

American Association of Colleges of Nursing
White Paper on the Education and Role of the
Clinical Nurse Leader™

February 2007

(revised and approved by AACN Board of Directors July 2007)



Copyright © 2007 by the American Association of Colleges of Nursing.

All rights reserved. No part of this document may be reproduced in print, or by photostatic means, or in any other manner, without the express written permission of the publisher.

PREFACE

This document delineates *both* the entry-level competencies for all professional nurses (Essentials of Baccalaureate Education for Professional Nursing Practice 1998) and those competencies of the Clinical Nurse Leader™, an advanced generalist role. The competencies deemed necessary for the CNL role originally were delineated by the AACN Task Force on Education & Regulation II (TFERII) in the *Working Paper on the Clinical Nurse Leader* and accepted by the AACN Board (2003). Therefore, the competencies delineated here include all of the competencies deemed necessary for all graduates of a CNL education program.

In addition to the CNL graduate competencies, the Curriculum Framework which includes required curricular components, required clinical experiences, and overarching end-of-program competencies are included. These components provide the basis for the design and implementation of a master's or post-master's CNL education program and prepare the graduate to sit for the AACN CNL Certification Examination.

INTRODUCTION

Nursing education and the profession have an unparalleled opportunity and capability to address the critical issues that face the nation's current health care system. The American Association of Colleges of Nursing (AACN), representing baccalaureate and graduate schools of nursing, in collaboration with other health care organizations and disciplines, proposes a new Clinical Nurse Leader (CNL) role to address the ardent call for change being heard in today's health care system.

It is evident... that leadership in nursing . . . is of supreme importance at this time. Nursing has faced many critical situations in its long history, but probably none more critical than the situation it is now in, and none in which the possibilities, both of serious loss and of substantial advance, are greater. What the outcome will be depends in large measure on the kind of leadership the nursing profession can give in planning for the future and in solving stubborn and perplexing problems. . . if past experience is any criterion, little constructive action will be taken without intelligent and courageous leadership¹.

Isabel Maitland Stewart wrote those words over fifty years ago in her petition for education reform in nursing. Perhaps their most staggering revelation is that despite all of nursing's progress in recent decades, as a profession, nursing remains at the same 'critical' juncture where it was at the end of World War II. Despite the promise of university-based education for professional nursing, the health care system is in yet another nursing shortage with yet another call for 'intelligent and creative leadership.'

The *good* news is that nursing has the answers to the predominant health care dilemmas of the future, including

- the problems associated with normal human development, particularly aging;
- chronic illness management in all ages;

- health disparities associated with socioeconomic dislocations such as global migration, classism, sexism, and
- strategies for health promotion and disease prevention.

Each of these prevailing health problems is suited to the nursing paradigm. Their amelioration is what nursing students are educated to do. The advancement of medical science and technology has changed the landscape of health and illness. Not only are people living much longer, they are living with chronic illnesses that would have been fatal twenty years ago. This is true in adults and children, resulting in the need for providers who can manage the on-going health needs of persons of all ages. The necessity for practitioners who focus on the promotion of health and wellness and the prevention of disease has emerged as not only a good and wholesome thing to do in our society, but also as a means of addressing escalating medical costs. Whether working with older adults, children, refugees, ethnic minorities, persons with chronic illness, or whole communities, the predominant theme is the promotion and maintenance of health and the improvement of health care outcomes.

BACKGROUND

In November 1999, the Institute of Medicine (IOM) issued the comprehensive report on medical errors, *To Err is Human: Building a Safer Health System*. The report, extrapolating data from two previous studies, estimates that somewhere between 44,000 and 98,000 Americans die each year as a result of medical errors.² These numbers, even at the lower levels, exceed the number of people that die from motor vehicle accidents, breast cancer or AIDs. Total national costs of preventable adverse events (medical errors resulting in injury) were estimated to be between \$17 billion and \$29 billion, of which health care costs represented over one-half.³ In addition, medication-related and other errors that do not result in actual harm are not only extremely costly as well but have a significant impact on the quality of care and health care outcomes. The IOM report also focused on the fragmented nature of the health care delivery system and the context in which health care is purchased as being major contributors to the high and inexcusable error rate.

In addition to the growing concern over health care outcomes, the United States is in the midst of a nursing shortage that is expected to intensify as baby boomers age and the need for health care grows. According to a study by Dr. Peter Buerhaus⁴ and colleagues, published in the *Journal of the American Medical Association*, the U.S. will experience a 20% shortage in the number of nurses needed in our nation's health care system by the year 2020. This translates into a shortage of more than 400,000 RNs nationwide. The fall 2002 survey by the American Association of Colleges of Nursing (AACN) showed that enrollment in entry-level baccalaureate programs in nursing increased by 8% nationwide since fall 2001. This represents an increase of 5,316 enrollees and only 559 more graduates than the previous year. And despite these modest increases, enrollment is still down by almost 10% or 11,584 students from 1995.⁵

Several recent, landmark reports focus on the nursing shortage, the crisis in the health care system and proposed strategies for addressing these critical issues. The IOM report, *Crossing the Quality Chasm* (2001), stresses that the health care system as currently structured does not, as a whole, make the best use of its resources. The aging population and increased client demand for new services, technologies, and drugs contribute to the increase in health care expenditures, but

also to the waste of resources. Recommendation two in the report calls on all health care organizations and professional groups to promote health care that is safe, effective, client-centered, timely, efficient, and equitable (p. 6).⁶

In a follow-up report, *Health Professions Education: A Bridge to Quality*, the Institute of Medicine⁷ Committee on the Health Professions Education states, “All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics (p.3).”

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in *Health Care at the Crossroads: Strategies for Addressing the Evolving Nursing Crisis*⁸ urges that “the shortage of registered nurses has the potential to impact the very health and security of our society...” Recommendations include proposals for transforming the workplace, aligning nursing education and clinical experience and providing financial incentives for health care organizations to invest in high quality nursing care.

The American Hospital Association (AHA) Commission on Workforce for Hospitals and Health Systems report, *In Our Hands: How Hospital Leaders Can Build a Thriving Workforce* (2002)⁹, highlights the immediate and long-term critical workforce shortages facing hospitals. Five key recommendations include the need to foster meaningful work by designing health care to center on clients and the need to collaborate with professional associations and educational institutions to attract and prepare new health professions.

The Robert Wood Johnson Foundation in its commissioned 2002 report *Health Care's Human Crisis: The American Nursing Shortage*¹⁰ takes a broad look at the underlying factors driving the nursing shortage. One of the key recommendations made is for the reinvention of nursing education and work environments to address and appeal to the needs and values of a new generation of nurses.

While there is ample evidence for the need to produce many more nurses to meet the pressing health care needs of society, this is not just a matter of increasing the volume of the nursing workforce. The nursing profession must produce quality graduates who:

- Are prepared for clinical leadership in all health care settings;
- Are prepared to implement outcomes-based practice and quality improvement strategies;
- Will remain in and contribute to the profession, practicing at their full scope of education and ability; and
- Will create and manage microsystems of care that will be responsive to the health care needs of individuals and families.^{11,12}

In addition, unless nursing is able to create a professional role that will attract the highest quality women and men into nursing, we will not be able to fulfill our covenant with the public. The Clinical Nurse Leader (CNL) addresses the call for change.

The realities of a global society, expanding technologies, and an increasingly diverse population require nurses to master complex information, to coordinate a variety of care experiences, to use technology for health care delivery and evaluation of nursing outcomes, and to assist clients with

managing an increasingly complex system of care. The extraordinary explosion of knowledge in all fields also requires an increased emphasis on lifelong learning. Nursing education must keep pace with these changes and prepare individuals to meet these challenges. Change, however cannot occur in isolation. Nursing education must collaborate and work in tandem with the health care delivery system to design and test models for education and practice that are truly client-centered, generate quality outcomes, and are cost-effective. Significant changes must occur in both education and the practice setting to produce the delivery system desired by all constituents. New ways of educating health professionals, including inter-professional education and practice, and new practice models must be developed that better use available resources and address the health care needs of a rapidly, growing, diverse population.

EDUCATING THE CLINICAL NURSE LEADER

In response to client care needs and to the health care delivery environment, the American Association of Colleges of Nursing (AACN) proposes the Clinical Nurse Leader (CNL) role. The design of this role has been done in collaboration with constituents from a broad array of expertise and leadership roles within the health care system. Participants at the Stakeholders' Reaction Panel Meeting (2003) confirmed that this role has emerged and is being further developed on an ad hoc basis. Individuals to fill this role are being recruited opportunistically based on available clinicians with appropriate experience, personal characteristics, and self-selection. Stakeholders affirmed the need to produce these clinicians through a formal degree-granting program of education.

The CNL is a leader in the health care delivery system across all settings in which health care is delivered, not just the acute care setting. The implementation of the CNL role, however, will vary across settings. The CNL role is not one of administration or management. The CNL functions within a microsystem and assumes accountability for healthcare outcomes for a specific group of clients within a unit or setting through the assimilation and application of research-based information to design, implement, and evaluate client plans of care. The CNL is a provider and a manager of care at the point of care to individuals and cohorts. The CNL designs, implements, and evaluates client care by coordinating, delegating and supervising the care provided by the health care team, including licensed nurses, technicians, and other health professionals.

Ten Assumptions for Preparing Clinical Nurse Leaders

Assumption 1: Practice is at the microsystems level.

