

# Nursing Economics®

THE JOURNAL FOR HEALTH CARE LEADERS

*A Jannetti Publications, Inc. Journal*

## Supplement

### Excellence and Evidence in Staffing: A Data-Driven Model for Excellence In Staffing (2nd Edition)



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## SUPPLEMENT

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## EXECUTIVE SUMMARY

- ▶ The Patient Protection and Affordable Care Act (PPACA, 2010) and the Institute of Medicine's (IOM, 2011) *Future of Nursing* report have prompted changes in the U.S. health care system. This has also stimulated a new direction of thinking for the profession of nursing. New payment and priority structures, where value is placed ahead of volume in care, will start to define our health system in new and unknown ways for years. One thing we all know for sure: we cannot afford the same inefficient models and systems of care of yesterday any longer.
- ▶ The *Data-Driven Model for Excellence in Staffing* was created as the organizing framework to lead the development of best practices for nurse staffing across the continuum through research and innovation. Regardless of the setting, nurses must integrate multiple concepts with the value of professional nursing to create new care and staffing models. Traditional models demonstrate that nurses are a commodity. If the profession is to make any significant changes in nurse staffing, it is through the articulation of the value of our professional practice within the overall health care environment.
- ▶ This position paper is organized around the concepts from the *Data-Driven Model for Excellence in Staffing*. The main concepts are:
  - Core Concept 1: Users and Patients of Health Care
  - Core Concept 2: Providers of Health Care
  - Core Concept 3: Environment of Care
  - Core Concept 4: Delivery of Care
  - Core Concept 5: Quality, Safety, and Outcomes of Care
- ▶ This position paper provides a comprehensive view of those concepts and components, why those concepts and components are important in this new era of nurse staffing, and a 3-year challenge that will push the nursing profession forward in all settings across the care continuum. There are decades of research supporting various changes to nurse staffing. Yet little has been done to move that research into practice and operations.
- ▶ While the primary goal of this position paper is to generate research and innovative thinking about nurse staffing across all health care settings, a second goal is to stimulate additional publications. This includes a goal of at least 20 articles in *Nursing Economic\$* on best practices in staffing and care models from across the continuum over the next 3 years.

**I**N 2008, a staffing summit was held with leaders of professional organizations, researchers, and others with expertise in staffing. The result of that summit was the 2008 position paper *Excellence and Evidence in Staffing: Essential Links to Staffing Strategies, Design and Solutions for Healthcare* authored by Kathy Douglas (2008). Douglas highlighted the 10 “Best Practices” that would lead to a model of staffing excellence and included numerous references to support the work of the summit.

The 5 years since the summit have seen significant changes in health care. It was clear an update to the 2008 position paper was necessary to advance the discussion on nurse staffing. The authors set forth an ambitious process to seek input from the world's leading experts, researchers, and leaders in nurse staffing. The first step was asking experts in operations, research, ambulatory care, and multidisciplinary care to critique the paper in light of recent changes in the health care system. Revisions were made in accordance to the responses received and in consideration of the *Data-Driven Model for Excellence in Staffing*. The paper was then distributed to a second group of experts to critique the first draft of the 2nd edition. After further revisions, a third draft was critiqued. The authors see this current position paper as part of a larger continuous process and will develop additional discussion papers on settings and role-specific topics which will be published on an ongoing basis.

## Background

The Patient Protection and Affordable Care Act (PPACA, 2010) and the Institute of Medicine's (IOM, 2011) *Future of Nursing* report have stimulated change and a new direction of thinking that has long been needed in the U.S. health care system and in the profession of nursing. The PPACA emphasizes prevention and a new system where delivery of care must be coordinated across the care continuum. New payment and priority structures, where value is placed ahead of volume in care, will continue to redefine our health system in new and unknown ways for years. One thing we all know for sure: We cannot afford the same inefficient models and systems of care any longer.

Historically, professional socialization and hierarchical relationships have impeded the process of team collaboration. The IOM's national call for nurses to obtain baccalaureate degrees and increase positions in leadership will serve to improve socialization and hierarchical relationships. However, nurses, not any other professional group, must ensure success of these advancements. Therefore, nurses should recognize that nursing practice must be seen as more than staffing in any traditional sense of the word; it must be seen within the entire scope of its professional practice. To create the change nursing needs at this pivotal time in health care, our thinking must be different today than it was yesterday.

With the increased focus on the care continuum, ambulatory settings will gain more importance in this new system than the hospital-centric system of today. Maintaining and improving individual health and wellness has become more important and the

role of prevention is at the center of these changes. Health professionals are expected to manage complex chronic illnesses with sophisticated care coordination across the continuum that will rely on effective handoffs and transitions. Initiatives such as Accountable Care Organizations and Patient-Centered Health Homes will demand new skills and knowledge from nurses.

Our health care system today exists between two very different worlds. One is a continued fee-for-service reimbursement for providers and organizations that has not yet started to innovate. The other world is where innovation, bold changes, and a focus on prevention and primary care might mean less profit and less operating income, yet the provision of this care model is the right thing to do for the users. As nurses, we need to craft the solution that bridges this chasm, knowing we will have to do more with less in the future.

With the shift in thinking away from nurse staffing as just a ratio or a finance number, a new paradigm is needed; a paradigm that lends itself to data and evidence. The *Data-Driven Model for Excellence in Staffing* (DDMES) demonstrates a dynamic, data-driven process that takes place throughout the continuum of care based on the needs of users and patients of health care. This model will lead to new and innovative models that result in the efficient, effective, and optimized use of qualified staff and the stewardship of resources to achieve the best possible outcomes for users, their families, the workforce, the organization, and the community in which care is delivered.

The DDMES was created as the framework for research and organizational improvement that leads

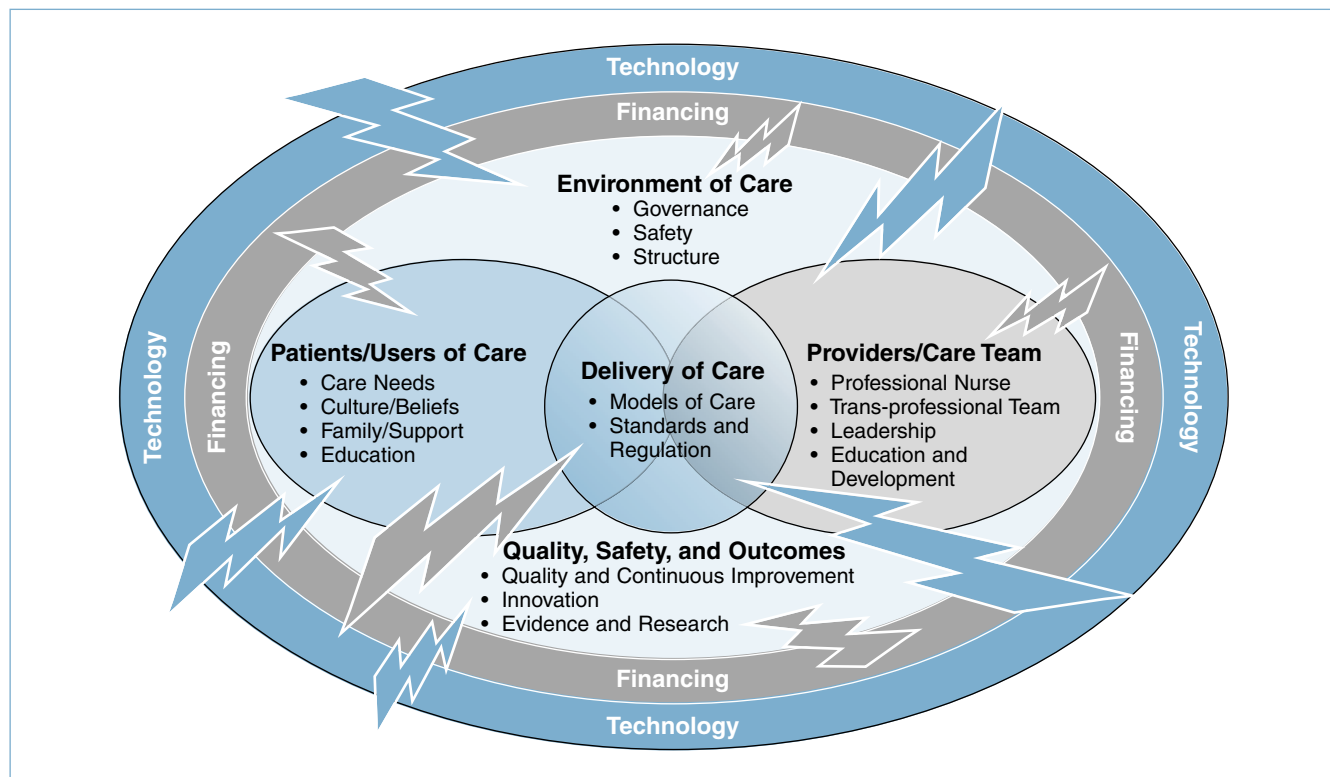
to the development and sharing of best practices for staffing across the continuum. To stimulate 20 new best practices over the next 3 years, the authors identified the current literature, best practices, and advanced thinking in five core concepts. These core concepts form the model (see Figure 1). As depicted in the model, both technology and finance have a direct impact and provide unique challenges on each of the core concepts in the model. In alignment with the model, this position paper is organized around these concepts:

- Core Concept 1: Users and Patients of Health Care
- Core Concept 2: Providers of Health Care
- Core Concept 3: Environment of Care
- Core Concept 4: Delivery of Care
- Core Concept 5: Quality, Safety, and Outcomes of Care

Nurse leaders and researchers can no longer focus on nurse staffing as a hospital-only issue. With a shift in care outside of the hospital walls, research, journals, and conferences must focus more on innovative nurse staffing and care delivery models across all settings. This position paper includes health care settings across the continuum. While some information may seem acute care centric, it is a starting point for other settings that lack research and literature in this area.

