and cooperation enhance and promote consumerism and advance evidence-based processes and outcomes. An example of accelerating innovation can be found in the Forum on Health Care Innovation, which is a collaboration between Harvard Business School (HBS) and Harvard Medical School (HMS). The purpose of the forum is to bring together leading executives, academics, and policy makers in a cross-disciplinary inquiry of innovative actions serving to improve quality; reduce costs; and, most important, increase value in the healthcare industry. Proceedings from the first conference in 2014 identified five imperatives for addressing healthcare innovation challenges: making value the central objective, promoting novel approaches to process improvement, making *consumerism* really work, decentralizing approaches to problem solving, and integrating new approaches into established organizations (Chin, Hamermesh, Hickman, McNeil, & Newhouse, 2014). For example, making value the central objective focuses on collaborative efforts of stakeholders. A value proposition must be made for care coordination and shared information strategies to reduce costs and improve patient and systems outcomes. Promoting novel approaches to process improvement encourages problem solving that considers the environment and culture in which the work (care delivery) is happening and invites failure as part of the process. Consumer incentives to encourage healthy behavior ranked last among 11 possible innovations in terms of their ability to increase value, with 44.6% of respondents indicating that it would have only a minimal or slight impact on improving quality and 43.9% noting its minimal or slight potential for controlling cost (Chin et al., 2015). Key insights identified as part of consumerism as an imperative include sharing responsibility for a complex problem (healthcare delivery system) and putting patients first. In putting patients first, care processes and structures are centered around patient, family, and community needs, and not the providers or caregivers.

Making consumerism really work also requires attention to strategies that enhance patient engagement and self-care management. Providers and caregivers become facilitators and coaches. Porter-O'Grady and Malloch (2015) describe responsibility and accountability, a shift from 20th-century to 21st-century thinking, with accountability of consumers and providers being focused on results, outcomes, accomplishment, fit, and sustainability and being internally generated. Decentralizing approaches to problem solving involve facilitating the movement of care delivery and healthcare innovation from centralized centers of expertise out to the microsystem engaging a greater number of providers, innovators, and patients in a collaborative effort to improve outcomes. Integrating new approaches to established healthcare systems involves understanding our history, building on successes, and embedding evidence-based strategies into relevant and value-added work.

Nursing takes great pride in being the 24-hour patient advocate at all points in the healthcare continuum. Nursing's social contract is centered on a patient–family relationship of providing holistic care throughout the care continuum. In our current environment, technology, communication, and consumer knowledge will continue to raise consumer expectations and underscore nursing's capability to fulfill the social contract. With consumerism comes the mandate to envision creative options to traditional care delivery. Core practices of all the

professions have been significantly altered. Consumers are choosing high-intensity interventions in primary care settings instead of hospitalization. They are also becoming more engaged in their own health. This shift will change how healthcare professionals provide health care. They will have the essential work of helping to transfer the locus of control for medical decision making and life management to patients, who have never had this responsibility and are sometimes at a loss to know what to do for their own care (Porter-O'Grady & Malloch, 2015). Patients have voiced their negative experiences about receiving timely care, the cost of care, and the paperwork related to care and billing. They conveyed their problems and challenges in navigating the healthcare system.

As patients become more knowledgeable about their health care, the time pressure on providers can be expected to increase. In 2004, the reported median time physicians spent with patients during an office visit was 14.7 minutes. The challenge for providers is to apply their expertise in collaborations with consumers so they can evaluate Internet information and up-to-date scientific evidence. Berry and Edgman-Levitan (2012) noted that the Picker Institute carried out a multiyear research project that identified eight characteristics of care as the most important indicators of quality and safety. This work was done in partnership with patients and families. From the perspective of patients, the following characteristics were identified: respect for the patient's values, preferences, and expressed needs; coordinated and integrated care; clear, high-quality information and education for the patient and family; physical comfort, including pain management; emotional support and alleviation of fear and anxiety; involvement of family members and friends, as appropriate; continuity, including through care-site transitions; and access to care. These eight characteristics will not be successfully carried out unless patients and families are involved in designing, implementing, and evaluating care delivery systems.