In addition to being direct care providers, the CNL is accountable for the care outcomes of clinical populations or a specified group of clients in a healthcare system. As clinical decision-maker and care manager, the CNL coordinates the direct care activities of other nursing staff and health professionals. The CNL provides lateral integration of care services within a microsystem of care to effect quality, client care outcomes. To prepare students for the CNL role, there must be a deliberate and integrated inclusion of leadership education and socialization that begins on the first day of the first class and continues throughout CNL education program. For example, leadership content should be incorporated in every client care plan prepared by students so that

each plan includes not only *clinical* actions for meeting the needs of the client but also an *organizational* plan for delegation of care to assisting personnel, registered nurses, and other health professionals, including the teaching and evaluation activities that would need to accompany such delegation. One leadership course taken in the last year of the CNL course of study is not sufficient to prepare the student who can perform as a beginning CNL upon graduation. Practice at the unit and systems level will require a shift in thinking on the part of faculty, with greater attention to context and the development of leadership skills throughout the curriculum. Students, as well, may have to be convinced that systems-level intervention, such as the implementation of best practices and the revision of guidelines and protocols for the management of clinical populations, is essential for professional practice and has a greater probability of generating superior and far-reaching outcomes.

Assumption 2: Client care outcomes are the measure of quality practice.

The performance of the CNL will be measured by the extent to which he or she succeeds in improving clinical and cost outcomes in individuals and groups of clients within a unit or setting, e.g. diminishing recidivism in schizophrenic clients; elimination of pressure ulcers in nursing home residents; reducing hospital length of stays for clients admitted with pneumonia; increasing participation in prenatal care and classes in a community. Professional nursing education must provide opportunities for students to isolate and describe clinical populations, e.g. adults with chronic obstructive pulmonary disease (COPD), well school-aged children or an urban neighborhood, and identify the clinical and cost outcomes that will improve safety, effectiveness, timeliness, efficiency, quality, and the degree to which they are client-centered. In the process, CNL students must learn how to compare desired outcomes with national and state standards and with those of other institutions. CNL education can make a significant contribution to the health of the public by emphasizing *common clinical conditions* that comprise the bulk of health care activity and cost and where professional nursing is likely to have the greatest impact on the health care system and outcomes. For example, in the past, nursing education has been dogged about assuring that every student has the opportunity to attend a birth but has never insisted that every student have the opportunity to manage a death, even though the vast majority of nurses are more likely to practice with clients who are at the end of life. Similarly, gerontology has not been a universal curriculum requirement even though persons over 65 use the lion's share of health resources nationally.

Assumption 3: Practice guidelines are based on evidence.

The preparation of the CNL must include an unrelenting demand for evidence for every aspect of practice. While most higher education programs in nursing have made the transition from ritualistic, process-based teaching to an evidence-based, outcome orientation, many graduates do not routinely read professional journals and incorporate new evidence into practice. These leadership activities require skill in knowledge acquisition, working in groups, management of change, and dissemination of new knowledge to other healthcare professionals. Most professional nursing education programs have included a course in nursing research but often have neglected the more meaningful pursuit of clinical scholarship, i.e., the application of research to the clinical setting, the resolution of clinical problems, and dissemination of results. In addition to justifying clinical actions based on evidence, the CNL student should have the opportunity, within his or her course of study, to seek and apply evidence that challenges current policies and procedures in a practice environment and to incorporate evidence into practice

situations, including the education of other health care team members. Practical experience in the dissemination of clinical knowledge such as grand rounds, case presentations and journal clubs should be intrinsic to CNL education to ensure that the implementation of new evidence becomes embedded in practice.

Assumption 4: Client-centered practice is intra- and interdisciplinary.

For care to be client-centered, the providers who comprise the health care team must discuss the client's problem and agree on a common course of action. As the health care team member who has the most comprehensive knowledge of the client, the CNL necessarily will be responsible for coordinating the variety of team members participating in the plan of care. Currently, many students complete their course of study in nursing without having had the opportunity to work closely with physicians, physical therapists, social workers, pharmacists and others who are caring for the same client. Likewise, communication with other nurses who provide care to the same client(s) in other settings is seldom stressed. This lack of communication results in discontinuous and frequently unsafe, uncoordinated, inappropriate care. Learning to advocate for clients by communicating effectively with other interdisciplinary team members, including nurses in other settings, must start in CNL education programs with real experiences. Faculty members must role model this behavior and create opportunities for students to work with the other professions as well as with nursing staff. The opportunity to learn and work in an interdisciplinary venue teaches students how to be effective client care advocates and coordinators.

Assumption 5: Information will maximize self-care and client decision-making.

Client participation traditionally has been a nursing goal; however, the stunning advances in science and technology – specifically informatics and genetics – have taken it to a new level. As participants in their own care, clients require in-depth, up-to-date knowledge about themselves, their specific health problems, and their treatment options. Health literacy is the foundation of independence, health promotion and disease prevention, all of which are hallmarks of excellence in nursing practice. CNL education requires comprehensive content in clinical genetics and clinical practice opportunities in genetics counseling, e.g. assisting clients to construct genealogies and identify family patterns of health problems. Clinical practice also must include educating clients and families – not just on how to perform a procedure at home but also the nature of the problem, and how they can acquire additional knowledge about the condition and support from others with similar problems. Teaching other direct care providers how to assist clients, families and communities to be health literate and independent managers of their own care is a system responsibility of the CNL that requires practice opportunities in the education program. In CNL education, a health literacy plan should be a component of each care plan and include family members and other care providers.

Assumption 6: Nursing assessment is the basis for theory and knowledge development.

With the explosion of knowledge, the CNL or any other health professional can not know everything that is required for a safe, high quality clinical practice. The use of information technology for decision support for all clinicians will be critical and depends on the routine collection of data that documents the characteristics, conditions and outcomes for various clinical groups or populations. Assessment has been a core activity of nursing practice. To engage clients in therapeutic partnerships, the CNL must communicate with them and must first

assess the individual, his or her health problems, and the context in which those problems are manifested in order to effectively communicate. In the future, assessment data not only will guide individual plans of care, but also will be classified (using a standardized language), stored, retrieved, analyzed and then integrated into information systems to continuously update decision support, and complete the cycle of evidence-based practice. CNL education must include an understanding of information systems and standardized languages, and how they relate to the improvement of clinical outcomes, continuous performance measures and decision support technology.

Assumption 7: Good fiscal stewardship is a condition of quality care.

Requesting more and more resources to support an essentially dysfunctional system is injudicious. However, attempting to drive costs down by withholding and rationing services is equally misguided. Accountability for the cost-effective and efficient use of human, environmental and material resources will rest with the CNL. This expectation requires an understanding of how to identify waste and manage resources within systems. For example, using a CNL to perform client care tasks that can be done as effectively by less prepared nursing personnel is poor fiscal stewardship; however, delegating certain activities to less prepared nursing personnel resulting in poorer client outcomes is also not fiscally sound management. The CNL student must understand the fiscal context in which he or she is practicing and how to identify the high cost/high volume activities, including how much procedures cost and how those costs compare nationally and across institutions. Managing the care of a clinical population or group can be compared to running a small business. The CNL needs to understand economies of scale, how to read a balance sheet, the difference between fixed and incremental costs, how to establish per unit costs, and some basic marketing strategies. Basic business skills and organizational theory must become accepted components of CNL education.

Assumption 8: Social justice is an essential nursing value.

Altruism, accountability, human dignity, integrity and social justice are the guiding values of the nursing profession. For the CNL, however, the value of social justice is particularly significant because it directly addresses disparities in health and health care. As one of only two goals of the Healthy People 2010 agenda, the elimination of health disparities requires an in-depth understanding of the impact of unequal distribution of wealth and a pluralistic health care system. As the health professional charged with the management of clinical unit or setting-based populations, the CNL will assume responsibility for addressing variations in clinical outcomes among various groups, including those most vulnerable. Although professional nursing education programs have included cultural competence and health disparities content in the curricula, such content seldom addresses the more comprehensive issue of social justice. The opportunity to work with clinical populations and even whole communities to assess and implement strategies that address health disparities is imperative in the education of the CNL and serves as a prelude to influencing policy formulation at the systems level.

Assumption 9: Communication technology will facilitate the continuity and comprehensiveness of care.

While the face-to-face clinic visit, home visit and hospital stay have been the traditional venues for provider-client interaction, technological advances in communication have made it possible for more sustained and ongoing contact with clients, families, and other caregivers. Four fifteen-

minute visits per year in a physician's office are an insufficient and costly way to manage chronic illness, often resulting in untimely and inappropriate use of the most expensive health care services. The ability to develop and sustain therapeutic relationships, monitor the course of illness and health events on a continuous basis and provide care using varied and distance technologies is a necessary component of CNL education. Students must have the opportunity to diagnose, educate, treat and evaluate the care of clients, using distance and varied technology. Communication courses will include the range of interactions from face-to-face to electronic interactions with individuals and groups, as well as with the media, policy makers and public.

Assumption 10: The CNL must assume guardianship for the nursing profession.

The ability of professional nursing to fulfill its covenant with society and protect and promote the health of citizens and communities will depend on the health care leadership of the CNL. The CNL, with additional education, will be expected to assume positions in professional, policy and regulatory organizations/agencies, leadership positions in health care facilities, practice plans, and as faculty in institutions of higher education. The assumption of the CNL's leadership in the health care system, however, begins with entry into the education program and includes a clear expectation of the more advanced generalist's clinical practice role, including delegation to other licensed nurses. This socialization and leadership role preparation may be the most difficult dimension of CNL education and requires extensive socialization and actual practice, as well as modeling by faculty members and staff nurses. Leadership development activities must become a core component of the CNL curriculum and awarded credit accordingly.

THE ROLE OF THE CLINICAL NURSE LEADER

The CNL is a leader in the health care delivery system, not just the acute care setting but in all settings in which health care is delivered. The implementation of the CNL role, however, will vary across settings. The CNL role is not one of administration or management. The CNL assumes accountability for client care outcomes through the assimilation and application of research-based information to design, implement, and evaluate client plans of care. The CNL is a provider and manager of care at the point of care to individuals and cohorts of clients within a unit or healthcare setting. The CNL designs, implements, and evaluates client care by coordinating, delegating and supervising the care provided by the health care team, including licensed nurses, technicians, and other health professionals.