We all know the research and literature on staffing in our areas of expertise. Why have we yet to adopt it into practice and operations? Here is to the removal of barriers and the leadership needed to make lasting and meaningful changes in nurse staffing for the future.

**Figure 1.**  
**Data-Driven Model for Evidence and Excellence in Staffing**



## Core Concept 1: Users and Patients of Health Care

**T**RADITIONAL STAFFING MODELS are based on nurses providing a majority of the care. Based on the uniqueness of the care setting, and as users become more engaged in their care, the dynamic in who is providing certain aspects of care will change depending on setting. Nurses will need to spend more time with value-based activities, such as assessing, teaching, and evaluating user knowledge and ability, and perhaps less time on actually doing for patients what they will need to do for themselves. In other settings with more dependent-user populations, family and other caregivers will play an increased role in direct caregiving. Individuals who are involved in their own care have better health outcomes and typically make more cost-effective decisions (Hibbard & Greene, 2013).

In a value-based model, the user's plan of care is of utmost importance. This plan of care belongs to the user and is a lifelong plan. This lifelong plan would be augmented with subsets for episodic moments in care. The nurse is the care coordinator in a value-based care model regardless of the setting. Therefore, nurses will need to move away from traditional task-oriented, volume-based practice and move towards a professional role-based practice that engages the user to be an active participant in care and less reliant on the nurse to complete care tasks if he or she is able.

### Definition: User of Health Care

The user of health care is defined as the person actively engaged in his or her health care (American Hospital Association [AHA], 2013). Formerly, the user was called the patient or the client. A more explanatory title that indicates an individual as the driver of his or her own care and services, his or her direct role in the prevention of illness, and his or her active role in health maintenance and services, the user is the driver of services, not the provider.

There are four components that make up the Users and Patients of Health Care concept. These components are care needs, culture/belief, family support, and education. In current models of care delivery and nurse staffing, sufficient time is usually not given to consider the importance of these items in relationship to the nurse staffing. To provide user-centered care, the nurse must assess and know these components, and incorporate them into the plan of care so that desired outcomes are achieved.

Engaging the user can also activate the user. Activation is defined as someone who has knowledge, skill, and confidence to take on the role of managing his or her health and health care (Walsh, 2013). To change health care for tomorrow, users must engage and manage their health and health care. Engaging and activating users requires time and attention of the nurse, and requires staffing and care deliv-

ery models that support the nurse's role in this critical activity.

### Care Needs

Many users will eventually join a health care network, streamlining their health care experience as a user and a member. The network will house the patient-centered medical home, in which the primary clinician and team will be clinically and fiscally accountable for managing members' health. The team will help to coordinate care, educate the user, develop methods of managing any chronic illnesses, and facilitate navigation of members' personal health plan throughout life to a natural death.

While traditional care has been given based on the average patient with the average disease process, care now must be developed specific to the individual user. Too often the current care delivery models are built around the nurse and provider to make health care decisions for a user without user input, which could be unethical. Therefore, as this new health care system develops, the idea of "nothing about me, without me" becomes a driving principle in all that is done by the health care providers. All health care providers must acknowledge both the user and his or her care partner/family as active participants in managing health care.

There are many user-specific demographics and determinants of health. To appropriately engage and activate the user, the nurse must consider these components and time must be allotted appropriately in planning care based in part on these factors. Some patient-specific factors for consideration to determine user-specific needs include:

- Age
- Socioeconomic status
- Family or caregivers
- Diagnosis
- Severity of illness
- Co-morbidities
- Ability to provide self-care
- Length of stay
- Genetics
- Lifestyle
- Race/Culture

Research conducted by the Agency for Healthcare Research and Quality (AHRQ), found people 65 and older had increased satisfaction, less fear, and more ability to direct medical care when physicians discussed advance care planning with them (Kass-Bartelmes & Hughes, 2003). The level and intensity of clinician involvement will be dependent on health risk assessment findings and the patient's or user's co-created personal health plan.

# Core Concept 1: Users and Patients of Health Care

There are many barriers to engaging the user in his or her health care. The Nursing Alliance for Quality Care recommends multiple strategies to affect the values and changes in a nurse's behavior that fosters user-centered engagement. These strategies are within the following domains:

- Ensuring all nursing education emphasizes patient engagement.
- Amplifying the professional standing of nurses as champions of patient engagement.
- Strengthening support for nurses as advocates in the care environment of patients.
- Aligning incentives to encourage patient engagement.
- Enforcing regulatory expectations and standards that support patient-engagement principles in practice.
- Intensifying efforts to conduct and disseminate research on patient engagement (Sofaer & Schumann, 2013).

Engagement, activation techniques, and processes may be complemented with incentives or rewards and research suggests that promoting accountability through use of rewards, such as financial, may improve health outcomes (AHA, 2013). Nurses must change their beliefs, thinking, actions, and care processes to promote user engagement in decision making.

## Culture/Beliefs

Culture refers to the learned, shared, and transmitted knowledge of values, beliefs, and “lifeways” of a particular individual and group that are generally transmitted intergenerationally and influence thinking, decisions, and actions in patterned or in certain ways (Leininger & McFarland, 2002). In most current models of care, users are passive participants with limited input on decisions about what would, or would not, be done to them. Cultural issues are often the main barrier due to knowledge deficits of both the user and nurse.

In relation to culture, the IOM defines patient-centered care as “providing care that is respectful of and responsive to individual patient preferences, needs and values, and ensures patient values guide all clinical decisions” (2004, p. 9). Additionally, low health literacy, cultural barriers, and limited English proficiency have been coined the “triple threat” to effective health communication by The Joint Commission (Schyve, 2007). Effective communication is difficult if cultural and user/patient-centered differences are not properly understood and taken into consideration.

While physicians believe they are including patients in decisions (Kass-Bartelmes & Hughes, 2003), and nurses have begun to jointly set goals with patients and families, many providers have a long way to go to be consistent in doing so. User-centered care planning should include the assessed needs of individuals, socioeconomic status and needs, the complexity and number of problems, and family or caregiver support and input.

When a lack of joint planning and understanding of cultural differences exists, nurses and providers may use the word “non-compliant” to describe a user. Non-compliant has no place in a user-centered health care model if care planning is done in collaboration with the nurse, provider, user, and care partner. As the nurse or the provider, less time will be spent trying to manage “non-compliant” patients on the back end of care if the time is spent on the front end planning together and understanding the uniqueness of the user.

## Family Support

There is evidence that users and families want to be more engaged and involved with decisions about their health or disease. As nurses coordinate the user's care across the continuum, family support is strengthened through education and resources. Often the lack of education about the health care system limits family participation in the care process. The nurse can educate family about the health care system, resources,

and their rights so they can become involved and engaged. Patient and family engagement occurs when patients, families, their representatives, and health professionals work in active partnership at various levels across the health care system – direct care, organizational design and governance, and policymaking – to improve health and health care (Carman et al., 2013).

Education and resources should focus on areas that improve engagement. These methods for users and family to improve their engagement include (Gruman et al., 2010):

1. Find safe, decent care.
2. Communicate with health care professionals.
3. Organize health care.
4. Pay for health care.
5. Make good treatment decisions.
6. Participate in treatment.
7. Promote health.
8. Get preventive health care.
9. Plan for the end of life.
10. Seek health knowledge.

**N**urses must change their beliefs, thinking, actions, and care processes to promote user engagement in decision making.

# Core Concept 1: Users and Patients of Health Care

Many of these methods can be met by ensuring the user and family access the electronic health record (EHR). The patient or user portal provides valuable information and resources, empowering the user and family to be active participants in their care.

## Education

As nurses educate users, it is important to know about the populations served. Nurses understand that fully engaged users and patients are more likely to know about, and participate in, managing their care. Multiple components should be taken into consideration through assessment in order to structure and deliver health care education. These include:

1. Social determinants of health; socioeconomic status and needs
2. Complexity and number of user's problems
3. Health literacy
4. Caregiver support in home environment
5. Engagement and responsiveness of individual receiving care
6. Resources (human and material) available to support providers

In a value-based model, user education is given appropriate time between the nurse and the user. Education is also given throughout the nurse/user interaction so the nurse can continue to assess the user's understanding and the user's ability to incorporate it into his or her life.