NURSING-SENSITIVE INDICATORS, SAFETY STANDARDS, AND QUALITY INDICATORS

Maas, Johnson, and Morehead (1996) used the phrase *nursing-sensitive indicators* to reflect patient outcomes influenced by nursing practice. Needleman and colleagues noted that *nursing-sensitive indicators* may be a more comprehensive term focusing on the relationship of nursing with negative or adverse patient outcomes, such as medication errors, patient falls, and nosocomial infections (Needleman, Buerhaus, & Mattke et al., 2001). These authors note that there is less evidence examining the relationship of nursing and positive patient outcomes. They attribute the use of negative outcomes to the fact that adverse patient outcomes are more readily available in medical records and administrative data sets.

Needleman and colleagues (2001) refer to outcomes that are potentially sensitive to the field of nursing recognizing nursing contributions in the clinical care delivery process; their reluctance points to the struggle in determining attribution when care delivery processes are interwoven. The reporting of nursing-sensitive information to the Centers for Medicare and Medicaid Services (CMS) is required for health systems accepting Medicare and Medicaid payment. Since October 2010, hospitals are required to inform CMS of their plans to report nursing measures electronically.

The National Database of Nursing Quality Indicators (NDNQI) serves as a repository for translating data to aid the delivery of high-quality care. The American Nurses Association (ANA) pushed through efforts to collect and evaluate nursing-sensitive indicators in the early 1990s, providing ongoing support for database development activities through the National Center for Nursing Quality. The University of Kansas School of Nursing, which ranks among the top nursing schools in the nation for nursing research funded by the National Institutes of Health, continues to provide ongoing nursing-sensitive indicator consultation and research-based expertise to the NDNQI, which was sold to Press Ganey. The school conducts research primarily on clinical and health policy topics in two areas: healthcare effectiveness and health behavior. The NDNQI

continues to grow and is a powerful tool for nurse executives. This national database program has two primary goals (American Nurses Association [ANA], 2004):

- Provide comparative information to healthcare facilities for use in quality improvement activities
- Develop national data on the relationship between nurse staffing and patient outcomes

According to the ANA, the database is growing and contains hundreds of participating healthcare facilities and various kinds of data. For example, patient outcome and nurse staffing data are being collected on critical care, step-down, medical, surgical, medical–surgical, pediatric, psychiatric, and rehabilitation units. Nurse satisfaction data are being collected from a wide variety of nursing units and across the organization. The data are collected according to strict standards; collaboration has been a key component in the growth of the NDNQI. Participants can be part of the development process if they so choose.

The NDNQI provides the capacity to trend data by providing participants with quarter-by-quarter and unit-by-unit comparisons of nursing care, thus eliminating isolated and perhaps misleading snapshots of performance. The NDNQI data allow nurse executives to mark progress, understand and improve patient care and nursing work environments, avoid costly complications, and assist in marketing the quality of nursing leadership's efforts. The NDNQI can also serve as a valuable tool for nursing staff retention and recruitment of potential employees (ANA, 2004).

In a similar vein, reports from the IOM's quality initiative brought public attention to the urgent need for understanding, measuring, improving, and ensuring the quality of health care in the United States. These quality initiatives, which are focused on important aspects of healthcare quality such as revealing serious healthcare systems errors and patient safety concerns, recommended a taxonomy of quality attributes for the healthcare system. Recommendations were further proposed to enhance quality initiatives by coordinating quality-related efforts in six government programs. They offered strategies for interdisciplinary education in the health professions and identified needed changes in the nursing work environment to improve patient safety. These major initiative reports represent a systematic effort to focus on quality and patient safety concerns in health care and to advance critical healthcare quality efforts in the United States.