Fundamental aspects of the CNL role include:

- Leadership in the care of the sick in and across all environments;
- Design and provision of health promotion and risk reduction services for diverse populations;
- Provision of evidence-based practice;
- Population-appropriate health care to individuals, clinical groups/units, and communities;
- Clinical decision-making;
- Design and implementation of plans of care;
- Risk anticipation;
- 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 and information management;
- Delegation and oversight of care delivery and outcomes;
- Team management and collaboration with other health professional team members;
- Development and leveraging of human, environmental and material resources;
- Management and use of client-care and information technology; and
- Lateral integration of care for a specified group of patients.

The CNL provides and manages care at the point of care to individuals, clinical populations and communities. In this role, the CNL is responsible for the clinical management of comprehensive client care, for individuals and clinical populations, along the continuum of care and in multiple settings, including virtual settings. The CNL is responsible for planning a client's contact with the health care system. The CNL also is responsible for the coordination and planning of team activities and functions. In order to impact care, the CNL has the knowledge and authority to ***delegate*** tasks to other health care personnel, as well as ***supervise and evaluate*** these personnel and the outcomes of care. Along with the authority, autonomy and initiative to design and implement care, the CNL is accountable for improving individual care outcomes and care processes in a quality, cost-effective manner.

As the use of technology expands and care is delivered not only across multiple settings but in virtual settings as well, the CNL has the knowledge and skills to deliver and coordinate care across settings using up-to-date technology.

Risk anticipation, the ability to critically evaluate and anticipate risks to client safety is a critical component of the CNL role. At the systems level (risk to any client) and the individual level (account for client history, co-morbidities, etc.) it is necessary to anticipate risk when new technology, equipment, treatment regimens or medication therapies are introduced. Tools for risk analysis, e.g. failure mode evaluation analysis, root cause analysis, and quality improvement methodologies, and the potential use of large data sets, are important concepts in the armamentarium of the CNL.

Mass customization, the ability to profile patterns of need and tailor interventions is a key component of the CNL role. The CNL uses an evidence-based approach by identifying patterns, and modifying interventions to meet specific needs of individuals, clinical populations, or communities within a microsystem. This approach to health care requires the CNL to collaborate with individuals in providing client-focused care.

Client and community advocacy is a hallmark of the CNL role. As a client advocate the CNL assumes accountability for the delivery of high quality care, including the evaluation of care outcomes and provision of leadership in improving care. Historically, the nursing role has emphasized partnership with clients--whether individuals, families, groups, or communities--in order to foster and support active participation in determining health care decisions. In addition,

the CNL advocates for improvement in the institution or health care system and the nursing profession.

In this role, the CNL also assumes the role of *educator*, preparing individuals, families, or cohorts of clients for self-care and a maximal level of functioning and wellness. The CNL serves as an information manager, with state-of-the-art knowledge regarding research findings and health information resources. As advocates and educators with state-of-the-art knowledge, the CNL helps clients acquire, interpret, and use information related to health care, illness, and health promotion. Health information available to clients is often overwhelming or confusing; the CNL serves as an information manager, assisting clients in accessing, understanding, evaluating and applying health-related information. To maximize wellness, health promotion, and risk reduction, the CNL designs and implements education programs for cohorts of clients, with particular emphasis on those with chronic illnesses. In addition, the CNL provides education and guidance to other health professionals to whom care is delegated.

The CNL is responsible for the provision and management of care in and across all environments. The CNL focuses not only on individual-level health care, but also manages, monitors, and manipulates the environment to foster health. In addition, the CNL develops, leverages, and serves as a *steward of the environment and human and material resources* while coordinating client care. The CNL role requires knowledge and skill in biotechnology and information technology as these relate to direct nursing care, health education, and the management and coordination of care.

The CNL is a *member and leader of health care teams* that deliver treatment and services in an evolving health care system. The CNL brings a unique blend of knowledge, judgment, skills, and caring to the health care team. As a leader and partner with other members of the health care team, the CNL seeks collaboration and consultation with other health professionals as necessary in the design, coordination and evaluation of client care outcomes.

As a health care provider and leader who functions autonomously and as a member of an interdisciplinary health care team, the CNL is responsible for his/her own professional identity and practice. Self-awareness and self-evaluation are utilized to enhance professional relationships, improve communication and improve quality of care outcomes.

The role of the CNL requires strong critical thinking, communication and assessment skills, and the demonstration of a balance of intelligence, confidence, understanding, and compassion. Membership in any profession, and more specifically as a CNL, requires the development and acquisition of an appropriate set of values and an ethical framework. As advocates for high quality care for all individuals, the CNL is knowledgeable and active in the political and regulatory processes defining health care delivery and systems of care.

A defining feature of the CNL role is a strong focus on health promotion, risk reduction and population-based health care. As advances in science and technology allow us to predict future health problems, the CNL will be called upon to design and implement measures to modify risk factors and promote engagement in healthy lifestyles. While the CNL will continue to provide and coordinate care to the sick, many will engage in direct interaction with groups and

communities for the purpose of health promotion, secondary prevention, and risk reduction.

The CNL is committed to lifelong learning and willing to assume responsibility for planning one's professional career. As a professional committed to lifelong learning, the CNL is able to define his or her professional self by purposeful and structured educational experiences for the ongoing improvement of practice competence and improved practice outcomes.

In summary, the role of the beginning CNL encompasses the following broad areas:

- **Clinician:** designer/coordinator/integrator/evaluator of care to individuals, families, groups, communities, and populations; able to understand the rationale for care and competently deliver this care to an increasingly complex and diverse population in multiple environments. The CNL provides care at the point of care to individuals across the lifespan with particular emphasis on health promotion and risk reduction services.
- **Outcomes manager:** synthesizes data, information and knowledge to evaluate and achieve optimal client outcomes.
- **Client advocate:** adept at ensuring that clients, families and communities are well-informed and included in care planning and is an informed leader for improving care. The CNL also serves as an advocate for the profession and the interdisciplinary health care team.
- **Educator:** uses appropriate teaching principles and strategies as well as current information, materials and technologies to teach clients, groups and other health care professionals under their supervision;
- **Information manager:** able to use information systems and technology that put knowledge at the point of care to improve health care outcomes;
- **Systems analyst/Risk anticipator:** able to participate in systems review to improve quality of client care delivery and at the individual level to critically evaluate and anticipate risks to client safety with the aim of preventing medical error.
- **Team Manager:** able to properly delegate and manage the nursing team resources (human and fiscal) and serve as a leader and partner in the interdisciplinary health care team; and
- **Member of a profession:** accountable for the ongoing acquisition of knowledge and skills to effect change in health care practice and outcomes and in the profession.
- **Lifelong Learner:** recognizes the need for and actively pursues new knowledge and skills as one's role and needs of the health care system evolves.

EDUCATION FOR THE CLINICAL NURSE LEADER ROLE

To prepare individuals for this multi-faceted role, several components are essential. These components are liberal education, professional values, core competencies, core knowledge, and role development.

Liberal Education

Liberal education is the critical foundation for and an integral component of the clinical nurse leader's education. Liberal learning provides a solid basis for the development of clinical

judgment skills. While providing a framework of knowledge in the arts and sciences, liberal education also promotes critical thinking, the basis for clinical judgment and ethical decision making. Through liberal education, students encounter a diversity of thought that enables them to integrate varied perspectives and divergent experiences. Knowledge from the arts and sciences enables the professional person to develop and use personal standards, to make reasoned choices when evidence is scant or conflicting, and to articulate ideas effectively in written and spoken forms. Well-grounded liberal education helps ensure that clinical nurse leaders practice within a context of broad-based knowledge.

Liberal education is not a separate or distinct segment of professional education, but an integrated educational experience, recognized and valued as an ongoing, lifelong process. Courses in the arts, sciences, and humanities provide a forum for the study of values, ethical principles, and the physical world, as well as opportunities to reflect and apply knowledge to professional practice.

Many colleges and universities have adopted a liberal education core. This core provides an effective base of knowledge and cognitive skills for the educated person. CNL students who participate in joint learning activities with students from other disciplines derive significant benefits from such exposure and contribute to the learning of students from other disciplines.

While specific courses and curricula will vary, CNL education must include a strong base in the physical and social sciences as well as learning experiences in philosophy, the arts, and humanities. Recent and evolving trends in health care require particular emphasis on learning related to: economics, environmental science, epidemiology, genetics, gerontology, global perspectives, informatics, organizations and systems, and communications.

The successful integration of liberal education and professional education requires guidance from faculty to help students build bridges between general concepts and practice. Making these connections enables students to use what they have learned to understand situations in nursing practice. Students must be accountable for previous knowledge just as faculty are responsible for building on that foundation, facilitating cognitive skill development, and encouraging life-long learning. Professional education must build upon the competencies, knowledge and skills acquired through liberal education courses.

Liberal education provides the CNL with the ability to:

- develop and use higher-order problem-solving and critical thinking skills;
- integrate concepts from behavioral, biological, and natural sciences in order to understand self and others;
- interpret and use quantitative data;
- use the scientific process and scientific data as a basis for developing, implementing, and evaluating nursing interventions;
- apply knowledge regarding social, political, economic, environmental and historical issues to the analysis of societal, professional and client problems;
- synthesize information and knowledge as a key component of critical thinking and decision making;

- communicate effectively in a variety of written and spoken formats;
- engage in effective working relationships;
- appreciate cultural differences and bridge cultural and linguistic barriers;
- understand the nature of human values;
- develop and articulate personal standards against which to measure new ideas and experiences; and
- appreciate and understand the character of professions.

