# Unit 1
# Introduction

# CHAPTER 1

# Introducing the Clinical Nurse Leader: A Catalyst for Quality Care

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## Introduction

> **"Imagination is the beginning of creation: you imagine that you desire, you will get what you imagine, and at last you create what you will."**
>
> **George Bernard Shaw**

Health care is at a crossroads. Economic instability, mushrooming costs, rapid growth in biomedical advances, workforce shortages, changing population demographics, and demands for better outcomes all call for new ways of delivering health care and educating future health professionals. Nursing is faced with its own unique challenges, including the fragmentation of care, retention of nurses in the profession, opportunities for career advancement, utilization of nurses to the full scope of practice, and equipping clinicians with the knowledge and skills needed to address the competing demands of a complex healthcare system. Inter- and intraprofessional collaboration are key to meeting these challenges. Innovative partnerships between practice and education are even more critical in addressing and sustaining effective solutions for the long term. Within this healthcare environment, the American Association of

Colleges of Nursing (AACN), in partnership with practice leaders, has created the clinical nurse leader (CNL), the first new nursing role in over 40 years. The CNL is prepared to respond to today's challenges and readily adapt to meet the needs of the rapidly changing healthcare environment.

## The Healthcare Environment

In 1999, the Institute of Medicine (IOM) released its landmark report, *To Err Is Human: Building a Safer Health System*, which estimated that up to 98,000 Americans die each year as a result of medical errors (IOM, 1999). Subsequent estimates indicated that these numbers may be even higher (Leape & Berwick, 2005). The estimated national costs of preventable adverse events (medical errors resulting in injury) are in the billions. In addition, medication-related errors and mistakes that do not result in actual harm are extremely costly and have a significant impact on the quality of care and healthcare outcomes. Over the past decade, the IOM and others, including the American Hospital Association (AHA), The Joint Commission, and the Robert Wood Johnson Foundation, have all called on healthcare systems to refocus their efforts to reduce medical errors, improve patient safety, and reevaluate how future health professionals will be educated (IOM, 2003; AHA Commission on Workforce for Hospitals and Health Systems, 2002; The Joint Commission, 2002; Kimball & O'Neil, 2002).

A report released by the AHA in 2007 estimated that U.S. hospitals needed approximately 116,000 registered nurses (RNs) to fill vacant positions nationwide. By 2020, federal officials with the Health Resources and Services Administration (HRSA) project that the nation's nursing shortage will intensify with more than 1 million new and replacement nurses needed. In addition by the year 2015, this shortage is projected to encompass the entire country, with all 50 states experiencing a shortage of nurses to varying degrees (Health Resources and Services Administration, 2006). The impact of the nursing shortage on the quality and outcomes of nursing care has dire consequences if not addressed. Needleman and associates demonstrated that lower nurse staffing levels were associated with adverse patient outcomes, including higher rates of pneumonia, urinary tract infections, length of stay, and "failure to rescue" (Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002). Aiken and colleagues found that low nurse-to-patient ratios were related to higher risk-adjusted 30-day mortality and "failure to rescue" rates. In addition, nurses practicing in settings with lower nurse-to-patient ratios were more likely to experience burnout and job dissatisfaction (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002).

In addition to the predictions for a long-lasting nursing shortage and the universal calls from outside nursing to change the way health professionals are educated and practice, several studies have demonstrated that more nurses educated at the baccalaureate levels or higher produced better patient outcomes, specifically reduced mortality and failure-to-rescue rates (Estabrooks, Midodzi, Cummings, Ricker, & Giovannetti, 2005; Aiken, Clarke, Cheung, Sloane, & Silber, 2003).

## Leading the Profession to a New Vision for Nursing Education

In direct response to the changing global demographics, a healthcare system in turmoil, and drastic shortages of nursing professionals, the AACN has entertained an ongoing dialogue to examine and shape nursing education. For over a decade, this dialogue, including broad representation of stakeholders internal and external to nursing, focused on the knowledge, skills, and competencies needed by professional nurses to address the demands of an evolving healthcare system. From this dialogue has emerged a preferred future for nursing and new models for nursing education. This vision encompasses all levels of nursing education, from the baccalaureate degree to the doctorate (Stanley, 2008). The CNL, prepared at the master's degree level as an advanced generalist to practice in any healthcare setting, however, is the linchpin in this preferred future.