In addition, macro-level quality initiatives in the public and private sectors are ongoing. For example, within the federal government the Quality Interagency Coordination Task Force was formed, bringing together independent initiatives within various governmental agencies that relate to or affect healthcare quality. Another example is the National Healthcare Quality Report, developed by the AHRQ, which presented data on the quality of services for seven clinical conditions and included a set of performance measures that serve as a baseline for the quality of health care.

Private groups, such as the Leapfrog Group, the National Quality Forum, The Joint Commission, and the IHI, are also proposing efforts and recommendations for improving and ensuring high-quality health care (Institute for Healthcare Improvement, 2008; Joint Commission, 2008; Leapfrog Group, 2008; National Quality Forum, 2008). Many of these initiatives attempt to move closer to the point-of-care delivery. As reported, professional organizations and provider groups, such as the ANA, the American Medical Association, and the Veterans Health Administration, also proposed quality surveillance activities aimed at identifying and capturing provider- and profession-specific clinical quality indicators. Public reporting of healthcare quality data can drive quality improvement and expand the potential value of quality indicators.

Another example comes from the AHRQ, which identifies quality indicators to measure healthcare quality by using available hospital inpatient administrative data. Patient safety indicators are tools to help health system leaders identify potential adverse events occurring during hospitalization (Hussey, Mattke, Morse, & Ridgely, 2007). The AHRQ quality indicators expanded the original Healthcare Cost and Utilization Project quality indicators. The first set of AHRQ quality indicators (the prevention quality indicators) was released in November 2001. The second set (the inpatient quality indicators) was released in May 2002 and in March 2003. In February 2006, the fourth

quality indicator module (the pediatric quality indicators) was added as the pediatric population was removed from the other modules (Agency for Healthcare Research and Quality, 2002).

Innovative Care Delivery Models

Most innovations in health care involve only specific aspects of care or system processes and are not based on our current model of aligning financial incentives. Consider that the implementation of electronic health records often does not result in a beneficial transformation if the records simply reflect the current state of care delivery. These types of changes alone do not respond to patient-centered care. As noted by futurists, the U.S. healthcare system needs either dramatic, transformational change or complete re-visioning.

New models and principles for care delivery are surfacing. They are focusing the point of care on the primary care environment and redefining the timing of interventions based on genetic makeup. The hospital is no longer the center of the healthcare universe.

Healthcare consumers are seeking continuity of care, with attention paid to interprofessional collaboration and smooth handoffs in transitions of care. Evidence-based transitional care models are gaining traction and engage patients and their support systems in all aspects of their health (Coleman, Parry, Chalmers, & Min, 2006; Naylor et al., 2004). Care coordination must be a standard that becomes second nature to all passages in the healthcare delivery system. Examples of models that address care coordination—the medical home and the ambulatory intensive care unit—are described in the following sections. As a result of their study of more than 1,000 randomly selected U.S. citizens, Schoen and colleagues offered clear direction for the future based on evidence from their current healthcare system experience (Schoen, How, Weinbaum, Craig, & Davis, 2006). These researchers found that customers want value. They want well-coordinated care that is provided through one source, with access to both their medical record and information regarding quality and cost. Yet studies indicate that patients are more likely to have short-term relationships with physicians and minimal, if any, access to their medical records. The gap between what customers want and reality is considerable. In Schoen and colleagues' study, 42% of the participants reported that they experienced inefficiencies in care, poor coordination of care, or unsafe care in the previous 2 years.

Medical Home

The patient-centered medical home model is an evidence-based framework for integrated health care (Rittenhouse & Shortell, 2009). The idea of the medical home, sometimes referred to as an advanced medical home concept, was developed by the American Academy of Pediatrics as a model for the care of children with chronic illnesses. The American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association (2007) recently published a joint article with their consensus definition of a medical home. A medical home is patient-centered care focused on prevention, health promotion, and coordinated care across the life span. This model incorporates all aspects of the care continuum and focuses on care coordination and active disease management (Rittenhouse & Shortell, 2009). Essential components of the medical home integrate expectations from both consumers and healthcare professionals. Although variations can be found in the literature, the patient-centered medical home model holds promise for improved coordination of patient care needs and expectations.