Professional Values

Education for the CNL role should facilitate the development of professional values and value-based behaviors. Values are beliefs or ideals to which an individual is committed and which are reflected in patterns of behavior. Professional values are the foundation for practice; they guide interactions with clients, colleagues, other professionals, and the public. Values provide the framework for commitment to client welfare, fundamental to professional nursing practice and critical decision making processes.

The values and sample professional behaviors listed below epitomize the CNL. The CNL, guided by these values, demonstrates ethical behaviors in the provision of safe, humanistic health care. The sample behaviors are not mutually exclusive and may result from more than one value. Conversely, the value labels provided are intended to encapsulate a core set of values and behaviors that can be elaborated in a variety of ways.

Altruism is a concern for the welfare and well being of others. In professional practice, altruism is reflected by the CNL's concern for the welfare of clients, other nurses, and other health care providers. Sample professional behaviors include:

- demonstrates understanding of cultures, beliefs, and perspectives of others;
- advocates for clients, particularly the most vulnerable;
- takes risks on behalf of clients and colleagues; and
- mentors other professionals.

Accountability is the right, power, and competence to act. Accountability includes the autonomy, authority and control of one's actions and decisions. Professional practice reflects accountability when the CNL evaluates individual and group health care outcomes and modifies treatment or intervention strategies to improve outcomes. The CNL also uses risk analysis tools and quality improvement methodologies at the systems level to anticipate risk to any client and intervenes to decrease the risk. Sample professional behaviors include:

- evaluates client care and implements changes in care practices to improve outcomes of care;
- serves as a responsible steward of the environment, and human and material resources while coordinating care;
- uses an evidence-based approach to meet specific needs of individuals, clinical populations or communities;
- manages, monitors and manipulates the environment to foster health and health care quality; and

- prevents or limits unsafe or unethical care practices.

Human Dignity is respect for the inherent worth and uniqueness of individuals and populations. In professional practice, human dignity is reflected when the CNL values and respects all clients and colleagues. Sample professional behaviors include:

- provides culturally competent and sensitive care;
- protects the client's privacy;
- preserves the confidentiality of clients and health care providers; and
- designs care with sensitivity to individual client needs.

Integrity is acting in accordance with an appropriate code of ethics and accepted standards of practice. Integrity is reflected in professional practice when the CNL is honest and provides care based on an ethical framework that is accepted within the profession. Sample professional behaviors include:

- provides honest information to clients and the public;
- documents care accurately and honestly
- seeks to remedy errors made by self or others; and
- demonstrates accountability for own actions and those of other health care team members under the supervision of the CNL.

Social Justice is upholding moral, legal, and humanistic principles. This value is reflected in professional practice when the CNL works to assure equal treatment under the law and equal access to quality health care. Sample professional behaviors include:

- supports fairness and non-discrimination in the delivery of care;
- promotes universal access to health care; and
- encourages legislation and policy consistent with the advancement of nursing care and health care.

Educational efforts and the process of socialization into the profession must build upon, and as appropriate, modify values and behavior patterns developed early in life. Values are difficult to teach as part of professional education. Nevertheless, faculty must design learning opportunities that support empathic, sensitive, and compassionate care for individuals, groups, and communities; that promote and reward honesty and accountability; that make students aware of social and ethical issues; and that nurture students' awareness of their own value systems, as well as those of others.

Core Competencies

Core competencies listed will be acquired over the course of a student's academic program from a simple application to a more complex level of integration. These core competencies should be assessed across this continuum from entry to graduation. Each of the competencies defined can be attributed, at some level or degree, to a wide range of roles and health care providers. The CNL through graduate education attains a level of competence to provide high quality, client-focused, accountable practice as a health care professional and clinical leader.

Critical Thinking

Critical thinking underlies independent and interdependent decision making. Critical thinking includes questioning, analysis, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application, and creativity. Critical thinking includes the ability to use evidence gathered through personal experiences and through the research of others in evaluating and designing models and plans of care.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- use nursing and other appropriate theories and models, and an appropriate ethical framework;
- apply research-based knowledge from nursing and the sciences as the foundation for evidence-based practice;
- use clinical judgment and decision-making skills to:
 - bring multiple perspectives into the interpretation of situations and problems encountered;
 - evaluate evidence and relevant arguments appropriately, including assumptions that influence behavior;
 - communicate the results of thinking clearly and in context.
- engage in self reflection and collegial dialogue about professional practice;
- evaluate nursing care outcomes through the acquisition of data and the questioning of inconsistencies, allowing for the revision of actions and goals;
- engage in creative problem solving; and
- design and redesign client care based on analysis of outcomes and evidence-based knowledge.

Communication

Communication is a complex, ongoing, interactive process and forms the basis for building interpersonal relationships. Communication includes critical listening, critical reading, and quantitative literacy, as well as oral, nonverbal, and written communication skills.

Communication requires the effective use of a wide range of media, including not only face-to-face interactions, but also rapidly evolving technological modalities. Further, communication includes effectiveness in group interactions, particularly in task-oriented, convergent, and divergent group situations. Communication requires the acquisition of skills necessary to interact and collaborate with other members of the interdisciplinary health care team as well as to develop a therapeutic alliance with the client.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- demonstrate communication skills during assessment, intervention, evaluation, and teaching;
- express oneself effectively using a variety of media in a variety of contexts;
- help clients access and interpret the meaning and validity of health information available through multiple and varied sources and formats;
- establish and maintain effective working relationships within an interdisciplinary team;
- communicate confidently and effectively with other health care workers both in collegial and

- subordinate positions;
- adapt communication methods to clients with special needs, e.g., sensory or psychological disabilities;
- produce clear, accurate, and relevant writing;
- develop a therapeutic alliance and relationship with the client;
- use therapeutic communication within the nurse-client relationship;
- appropriately, accurately, and effectively communicate with diverse groups and disciplines using a variety of strategies;
- access and use data and information from a wide range of resources;
- provide relevant and sensitive health education information and counseling to clients;
- thoroughly and accurately document interventions and nursing outcomes;
- elicit and clarify client preferences and values; and,
- manage group processes to meet care objectives and complete health care team responsibilities.

Assessment

Assessment skills form the foundation of evidence-based practice. Assessment includes gathering information about the health status of the client, analyzing and synthesizing those data, making judgments about nursing interventions based on the findings, evaluating and managing individual care outcomes. Assessment also includes understanding the family, community, or population and using data from organizations and systems in planning and delivering care. The analysis of systems and outcomes datasets to anticipate individual client risk and improve quality of care delivery is another critical form of assessment.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- perform a risk assessment of the individual, including lifestyle, family and genetic history, and other risk factors;
- perform a holistic assessment of the individual across the lifespan, including a health history which includes spiritual, social, cultural, and psychological assessment, as well as a comprehensive physical exam;
- assess physical, cognitive, and social functional ability of the individual in all developmental stages, with particular attention to changes due to aging;
- assess an individual's level of pain or discomfort;
- evaluate an individual's capacity to assume responsibility for self care;
- perform a health assessment of the family;
- perform a community health risk assessment for diverse populations;
- perform an assessment of the environment in which health care is provided;
- use assessment findings to diagnose, plan, deliver, and evaluate quality care; and,
- use risk analysis tools to anticipate risks to client safety.

Nursing Technology and Resource Management

Acquisition and use of client care technology and nursing procedures are required for the

delivery of nursing care. While the CNL must understand the principles related to and be adept at performing skills, major roles will include teaching, delegating, and supervising the performance of skilled tasks by others and behaviors of others. Consequently, graduates must approach their understanding and use of skills in a sophisticated theoretical and analytic manner. The application of nursing science and client care technology is necessary to perform nursing procedures. The acquisition of new skills is an ongoing component of health care and nursing care delivery and will depend on the practice setting, specialty area of practice, and the development of new knowledge and technologies. Skill development should focus on the mastery of core scientific principles that underlie all skills, thus preparing the graduate to incorporate current and future technologies into the evaluation and delivery of client care.

The teaching, learning, and assessment of any given skill should serve as an exemplar that focuses as much on helping the student learn the process for lifelong self-mastery of needed skills, as on the learning of the specific skill itself. The emphasis must be on helping students identify those skills essential for nursing practice and understanding the scientific principles that underlie the application of these skills.

The CNL should be able to perform, teach, delegate, and supervise nursing procedures with safety and competence. As nursing practice changes to meet the needs of contemporary health care delivery, required skills and expectations related to the graduate's competence must be reviewed and revised.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- provide effective health teaching to clients, using appropriate materials, technologies, resources, and formats;
- evaluate effectiveness of health teaching by self and others;
- delegate safely client care activities, determine client staffing ratios, and evaluate the outcomes of such actions;
- evaluate the environmental impact on health care outcomes;
- evaluate the appropriate use of products in the delivery of health care;
- evaluate and manage the efficient use of human and material resources; and,
- design, coordinate, and evaluate plans of care.

Health Promotion, Risk Reduction, and Disease Prevention

The CNL must have a strong theoretical foundation in health promotion, illness prevention and maintenance of the client's (individual, family, group or community) function in health and illness. Health promotion and disease prevention is an integral part of nursing practice.