In 1999, the AACN Board of Directors formed the Task Force on Education and Regulation for Professional Nursing Practice (TFER). The task force developed new education models, including a model for the "new nurse" graduate, a clinician educated beyond the 4-year baccalaureate degree with a new license and legal scope of practice. After consultation with nurse executives, regulators, and other key stakeholders, the TFER determined that a new role was needed to differentiate professional nursing's scope of practice. At the same time, the National Council of State Boards of Nursing (NCSBN) indicated it was not possible to create a separate license for entry-level nurses educated at the associate and baccalaureate degree levels unless the roles were well differentiated.

In 2002, in response to the recommendations from the TFER, the AACN Board created TFER II, charged with examining what competencies were needed in the current and future healthcare system to improve patient care outcomes. A wide array of stakeholders, representing nursing education and practice, medicine, healthcare administration, pharmacy, public health, and others, were invited to provide input into what

the "new nurse" role might look like. This work resulted in the 2003 publication of the *Working Paper on the Role of the Clinical Nurse Leader*. Prior to its publication, in addition to the competencies needed for this new role, many discussions were held within AACN and with external groups on a possible name for this new role and what educational preparation would be needed to prepare someone to practice at this level.

## The CNL Initiative Is Born

Since these early stages in the evolution of this new role, the AACN Board has remained committed to the implementation of the CNL and the involvement of both education and practice. In 2003, the Implementation Task Force (ITF), comprised of representatives of both education and practice, was appointed to oversee the development of this new role. Modeling the importance of education-practice partnerships, the American Organization of Nurse Executives (AONE) was invited to appoint a representative to serve on the ITF. Another extremely important partner in this initiative has been the Department of Veterans Affairs (DVA). Cathy Rick, Chief Nursing Officer, as an early stakeholder, has been a proponent of the CNL from its early stages, and the DVA has participated at all levels in collaborating on the design and implementation of the CNL. This joint participation of education and practice has been a key factor in the success of the initiative. In January 2007, the ITF submitted its final report and recommendations to the AACN Board. Tremendous strides had been made in moving the CNL initiative forward; however, continued support and leadership by AACN was critical to sustaining the early momentum and ensuring continued growth. Responding to this recommendation, in March 2007, the AACN Board appointed the CNL Steering Committee, comprised also of education and practice representatives, whose primary charge was to elevate the visibility and sustainability of the CNL-advanced generalist role and measure the CNL's impact on patient care outcomes.

### *Key Steps and Landmarks Along the Way*

In October 2003, AACN sent an open invitation to all deans of schools of nursing, inviting them to participate in an exploratory meeting on the CNL role, which included exploring the implications and expectations for education programs and the transformation of care delivery models. The only requirement of participants was that they attend with at least one nurse leader from a practice institution. Over 280 individuals representing 100 potential partnerships attended this exploratory meeting.

By March 2004, a request for proposal (RFP) was sent to all AACN member schools, inviting schools and their practice partners to commit to implementing the CNL role, including the design of master's-level CNL curriculum and integration of the CNL role within at least one unit in the practice setting. In June 2004, the ITF sponsored a CNL Implementation Conference for all education practice partners participating in the initiative. Representatives from 79 schools of nursing and 136 practice organizations participated, with the goal of advancing the CNL movement.

By fall 2006, the number of partnerships had grown to 87, representing 93 schools of nursing and 191 healthcare practice settings. The number has continued to grow and now includes 106 schools and over 200 practice settings.

Numerous forums and conferences, including annual CNL conferences, have been held since the initial CNL Implementation Conference in June 2004. Most recently, the joint AACN-DVA CNL Summit was held in New Orleans, Louisiana, in January 2009. Over 400 faculty members, deans, CNOs, CNLs, students, healthcare administrators, and physicians attended the summit, highlighting the success and growth of the CNL initiative. The newly created CNL Association (CNLA), open to all CNLs and students, held its inaugural meeting during the 2009 summit as well.

Another landmark decision was the development of a CNL certification examination and designation. CNL certification provides a unique credential for graduates of the master's and post-master's CNL programs. The CNL Certification Examination was piloted by 12 schools, November 2006–January 2007. The first regular administration of the CNL Certification Examination occurred in April–May 2007. Since that time over 600 CNLs have been certified and may use the credential and title CNL. The Commission on Nurse Certification (CNC) was formed in 2007. An elected board and staff oversee all certification related activities and policies.