## Technology

The digital age has already advanced individuals' involvement in their own health or chronic illness management. Individuals can already monitor their health or their chronic illness using a variety of methods and communicate electronically with their care providers (Topol, 2012). A high percentage of seniors with chronic conditions preferred to use their mobile devices.

Nurses should embrace and encourage these new forms of communication, education, and information seeking, and incorporate them into their new processes and models of care. Social media, apps, and wearable fitness devices have started to empower the user to engage in health improvement behaviors. The incorporation of these technologies into the nursing process and practice of care must be taken into consideration when designing new models of care delivery. Nurses can provide care through many different sources of technology; this interaction does not always need to be in a face-to-face or hands-on encounter.

## Finance

Health care financing is a challenging and complex topic to understand. It is important each nurse understands the PPACA as well as basics in financing of the health care system. The PPACA has many positive financial implications for users. Some of these implications include:

- Ends yearly and lifetime limit on health care costs.
- Every user has the same maximum out of pocket limit.
- Covers young adults under age 26 (on parents' plans).
- Requires insurance companies to cover preventative services at no cost to user.

These important implications will provide many users with coverage for the first time, and will encourage users to engage in primary care services

without costs. Staffing and care delivery models need to transform in order to provide the care and support to the many new users in the system, in which engagement, activation, and prevention are center stage.

**S**taffing and care delivery models need to transform in order to provide the care and support to the many new users in the system, in which engagement, activation, and prevention are center stage.



# Core Concept 1: Users and Patients of Health Care

## The 3-Year Challenge

To make the necessary advancements in staffing excellence, the charge within the Users and Patients of Health Care concept is to incorporate this set of standards into new care delivery and nurse staffing models by the end of 2017:

- A model of care that expects and performs nursing bedside report incorporating the user and family, as well as a rounding model that incorporates the user with the health care team.
- Shift from a volume to a value-based nurse staffing. Volume is based on the number of patients or tasks that must be completed. Value-based staffing takes heavy consideration into the evaluation and outcomes for each user based on his or her unique user-based care needs.
- Provider self-assessment in the area of health literacy has not been a routine part of nursing practice; there is a need for cultural competence self-assessment tools that incorporate health literacy (Singleton & Krause, 2009).
- Establish patient and family engagement as a core value for the organization (National Patient Safety Foundation [NPSF], 2014).
- Involve patients and families as equal partners in the design and improvement of care across the organization and/or practice (NPSF, 2014).
- Incorporate user-centric technology to support engagement and activation.

## The Nurse Leader Challenge Questions

- ▶ Are you demanding and using systems that are data based vs. opinion based?
- ▶ How are you identifying what kind of nurse you will become in the new system of care?
- ▶ How will you facilitate health care user engagement in decisions about personal health care plans?
- ▶ How will you create an evidence-based care model that supports the Center for Medicare & Medicaid's (CMS) triple aim of better health, lower cost, and better quality (Berwick, Nolan, & Whittington, 2008)?
- ▶ How will you influence the transition of your staff into the new models of care improvement?
- ▶ How will you create an environment where the user and family are involved in every decision surrounding their health care? What does a model of care look like where the user is the center of the health care team?

## Core Concept 2: Providers of Health Care

**T**HE SECOND CORE CONCEPT involves the changing role of the nurse and the transdisciplinary team, as well as the leadership and professional development necessary to meet the needs of these providers and today's health care challenges. The information here combines the two best practices outlined in the 2008 position paper: Participation and Professional Development.

The IOM's 2003 report, *Health Professions Education: A Bridge to Quality*, recommended all health professionals be educated to deliver patient-centered care as members of an interdisciplinary team in which evidence-based practice, quality improvement, and informatics are emphasized. The components to providers of care include the professional nurse, transdisciplinary team, leadership, and education and professional development. These components influence nurse practice through the provision of a base structure on which to build innovative models of care and nurse staffing.

### Professional Nurse

Professional nursing is a vital component of the health care system (Dall, Chen, Seifert, Maddox, & Hogan, 2009). However, nurses should not be viewed as a commodity. The use of traditional methods of managing nursing costs and labor expenses, such as hours per patient day, nursing hours per patient day, and ratios continue to perpetuate the belief that nursing is a cost center, as opposed to a revenue center, and, better yet, a profession. Newer terms are being used in place of the term "nurse staffing," such as "nurse assignment." However, just like the term "staffing," it still suggests nursing is a commodity, not a professional practice.

To shift thinking from nurses as a commodity to nurses as a profession, all nurses must change their thinking about their own practice and the practice of their staff. Nurse managers need to work with their finance and leadership teams to demonstrate that revenue is generated, not merely consumed, by nursing practice. Nurses themselves need to understand and demonstrate the impact each individual nurse has on each individual patient and create a culture that is supportive of this level of transparency.

Cultures supportive of professional practice are built on the understanding that the essence of a professional model mandates the privilege of autonomous practice be linked to the societal obligation to put the patient first. This obligation stems from an internal locus of control of the individual in the professional role that is supported by structure and process. Magnet® hospitals build their structures on this premise and require a defined Professional Practice Model where professional role decision making is clearly defined and supported (Forsey & O'Rourke, 2013).

To achieve excellence in staffing, the contributions of all nurses need to be maximized. In addition to new roles and practice for RNs, the role of the advance practice registered nurse (APRN) will be crucial. Many staffing and scheduling tools do not take into consideration these APRN roles as individuals (or employees). APRNs practice across settings and decades of research continue to show their effectiveness in primary and acute care settings. Gershengorn and colleagues (2011) found staffing models that included the daytime use of certified nurse practitioners were safe and effective alternatives to traditional house staff-based teams in high-acuity adult intensive care units.

### Transdisciplinary Team

As the health care system changes, those who provide care must also change. Nurses will need to move from a primary model of total care towards a partnership with a highly effective and diverse team of providers who unite to address patients' needs. With the shift from acute care to ambulatory care, health care providers must function together efficiently and effectively not only within a setting, but also across settings. Moreover, the PPACA requires an examination of interprofessional teamwork within and across settings, in an effort to integrate and coordinate care.

Care delivery does not happen with nurses only; nurses and patients rely on a team of professionals to help deliver that care (Mensik, 2013). Team-based health care is the provision of health services to individuals, families, and/or their communities by at least two health providers who work collaboratively with patients and their caregivers – to the extent preferred by each patient – to accomplish shared goals within and across settings to achieve coordinated, high-quality care (Naylor & Sochalski, 2010).

Ensuring the patient and family are at the center of the team requires careful planning and execution. Targeting of team-based care – matching resources to patient and family needs – is essential to maximize value-based care. Building bridges to ongoing activities related to team-based care is critical to ensure efficiency. The user will need care from professionals in several disciplines. Organizations will need to depart from looking at staffing for only one discipline (nursing) and only one setting (hospital) to staffing of the whole. Nurse staffing is integrated and coordinated within the transdisciplinary team and follows the patient throughout the continuum of care (Mitchell et al., 2012).

The incorporation of multiple perspectives in health care offers the benefit of diverse knowledge and experience; however, in practice, shared responsibility without high-quality teamwork can be fraught with peril (Mitchell et al., 2012). Therefore, it is important all team members:

## Core Concept 2: Providers of Health Care

- Understand the scope and role of all individuals who care for patients.
- Ensure nursing staff understand the roles and delineate roles for everyone.
- Utilize other disciplines to their full potential, ability, and scope to provide patient care.
- Know RNs do not need to provide all aspects of a patient's care.

To support the transdisciplinary team, it is important that ample time, space, and support are provided for team members to engage in meaningful evaluation of processes and outcomes together (Naylor et al., 2010). Utilizing all disciplines and creating a true interdisciplinary partnership will decrease workload, change practice (and therefore, RN staffing), and improve the quality and satisfaction of the users (Mensik, 2013).

### Leadership

Regardless of a nurse's position, every nurse is a leader and plays an integral role in the delivery of high-quality care at a lower cost. Managerial and leadership excellence is as important as clinical excellence for the front-line nurse. The IOM (2011) confirmed the importance of nurses taking on more leadership roles. Just as clinical nurses need to shift from a task-based practice, so must nurse managers shift their focus away from mundane administrative tasks. All health care leaders need to appreciate and demonstrate that well-educated and empowered nurse managers and directors are critical to achieving best practices and higher quality at less cost.

Managerial focus should be on preparing staff to function at the top of their license, ensure patient safety, and achieve the requirements of value-based purchasing. Nursing and executive leadership, finance, and human resources should share accountability for excellence in staffing and work together to achieve targeted quality and financial goals. Additionally, nursing executives' focus should be on strategy, leading effective health care change, and advocating for excellence in staffing for patients and staff at all levels of their organization and within professional, political, and regulatory forums.

### Education and Professional Development

In 2008, staff development was cited as the foundation for promoting continued excellence and professional growth. Education and professional devel-

opment should incorporate quality, safety, and cost with an adequate and appropriately sized health professions' workforce where professionals are educated and trained in team-based care and across the continuum. However, most certification programs are based on specialty- or setting-specific nursing knowledge. Regardless, nursing specialty certification is associated with better patient outcomes (Kendall-Gallagher, Aiken, Sloane, & Cimiotti, 2011).