Models that incorporate these principles are proposed to transform primary care. To make such models a reality, healthcare financing must be aligned with incentives that focus on care delivery that is safe, effective, and efficient. Obtaining funding to test innovative models and to evaluate resources that are necessary to ensure that the models work as designed is important to make them a reality. An example comes from the Louisiana Health Care Redesign Collaborative, which adopted the medical home as the cornerstone for post-Katrina New Orleans and submitted a proposal to the CMS for financing (Louisiana Health Care Quality Forum, 2008). Although they

are based on primary care, these models have significant implications for re-visioning healthcare services and the roles of providers. They create an infrastructure for care that is coordinated through a primary care delivery system that connects tertiary services into a unified healthcare model. Healthcare providers in this new model deliver integrated care, which requires innovative and broader roles and functions.

Ambulatory Intensive-Care Units

Ambulatory intensive-care units (A-ICUs) are founded on the belief that individuals can be seen at the appropriate level of care and that decisions to change the level of care can be made in the patients' best interest rather than on financial incentives. Funded by a grant, the California HealthCare Foundation has tested the A-ICU model, which is designed to demonstrate significant cost savings in the care of high-risk, chronically ill individuals who incur the highest costs in the current system. A medical home provider links and coordinates appropriate care resources for patients to achieve efficiencies. The medical home provider has a continual relationship with the patient and oversees care across the continuum.

An A-ICU builds efficiency by moving the processes of care and organizational management to primary care. High-risk patients benefit from innovative, intensive primary care interventions to improve their health status and care management in a long-term relationship. Providers function not as gatekeepers but as partners with patients, engaging them to take responsibility for their own health in a system grounded in quality. The primary care team contracts with inpatient and specialty services based on demonstrated quality and efficiency indicators. Other providers must show worth and value to become ancillary to this process. Moving the locus of control from the insurer to the patient–provider relationship supports a more appropriate competitive process based on quality and efficiency rather than reimbursement regulations and rates.

Strategies for Leading Change

Key strategies for effective leadership in this transition involve adopting technology and change management. The Technology Informatics Guiding Education Reform (TIGER) Initiative summary report notes that we must focus on "integrating informatics seamlessly into nursing, making it the stethoscope of the 21st century" (TIGER Initiative, 2007). Our ability to connect with patients is highly dependent on our adoption of technology. Cell phones, webinars for working with groups, online synchronous forms of communication, and decision support applications are tools we must incorporate into practice.

Echoing the TIGER report, we must become active players on all fronts related to the development and implementation of health information technology, enforcing the standard for evidence-based tools at the point of care for the use of both nurses and consumers. The TIGER report identified management and leadership as one of the key pillars for practice transformation in informatics and recommends leadership, direction, and support along with a shared mental model of the future (TIGER Initiative, 2007). These same principles serve us well in advocating for system redesign.

Today we are inundated with changes, and Ellis (2007) speaks to the acceleration of change. We are charged with managing these changes and their implications for stakeholders. Therefore, we must become students of change. In contrast to notions of rapid diffusion of innovations, Morrison (2000) describes the healthcare environment as one where healthcare providers experience rapid change; however, to those on the outside looking in, the pace is far from accelerated. While we are confronted with possibilities, we are also caught in this dilemma. We are charged with keeping the need for change and reevaluation at the forefront, and we are invited to create rather than react.

Traditional strategies for change management are based on planned change. Approaches to planned change apply to modifications in an existing structure that are reversible and do not require new learning. This type of change merely skims the surface compared with what

is occurring and what needs to occur in health care. Consumers are calling for fundamental change in the healthcare system, and new models such as the A-ICU call nursing's attention to system's thinking and redesign of the work and how the workforce rethinks patient care delivery, teamwork, and care transitions.

To do this, we must also reconceptualize the tools and strategies we use to create change. This type of change, referred to as second-order change, occurs when there is a fundamental shift in an organization's basic structure. Frameworks for second-order change, although in need of further testing and research, may be more informative in guiding healthcare transformation. They call for new infrastructure that requires new learning. A new story is being told.