AACN was also successful in trademarking the CNL title and the CNL Certification Examination in an effort to protect the integrity of this new designation. Only individuals who are successful in obtaining CNL certification may use the title CNL.

## The CNL Role

The design of the CNL role was done in collaboration with constituents from a broad array of stakeholders within the healthcare system. As the role emerged, it became evident that many leaders in practice had already identified the need for a nurse with these skill and knowledge sets. Similar roles were being developed and emerging

on an ad hoc basis in settings across the country. Nurses were being recruited to fill these roles based on availability, clinical experiences, and self-selection. In many instances these nurses were completing classroom and clinical experiences without receiving academic credit or recognition of the advanced competencies being acquired. In addition, there was no standardization of the competencies and experiences required, and the utilization of these nurses varied from site to site. All of these factors prevented these CNL forerunners from moving from one care setting to another, discouraged the duplication of care models, and made it difficult to assess the impact these clinicians were having on care outcomes.

## Assumptions About the CNL

Ten assumptions about the CNL were made early on as role competencies were delineated and curricula designed. These assumptions included the following:

1. Practice is at the microsystem level.
2. Client care outcomes are the measure of quality practice.
3. Practice guidelines are based on evidence.
4. Client-centered practice is intra- and interdisciplinary.
5. Information will maximize self-care and client decision-making.
6. Nursing assessment is the basis for theory and knowledge development.
7. Good fiscal stewardship is a condition of quality care.
8. Social justice is an essential nursing value.
9. Communication technology will facilitate the continuity and comprehensiveness of care.
10. The CNL must assume guardianship for the nursing profession.[1]

## Key Components of the CNL Role

The CNL is seen as a leader in the healthcare delivery system—not just the acute care setting, but in all settings in which health care is delivered. The implementation of

[1] Model C (see Table 1-1): Second-degree programs for individuals with a baccalaureate degree in another discipline are expected to prepare graduates with the CNL competencies in addition to the competencies delineated in the AACN (1998) *Essentials of Baccalaureate Education for Professional Nursing Practice*.

the CNL role, however, will vary across settings. The CNL is not an administrative or management role. The CNL assumes accountability for patient care outcomes through the assimilation and application of evidence-based information to design, implement, and evaluate patient plans of care. The CNL is a provider and manager of care at the point of care to individuals and cohorts of patients within a unit or healthcare setting. The CNL designs, implements, and evaluates patient care by coordinating, delegating, and supervising the care provided by the healthcare team, including licensed nurses, technicians, and other health professionals.

The defining aspects of CNL practice include the following:

- Leadership in the care of patients in and across all settings;
- Implementation of evidence-based practice in all healthcare settings for diverse and complex patients;
- Lateral integration of care for a specified group or cohort of patients;
- Clinical decision making;
- Design and implementation of plans of care;
- Risk anticipation, specifically evaluating anticipated risks to patient safety with the aim of quality improvement and preventing medical errors;
- Participation in identification and collection of care outcomes;
- Accountability for evaluation and improvement of point-of-care outcomes;
- Mass customization of care;
- Client and community advocacy;
- Education for individuals, families, groups, and other healthcare providers;
- Information management, including using information systems and technology at the point of care to improve healthcare outcomes;
- Delegation and oversight of care delivery and outcomes;
- Team leadership and collaboration with other health professional team members;
- Interprofessional communication;
- Leveraging human, environmental, and material resources;
- Management and use of client care and information technology; and
- Design and provision of health promotion and risk reduction services for diverse populations (AACN, 2007b).

An in-depth description of each of these practice components can be found in the AACN 2007 *White Paper on the Education and Role of the Clinical Nurse Leader* (AACN, 2007a).

## Educating the CNL

As the CNL evolved, extensive dialogue occurred around the appropriate level of education to prepare someone to practice in this new role. Crosswalking the essential competencies for entry-level professional nurses with those identified for the 13 clearly showed that the additional knowledge, skills, and experiences needed to practice in this new role could not be obtained within a 4-year baccalaureate nursing program (AACN, 1998). Based on this evaluation and input from multiple stakeholders, the decision was made by the AACN board that the educational preparation of the CNL must be at the graduate level, in a master's or post-master's degree program.