Nurse competencies must be tailored to the needs of patients across the continuum of care and in all health care settings, not just hospitals. Individual nurse competency data should be used to determine the best nurse to care for a particular patient, given the patient's needs and available resources. In the end, it is critical that staffing mix and staffing patterns

take into account the role authority, role relationships, and role competence of each team member to ensure sufficient role competency resource at the professional, technical, and assistive levels (O'Rourke & White, 2011).

The IOM (2011) called for 80% of nurses to complete bachelor of science in nursing (BSN) degrees by 2020, and research is clear – nursing education matters. In another study, Aiken and colleagues (2014) found an increase in nurses' workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7%, and every 10% increase in BSN nurses was associated with a decrease

in this likelihood by 7%. This implies that patients in hospitals in which 60% of nurses were BSN prepared and where nurses cared for an average of six patients would have almost 30% lower mortality than patients in hospitals in which only 30% of nurses had BSN degrees and nurses cared for an average of eight patients.

Additional efforts to improve quality related to education are nurse residency models. Ten years of research shows retention rates for new graduates in the residency increased considerably in participating hospitals. Residents' perceptions of their ability to organize and prioritize their work, communicate, and provide clinical leadership showed statistically significant increases over the 1-year program (Goode, Lynn, McElroy, Bednash, & Murray, 2013).

For nurses to care for patients across the continuum, nurses will need to receive special education and preparation for care of the older adult, the fastest growing segment of our population. Additionally, all

**R**egardless of a nurse's position, every nurse is a leader and plays an integral role in the delivery of high-quality care at a lower cost.

## Core Concept 2: Providers of Health Care

nurses in all settings across the continuum will need to be educated and prepared to assume care for patients with increased acuity and complexity.

### Technology

Technology has improved nurses' abilities to provide care. Nurse staffing is technology dependent. Most specialty organizations' staffing guidelines, set ratios, and even acuity measures do not take into account the efficiencies created by technology (Mensik, 2013). Advances in technology, with demand from the public for improved clinical outcomes, accelerate the need for nurses to have the necessary skills and knowledge to manage the challenging care environment. It will also change the reliance of the individual on the provider to give data.

While many nurse informaticians have focused their skills and practice within the development and integration of EHRs, there are many other areas in technology that need nursing's perspective. As noted previously, social media and apps are becoming a part of everyday use in our lives. However, how many nurses work or consult for companies that build and develop these technologies? Opportunity exists for nurses to expand beyond the traditional walls of informatics into social media, apps, and wearable devices development.

### Finance

While the IOM (2011) confirmed the importance of certification and advanced education professional development, the question for many is who will fund this initiative? As health care reimbursement models change, less money will be available from employers to fund advance degrees and certifications. Health care educators and employers need to take steps to ensure nurses are prepared and allowed to practice to the full extent of their license. They need to consider nurses' professional responsibility to advance their education and ensure their own competencies, regardless of their setting or employer benefit package. Nurses should expect to fund more of their own educational and certification costs in the future, noting this is best for the patient as well as an individual professional responsibility.

Despite changes with the PPACA, one lagging issue in health care financing is reimbursement or coverage of virtual care services. As noted, users prefer mobile devices, applications, and social media to engage in health improvement behaviors. A lack of reimbursement can have a negative effect on innovative nursing models of care developed to support the user in these activities. While reimbursement for nurses to participate and provide support in these new care delivery methods may not exist, remember the shift from volume to value-based care. Re-admissions and other costly issues can be deterred, saving the system money in the long term, by focusing on preventative and innovative virtual care practices and models now.

**N**urses should expect to fund more of their own educational and certification costs in the future, noting this is best for the patient as well as an individual professional responsibility.

## Core Concept 2: Providers of Health Care

### The 3-Year Challenge

To make the necessary advancement in excellence in staffing, the charge within the Providers of Health Care concept is to incorporate this set of ideas into new care delivery and nurse staffing models by the end of 2017:

- A role-based practice for RNs vs. a technical-based practice. The BSN-prepared RN practice focuses most on assessment, diagnosis, planning, and evaluation; more on delegation to associate degree nurse (ADN)/diploma RNs to perform the actual interventions such as IV, medication administration, dressing changes, etc.
- Differentiate the BSN and ADN/diploma RN roles, job description, and pay.
- Clearly delineate the scope of practice for each staff member in the care delivery team. Then determine how the workflow for each member will impact the staffing in a clinic. Example: Utilize medical assistants to provide task-based care to increase time for the RN to be involved in care planning and managing sicker patients' needs.
- Create a plan where all nursing leaders (managers, directors, and chief nurses) are required to hold a minimum of a master's degree in nursing or relevant field to be credible and successful in their roles.
- All nursing education programs and health care employers participate in implementing the IOM recommendation that 80% of nurses complete their college education by 2020.
- Board certification of the nurse is as standard as board certification of physicians.
- The staffing structure includes the comparative effectiveness of differently configured teams across the continuum of care.
- In collaboration with nursing organizations, commit to strategies to override or remove restrictions on nursing practice in state scope of practice laws and regulations.

### The Nurse Leader Challenge

- ▶ How will you increase the attention and develop the knowledge, skills, and attitudes related to teamwork and collaboration?
- ▶ How will you ensure all health professionals are educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics?
- ▶ How will you assist your organization in conducting research and gathering data to determine optimal provider/caregiver mix and competencies across the health care continuum? How will you use these data to inform a new and necessary concept of "qualified staff," which will be more appropriate to care delivery under health care?
- ▶ How are you managing four generations in the nursing workforce and the implications that has for nurse staffing and the length of shifts?

## Core Concept 3: Environment of Care

**I**N THE PRIOR POSITION PAPER (Douglas, 2008), the hospital was the focus of most interventions for appropriate staffing and for the development and maintenance of a healthy work environment. With the passage of the PPACA, attention has expanded beyond the hospital walls. It is well understood that a healthy work environment is a key variable in staffing, and staff and patient satisfaction in the hospital setting. Better work environments and better-educated nurses work to improve outcomes (Aiken, Cimiotti, Sloane, Smith, Flynn, & Neff, 2011). The environment is equally important to patients' needs and nurses' competencies. This understanding must be expanded to settings across the continuum.

Organizational culture has a large influence on the environment of care. Components that compose the culture include an organization's expectations, experiences, philosophy, and values, and is expressed in its self-image, inner workings, interactions with the outside world, and expectations. It is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid. Organizational culture affects productivity and performance, and provides guidelines on user care and service, product quality and safety, attendance and punctuality, and concern for the environment.

By taking action, organizations avoid nurse burnout, moral distress, horizontal violence, and compassion fatigue (The Joint Commission, 2011). Organizations must understand that caregivers cannot meet the challenge of making health care safe unless they feel valued and find joy and meaning in their work.

In the third core concept, governance, structure, and safety are the components of environment of care. Excellence in staffing is achieved by giving priority to work-life balance for nurses that includes physical and emotional well-being and workplace safety.

### Governance

Staff involvement in decision making, which includes identification of problems and their solutions, is vital. The importance of decision making in staffing, meeting the needs of the current workforce, promoting work-life balance, and matching nurse competencies with patient need was described in the first position paper (Douglas, 2008). In 2014, the importance of these four concerns is acknowledged, but the focus is shifted to the broader issue of helping nurses to function as members of a transdisciplinary team. The American Nurses Credentialing Center (ANCC, 2013) Magnet source of evidence EP9 wants to know how direct-care nurses participate in staffing and scheduling processes. The following are steps to help develop staff and management skills in a shared decision-making style (Lugo & Peck, 2008).

1. Develop the shared governance team and define the problem.
2. Find, interpret, and utilize research to guide decision making.
3. Develop a strategy to improve the reassignment experience, support nurses, and provide high-quality patient care.
4. Implement recommendations.
5. Evaluate and monitor the revised program (Rudner Lugo & Peck, 2008).

Staff engagement can be done through many avenues. Committees/councils with direct-care nurse participation reinforces the concept that shared decision making should be embedded in the organization, regardless of the setting. Health care leaders understand that the failure to address interpersonal communication issues depletes the energy of their organization.

### Structure

Staffing practices, policies, and models are routinely updated to reflect findings from internal and external analyses, changes in the environment, current research and recommendations from patients, staff, and professional organizations. These structures, processes, and outcomes are in place so supervisors can continually monitor, measure, and assess effective staffing. The wheel does not need to be reinvented for structure. The ANCC Magnet Recognition Program, although traditionally acute-care based, can be embraced across all settings.

The ANCC Magnet Recognition Program brings structures, processes, and outcomes together to help organizations demonstrate the value of nursing and excellent outcomes. Since 2001, the ANCC Magnet program has offered credentialing to any organization that employs nurses, not just hospitals. Another nursing excellence program frequently used for organization as a first step towards Magnet recognition is the ANCC Pathway to Excellence Program. This program recognizes health care and long-term care organizations for positive practice environments where nurses excel. While both programs were built originally on work from studies completed in the acute care setting, research notes applicability of all the Magnet and Pathway principles in any type of organization that employs RNs, including home health (Mensik, 2007).