Changing Time, Location, and Relationship

The forces for change in health care are affecting the critical connection between nurses and patients. Patients no longer come to us as a captive audience. Historically, we have enjoyed a relationship with our patients based on the fact that they depend on us in the hospital at a time of acute vulnerability. Today, 56% of patients in hospitals stay for 4.5 or fewer hours. This has economic implications as well as implications for our survival.

If we want to maintain our signature relationship with patients, we must find ways to stay connected to them personally, but not necessarily in the place where we treat them. We must reimagine our definitions of how we serve patients and believe in them. The need to create work structures, employee work arrangements, and organizations that allow nurses to span episodes of care is critical.

New models, such as the advanced medical home and value-based competition, are built on concepts that have traditionally been in the nursing purview, such as compassionate, culturally sensitive, and coordinated care. These models may provide a venue to support our social contract with patients, but we must be involved in their evolution and testing. Research is needed to demonstrate qualitative and economic value and to evaluate designs that reinvent the role of nurses.

SUMMARY

We are in a new world of health care, and standard operating procedures (SOPs) may no longer serve the patient and the healthcare system. Understanding the organization through different lenses, such as CASs, may provide new tools for enhancing performance. Change, innovation, and infusion of evidence-based practice also contribute to greater efficacy and efficiency in leading. Being armed with an understanding of evidence-based practice and quality indicators improves one's success in creating a safe environment for patients, their families, and the workforce. Without transparent, authentic leadership, there is little hope for real change that can be sustained over time. The health of patients and families who are entrusted to our care depends on our courage to be great and to continually strive for excellence. It is the hope of these authors that increasing knowledge, skills, and abilities can serve this end.

REFLECTIVE QUESTIONS

1. Considering your own practice setting, discuss current trends in healthcare management and their impact on quality, safety, and value-added care (care delivery).
2. What innovative strategies do you envision leading in your own practice setting as you fast-forward to the future?
3. Describe major influences—such as the IOM, AHRQ, IHI, Magnet, Baldrige, and other major stakeholders—in healthcare systems.
4. Identify how ethics relates to managing healthcare services.

CASE STUDY 1-1   Who Speaks for the Patient?

Debbie R. Faulk and Arlene H. Morris

J. E. is the chief nursing officer (CNO) of a midsized regional hospital. One evening an older person was found unresponsive at a nearby long-term care facility, placed on ventilator support, and transferred to J. E.'s hospital. This person is awake and alert and has end-stage chronic obstructive pulmonary disease and severe rheumatoid arthritis with little likelihood of being weaned from the vent. Due to the patient's long-term chronic diseases and limited prognosis secondary to the illnesses, the lifetime Medicare reserve days are nearly exhausted.

J. E. has been informed that the prior long-term care facility has no beds for readmission and that other hospitals or long-term care facilities in the geographic area are reluctant to accept transfer of this patient. Additionally, there is no family willing to care for the patient at home; the only living family members are two stepchildren who live in another state. They have requested that the patient be transferred to a facility that provides ventilator care. The physician assigned to provide care said, "The most humane plan of care is to take the patient off the vent and allow a peaceful death through comfort care after extubation." It is anticipated that discontinuation of ventilator support will result in death, likely within a week.

J. E. believes there are only two options: extubation as suggested by the hospital physician or continuing care for the patient with the ventilator until death. The stepchildren call the case manager, who refers the call to J. E. The stepchildren are informed about the patient's status and the two options. J. E. tells the stepchildren that the physicians are concerned the patient has no quality of life. Although J. E. requests consent to extubate, the stepchildren would not consent, stating they wanted to wait until December 26 to decide. When J. E. asks why they desire to wait and possibly prolong suffering, the stepchildren reply that they do not want to associate the memory of the patient's death with a holiday. The stepchildren ask how to get someone else appointed to make decisions. J. E. had been informed by the case manager that if a state agency appointed a legal guardian, the stepchildren could not have a say in funeral arrangements. J. E. relays this information to the stepchildren, who are upset about no input regarding the funeral, but they ask no other questions.