In fall 2007, there were 1,270 students enrolled in 70 CNL programs, and in the 2006–2007 academic year, 265 students graduated from these CNL programs (Fang, Htut, & Bednash, 2008). By the following year, these numbers had grown to 1,650 students enrolled in 81 programs, with 467 graduates in the 2007–2008 academic year (Fang, Tracy, & Bednash, 2009). In addition, over 600 graduates of the CNL programs have been certified by CNC by this time.

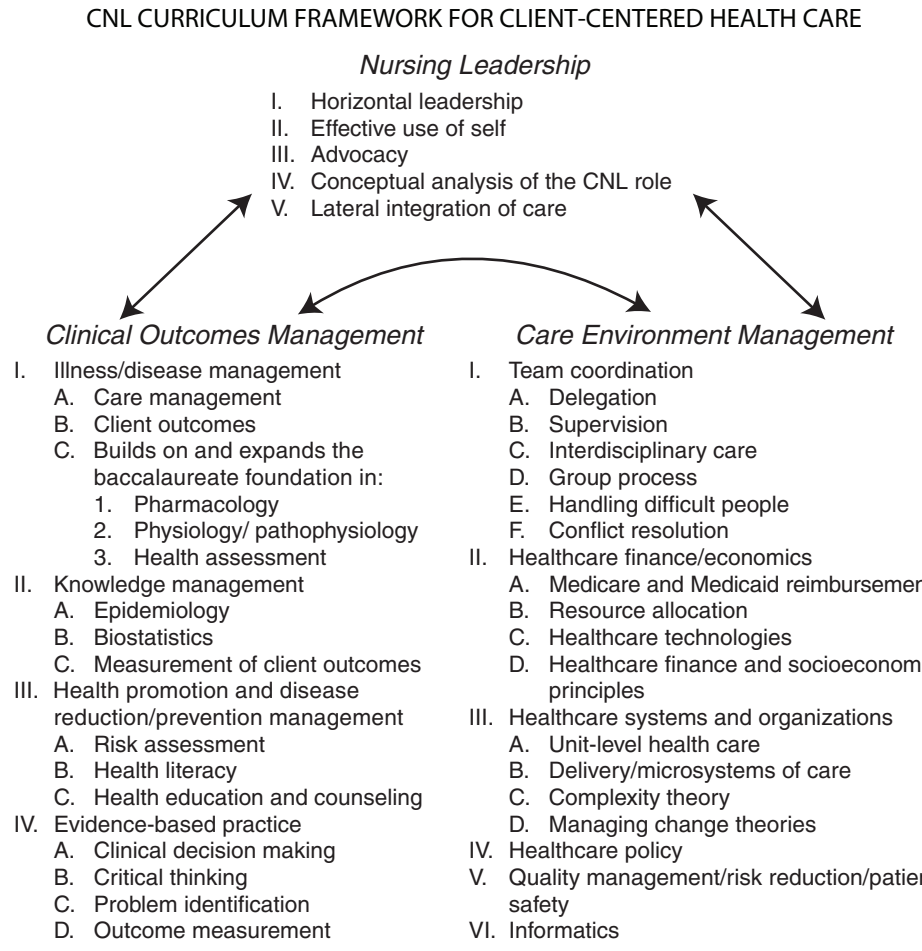
## The CNL Curriculum Framework

Assumptions about CNL graduate education programs include the following:

1. The education program culminates in a master's degree or post-master's degree in nursing.
2. The CNL graduate is prepared as an advanced generalist.
3. The CNL graduate will be competent to provide care at the point of care.
4. The CNL graduate will be prepared in clinical leadership for practice throughout the healthcare delivery system.
5. The CNL graduate is eligible to matriculate to a practice- or research-focused doctoral program.
6. The CNL graduate is prepared with advanced nursing knowledge and skills but does not meet the criteria for advanced practice registered nursing (APRN) scope of practice (APRN Consensus Work Group & National Council of State Boards of Nursing APRN Advisory Committee, 2008).
7. The CNL graduate is eligible to sit for the CNL Certification Examination.