### Safety

Multiple reports have been published over the last 2 decades drawing attention to safety and health care. The IOM has been diligent in drawing attention to and providing improved reporting on the quality, safety, and value of U.S. health care. With the release of its 2001 report, *Crossing the Quality Chasm*, the IOM made fundamental recommendations for creat-

## Core Concept 3: Environment of Care

ing a health care system that is safe, effective, timely, efficient, equitable, and patient-centered.

Increased focus has evolved around the nurse's workweek and workload. Some organizations have moved away from 12-hour shifts to 8- and 10-hour shifts, as well as placing a limit of time when a nurse can return to practice, and a limit to the number of hours worked in any continuous 7-day period. Research supports previous findings of increased burnout among nurses who work shifts longer than 8 hours, but also found longer shifts (13 hours or more) are associated with increased levels of patient dissatisfaction (Stimpfel, Sloane, & Aiken 2012).

Additionally, schedule was related significantly to mortality when staffing levels and hospital characteristics were controlled (Aiken et al., 2011). Deaths from pneumonia were significantly more likely in hospitals where nurses reported schedules with long work hours and lack of time away from work, and certain mortality rates were associated significantly with hours per week and days in a row worked (Aiken et al., 2011).

Nurses seek to achieve zero avoidable events by understanding and utilizing the increasing evidence that there is a relationship between nurse staffing and errors. In one study, Kalisch (2009) noted that more than 70% of respondents reported missing interventions, basic care, and planning; the primary reason reported for missing care was limited labor resources (>85%).

Nurse turnover has a profound impact on a health organization's costs, quality of care, and the job satisfaction of its staff (Kalisch, 2009). Missed care and inadequate and inappropriate nurse assignments are not just an acute care issue, but issues and barriers to safe, quality care in all settings.

### Technology

Nursing staffing and scheduling systems must address the needs of organizations delivering care across the continuum, not just in inpatient settings. Staffing technology must be available and utilized to match patient demand with nurse competencies and education. These systems must enable the manager to ensure nurses are not working schedules or hours that create unacceptable fatigue and put the nurse at risk

for errors and injury. Sufficient data now exist to inform the rules that should be embedded in the system. The system can alert managers to staff who are at the limit of the acceptable work hours in a day, in a week, and in a pay period and prevent overworking and burnout.

The interface of the EHR with the staffing system should allow for transparent information flow related to patient flow, patient care requirements, and, ideally, predictive modeling for the purpose of projecting future staffing needs. Electronic staffing solutions should monitor the "real-time" workload of every nurse by connecting the EHR to the staffing assignments.

An example of this use of multiple databases and technology is the Veterans Health Administration (VHA), who created a fully automated staffing methodology for nursing personnel that is used across all settings and all points of care. This automated method of staffing integrates multiple VA databases including the decision support system, the pay system, and the VA Nursing Outcomes Database (VANOD). VANOD reports enable personnel to correlate nursing-sensitive indicators to evaluate staffing effectiveness (VHA, 2010).

### Financing

A main barrier to implementation of technology is financial. Capital spending for information technology applications in 2008 was projected to be 47% to 52% of a hospital's total capital budget and will remain relatively constant through 2013 (Health Information Management Systems Society, 2008). With that said, many organizations have little to no capital money left over to purchase support systems such as electronic staffing systems.

Multiple electronic staffing solutions exist from numerous vendors which take into consideration every element discussed. The key for nurse leaders is to demonstrate not only financial return on investment, but patient and nurse outcomes and satisfaction. Through integration and interfaces between multiple electronic data sources including the EHR, time and attendance, and human resource files, staff will use less time working on staffing and scheduling issues that are automated with electronic nurse input, and more time on other activities such as patient care.

The key for nurse leaders is to demonstrate not only financial return on investment, but patient and nurse outcomes and satisfaction.

## Core Concept 3: Environment of Care

### The 3-Year Challenge

To make the necessary advancement, the charge within the Environment of Care concept is to incorporate this set of ideas into new care delivery and nurse staffing models by the end of 2017:

- Implement transdisciplinary models of shared governance, not just discipline based.
- All organizations across the continuum should be actively working on Magnet Recognition or Pathways to Excellence Recognition programs.
- Develop instruments that measure the quality of the environment.

### The Nurse Leader Challenge

- ▶ How are you supporting nurse and provider transitions or handoffs knowing they are vulnerable exchange points that contribute to unnecessarily high rates of health services use and health care spending?
- ▶ How will you create an environment where the richest source of ideas for improvement is the front-line workers who live in the complexities of the current systems, have direct insights into failures, and see daily opportunities for improvement?
- ▶ How do we prepare nurse managers to be effective in staffing and care delivery innovation?
- ▶ How do we get all staff to desired levels of education?
- ▶ How do we assure successful transition of our health care professions into new positions and roles while eliminating current roles without losing talent and giving the appearance of downsizing?



## Core Concept 4: Delivery of Care

**T**HE EMPHASIS in the 2008 position paper (Douglas, 2008) was on inpatient-specific models. The new systems of care will require a balanced focus on the entire continuum where nursing services are provided. Although patients will continue to need acute care services, ambulatory, long-term, sub-acute, and other settings require more attention. The inpatient setting, which formerly generated profits, is becoming a cost center; the new imperative to move patients through inpatient care or prevent their admission, in the most effective and efficient manner possible to outpatient services, will change staffing models for both types of settings.

This section focuses on delivery of care. Delivery of care includes the components models of care, standards and regulations, health care financing, and technology.

### Models of Care

Delivery of care refers to the models used to deploy nurses to care for patients in various settings, including nursing and organization-wide care delivery models. Implicit in the design of models of care is adherence to the standards, laws, and regulations governing our practice. How you structure your care and who performs that care is at the heart of the care delivery model, which is essentially the method you use to deliver care. The care delivery model determines who you staff, how you staff, schedule, and workload quantification (Mensik, 2013).

New models of transdisciplinary care are necessary to meet the needs of users for seamless transitions from wellness through illness and return to maximum functioning or a peaceful death. These teams must include highly qualified nurses, and nurses in advanced practice and other roles, such as nurse navigators and care managers. The model of care on a unit, wing, floor, department, organization, or the community is the foundation on which staffing models are built. The model of care drives the base of what functions nurses and other disciplines complete.

Flow and physical design of the unit, department, or area for user care can have an impact on care delivery models, as well as nurse workflow, time, and staffing needs. As noted in a study by Chow, Hendrick, Skierczynski, and Zhenqiang (2008), individual nurses across all study units traveled between 1 and 5 miles per 10-hour day shift. On night shifts, when most activities and patient tasks decreased, the average distance traveled ranged from 1.3 to 3.3 miles per 10 hours. The shape and layout of your unit has an impact on how your staff function, and efficiency and effectiveness in meeting patient needs. Walk your unit and take notes on how your unit may impede or assist staff (Mensik, 2013).

### Standards and Regulations

Managers must consider government and organization standards, laws, and regulations, in addition to the needs of patients and nurses. Each nurse practice act should provide a clear understanding of the scope of practice. This scope is amendable through legislation in order to meet the changing needs of patients in all care delivery settings. As recommended by the IOM (2011), nurses must be permitted to work to the full extent of their training and licensure. This includes APRNs and RNs. Where restrictive policies exist, nurses must work to change them and strive for nursing practice that nationally recognizes the nurse's full capabilities. This will improve patient access to care and patient outcomes.

CMS Conditions of Participation demonstrate an understanding of the evolving care delivery models. State department of health standards often lag behind the changes in care delivery models. State nurse leaders must continually work closely with state officials to ensure advances are supported and reinforced. The relationship between lower patient-to-nurse ratios and inpatient mortality has been demonstrated in studies, which have been the impetus for laws in 15 states mandating some type of staffing legislation.

States that have enacted legislation and/or adopted regulations to address nurse staffing are California, Connecticut, Illinois, Maine, Minnesota, Nevada, New Jersey, New York, North Carolina, Ohio, Oregon, Rhode Island, Texas, Vermont, and Washington, plus the District of Columbia.

States that require hospitals to have staffing committees responsible for plans and staffing policy include Connecticut, Illinois, Nevada, Ohio, Oregon, Texas, and Washington.

States requiring some form of disclosure and/or public reporting are Illinois, New Jersey, New York, Rhode Island, and Vermont.

The ability of nurses to influence state legislation and federal policymaking bodies in their understanding of the complexity of nurse staffing will be important as nurses move this discussion forward. Determining methods of staffing require a thorough knowledge of the evidence to support the approach. Standards for staffing in skilled nursing facilities, home care, and ambulatory care must keep pace with the acuity of patients in these settings. In determining staffing needs, it is important to understand the role of APRNs, care coordinators, nurse navigators, and other roles yet to be created will evolve as health care changes. It will be key to ensure that legislated standards remain fluid, relevant, and effective.