The stepchildren later call back and consent over the phone to withdraw life support and request to be informed when the patient dies. J. E. is concerned about the phone consent and decides that a consent form would be worded as follows: "We, _____ (name) and _____ (name), understand that if the ventilator is removed, death will likely occur soon, but this is in the best interest of _____ (name of patient)." This consent form is sent electronically to the stepchildren, who sign the form and return it. J. E. then asks the case manager and the primary nurse to sign as witnesses on the form. However, the case manager says that the signing had not been witnessed and asks J. E. if a notary should have been involved and a hard copy of the form sent by mail. J. E. replies that electronic consent forms are part of the healthcare world as long as two people are present. The case manager and primary nurse express concern that the consent could have been coerced and actually provide for the physician to end the patient's life. J. E. asks another case manager and nurse to sign as witnesses for the consent form, and they agree. However, the patient's case manager and other nurses on the patient's unit begin discussing possible legal and ethical implications of these actions and ask if a line had been crossed.

Source: Morris & Faulk, 2012.

Case Study Questions

1. What factors initially contributed to the development of this situation?
2. Do you believe there were other options besides the two presented? Explain your thoughts.
3. Describe the ethical concerns for each of the following:
   The patient
   The family members
   The primary nurse
   The case manager
   J. E.
   The physician(s)
   The case manager and nurse who signed as witnesses
   The hospital as an organization
   The healthcare delivery system

4. Describe the legal implications for each of those listed in question 3.
5. Who was the advocate for this patient?
6. Was a consideration related to the patient's condition not discussed?
7. What would you have done if you were J. E.?

REFERENCES

Agency for Healthcare Research and Quality. (2002, June). Guide to inpatient quality indicators: Quality of care in hospitals—Volume, mortality, and utilization department of health and human services. Retrieved from https://www.ahrq.gov/downloads/pub/inpatqi/iqi _guide.pdf

American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, & American Osteopathic Association. (2007). Joint principles of the patient-centered medical home. Retrieved from http://www.acponline.org/acp_policy/policies/joint_principles _pcmh_2007.pdf

American Nurses Association. (2004). *Nursing: Scope & standards of practice*. Silver Spring, MD: nursesbooks.org.

Berry, M. J., & Edgman-Levitan, S. (2012). Shared decision making—The pinnacle of patient-centered care. *New England Journal of Medicine, 366*, 780–781.

Brody, J. E. (2008, January 22). A basic hospital to-do list saves lives. *New York Times*. Retrieved from http://www.nytimes.com/2008/01/22/health/22brod.html?pagewanted=print

Business Dictionary. (2015). Consumerism. Retrieved from http://www.businessdictionary.com /definition/consumerism.html

Chin, W. W., Hamermesh, R. G., Hickman, R. S., McNeil, B. J., & Newhouse, J. P. (2014). 5 imperatives addressing healthcare's innovation challenge. *Forum on Healthcare Innovation*. Retrieved from http://www.hbs.edu/healthcare/Documents/Forum-on-Healthcare-Innovation-5-Imperatives.pdf

Coleman, E. A., Parry, C., Chalmers, S., & Min S. J. (2006). The care transitions interventions: Results of a randomized control trial. *Archives of Internal Medicine, 166*, 1822–1828.

Collins, J. (2015). Level 5 leadership: The triumph of humility and fierce resolve. *Harvard Business Review*. Retrieved from https://hbr.org/2005/07/level-5-leadership-the-triumph-of-humility-and-fierce-resolve

Collins, J. C. (2001). *Good to great*. New York, NY: HarperCollins.