The CNL Curriculum Framework encompasses three foci: nursing leadership, clinical outcomes management, and care environment management. Under each focus are major areas of emphasis, which are shown in Figure 1-1. Ten threads that should

**Figure 1–1 CNL curriculum framework.**




*Source:* AACN. (2007). *White Paper on the Education and Role of the Clinical Nurse Leader,* p. 32.

**Table 1-1 CNL Curriculum Models**

| Model | Program Description |
|---|---|
| Model A | Program designed for BSN graduates |
| Model B | Program designed for BSN graduates; includes a post-BSN residency that awards master's credit toward the CNL degree |
| Model C | Program for individuals with a baccalaureate degree in another discipline; also known as a second-degree or generic master's |
| Model D | Program designed for ADN graduates; also known as an RN-MSN program |
| Model E | Post-master's certificate program |

be integrated throughout the curriculum in didactic and clinical experiences are also identified. The actual design of the curriculum rests with the faculty at the schools of nursing. However, the expectation is that the graduate will be prepared with the competencies delineated in the AACN *White Paper* as well as the required clinical experiences (AACN, 2007a). The immersion experience is a critical component of the CNL curriculum. In addition to other clinical experiences integrated throughout the program, the immersion includes a minimum of 300 hours in practice in the CNL role with a designated clinical preceptor and a faculty partner. Many education programs in partnership with a clinical practice site designate a single preceptor but also involve a variety of other individuals—for example, someone from human resources, a financial officer, a quality improvement officer, a patient safety officer, and a nursing educator—in the preceptorship of the CNL student.

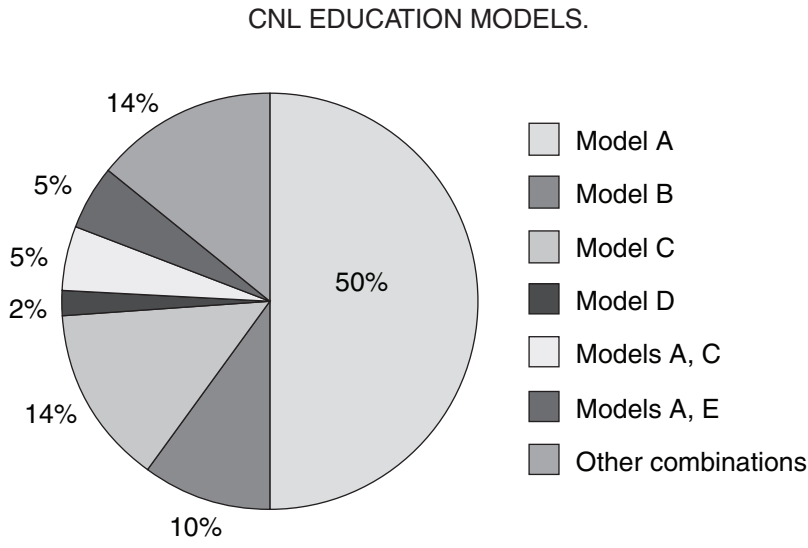
## CNL Curricular Models

Five curricular models for graduate CNL education programs have emerged. These five models are shown in Table 1-1. The percentage of schools that have implemented each type of model are shown in Figure 1-2.

## Where CNLs Are Practicing

The CNL competencies delineated in the *White Paper* prepare the nurse to practice as a leader in any healthcare setting (AACN, 2007a). Stakeholders who were asked

**Figure 1-2** **Percentage of schools offering CNL curriculum models (n = 99).**




*Source:* AACN CNL database 03/09

to review early documents describing the CNL role and competencies unanimously stated that the nurse prepared with this set of competencies would be a valuable asset to their area of nursing practice or practice setting. The implementation of the CNL, however, does vary across settings, and the CNL's day-to-day activities will differ depending upon the setting, patient population, and care delivery model. To be most successful in any setting, however, the care delivery should be reshaped and the CNL integrated into this revised model to fully use the unique skill and knowledge set brought to the point of care by this new nurse.

CNLs are practicing and making a significant impact in a variety of practice sites. A majority of the early graduates are practicing in acute care hospitals where demands for improved outcomes and better ways of delivering care have been well documented. However, CNLs are migrating to other employment settings including school health, long-term care, outpatient clinics, home care, emergency departments, and state health departments. The employment settings for the early certified CNLs are shown in Table 1-2.