In addition to state legislation, the following professional and specialty organizations published position papers related to staffing:

## Core Concept 4: Delivery of Care

- American Nurses Association (ANA)
- Emergency Nurses Association (ENA)
- Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)
- Association of periOperative Registered Nurses (AORN)
- American Public Health Association (APHA)
- American Association of Critical-Care Nurses (AACN)
- Academy of Medical-Surgical Nurses (AMSN)
- National Association of School Nurses (NASN)

Professional association staffing standards must also be updated continuously to incorporate the emerging evidence on staffing. These organizations can play a powerful role in supporting the implementation of excellence in staffing. Until recently, distinctions between the professional and legal scope of practice of health care professionals steered the delineation of roles. In the future, it will be necessary for nurses to fully understand the overlapping domains and how best to deploy resources to promote patient health.

### Technology

The American Recovery and Reinvestment Act of 2009 (ARRA) included the enactment of the Health Information Technology for Economic and Clinical Health Act (HITECH). Before the PPACA of 2010, this Act was considered the most important piece of health care legislation in 30 years. The point of the Act was not just to create EHRs, but to use technology meaningfully by having providers and health care staff achieve significant improvements in care (Mensik, 2013). Today, there are over 400 electronic health record vendors. This array of choices has decreased standardization, leading to a negative impact on the ability to conduct meaningful research on the impact of outcomes.

Technology can enhance or hinder the nurse's work. In particular, the EHR and hand-held devices have altered communication with patients and between providers; however, interoperability between settings continues to be a major issue. Each provider and each organization has its own EHR system in which information does not flow freely, creating bar-

riers to providing care seamlessly across the continuum. Organizations must ensure technology is implemented in a manner that facilitates the nurse's work and enhances documentation. Technology should allow the nurse to access all information needed to effectively care for her or his patients; this is critical to creating an environment where nursing care is optimal.

### Financing

Under the PPACA of 2010, new programs and services are being developed to improve quality and reduce costs. Many have focused on hospitalized patients with complex, chronic conditions that require moving through various levels of care and settings. As the country transforms the health care system from a focus on treating illness to a system that seeks to maintain health and prevent disease, the focus on changing from a volume to value-based health care delivery system becomes even more important.

Health care financing, at all levels, controls decision making for resource management. Supporting, adapting, and translating innovative models of care delivery are essential for meeting patients' needs and ensuring excellent outcomes. Health care systems are increasingly assuming financial risk for populations of patients and entering into a

variety of formal/informal agreements with certified home health agencies, ambulatory care systems, skilled nursing facilities, and other settings. New models of financing should continue to be investigated and introduced that align nursing and user outcomes.

However, each nurse, regardless of position, should understand more services will need to be provided with less resources. Treating the health care system like a wildly inefficient jobs program conflicts directly with the goal of ensuring all Americans have access to care at an affordable price (Baicker & Chandra, 2012). Therefore, understanding the direct impact one nurse has on one user will become paramount to demonstrate the value of nursing now and in the future.

Understanding the direct impact one nurse has on one user will become paramount to demonstrate the value of nursing now and in the future.

## Core Concept 4: Delivery of Care

### The 3-Year Challenge

To make the necessary advancement in staffing excellence, the charge within the Delivery of Care concept is to incorporate this set of ideas into new care delivery and nurse staffing models by the end of 2017:

- Activity-based accounting for measuring and accounting for nursing care that leads to value-based nurse staffing.
- Implement an electronic nurse acuity/nurse staffing system.
- Develop new specific benchmarks for nursing performance, effectiveness, and efficiency which captures care coordination and care coordination activities at the level of the individual RN and individual user.
- Partner with community-based workers such as health coaches.
- Adopt one standardized language to improve communication across specialties.
- Tie nurse staffing to nursing standardized language such as Nursing Intervention Classification and Nursing Outcome Classification systems.
- Expand pay-for-performance models that encourage best practices.
- Provide incentives for preventing disease and disability as strategies for maintaining quality and containing costs.

### The Nurse Leader Challenge

- ▶ How will you use real-time clinical and financial data to drive decision making at the point of care?
- ▶ How will you provide appropriate time for value-based activities such as admissions, discharges, and transitions, and user and family education?
- ▶ Telehealth can enhance care delivery, supplement scarce resources of caregivers, and reduce variation in care. How will you explore new uses for telehealth?
- ▶ Recognize that payers are now pursuing Accountable Care Organizations, which will change the funding approaches for care in all settings. How will you lead the nursing staff to do more with less?

## Core Concept 5: Quality, Safety, and Outcomes of Care

**T**HE HEALTH CARE INDUSTRY is moving towards a highly reliable industry (Chassin & Loeb, 2013). High-reliability science is the study of organizations in industries like commercial aviation and nuclear power that operate under hazardous conditions while maintaining safety levels that are far better than those of health care organizations. Adapting and applying the lessons of this science to health care may help hospitals and other health care systems reach levels of quality and safety that are comparable to those of the best high-reliability organizations.

In this final core concept, quality and continuous improvement, innovations, and evidence and research, are discussed.

### Quality and Continuous Improvement

Nurses should be engaged in identifying new models of care and staffing that improve quality and outcomes while reducing health care costs. Measuring the effectiveness of staffing is typically done by achieving quality outcomes and reductions in the cost of care. To guide efforts to achieve a value-based, efficient, effective, higher-performing, and less-costly nursing system, all organizations and settings must gather reliable information in a timely manner. Evidence demonstrates nursing care has a direct impact on the overall quality of services received, and that when RN staffing is adequate, adverse events decline and overall outcomes improve (ANA, 2014). Linking reimbursement to patient outcomes may facilitate the benefits from improved staffing, thus strengthening the financial incentive and providing the financial means to improve quality (Dall et al., 2009).

Health care quality is “The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (IOM, 1990, p. 21). Quality is further described as “Doing the right thing for the right person at the right time in the right way” (Eisenberg, 1998, para. 5). A high-quality health care system is one in which care is reliably Safe, Timely, Effective, Efficient, Equitable, and Patient-centered (STEEEP) (IOM, 2001). To create new innovative models of care and staffing models, nurses must have data that reflect nursing-sensitive indicators and other quality measures to make improvements in this changing environment. Research and innovative care and staffing models should be based on obtaining excellent patient outcomes from excellence in professional nursing practice. Multiple national organizations focus on some aspect of health care and/or nursing quality.

- The National Database for Nursing Quality Indicators (NDNQI)
- The Patient-Centered Outcomes Research Institute (PCORI)
- Collaborative Alliance for Nursing Outcomes (CALNOC)
- National Healthcare Safety Network surveillance reports
- Joint Commission (ORYX Core Measures)
- North American Nursing Diagnosis Association (NANDA)
- National Quality Forum (NQF)

Consumers now have access to quality indicators such as skilled nursing facilities, providers, hospitals, and home care agencies before they decide where to seek care. Users may examine the experience of providers including their training, certifications, and years in a specialized field of medicine. When evaluating health care settings, users examine mortality rates, patient satisfaction scores, and other measures. In 2012, the CMS ended payment to health care organizations for certain preventable hospital-acquired complicating conditions, a number of which are sensitive to nursing care.

### Innovations

Change and innovation must occur in order to improve the health care system. Innovation is the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. This is accomplished through effective products, processes, services, technologies, or ideas that are readily available to markets, governments, and society. A formal organizational structure supports innovation by allowing new ideas to be discussed, reviewed, and adopted to further excellence in staffing practices. Open dialogue is nourished, trust is fostered, and the spirit of creativity is generated. An organization committed to excellence should seek out new approaches to promote the development of effective staffing practices. Everyone responsible for care delivery should be rewarded for recommending innovative ideas. This includes users, nurses, other transdisciplinary team members, providers, managers, and leadership.

The CMS Innovation Center is encouraging innovation in health care settings across the continuum. Innovation pilots are testing various payment and service delivery models that aim to achieve better care for patients, better health for our communities, and lower costs through improvement for our health care system. Many have and will create innovative models for nurses in which traditional staffing methods may not hold true. There are seven current initiatives from which demonstration projects are created.

- Accountable care
- Bundled payments for care improvement

## Core Concept 5: Quality, Safety, and Outcomes of Care

- Primary care transformation
- Initiatives focused on the Medicaid and CHIP population
- Initiatives focused on the Medicare-Medicaid enrollees
- Initiatives to speed the adoption of best practices
- Initiatives to accelerate the development and testing of new payment and service delivery models

One particular demonstration project is focused on understanding the effects of a payment model for graduate nursing education. CMS has provided reimbursement to five hospitals for the reasonable cost of providing clinical training to APRN students.

Nurses must continue to lead innovation in nurse staffing, care models, and user outcomes. However, these changes must be tied to those value-based activities that professional nurses perform, including ongoing monitoring and assessment of the patient, and, as necessary, initiating interventions to address complications or reduce risks; coordinating care delivery by other providers; educating patients and family members for discharge; and evaluating outcomes.