Committee on Health, Education, Labor, and Pensions. (2014). Subcommittee hearing. More than 1,000 preventable deaths a day is too many: The need to improve patient safety. Retrieved from http://www.help.senate.gov/hearings/hearing/?id=478e8a35-5056-a032-52f8-a65f8bd0e5ef

Conway, P. (2013). U.S. efforts to reduce healthcare-associated infections. Retrieved from http:// www.hhs.gov/asl/testify/2013/09/t20130924.html

Ellis, D. (2007). The acceleration of innovations. Retrieved from http://hfd.dmc.org/download /acceleration.pdf

GOV2020. (n.d.). Health care. Retrieved from http://government-2020.dupress.com/category /healthcare/

Harvard-Partners Center for Genetics and Genomics. (2007). Improving health and accelerating personalized health care through health information technology and genomic information in population and community-based health care delivery systems. Retrieved from http://www .hpcgg.org/News/HPCGG_RFI_Response_1_0.pdf

Hussey, P. S., Mattke, S., Morse, L., & Ridgely, M. S. (2007). Chapter 5: Findings from the case studies. In *Evaluation of the use of AHRQ and other quality indicators*. Retrieved from http:// www.ahrq.gov/about/evaluations/qualityindicators/qualindch5.htm

Institute for Healthcare Improvement. (2008). Patient safety and the reliability of healthcare systems. Retrieved from http://www.ihi.org/IHI/Topics/PatientSafety/MedicationSystems /Literature/Patientsafetyandthereliabilityofhealthcaresystems.htm

James, J. T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, *9*(3), 122–128. doi:10.1097/PTS.0b013e3182948a69

Joint Commission. (2008). National patient safety goals. Retrieved from http://www.joint commission.org/PatientSafety/NationalPatientSafetyGoals

Kouzes, J. M., & Posner, B. Z. (2003) *Encouraging the heart: A leaders' guide to rewarding and recognizing others*. San Francisco, CA: John Wiley & Sons.

Landrigan, C. P., Parry, G. J., Bones, C. B., Hackbarth, A. D., Goldmann, D. A., & Sharek P. J. (2010). Temporal trends in rates of patient harm resulting from medical care. *New England Journal of Medicine, 363*(22), 2124–2134.

Leapfrog Group. (2008). Leapfrog hospital survey and Leapfrog hospital rewards program. Retrieved from http://www.leapfroggroup.org/66445/hospital_contact

Louisiana Health Care Quality Forum. (2008). The patient-centered medical home in Louisiana: Spring 2008 progress report. Retrieved from http://lhcqf.org/lapost-old/images/stories /PCMH%20in%20LA-Spring%202008%20Progress%20Report.pdf

Maas, M., Johnson, M., & Moorehead, S. (1996). Classifying nursing-sensitive patient outcomes. *Journal of Nursing Scholarship, 28*, 295–301.

Montgomery, A. (2013). 3D holographic heart surgery hailed as "the future of healthcare." Retrieved from https://www.designweek.co.uk/issues/october-2013/3d-holographic-heart-surgery-hailed-as-the -future-of-healthcare/

Morris, A., & Faulk, D. (2012). *Transformative learning in nursing. A guide for nurse educators*. New York, NY: Springer.

Morrison, I. (2000). *Health care in the new millennium: Vision, values and leadership*. Hoboken, NJ: Jossey-Bass.

National Quality Forum. (2008). Standardizing a patient safety taxonomy. Retrieved from http:// www.qualityforum.org/Publications/2006/01/Standardizing_a_Patient_Safety_Taxonomy.aspx

Naylor, M. D., Brooten, D. A., Campbell, R. L., Maislin, G., McCauley, K. M., & Schwartz, J. S. (2004). Transitional care of older adults hospitalized with heart failure: A randomized, controlled trial. *Journal of the American Geriatric Society*, *52*(5), 675–684.

Needleman J, Buerhaus P, Mattke S, et al. (2001). Nurse-staffing levels and patient outcomes in hospitals. Final report for Health Resources and Services Administration. Contract No. 230-99-0021. Harvard School of Public Health, Boston, MA.