Health promotion requires knowledge about health risks and methods to prevent or reduce these risks in individuals and populations. Knowledge of the expected growth and development of individuals across the lifespan is essential. Disease prevention knowledge includes methods to keep an illness or injury from occurring, diagnosing and treating a disease early in its course, and preventing further deterioration of an individual's functioning due to disease. Health promotion

and disease prevention enable individuals to achieve and maintain an optimal level of wellness across the lifespan, and decrease disparities in health that exist across populations. Effective health promotion, risk reduction, and disease prevention also require effective teaching and evaluation skills and knowledge, including knowledge and use of available resources, teaching and communication methods, and learning principles.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- assess protective and predictive factors that influence the health of clients;
- assess genetic factors and risks that influence the health of individuals;
- foster strategies for health promotion, risk reduction, and disease prevention across the life span;
- develop clinical and health promotion programs for individuals and groups to reduce risk, prevent disease, and prevent disease sequelae, particularly related to chronic illness.
- recognize the need for and implement risk reduction strategies to address social and public health issues, including mass casualty incidents, environmental exposures, societal and domestic violence, family abuse, sexual abuse, and substance use;
- use information technologies to communicate health promotion and disease prevention information to the client in a variety of settings;
- develop an awareness of complementary modalities and their usefulness in promoting health;
- help clients and populations access and interpret health information to identify healthy lifestyle behaviors;
- initiate community partnerships to establish health promotion goals and implement strategies to meet those goals;
- evaluate the efficacy of health promotion and education modalities for use in a variety of settings and with diverse populations;
- demonstrate sensitivity to personal and cultural definitions of health;
- use epidemiological, social, and environmental data to draw inferences regarding the health status of client populations;
- develop and monitor comprehensive, holistic plans of care that address the health promotion and disease prevention needs of client populations;
- incorporate theories and research in generating teaching and counseling strategies to promote and preserve health and healthy lifestyles in client populations;
- foster a multidisciplinary approach to discuss strategies and garner multifaceted resources to empower client populations in attaining and maintaining maximal functional wellness; and
- influence regulatory, legislative, and public policy in private and public arenas to promote and preserve health communities.

Illness and Disease Management

Illness and disease management requires knowledge about pharmacology, pathophysiology of disease, and assessment and management of symptoms across the lifespan with particular emphasis on the chronicity and sequelae of illness. Also, knowledge about the social, physical, psychological, and spiritual responses of the individual and family or caregiver to disease and illness is required. The goal is to maximize the quality of life and maintain optimal level of

functioning throughout the course of illness, including end of life. The CNL uses case management skills and principles to provide and supervise continuous care within specific episodes and across episodes of illness and disease.

The CNL also uses knowledge of illness and disease management to provide research-based care to populations, perform risk assessment, and design plans of care.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- assess and manage physical and psychological symptoms related to disease and treatment;
- assess, design, and provide interventions for the moderation of pain and suffering;
- administer pharmacological and non-pharmacological therapies;
- demonstrate sensitivity to personal and cultural influences on individual and family reactions to the illness experience and end of life;
- maintain, restore, and optimize an individual's level of functioning;
- anticipate and manage complications of disease progression;
- assist clients to achieve a peaceful end of life;
- anticipate, plan for, and manage physical, psychological, social, and spiritual needs of the client and family or caregiver;
- use case management skills and principles in the delivery and supervision of client care across a continuum;
- apply principles of infection control;
- evaluate and anticipate risks to client safety using risk analysis tools;
- synthesize data, information and knowledge on client outcomes and modify interventions to improve health care outcomes; and
- identify, report, and appropriately respond to a mass casualty incident.

Information and Health Care Technologies

Information technology includes traditional and developing methods of discovering, retrieving, and using information in nursing practice. Knowledge of and effective use of information technology is necessary for evidence-based practice and for effective, appropriate health teaching. The use of technology is critical for the documentation and evaluation of client care outcomes.

Health care technology includes methods and equipment designed to provide assessment data and support anatomic and physiological function. The CNL applies technology in the delivery of client care and intercedes between the client and technology; therefore, the ability to assess the need for, as well as the efficacy and use of, technology is critical.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- use information and communication technologies to document and evaluate client care, advance client education, and enhance the accessibility of care;
- use appropriate technologies in the process of assessing and monitoring clients;

- work in an interdisciplinary team to make ethical decisions regarding the application of technologies and the acquisition of data;
- adapt the use of technologies to meet client needs;
- teach clients about health care technologies;
- protect the safety and privacy of clients in relation to the use of health care and information technologies;
- use information technologies to enhance one's own knowledge base;
- access, critique, and analyze information sources; and
- disseminate health care information appropriately using a variety of means.

Ethics

Ethics includes values, codes, and principles that govern decisions in nursing practice, conduct, and relationships. Skill and knowledge in resolving conflicts related to role obligations and personal beliefs are necessary. The CNL is able to identify potential and actual ethical issues arising from practice and help clients and other health care providers address such issues; therefore, knowledge of ethics and ethical decision making is critical. The CNL serves as a client advocate within the health care delivery and policy systems. In addition, the CNL interfaces between the client and the health care delivery system to protect the rights of clients and to effect quality outcomes.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- clarify personal and professional values and recognize their impact on decision making and professional behavior;
- apply a professional nursing code of ethics and professional guidelines to clinical practice;
- apply an ethical decision-making framework to clinical situations that incorporates moral concepts, professional ethics, and law and respects diverse values and beliefs;
- apply legal and ethical guidelines to advocate for client well-being and preferences;
- apply communication, negotiation, and mediation skills to the ethical decision-making process;
- demonstrate accountability for one's own practice;
- take action to prevent or limit unsafe or unethical health and nursing care practices by others;
- enable individuals and families to make quality-of-life and end-of-life decisions and achieve a peaceful death;
- assume responsibility for lifelong learning and accountability for current practice and health care information and skills;
- identify and analyze common ethical dilemmas and the ways in which these dilemmas impact client care;
- evaluate ethical methods of decision making and engage in an ethical decision making process;
- evaluate ethical decision making from both a personal and organizational perspective and develop an understanding of how these two perspectives may create conflicts of interest;
- identify areas in which a personal conflict of interest may arise and propose resolutions or actions to resolve the conflict;

- understand the purpose of an ethics committee’s role in health care delivery systems; and,
- assume accountability for the quality of one’s own practice and client care outcomes related to nursing care.

Human Diversity

Human diversity includes understanding the ways cultural, ethnic, socioeconomic, linguistic, religious, and lifestyle variations are expressed. The CNL is able to apply knowledge of the effects these variations have on health status and response to health care. The CNL is well prepared to care for the aging population and to help all individuals and families make decisions about life-extending technologies and treatments within the context of their values, as well as physical, emotional, and spiritual health parameters.

Skills in a second language are highly desirable for the CNL. Opportunities should be provided for students to learn languages and to integrate language skills into clinical practice.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- understand how human behavior is affected by culture, ethnicity, language, religion, gender, lifestyle and age;
- provide holistic care that addresses the needs of diverse populations across the life span;
- work collaboratively with health care providers from diverse backgrounds;
- understand the effects of health and social policies on persons from diverse backgrounds, particularly vulnerable populations;
- advocate for health care that is sensitive to the needs of clients, with particular emphasis on the needs of vulnerable populations;
- perform a community assessment, using appropriate epidemiological principles;
- differentiate and compare the wide range of cultural norms and health care practices of diverse groups;
- define, design, and implement culturally competent health care;
- ensure that systems meet the needs of the population(s) served and are culturally relevant;
- recognize the variants in health, including physiological variations, in a wide range of cultural, ethnic, age, and gender groups that may influence the assessment and plan of care; and
- practice in collaboration with a multicultural work force.

Global Health Care

Global health care knowledge includes an understanding of the implications of living with transportation and information technology that link all parts of the world. Information about the effects of the global community on such areas as disease transmission, health policy, and health care economics is required. Global health care also includes an understanding of and ability to share information with health care providers across disciplines, cultures, and geographic boundaries.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- understand the global environment in which health care is provided;
- adapt or seek consultation to adapt client care in response to global environmental factors (e.g., international law, international public health, geopolitics, and geo-economics);
- access and communicate health care information with health care providers from other disciplines, cultures and countries;
- understand the effect of the global community on intentional and non-intentional disease transmission;
- understand the effect of the global community on health policy and health care economics; and
- define or identify the global dimensions of health care.

Health Care Systems and Policy

Knowledge of health care systems includes an understanding of the organization and environment in which nursing and health care is provided. Health care policy shapes health care systems and helps determine accessibility, accountability, and affordability. The CNL has an understanding of the economies of care, a beginning understanding of business principles, and an understanding of how to work within and affect change in systems.

In an environment with ongoing changes in the organization and financing of health care, it is imperative that all CNL graduates have a keen understanding of health care policy, organization, and financing of health care. The purpose of this content is to prepare a graduate to provide quality cost-effective care, to participate in the implementation of care in a variety of health care systems, and to assume a leadership role in the managing of human, fiscal, and physical health care resources at the microsystem level.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- use systems theory in the design, delivery, and evaluation of health care;
- understand how health care delivery systems are organized and financed, and the effect on client care;
- understand basic business and economic principles and practices, including budgeting, product testing, marketing, and organizational models;
- manage a budget at the client care level;
- use quality improvement methods in evaluating individual and aggregate client care and for self-improvement;
- identify the economic, legal, and political factors that influence health care delivery;
- participate in political processes and grass roots legislative efforts to influence health care policy on behalf of clients or the profession;
- differentiate and delineate legislative and regulatory processes;
- articulate the interaction between regulatory controls and quality control within the health care delivery system;
- evaluate local, state and national socioeconomic and health policy issues and trends;

- articulate health care issues and concerns to elected and appointed officials, both public and private, and to health care consumers;
- interpret health care research for consumers and officials;
- serve as a consumer advocate on health issues;
- articulate the significance of the CNL and other nursing roles to policymakers, health care providers, and consumers.
- incorporate knowledge of cost factors in delivering care; and
- understand the effect of legal and regulatory processes on nursing practice and health care delivery.