**Table 1-2 Employment Sites for Certified CNLs**

| CNL(r) Employment Settings (*N* = 535) | |
|---|---|
| Acute care inpatient | 304 |
| Community/public health | 11 |
| Home health | 6 |
| School/university health | 24 |
| Nursing home/long-term care/subacute care | 7 |
| Hospice | 1 |
| Hospital outpatient | 7 |
| Outpatient clinic/or surgery center | 22 |
| Physician practice | 2 |
| Nurse-managed practice | 2 |
| School of nursing | 89 |
| Other | 60 |

*Source:* CNC certification database 3/09.

## Impact of the CNL Role on Care Outcomes

As the number of CNLs in practice increases, the impact on patient care outcomes is becoming apparent. Much of the impact and cost benefits being reported are anecdotal. However, the outcomes being reported in lay and professional publications and at professional conferences are increasing rapidly. Stanley et al. reported outcomes of care at three healthcare settings located in one state (Stanley et al., 2008). These outcomes included improvement in the Center for Medicare and Medicaid Services (CMS) core measures, for example, pain management, acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia indicators; improved care coordination; improved physician-nurse collaboration; improved patient satisfaction; and decreased nurse turnover.

Gabuat et al. reported on a CNL pilot initiative that was conducted on a progressive care unit and medical/surgical unit at a for-profit hospital. Initially designed to be budget neutral, outcomes pre- and post-CNL implementation on these units also included decreased nursing turnover, increased patient and physician satisfaction, and improved core measures (acute MI, CHF, and pneumonia; Gabuat, Hilton, Kinnaird, & Sherman, 2008). Hartranft, Garcia, and Adams (2007) reported significant patient safety improvements that included zero falls with injury and nosocomial

infections and pressure ulcers, improved patient satisfaction, and 100% achievement of CMS core measures after implementation of the CNL role on several units. In addition, Hartranft notes that many of the outcomes achieved by the CNL are not captured in hard data. For that reason the CNLs at this facility keep a daily journal of "saves" and qualitative accomplishments, for example, identifying the need for early intervention and ability to stabilize a patient without moving to a higher level of care (a savings of approximately $1,150 per day just for the bed; p. 263). Other identified outcomes have been the improvement in goal setting, greater engagement of staff nurses in projects, and improved nurse and physician satisfaction.

The Department of Veteran Affairs (DVA) has been involved in the early implementation of the CNL role, and the Veterans Health Administration is moving to fully implement the CNL role across all VA settings by the year 2016 (Verbal communication from James L. Harris). One of the first VA settings in which the CNL role was implemented was the Tennessee Valley Health Care System (TVHS). AACN and TVHS collaborated on a pilot of an evaluation tool to capture clinical outcomes pre- and postassignment of unit-based CNLs (Harris, Walters, Quinn, Stanley, & McGuinn, 2006). Preliminary findings from this pilot were positive and encouraging, including decreased readmission rates for patients discharged with CHF; decreased length of stay for patients with CHF; increased discharge instructions for patients with CHF on an acute medical unit; and decreased patient falls and surgical infection rates 30 days postoperative on an acute surgical unit. Since these early outcomes were reported, evaluation has been ongoing at TVHS, and the outcomes on five care units (microsystems of care) were recently reported. Significant outcomes were demonstrated, including a 20% decrease in patients receiving a blood transfusion posttotal knee arthroplasty (TKA) on a surgical inpatient unit, a 28.6% increase in venous thromboembolism prophylaxis implementation for critically ill intubated patients, and an 8% increase in participation in a restorative dining program on a transitional care unit (Hix, McKeon, & Walters, 2009).

Other reported outcomes linked to CNL practice include an 18.2% decrease in critical care days and a 40% decrease in returns to the critical care unit, netting an $800,000 savings over a 14-month period after a CNL implemented multidisciplinary rounds on long-term ventilator patients. Another CNL collaborated with a team of orthopedic surgeons and blood bank personnel to evaluate and then eliminate retransfusion of blood cells in TKA patients, which led to decreased opportunities for infection and netted an estimated $100,000 savings in time and equipment. At another facility, a CNL was able to decrease peripheral inserted central catheter (PICC)

line infections from 179 blood stream infections (40 were related to the PICC line) to zero infections, netting an estimated $500,000 savings over a 12-month period (Wiggins, 2008). These projects and their impact on patient safety and quality of care do not represent the entire impact that these three CNLs made in that particular setting. Rather, they represent three documented examples of the impact the CNL has had in just three care settings. Increasingly, positive outcomes on quality of care and the related cost benefits are being reported by healthcare settings in which the CNL has been implemented. Although most of these examples are from acute care units, similar benefits and outcomes are being reported from a variety of care settings.