Porter, M. E., & Teisberg, E. O. (2006). *Redefining health care: Creating value-based competition on results*. Cambridge, MA: Harvard Business School Press.

Porter, M. E., & Teisberg, E. O. (2007). How physicians can change the future of health care. *Journal of the American Medical Association, 297*, 1103–1111.

Porter-O'Grady, T., & Malloch, K. (2015). *Quantum leadership: A resource for healthcare innovation* (4th ed.). Burlington, MA: Jones & Bartlett Learning.

PriceWaterhouseCoopers. (2009, October). The new science of personalized medicine: Translating the promise into practice. Retrieved from http://www.ucd.ie/t4cms/Personalized -medicinepwc%20Article.pdf

Rittenhouse, D. R., & Shortell, S. M. (2009). The patient-centered model home. Will it stand the test of health reform? *Journal of the American Medical Association*, *301*(19), 2038–2040. doi:10.1001/jama.2009.691

Schoen, C., How, I. W., Weinbaum, I., Craig, J. E., Jr., & Davis, K. (2006). Public views on shaping the future of the U.S. health system. Retrieved from http://hagel.senate.gov/index .cfm?FuseAction=News.HealthCareCommission

Stacey, R. (2010). *Complexity and organizational reality: Uncertainty and the need to rethink management after the collapse of investment capitalism* (2nd ed.). New York, NY: Routledge.

Stiefel, M., & Nolan, K. (2012). *A guide to measuring the triple aim: Population health, experience of care, and per capita cost* (IHI Innovation Series white paper). Cambridge, MA: Institute for Healthcare Improvement.

TIGER Initiative. (2007). TIGER summary report. Retrieved from http://www.thetigerinitiative.org/

Vlasses, F. R., & Smeltzer, C. H. (2007). Toward a new future for healthcare and nursing practice. *Journal of Nursing Administration, 37*(9), 375–380.

SELECTED WEBSITES

Agency for Healthcare Research and Quality

www.ahrq.gov

The Agency for Healthcare Research and Quality (AHRQ) funds, conducts, and disseminates research to improve the quality, safety, efficiency, and effectiveness of health care. The information gathered from this work and made available on the website assists all key stakeholders—patients, families, clinicians, leaders, purchasers, and policy makers—to make informed decisions about health care.

American Association of Critical-Care Nurses

www.aacn.org

The American Association of Critical-Care Nurses provides leadership and resources to its members to improve health care for critically ill patients and their families. The core concepts of patient- and family-centered health care are integrated throughout its practice guidelines.

American Hospital Association

www.aha.org

The American Hospital Association (AHA) is the premier membership organization for U.S. hospitals and provides leadership and advocacy for member hospitals to improve care for patients and their families. The Institute for Patient- and Family-Centered Care (IFCC) collaborated with the AHA to develop a tool kit called Strategies for Leadership: Patient- and Family-Centered Care, which is available for download at http://www.aha.org/advocacy-issues/quality/strategies -patientcentered.shtml.

Center for Health Design

www.healthdesign.org

The Center for Health Design is a nonprofit research and advocacy organization of healthcare and design professionals who are leading the effort to improve health quality through architecture and design.

Center for Medical Home Improvement

www.medicalhomeimprovement.org

A medical home is a community-based primary care setting that provides and coordinates high-quality, planned, patient- and family-centered health promotion, acute illness care, and chronic illness management throughout the continuum of care and across the life span.

Improvement Science Research Network

http://www.improvementscienceresearch.net/

The Improvement Science Research Network is the only improvement research network supported by the National Institutes of Health. The primary mission of the network is to accelerate interprofessional improvement of science in the context of systems across multiple hospital sites.

Institute for Healthcare Improvement

http://www.ihi.org/Pages/default.aspx

The Institute for Healthcare Improvement is an independent, nonprofit organization based in Cambridge, Massachusetts. It focuses on inspiring and building the case for change, identifying and testing new models of care by partnering with both patients and healthcare professionals, and ensuring the broadest adoption of best practices and innovations.