Provider and Manager of Care

The CNL uses theory and research-based knowledge in the design, coordination, and evaluation of the delivery of client care. The CNL is a leader in the interdisciplinary health care team in the planning, delivery, and evaluation of client-focused care.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- integrate theory and research-based knowledge from the arts, humanities, and sciences to develop a foundation for practice;
- apply appropriate knowledge of major health problems and cultural diversity in performing nursing interventions;
- demonstrate knowledge of the importance and meaning of health and illness for the client in providing nursing care;
- apply health care technologies to maximize optimal outcomes for clients;
- participate in research that focuses on the efficacy and effectiveness of nursing interventions;
- delegate, supervise, and evaluate the performance of nursing interventions;
- incorporate principles of quality management into the plan of care;
- use outcome measures to evaluate effectiveness of care;
- perform direct and indirect therapeutic interventions;
- develop a comprehensive plan of care in collaboration with the client;
- serve as the client's advocate;
- prepare the client for a maximal level of self-care;
- integrate care with other members of the interdisciplinary health care team; and
- evaluate and assess the usefulness of integrating traditional and complementary health care practices.

Designer/Manager/Coordinator of Care

The CNL takes primary responsibility for the design, coordination, and management of health care across the lifespan and in all types of health care settings. The CNL provides and coordinates comprehensive care for clients: individuals, families, groups, and communities, in multiple and varied settings. Using information from numerous sources, the CNL guides the client through the health care system. Skills essential to this role development are communication, collaboration, negotiation, delegation, coordination, and evaluation of

interdisciplinary work, and the application, design and evaluation of outcome-based practice models.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- assume a horizontal leadership role in the health care team;
- coordinate and manage care to meet the special needs of vulnerable populations, including the frail elderly, in order to maximize independence and quality of life;
- coordinate the health care of individuals across the lifespan using principles and knowledge of interdisciplinary models of care delivery and case management;
- coordinate the health care of clients across settings;
- delegate, supervise and evaluate the nursing care given by others while retaining accountability for the quality of care given to the client;
- organize, manage, and evaluate the development of strategies to promote healthy communities;
- organize, manage, and evaluate the functioning of a team or unit;
- use appropriate evaluation methods to analyze the quality of nursing care;
- use cost-benefit analysis and variance data in providing and evaluating care;
- intervene or modify nursing care, based on risk anticipation analysis and other evidence-based information to improve health care outcomes; and
- promote interdisciplinary cohesion through the use of task-oriented, convergent and divergent group process skills.

Member of a Profession

The CNL has an understanding of the role and responsibilities of a professional and leader in the health care delivery system, as well as knowledge and experiences that encourage the embracing of lifelong learning, the incorporation of professionalism into practice, and identification with the values of the profession. The CNL is responsible for the professional presentation of self. In addition, a critical component of the CNL role is the development and mentoring of the next generation of professionals.

Course work or clinical experiences should provide the graduate with the knowledge and skills to:

- understand the history, philosophy and responsibilities of the nursing profession;
- incorporate professional nursing standards and accountability into practice;
- assume responsibility for the professional presentation of oneself;
- establish oneself as a credible health care provider and resource;
- advocate for professional standards of practice using organizational and political processes;
- understand limits to one's scope of practice and adhere to licensure law and regulations;
- articulate to the public the values of the profession as they relate to client welfare;
- negotiate and advocate for the role of the professional nurse as a member of the interdisciplinary health care team;
- develop personal goals for professional development and continuing education;
- participate in professional organizations, working to support agendas that enhance both high

- quality, cost-effective health care, and the advancement of the profession; and
- support and mentor individuals entering into and training for professional nursing practice.

TRANSITION TO THE PRACTICE SETTING

An extended clinical experience, prior to graduation, mentored by an experienced Clinical Nurse Leader, is critical to the effective implementation of the role. As the CNL role evolves, through established academic-practice partnerships, those who initially mentor the CNL students and new graduates will have emerged as CNLs as a result of their expertise and continued learning. The intensive immersion into the role and practice expectations during this experience reflect the health care delivery system and provide the student with the opportunity to practice in a chosen health care environment(s) and to integrate knowledge and skills acquired throughout the education experience. The integrative experience must occur in an evolved practice environment that allows for the full implementation of this new role. In addition, a strong interdisciplinary practice focus must be embedded into the experience.

Finally, a comprehensive assessment of the knowledge and skills assimilated throughout the educational experience serves as the culmination of the CNL education. At the end of the transition stage, measurable outcomes will demonstrate the student's:

- ability to integrate knowledge and skills acquired throughout the didactic and clinical education experiences,
- understanding of one's accountability for practice outcomes, and
- ability to practice interdependently and independently beyond the novice stage

Significant impact on the health care system and successful outcomes will not be realized unless there is true partnership and collaboration between the education and practice arenas. Individuals educated in the new CNL role cannot go into health care settings that have not also evolved. Successful change in both the practice environment and nursing education requires committed and active partnerships between education and practice in nursing and with other health professions. Improvement in health care outcomes, the ultimate goal, can only occur through meaningful and dedicated partnerships and a willingness to commit significant resources and energy to realizing this goal.

AACN TASK FORCE ON EDUCATION AND REGULATION II

Chairperson

Jean Bartels, PhD, RN
 Chair, School of Nursing
 Georgia Southern University
 Statesboro, Georgia

Oakwood College
 Huntsville, Alabama

Lauren Arnold, PhD, RN
 Senior Director and Operations Analyst
 Tenet Health
 Dallas, Texas

Members

Carol Allen, PhD, RN
 Chair, Department of Nursing

Tina DeLapp, EdD, RN
 Director, School of Nursing

University of Alaska—Anchorage
Anchorage, Alaska

Melanie Dreher, PhD, RN, FAAN
Dean, College of Nursing
University of Iowa
Iowa City, Iowa

Donna Hartweg, PhD, RN
Director, School of Nursing
Illinois Wesleyan University
Bloomington, Illinois

Elizabeth Lenz, PhD, RN, FAAN
Dean, College of Nursing
The Ohio State University
Columbus, Ohio

Terry Miller, PhD, RN
Dean, School of Nursing
Pacific Lutheran University
Tacoma, Washington

Roberta Olson, PhD, RN
Dean, College of Nursing
South Dakota State University
Brookings, South Dakota

Cathy Rick, RN, CNA, CHE
Chief Nursing Officer
Department of Veterans Affairs
Washington, District of Columbia

Elias Vasquez, PhD, NNP, PNP, FAAN
Assistant Professor, School of Nursing
Department of Child, Women's and Family
Health, University of Maryland
Baltimore, Maryland

AACN Staff

Polly Bednash, PhD, RN, FAAN
Executive Director

Joan Stanley, PhD, RN, CRNP
Director of Education Policy

REACTION PANEL

Lauren Arnold, PhD, RN
Senior Director and Operations Analyst
Tenet Health
Dallas, Texas

Jean Bartels, PhD, RN (*TF Chair*)
Director, School of Nursing
Georgia Southern University
Statesboro, Georgia

Geraldine Bednash, PhD, RN, FAAN
Executive Director
American Association of Colleges of
Nursing
Washington, District of Columbia

Karen N. Drenkard, RN, MSN, CNAA
Chief Nurse Executive
Inova Health System
Falls Church, Virginia

Donna Dorsey, MS, RN
President
National Council of State Boards of Nursing
Chicago, Illinois

Catherine J. Futch, MN, RN, CNAA
President-Elect
American Academy of Ambulatory Care
Nursing
Pitman, New Jersey

Tim Henderson, MSPH
National Conference of State Legislatures
Primary Care Resource Center
Washington, District of Columbia

Jean Johnson, PhD, RNC, FAAN
Senior Associate Dean, Health Sciences
George Washington University
Washington, District of Columbia

Marian Osterweis, PhD
Executive Vice President and Director
Division of Global Health
Association of Academic Health Centers
Washington, District of Columbia

Joy F. Reed, EdD, RN
President
Association of State and Territorial
Directors of Nursing
Raleigh, North Carolina

Cathy Rick, RN, CNAA, CHE
Chief Nursing Officer
Department of Veterans Affairs
Washington, District of

Mary Smolenski, EdD, RN, CS, FNP
Director of Certification Services
American Nurses Credentialing Center
Washington, District of Columbia

Joan Stanley, PhD, RN, CRNP
Director of Education Policy
American Association of Colleges of
Nursing
Washington, District of Columbia

Jolene Tornabeni, RN, MA, FACHE, FAAN
Executive Vice President and Chief
Operating Officer
Inova Health System
Falls Church, Virginia

Michael Whitcomb, MD
Senior Vice President for Medical Education
Association of American Medical Colleges
Washington, District of Columbia

CONSULTANT:
Maureen K. Robinson
Bethesda, Maryland

ADDENDUM

CLINICAL NURSE LEADER CURRICULUM FRAMEWORK

Assumptions Regarding CNL Curriculum/Education

1. The CNL education program culminates in a master's degree in nursing.
2. The CNL graduate will be prepared as a 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 setting specific 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 Nursing (APN) scope of practice.

Expectations of CNL Curriculum/Education

1. All programs, including those designed for post high school entry or second-degree programs (Model C), build upon the competencies in the *Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 1998).
2. All students graduating from a CNL program will have a strong liberal education background in the arts and sciences.
3. CNL graduates will have content at the undergraduate or graduate level in the following areas:
 - Anatomy and physiology
 - Microbiology
 - Epidemiology
 - Statistics
 - Health Care Policy
4. All CNL graduates will have additional *graduate-level* content that builds upon an undergraduate foundation in:
 - Health assessment
 - Pharmacology
 - Pathophysiology

Although not required, it is recommended that the CNL curriculum include three separate graduate-level courses in these three content areas. Having clinical nursing leaders at the point of care with a strong background in these three areas is seen as imperative from the practice perspective. In addition, the inclusion of these three separate courses facilitates the transition of these master's program graduates into the DNP specialty programs.