### Evidence and Research

There is a plethora of research on nurse staffing and outcomes. While mainly inpatient focused, the results are transferrable in that nurse staffing has an impact on user outcomes regardless of the setting. The Agency for Healthcare Research and Quality (2004) has funded multiple studies focusing on nurse staffing and outcomes (Stanton, 2004). Just a few of the outcomes in addition to all the others noted in this position paper include:

- Higher staffing at all levels of nursing was associated with a 2% to 25% reduction in adverse outcomes, depending on the outcome.
- Higher rates of RN staffing were associated with a 3% to 12% reduction in adverse outcomes, depending on the outcome.
- Major surgery patients in hospitals with high RN staffing had lower rates of two patient outcomes (urinary tract infections [UTIs] and failure to rescue).
- In hospitals with high RN staffing, medical patients had lower rates of five adverse patient outcomes (UTIs, pneumonia, shock, upper gastrointestinal bleeding, and longer hospital stay) than patients in hospitals with low RN staffing.

Evidence is the foundation of excellence in staffing and the development of effective nurse staffing policies and procedures. If the evidence is used, and we hold each other accountable for excellence in nurse practice, and implement the staffing needed to accomplish that goal, then staffing legislation may not be needed. Safe and appropriate staffing is informed by valid and reliable data. Individuals who make staffing decisions must have ready access to multiple data points. These same points of information can be gathered across any setting to build research on the connection between nurse, professional practice, and user outcomes outside of the acute care setting. These data points include:

- Accurate and current data on the condition of patients and their nursing needs.
    - The available resources, including the role competencies of available staff, as well as their skills, experience, work schedule, fatigue level, and other variables that may influence their ability to provide care.
    - Information about scheduled procedures, admissions, discharges, and transfers.
- Mechanisms should be in place to monitor and adjust nurse staffing based on new research, current recommendations, and best practices promulgated by professional groups and associations, and other feedback processes.

While there is some excellent work upon which to base the design of nurse practice, staffing, and care delivery models, there is also more work to do. For such efforts to be most helpful to institutions and policymakers, metrics should be standardized and agreement obtained on the meaning of common terms. Furthermore, consensus should be reached on the required data structures for supporting a complete analysis of staffing practices and their impact on quality and economic viability.

Government and private sources must fund research and disseminate findings to nursing personnel responsible for nurse staffing. Adopting evidence-based staffing is critical to patient safety and professional advancement. It is through the regular collection, reporting, and analysis of data on the impact of staffing that safe and sustainable staffing practices will become the norm.

**E**vidence is the foundation of excellence in staffing and the development of effective nurse staffing policies and procedures.

## Core Concept 5: Quality, Safety, and Outcomes of Care

### Technology

When fully implemented, an EHR can automate manual tasks, streamline documentation, and enhance communication among caregivers (Staggers, Weir, & Phansalkar, 2008). This includes the EHR's capability for clinical decision support (CDS). The main purpose of CDS is to assist staff and physicians at the point of care to determine diagnoses, analyze patient data, and determine next steps in care, or to guide the next set of interventions (Berner & LaLande, 2007). A CDS system brings in the best evidence and research to improve the likelihood quality outcomes will be achieved. The CDS might provide several suggestions and allow the nurse to choose the action. "In a systematic review of computer based systems, most, 66%, significantly improved clinical practice" (Kawamoto, Houlihan, Balas, & Lobach, 2005, p. 1). A CDS system can have a positive impact on staffing. Since the system assists with decisions, nurses can implement patient care safer and faster.

### Financing

Over the last 50 years, health care has moved away, but not completely from fee for service. As health care reform moves from a volume-based reimbursement system to a value-based system, reimbursement is following suit. An initial step occurred in 2008 when

CMS stated hospitals will not receive additional payment for cases in which one of the selected conditions was not present on admission (hospital-acquired conditions).

In 2010, Congress authorized the inpatient Hospital Value-Based Purchasing (HVBP) of the PPACA. Hospital VBP is part of the CMS effort to link Medicare's payment system to improve health care quality, including the quality of care provided in the inpatient hospital setting. The goal of the program uses financial incentives to encourage organizations to do the following:

- Eliminate or reduce the occurrence of adverse events.
- Adopt evidence-based care standards that result in the best outcomes for the most patients.
- Re-engineer hospital processes that improve patients' experience of care.

Value-based purchasing is not inpatient acute care centric. It also extends to physicians, cancer centers, ambulatory centers, dialysis centers, and inpatient psychiatric units, and is continuing to expand to other care settings. Nurses are uniquely positioned to innovate care delivery and staffing to create models of care that support the goals of the CMS VBP program.

It is through the regular collection, reporting, and analysis of data on the impact of staffing that safe and sustainable staffing practices will become the norm.

## Core Concept 5: Quality, Safety, and Outcomes of Care

### The 3-Year Challenge

To make the necessary advancement in staffing excellence, the charge within the Quality, Safety, and Outcomes of Care concept is to incorporate this set of ideas into new care delivery and nurse staffing models by the end of 2017:

- Innovations in care delivery must be supported and replicated to ensure implementation of sound improvements throughout the continuum.
- Wireless communication can improve communication among caregivers and facilitate safe patient care. Consider this technology for your unit, remembering to consider patient safety, nurse efficiency and communication, and your budget.
- Nurses measure their outcomes within the continuum of care, not just the episode of care in a particular geographic setting.
- All settings implement national safety standards and programs that eliminate needlesticks, slips and falls, and back injuries. Example: ANA's Transdisciplinary Safe Patient Handling and Mobility Standards.
- Improve risk stratification that will influence population management. Determine interventions needed in order to achieve goals that can only be accomplished through user engagement.

### The Nurse Leader Challenge

- ▶ How will you develop new educational models and partnerships for advancement opportunities through clinical ladders, onsite collegiate education, and flexible scheduling?
- ▶ How will you gain awareness of grant funding sources for demonstration projects that test the new models of care for providing much needed support for this work?
- ▶ The staffing model, policies, and practices are based on and driven by evidence. How will you ensure there is access to multi-dimensional data supporting informed and effective decision making?

**T**HIS POSITION PAPER was created to update the 2008 position paper, *Excellence and Evidence in Staffing: Essential Links to Staffing Strategies, Design and Solutions for Health-Care*. The goal of this 2nd Edition is to start the dialogue for excellence in nurse staffing across the care continuum. Further papers will be developed and discussions need to occur for each setting where nurses provide care. Future topics include but are not limited to:

- Professional transdisciplinary team practice excellence.
- Role of technology in practice and staffing.
- Value-based financial models for care.

There is a range to the knowledge of nurse staffing across different settings. Some settings and specialty organizations have clearly defined standards while other organizations are still in early stages of developing that information. This is an important crossroad where representatives from all settings need to come together to discuss nurse staffing across the continuum.

### Setting-Specific Staffing

The following is information about each major setting related to challenges, issues, and knowledge regarding nurse staffing. A goal for future discussion papers is to take a deeper focus on each setting in relationship to health care reform, care delivery models, and nurse staffing.

#### Long-Term Care

There is a need for improved competencies for nursing home nurses who now are caring for higher-acuity patients. Additionally, the number and mix of nurses in nursing homes need to change (e.g., in some nursing homes a RN is not available on all shifts). A high-acuity resident, often with acute and unstable conditions, requires frequent assessment. Without the RN present, either the patient is not assessed or a licensed practical nurse (LPN) is forced to practice outside her or his scope of practice. Additional issues include:

- For those conducting research in long-term care, the challenge is obtaining data from CMS, which CMS has been mandated to obtain but has not yet done so.
- Residents need more nursing care hours. A CMS staffing study found nursing home residents need an average of 4.1 hours of direct-care staff (including 0.75 for RN, 0.55 for LPN) time per day to live safely and not suffer harm (Harrington, 2005); the American Health Care Association (2012) noted 3.67 total hours are actually provided.

- With the current staffing patterns being less than optimal, the situation will become dire as patients are discharged to nursing homes earlier.
- There are insufficient registered nurses in nursing homes (only 10% of the nursing staff are RNs).
- Turnover is high (at 62.8% for staff RNs, 55.3% for nursing assistants, and 43.1% for LPNs).
- LPNs functioning outside their legal scope of practice due to insufficient RNs.

#### Home Health

The Easley-Storfjell Instruments for Caseload/Workload Analysis have been used successfully by home health managers to document the type, quantity, and complexity of services provided by clinicians, teams, and the entire nursing staff. However, this tool was developed in 1997, prior to many changes in the current health care environment. This tool measures both the time requirements and complexity of interventions, and has been useful in assigning cases, managing caseloads and workloads establishing benchmarks, and monitoring productivity (Storfjell, Allen, & Easley, 1997). With the increased acuity of patients in home health and changes in health care, there should be an increased focus on value-based nurse staffing and care coordination across the continuum.

Outside of this tool, there is little research of outcomes on home health nurse staffing, caseloads, and productivity. Typically, home health productivity for nurses has been measured in average patients seen per day; comparison data are provided by a trade association. There is little research that connects productivity to home health outcomes.