## Future of CNL Education and Role

Although the CNL is not the sole answer to the many issues that plague the healthcare delivery system, it is one very promising strategy that is demonstrating a significant and sustained impact across settings. Calls for major changes in the way health care is delivered and the way health professionals are educated have prompted nursing education and practice, under AACN's leadership, to develop a preferred vision for nursing education with the CNL at the center. The CNL, an advanced generalist, is not a replacement for nurses in other roles, such as the clinical nurse specialist, nurse practitioner, nurse manager, or the staff nurse. Rather, the CNL is complementary to nurses in other roles who work in tandem with these providers to deliver high quality, patient-centered nursing care (Spross, Hamric, Hall, Minarik, Sparacino, & Stanley, 2004; Ott & Haase-Herrick, 2006). Healthcare leaders have identified the CNL as the future leader of quality improvement in the microsystem and at the point of care. The CNL initiative complements other quality improvement initiatives underway, such as the Robert Wood Johnson Foundation's (RWJF) Transforming Care at the Bedside (TCAB), which also has greatly impacted the quality of care available in hospitals (Robert Wood Johnson Foundation, 2008). CNLs in a number of settings are taking a lead in TCAB sites to implement quality improvement projects and improve patient safety. Partnering between education and practice has been identified as critical; collaboration and combining efforts are also crucial to making a lasting impact on enhancing care delivery.

The CNL initiative has grown considerably in the 5 years since the publication of the AACN *Working Paper*, which is now the *White Paper on the Education and Role of the Clinical Nurse Leader* (AACN, 2007a). The number of schools implementing CNL master's or post-master's programs has increased rapidly, and more

schools are exploring the possibility of launching an advanced generalist program. For a number of schools, the CNL master's program represents the first graduate program offered at that institution. For others, the CNL master's program is an evolution as advanced specialty nursing programs are transitioned to the Doctor of Nursing Practice (DNP) degree. The number and type of healthcare institutions partnering with schools to implement the CNL has also expanded. As the impact of the CNL on patient safety, quality care outcomes, and cost benefits is more widely disseminated, it is anticipated that this expansion will occur exponentially. Particularly in this era of healthcare reform, cost containment, and changing reimbursement policies, the integration of the CNL into care delivery across settings offers a positive means of addressing these system-wide priorities.

AACN remains steadfast in its support for the CNL initiative. However, to sustain the momentum and assure that CNL becomes embedded within the healthcare delivery infrastructure, ongoing networking and expansion of national to local partnerships are critical. Documentation and broad dissemination of the CNL impact on patient safety, quality improvement, and the related cost benefits across a variety of healthcare settings also will be vitally important to sustaining this movement and embracing the CNL as a catalyst for quality care.

## References

AHA Commission on Workforce for Hospitals and Health Systems. (2002). *In our hands: How hospital leaders can build a thriving workforce*. Chicago: American Hospital Association.

Aiken, L. H., Clarke, S. P., Cheung, R. B., Sloane, D. M., & Silber, J. H. (2003). Educational levels of hospital nurses and surgical patient mortality. *Journal of the American Medical Association, 290*(12), 1617–1623.

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of the American Medical Association, 288*(16), 1987–1993.

American Association of Colleges of Nursing (AACN). (1998). *The essentials of baccalaureate education for professional nursing practice.* Washington, DC: Author.

American Association of Colleges of Nursing (AACN). (2007a). *White paper on the education and role of the clinical nurse leader*. Washington, DC: Author, pp. 6–10. Available at http://www.aacn.nche.edu/Publications/WhitePapers/ClinicalNurseLeader07.pdf

American Association of Colleges of Nursing (AACN). (2007b). *White paper on the education and role of the clinical nurse leader*. Washington, DC: Author, pp. 10–11. Available at http://www.aacn.nche.edu/Publications/WhitePapers/ClinicalNurseLeader07.pdf

APRN Consensus Work Group & National Council of State Boards of Nursing APRN Advisory Committee. (2008). *Consensus model for APRN regulation: Licensure, accreditation, certification & education*. Available at http://www.aacn.nche.edu/Education/pdf/APRNReport.pdf

Estabrooks, C. A,, Midodzi, W. K., Cummings, G. C., Ricker, K. L., & Giovannetti, P. (2005). The impact of hospital nursing characteristics on 30-day mortality. *Nursing Research, 54*(2), 74–84.