5. All programs will demonstrate achievement of the five IOM health professions core competencies: quality improvement, interdisciplinary team care, patient-centered care, evidence-based practice and utilization of informatics
6. All education programs, working with their practice partners, will designate a clinical mentor/preceptor for each CNL student.
7. To prepare a CNL graduate with the necessary graduate-level content **post attainment of the baccalaureate competencies**, it is recommended that the graduate-level curriculum, including the clinical immersion experience, be designed

within a 12-15 month, 3 semesters or 4 quarters timeframe, depending upon the institution's academic calendar. The rationale for this recommendation is that this is an advanced generalist model; preparation is not required to develop the specialist focus of an advanced practice nurse.

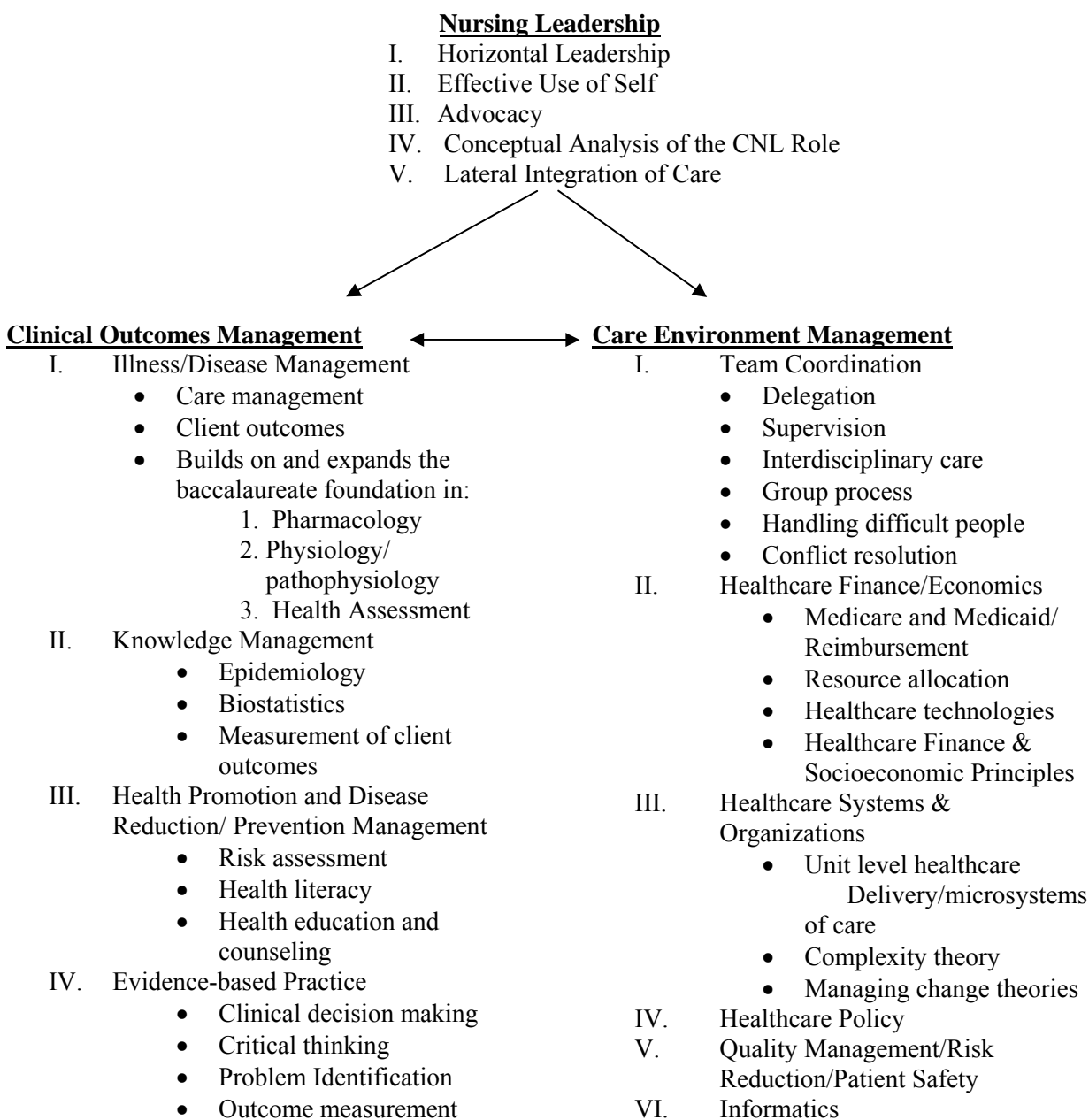
GRADUATE-LEVEL CURRICULAR ELEMENTS OF THE CNL CURRICULUM

The presentation of these curricular elements assumes previous attainment of the competencies delineated in the AACN *Essentials of Baccalaureate Education for Professional Nursing Practice* (1998)

The CNL education program at the graduate level builds upon the direct-care nursing skills acquired in an undergraduate baccalaureate nursing program or in the initial pre-licensure component of the CNL education program. Building upon these direct care skills, the CNL graduate-level curriculum develops a solid foundation in policy/organization, outcomes management, nursing leadership and care management.

The Curriculum Framework is intended to serve as a guide when developing the graduate CNL curriculum. **The bolded and numbered headings identified in the diagram below are required components of the curriculum.** Ten major curricular threads are integrated throughout the curriculum; therefore, **each course in the curriculum should address each of the identified threads.** The remaining bulleted items or specific content areas under each numbered heading in the diagram are recommendations and are included to assist you in the development of the curriculum.

CNL CURRICULUM FRAMEWORK FOR CLIENT-CENTERED HEALTHCARE



Major Threads integrated throughout curriculum

- I. Critical Thinking/Clinical decision making
- II. Communication
- III. Ethics
- IV. Human diversity/cultural competence
- V. Global Healthcare
- VI. Professional development in the CNL role
- VII. Accountability
- VIII. Assessment
- IX. Nursing technology and resource management
- X. Professional Values, including social justice

Clinical Experiences in the CNL Education Program

The total number of clinical hours should be determined by the CNL program faculty. However, the CNL program must meet the following requirements:

- Each CNL student completes a total of 400-500 clinical contact hours as part of the formal education program.
- A minimum of 300-400 of these hours will be in an immersion experience in practice in the CNL role with a designated clinical preceptor **and** a faculty partner over a 10 - 15 week period of time.
- The immersion experience will include weekly opportunities with other CNL students, faculty and mentors to dialogue on issues and assess experiences, particularly the implementation of the role.
- The immersion experience is in addition to the clinical experiences integrated throughout the education program.

CNL Certification™

After successful completion of the formal CNL education program, including the 10-15 week immersion experience, the CNL graduate will be eligible to sit for the CNL Certification Examination™ developed under the auspices of the American Association of Colleges of Nursing.

Post-graduation Mentorship

After graduation, it also is strongly recommended that a clinical mentor be designated by the healthcare institution for each newly employed CNL graduate. The length of the mentorship will depend upon the length of previous experiences and demonstration of successful attainment of the CNL competencies and practice in the CNL role. The nursing mentor should be educated at the graduate level and have the necessary expertise and understanding of the CNL role and practice expectations

**END-OF-PROGRAM COMPETENCIES & REQUIRED CLINICAL EXPERIENCES
FOR THE CLINICAL NURSE LEADER –**

This section delineates the competencies expected of every graduate of a CNL master’s degree education program. A minimum set of clinical experiences required to attain the end-of–program competencies also is included.

Graduate Level Curriculum Elements	CNL Role Functions	CNL Role Expectations	End of Program Competencies	Required Clinical Experiences
Nursing Leadership	Advocate	<ul style="list-style-type: none"> • Keeps clients well informed • Includes clients in care planning • Advocates for the profession • Works with interdisciplinary team • Strives to achieve social justice within the microsystem 	<p>Effects change through advocacy for the profession, interdisciplinary health care team and the client.</p> <p>Communicates effectively to achieve quality client outcomes and lateral integration of care for a cohort of clients.</p>	<p>Identify clinical and cost outcomes that improve safety, effectiveness, timeliness, efficiency, quality and client-centered care.</p> <p>Communicate within a conflict milieu with nurses and other health care professionals who provide care to the same clients in that setting and in other settings.</p> <p>Review and evaluate patient care guidelines/protocols and implement a guideline to address an identified patient care issue like pain management or readiness for discharge; follow-up to evaluate the impact on the issue.</p> <p>Discover, disseminate and apply evidence for practice and for changing practice.</p> <p>Participate in development of or change in policy within the health care organization.</p> <p>Identify potential equity and justice issues within the health care setting related to client care.</p> <p>Present to appointed/elected officials regarding a health care issue with a proposal for change.</p>

Nursing Leadership	Advocate			<p>Analyze the care of a patient cohort and the care environment in light of ANA Nursing Standards of Care and the Code of Ethics.</p> <p>Analyze interdisciplinary patterns of communication and chain of command both internal and external to the unit that impact care.</p>
	Member of a Profession	<ul style="list-style-type: none"> • Effects change in health care practice • Effects change in health outcomes • Effects change in the profession 	Actively pursues new knowledge and skills as the CNL role, needs of clients, and the health care system evolve.	<p>Develop a life long learning plan for self.</p> <p>Speak at a public engagement to a public forum</p> <p>Participate in a professional organization/or agency wide committee</p>
Care Environment Management	Team Manager	<ul style="list-style-type: none"> • Properly delegates and manages • Uses team resources effectively • Serves as leader/partner on interdisciplinary team 	<p>Properly delegates and utilizes the nursing team resources (human and fiscal) and serves as a leader and partner in the interdisciplinary health care team.</p> <p>Identifies clinical and cost outcomes that improve safety, effectiveness, timeliness, efficiency, quality, and the degree to which they are client-centered.</p>	<p>Design, coordinate, & evaluate plans of care for a cohort of patients incorporating patient/family input and team member input.</p> <p>Monitor/delegate care in the patient care setting.</p> <p>Present to the multidisciplinary team a cost saving idea that improves patient care outcomes and improves efficiency</p> <p>Conduct a multidisciplinary team meeting; incorporate client and/or family as part of the team meeting</p>