- Home health RN productivity averages were 4.96 in 2009. Specifically, 5.13 visits are made per nurse per day. This is a volume-based method for nurse staffing, not a value-based method (National Association for Home Care & Hospice, 2009).
- Additionally, productivity is monitored in terms of caseload, taking into consideration the number of patients a case manager RN would oversee in addition to visits.

#### Hospice

The National Hospice and Palliative Care Organization (NHPCO, 2013) states the primary consideration that should be used by a hospice to determine optimal staffing caseloads is the hospice system's ability to meet the needs of patients and families through appropriate use of resources and achieving the quality goals set by the hospice program.



## Next Steps

NHPCO also states it would be ideal to compare caseloads based on level of patient acuity. However, there is no validated instrument in common use by hospices that would allow for such a comparison. Some of the following factors were chosen as surrogates of acuity.

- Higher percentage of short length-of-stay patients.
- Lower percentage of routine home care patients.
- Admission of patients receiving disease-modifying therapies.
- Psychosocial issues of high complexity.
- Staff safety issues.

### **Ambulatory Care**

Care models in today's ambulatory environment are constantly evolving toward team relationships between licensed professionals and unlicensed personnel. Patients are receiving innovative health services, such as care coordination and referral to internal and external health care resources (Mastal, 2012). Nurse staffing is a complex issue in this setting as a large variety of care is provided to users with many different needs. To expand the understanding of nurse staffing and the value-based care given in this setting, the following strategies are recommended.

- Communicate the powerful story of professional progress made by ambulatory care nurses and articulate their ability to positively impact patient care and outcomes.
- Expand the body of knowledge for ambulatory care clinical and telehealth nursing practice by conducting and/or applying the findings of scientific studies that build evidence-based nursing practice.
- Lead organizational efforts to define and implement professional nursing roles that promote autonomy, enhance collaboration, improve patient care, and address core competencies in care coordination and transition management.
- Ensure EHRs include robust documentation tools that support professional ambulatory and telehealth nursing practice.

### **School Nursing**

School nursing must come out of the "hidden public health system" and become visible. School nurse interventions need to be documented using a standardized language and analyzed to show the evidence of what interventions keep students in school and ready to learn. Only then can we develop a model of care that can be recommended across the nation.

Ratios for school nurses have been suggested. The National Association of School Nurses (2010; 2013) recommends a formula-based approach with minimum ratios of nurses-to-students depending on the needs of the student populations.

### **Public Health**

Public health nursing is the practice of promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences (American Public Health Association, 2014). Preliminary analyses of profile data identified governance pattern and the provision of specific clinical services as major influences on the number and types of public health workers in local health departments serving populations of all sizes. Work systems must focus on three key elements: the worker, the work, and the work organization with staffing benchmarks conveying important information for all three. Local public health practice, the scope and content of the work to be performed, as well as strategies for delegating duties and roles, are continuously evolving, thereby making formation of benchmarks a moving target (National Association of County & City Health Officials [NACCHO, 2011]).

Four recommendations have been noted to further develop and refine benchmarking for local public health agencies:

- Develop and deploy an initial local health department staffing application.
- Proceed toward the development of a U.S. local public health workforce adequacy application.
- Plan revisions of future profile survey questions related to the local public health workforce data sources and identify beneficial enhancements of existing federal data systems in order to advance these benchmarking applications.
- Increase public health systems research in this area (NACCHO, 2011).

### **Correctional Facilities**

According to the Bureau of Justice Statistics' Corrections Unit, there were over 2.2 million prisoners in the United States in 2012 (Carson & Golinelli, 2013). The inmate population is aging, due to "longer mandatory prison sentences and restrictive release policies, combined with the upward shift in the age distribution" (Weiskopf, 2005, p. 337). These factors together resulted in severely overcrowded conditions, and consequently in the growing demand and need for health care services within the correctional system. Despite this upward trend in the inmate population, there has been little research in the area of health care delivery and nursing within prisons (Weiskopf, 2005).

Specific areas of expertise and research that may require development for nurse staffing in correctional facilities include:

- Chronic disease management through appropriate prescribing, and early detection and prevention of disease (Bennett, Coleman, Perry, Bodenheimer, & Chen, 2010).

## Next Steps

- Ability to implement early interventions (Bennett, Perry, Lapworth, Davies, & Preece, 2010).
- Skills and knowledge required to care for pregnant women in prisons.
- Skills in mental health and learning disability (Bennett, Coleman et al., 2010).
- Improving access to secondary care referrals (Bennett, Coleman et al., 2010).
- Culturally competent care for ethnic minority prisoners (Bennett, Coleman et al., 2010).
- Ability to promote health of prisoners (Bennett, Coleman et al., 2010; Bennett, Perry et al., 2010).
- Accurate assessment of health needs (Bennett, Perry et al., 2010).
- Educating prisoners about self-care (Bennett, Perry et al., 2010).

### **Insurance Industry**

Little is known about the future role of the insurance industry as a provider of care. Research is needed about the new roles of RNs and APRNs within the insurance industry. Nurse staffing will be important in this setting to determine value-based care and outcomes.

### **Hospitals**

The majority of research on nurse staffing and outcomes exists in this setting. However, many recommendations for appropriate staffing have not been placed into practice. This is the opportunity to make what is known operationalized in all hospitals.

- Provide staffing levels that reflect the 75th percentile of the National Database of Nursing Quality Indicators (NDNQI®) database.
- Expand acute care research to include new nursing roles that focus on the care continuum and value-based care.

## Glossary of Terms

**Excellence in staffing:** Excellence in staffing is a dynamic, data-driven process that takes place throughout the continuum of care based on the needs of users and patients of health care. Excellence in staffing will result in the efficient, effective, and optimized use of qualified staff and the stewardship of resources to achieve the best possible outcomes for users, patients, families, workforce, organization, and community in which care is delivered.

**Innovation:** The application of better solutions that meet new requirements, unarticulated needs, or existing market needs.

**Health care quality:** The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

**Transdisciplinary practice:** Transforming your practice as you become aware of how all other disciplines practice individually, so you can function to the highest extent in your role with the other team members in providing care to the user.

**User of health care:** The person actively engaged in his or her health care. Formerly, the user was called the patient or the client. A more explanatory title that indicates an individual as the driver of his or her own care and services, his or her direct role in the prevention of illness, and his or her active role in health maintenance and services. The user is the driver of services, not the provider (AHA, 2013).

## Moving Forward: Thoughts from the Board

**I**T HAS BEEN NOTED throughout this position paper that the focus is to develop a provocative dialogue about the challenges confronting this new era of health care. While this position paper is not intended to be the final word on staffing evidence and excellence, it is intended to be a catalyst for future work toward creating a safer health care system.

We have gathered resources and data on various aspects of the relationship of excellence in staffing to patient outcomes and satisfaction, nurse safety, and financial outcomes, etc., mainly in the acute care setting. However, the generally accepted methods on staffing often neglect data and evidence that involve the short and long-term process of nurse staffing. There is also insufficient comparable data in ambulatory care, long-term care, and hospice care. These settings, where much of the care of patients and the work of nurses is moving, must be included in the dialogue. Unfortunately, much of the information about the processes of staffing remains opinion based. It is not measured against upstream outcomes of the staffing decisions. The information lacks adequate technology to make the processes predictive, clinically intelligent with the inclusion of predictive and suggestive analytics, and robust with opportunities to measure and improve the process of staffing. There are several challenges and considerations that must be overcome to garner robust measures and analytics:

1. What is the roadmap to embed available measures and analytics into daily staffing operations and long-range planning?
2. What is the roadmap to address the gaps, especially where there is very little data available about the effects of staffing in areas such as home health, ambulatory centers, hospice, and others including continued data needed for the changing health care scene in acute care settings?

The Institute for Excellence and Evidence in Staffing seeks to address and energize the field of data-driven staffing in several ways:

1. Commission future discussion papers on the areas needing more work to fill in the missing knowledge and information about leading practices.
2. In collaboration with *Nursing Economic\$*, publish at least 20 articles on best practices and care models from across the continuum in the next 3 years.
3. Publish a 3rd edition of this position paper that will analyze and synthesize relevant data, trends, and provocative thinking over the next 3-5 years.

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Fourth, *Nursing Economic\$* has had a long history of supporting the work of staffing as evidenced by the publication of three special issues on staffing, and now the publication of this very important work in a separate supplement, and the commitment to selectively publish a minimum of 20 peer-reviewed articles in the next 3 years. A new partnership with the Institute for Excellence and Evidence in Staffing now includes a column on staffing edited by Karen Kirby. Their support is greatly appreciated.

And, finally, the support and special sponsorship from Kirby Bates Associates, Inc., has been vital to this work.

We invite feedback, further provocative thoughts, and volunteers to help with future discussion papers and the work of the Institute for Excellence and Evidence in Staffing. Only with the support of a wide variety of diverse thought leaders will this work become meaningful. We thank you for your future commitment to this work.

— *The Board of the Institute for Excellence and Evidence in Staffing/On Nursing Excellence*

### Become an Active Participant

Access, comment, contribute to this work at  
[www.staffingexcellence.org](http://www.staffingexcellence.org)

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