Fang, D., Htut, A. M., & Bednash, G. D. (2008). *2007–2008 enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.

Fang, D., Tracy, C., & Bednash, G. D. (2009). *2008–2009 enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.

Gabuat, J., Hilton, N., Kinnaird, L. S., & Sherman, R. O. (2008). Implementing the clinical nurse leader role in a for-profit environment. *Journal of Nursing Administration 38*(6), 302–307.

Harris, J. L., Walters, S. E., Quinn, C., Stanley, J., & McGuinn, K. (2006). *The clinical nurse leader role: A pilot evaluation by an early adopter*. Available at http://www.aacn.nche.edu/CNL/pdf/tk/VAEvalSynopsis.pdf

Hartranft, S. R., Garcia, T., & Adams, N. (2007). Realizing the anticipated effects of the clinical nurse leader. *Journal of Nursing Administration, 37*(6), 261–263.

Health Resources and Services Administration. (2006). *What is behind HRSA's projected supply, demand, and shortage of registered nurses?* Retrieved March 6, 2009, from http://bhpr.hrsa.gov/healthworkforce/reports/behindrnprojections/index.htm

Hix, C., McKeon, L., & Walters, S. (2009). Clinical nurse leader impact on clinical microsystems outcomes. *Journal of Nursing Administration, 39*(2), 71–76.

Institute of Medicine (IOM). (1999). *To err is human: Building a safer health system*. Washington, DC: National Academy Press, p. 1.

Institute of Medicine (IOM). (2003). *Health professions education: A bridge to quality*. Washington, DC: National Academies Press.

The Joint Commission. (2002). *Health care at the crossroads, strategies for addressing the evolving nursing crisis*. Chicago: Author.

Kimball, B., & O'Neil, E. (2002). *Health care's human crisis: The American nursing shortage*. Princeton, NJ: The Robert Wood Johnson Foundation.

Leape, L. L., & Berwick, D. M. (2005). Five years after to err is human. *Journal of the American Medical Association, 293*(19), 2384–2390.

Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K. (2002, May 30). Nurse-staffing levels and the quality of care in hospitals. *New England Journal of Medicine, 346*(22), 1715–1722.

Ott, K. M., & Haase-Herrick, K. (2006). *Working statement comparing the clinical nurse leader and nurse manager roles: Similarities, differences and complementarities*. Washington, DC: AACN. Available at http://www.aacn.nche.edu/CNL/pdf/tk/roles3-06.pdf

Robert Wood Johnson Foundation. (2008). *The Transforming Care at the Bedside (TCAB) toolkit*. Retrieved March 5, 2009, from http://www.rwjf.org/qualityequality/product.jsp?id=30051

Spross, J. A., Hamric, A. B., Hall, G., Minarik, P. A., Sparacino, P. A., & Stanley, J. M. (2004). *Working statement comparing the clinical nurse leader and clinical nurse specialist roles: Similarities, differences and complementarities*. Washington, DC: AACN. Available at http://www.aacn.nche.edu/CNL/pdf/CNLCNSComparisonTable.pdf

Stanley, J. M. (2008). AACN shaping a future vision for nursing education. In B. A. Moyer and R. A. Wittmann-Price (Eds.), *Nursing Education: Foundations for Practice Excellence* (pp. 299–311). Philadelphia: F. A. Davis.

Stanley, J. M., Gannon, J., Gabuat, J., Hartranft, S., Adams, N., Mayes, C., et al. (2008). The clinical nurse leader: A catalyst for improving quality and patient safety. *Journal of Nursing Management, 16(*5), 614–622.

Verbal communication from James L. Harris, Deputy Chief Nursing Officer, Department of Veterans Affairs, March 6, 2009.

Wiggins, M. (2008). *The clinical nurse leader demands in healthcare require new innovation*. Presentation made to the Joint Commission–Nursing Advisory Council, June 8, 2008, Oakbrook, IL.