	Information Manager	<ul style="list-style-type: none"> • Uses information systems/ technologies • Improves health care outcomes 	Uses information systems and technology at the point of care to improve health care outcomes.	<p>Using patient information system data, design and implement a plan of care for a cohort of patients.</p> <p>Use aggregate data sets to prepare reports and justify needs for select care improvements.</p> <p>Evaluate the impact of new technologies on nursing staff, patients and families.</p>
	Systems Analyst/Risk Anticipator	<ul style="list-style-type: none"> • Participates in system reviews • Evaluates/anticipates client risks to improve patient safety 	Participates in systems review to critically evaluate and anticipate risks to client safety to improve quality of client care delivery.	<p>Participate in establishing and reviewing interdisciplinary patient care plans with team.</p> <p>Apply evidence-based practice as basis for client care decisions</p> <p>Conduct a microsystem analysis by:</p> <ul style="list-style-type: none"> • Identifying a clinical issue with a focus on a population. • Conducting a trend analysis of incident reports • Evaluating a sentinel event and conducting a root cause analysis (RCA) • Incorporating analysis of outcome data • Analyzing barriers and facilitators within the organization related to the identified issue • Writing an action plan related to the analysis • Presenting/disseminating to appropriate audience. <p>Work with quality improvement team and engage in designing and implementing a process for improving patient safety.</p>

Clinical Outcomes Management	Clinician	<ul style="list-style-type: none"> • Designs/coordinates /evaluates care • Delivers care in a timely, cost effective manner • Emphasizes health promotion/risk reduction 	<p>Assumes accountability for healthcare outcomes for a specific group of clients within a unit or setting recognizing the influence of the meso- and macrosystems on the microsystem.</p> <p>Assimilates and applies research-based information to design, implement and evaluate client plans of care.</p>	<p>Plan and delegate care for clients with multiple chronic health problems, identify nursing interventions to impact outcomes of care.</p> <p>Using an existing database, evaluate aggregate care outcomes for a designated microsystem with focus on specific nursing interventions</p> <p>Contribute to interdisciplinary plans of care based on best practice guidelines and evidence-based practice.</p>
Clinical Outcomes Management	Outcomes Manager	<ul style="list-style-type: none"> • Uses data to change practice and improve outcomes. • Achieves optimal client outcomes 	<p>Synthesizes data, information and knowledge to evaluate and achieve optimal client and care environment outcomes.</p>	<p>Coordinate care for a group of patients based on desired outcomes consistent with evidence-based guidelines and quality care standards.</p> <p>Revise patient care based on analysis of outcomes and evidence-based knowledge.</p> <p>Analyze unit resources and set priorities for maximizing outcomes</p> <p>Conduct a patient care team research review seminar</p>

Clinical Outcomes Management	Educator	<ul style="list-style-type: none"> • Uses teaching/learning principles/strategies • Uses current information/materials/techniques • Facilitates clients learning, anticipating their health trajectory needs. • Facilitates client care using evidence-based resources. • Facilitates group & other health professions' learning and professional development 	<p>Uses appropriate teaching/learning principles and strategies as well as current information, materials and technologies to facilitate the learning of clients, groups and other health care professionals.</p>	<p>Present a seminar or case study at a grand rounds or team meeting.</p> <p>Conduct health education of individual patient or cohort based on risk profile.</p> <p>Create or review an education module directed at patients and staff; develop a self-management guide for patients and families.</p> <p>Develop and implement a professional development session for other professional nursing and ancillary staff.</p> <p>Develop a health education plan for a unit-specific issue common to multiple clients.</p> <p>Implement & evaluate the health education plan, evaluating the role of the team, the teaching learning methods used, the client interactions, the expected & actual outcomes, including health status changes.</p>
-------------------------------------	-----------------	--	---	--

AACN CNL IMPLEMENTATION TASK FORCE MEMBERS

Jolene Tornabeni, MA, RN, FACHE, FAAN *Task Force Chair*
Cynthia Flynn Capers, PhD, RN, University of Akron
Melanie Dreher, PhD, RN, FAAN, Rush University, *AACN Board liaison*
Karen Haase-Herrick, MN, RN, Northwest Organization of Nurse Executives, *AONE representative*
James Harris, DSN, RN, MBA, APRN, Chief Nursing Officer, VA Tennessee Valley Healthcare System, *VA representative*
Traci Hoiting, MS, RN, ACNP-C, Swedish Medical Center, Seattle, WA
Rose Marie Martin, BSN, RN, Arthur G. James Cancer Hospital, Columbus, OH
Judith Fitzgerald Miller, PhD, RN, FAAN, Marquette University
Charlene Connolly Quinn, PhD, RN, Department of Epidemiology and Medicine School of Medicine University of Maryland, *Evaluation Committee Chair*
Raelene Shippee-Rice, PhD, RN, University of New Hampshire
Marcia Stanhope, DSN, RN, FAAN, University of Kentucky, *Curriculum Committee Chair*
Marge Wiggins, MBA, RN, Maine Medical Center, *Practice Model Committee Chair*
Joan Stanley, PhD, RN, CRNP, FAAN, *AACN staff liaison*
Kathy McGuinn, MSN, RN, CPHQ, *AACN staff liaison*

CNL Curriculum Committee Members:

Marcia Stanhope, DSN, RN, FAAN, University of Kentucky, *Committee Chair*
Traci Hoiting, MS, RN, ACNP-C, Swedish Medical Center, Seattle, WA
Judith Fitzgerald Miller, PhD, RN, FAAN, Marquette University
Raelene Shippee-Rice, PhD, RN, University of New Hampshire
Joan Stanley, PhD, RN, CRNP, FAAN, *AACN staff liaison*

CNL Practice Model Committee Members:

Marge Wiggins, MBA, RN, Maine Medical Center, *Committee Chair*
Cynthia Flynn Capers, PhD, RN, University of Akron
Melanie Dreher, PhD, RN, FAAN, Rush University
Karen Haase-Herrick, MN, RN, Northwest Organization of Nurse Executives,
James Harris, DSN, RN, MBA, APRN, Chief Nursing Officer, VA Tennessee Valley Healthcare System
Rose Marie Martin, BSN, RN, Arthur G. James Cancer Hospital, Columbus, OH
Jolene Tornabeni, MA, RN, FACHE, FAAN
Kathy McGuinn, MSN, RN, CPHQ, *AACN staff liaison*
Joan Stanley, PhD, RN, CRNP, FAAN, *AACN staff liaison*

CNL Evaluation Committee Members:

Charlene Connolly Quinn, PhD, RN, Department of Epidemiology and Medicine School of Medicine University of Maryland, *Committee Chair*
Sean Clarke, PhD, RN, CRNP, CS, Center for Health Outcomes and Policy Research University of Pennsylvania, *consultant*
Sue Haddock, PhD, RN, CNAAB-BC, WJB Dorn VA Hospital, *VA liaison*
Kathy Player, EdD, RN, Ken Blanchard College of Business at Grand Canyon University

Kathleen Sanford, MA, RN, DBA, FACHE, Gig Harbor Area Multicare Health System
AONE representative
Marcia Stanhope, DSN, RN, FAAN, University of Kentucky, *Implementation TF liaison*
Jolene Tornabeni, MA, RN, FACHE, FAAN, immediate-past EVP and COO, Inova Health
System, *Implementation TF liaison*
Gail Wolf, DNS, RN, UPMC Health Systems, *AONE Representative*
Joan Stanley, PhD, RN, CRNP, FAAN, *AACN staff liaison*
Kathy McGuinn, MSN, RN, CPHQ, *AACN staff liaison*

¹ Stewart, I.M. (1953). *The education of nurses*. New York: The Macmillan Company.

² Institute of Medicine. (2000). *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press. Page 1.

³ Johnson, W.G., Brennan, T. A., Newhouse, J.P., Leape, L.L., Lawthers, A.G., Hiatt, H.H., & Weiler, P.C. (1992). The economic consequences of medical injuries. *Journal of the American Medical Association* 267: 2487-2492.

⁴ Buerhaus, P., Staiger, D.O., & Auerbach, D.I. (2000). Implications of an aging registered nurse workforce. *Journal of the American Medical Association*. June 12, 2000, 283, 22.

⁵ Berlin L.E., Stennett J, & Bednash, GD. (2003). *2002-2003 Enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.

⁶ Institute of Medicine. (2001). *Crossing the quality chasm*. Washington, DC: The National Academies Press.

⁷ Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington, DC: The National Academies Press.

⁸ Joint Commission on Accreditation of Healthcare Organizations. (2002). *Health care at the crossroads, Strategies for addressing the evolving nursing crisis*. Chicago: Author.

⁹ American Hospital Association Commission on Workforce for Hospitals and Health Systems. (2002). *In our hands, How hospital leaders can build a thriving workforce*. Chicago, IL: American Hospital Association.

¹⁰ Kimball, B. & O'Neill, E. (2002). *Health care's human crisis: The American nursing shortage*. Princeton, NJ: The Robert Wood Johnson Foundation.

¹¹ Batalden PB, Nelson EC, Edwards WH, Godfrey MM, Mohr JJ. (2003). Microsystems in Health care. Part 9. Developing Small Clinical Units to attain Peak Performance. *Joint Commission Journal on Quality and Safety*, 29(11), 575-585, November 2003.

¹² Mohr JJ, Barach P, Cravero JP, Blike GT, Godfrey MM, Batalden PB, Nelson EC. (2003). Microsystems in Health Care: Part 6. Designing Patient Safety into the Microsystem. *Joint Commission Journal on Quality and Safety*, 29(8) 401-408, August 2003

Approved by the AACN Board of Directors February 2007